Constructivism Based Blended Learning
for Online Learning Madrasah Ibtidaiyah Students

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Abstract. During this pandemic we were faced with online learning carried out by all levels of education through the use of information technology. Learning is done online. For all educators they are faced with conditions that are completely limited in carrying out learning and are far different from teaching classically as usual, namely face to face in class. There have been significant changes in all aspects of learning, all of which require teachers to be creative and innovative in teaching. We cannot just rely on applications, we need attractive and real learning strategies, not only the delivery of theory through applications, but there must be an integration between material and student activities as a form of learning experience that students must still obtain. Constructivism-based blended learning is very appropriate to be applied to online learning today, because it makes learning more meaningful. The learning material will be accompanied by student activities in the form of practical activities from the implementation of the material being studied. Learning will be presented in the form of student activities that must be carried out by students at home independently with instructions and teacher directions via online and forms of assessment of the results of activities in the form of written reports and videos made directly by students while carrying out activities.

Keywords: Blended Learning, Constructivism, Online Learning

1 Introduction

Education is the key to the future development of the Indonesian nation[1]. Education in this case provides provisions for each individual to improve the quality of their existence and participation in the development movement, one of the main components to support development in these various fields can be done through the use of ICT (Information and Communication Technology)[1]. In other words, the future development of the Indonesian nation will be very balanced if the provision of education with the use of ICT[2] can be combined into a potion that can increase maturity in students so that they realize the purpose of learning (independent learning).

Education is an important means of supporting the success of running a nation. A good education process is the hope of producing a quality generation of the nation. Continuously learning anytime and anywhere will make significant changes to the more practical and flexible learning methods that we are familiar with in the digital age.

The digital era in this century has an impact that cannot be underestimated by the world of education, especially in Indonesia. The implications of globalization have an impact on the form

of educational services provided by teachers to students. improvement of educational arrangements can be improved in quality and quality through active, creative, effective and enjoyable learning activities for students.

During this pandemic we were faced with online learning carried out by all levels of education through the use of information technology. Learning is carried out online through various applications such as WhatsApp, zoom, google meet, and classrooms, all of which have advantages and disadvantages. For all educators they are faced with conditions that are completely limited in carrying out learning and are far different from teaching classically as usual, namely face to face in class.

There have been significant changes in all aspects of learning, all of which require teachers to be creative and innovative in teaching. We cannot just rely on applications, we need attractive and real learning strategies, not only the delivery of theory through applications, but there must be an integration between material and student activities as a form of learning experience that students must still obtain.

The use of information technology during online or online learning is mandatory for a teacher during the teaching and learning process both in delivering material, assigning assignments and submitting assignments. Based on field observations when learning takes place online, most students are only tasked with listening to material and doing assignments from the teacher according to the time given, there are no structured student activities. It is as if the teacher only focuses on meeting the target of delivering the material without paying attention to the student's condition when learning even though the learning experience must still exist even though learning online.

This is what underlies the need for a more conceptual learning strategy, namely through blanded learning with an integrated constructivism approach which aims to provide learning to be more meaningful and students gain learning experiences as they should be in accordance with the true nature of learning.

2   Methods

The research method uses descriptive methods by describing and describing a situation in as much detail as possible based on existing facts. Descriptive research is research that seeks to tell solutions to existing problems based on data, by presenting, analyzing and interpreting them.[3]. So, here we describe solutions to problems that arise during online learning.

3   Result and Discussion

Blended learning learning) is a formal education program that allows students to learn (at least in part) through content and instructions that are delivered online (online) with independent control over time, place, sequence, and speed of learning.[4]. Furthermore, John Merrow (2012) stated"Blended learning is some mix of traditional classroom instruction (which in itself varies considerably) and instraction mediated by technology". In other words, blended learning is a combination of traditional classroom learning with technology-based learning (modern). Similar opinion was also expressed by Annisa[5] which states that blended learning is a learning system that combines face-to-face learning with online learning (through the use of internet facilities / media). Based on the explanations of the experts above, it can be defined that blenden learning is a teaching and learning strategy that aims to achieve learning objectives by combining class-based / face-to-face learning with information and technology-based

learning that is carried out online (online).

Blended learning developed around 2000 and is now widely used in North America, England, Australia, universities and the training world[6]. As a learning strategy that combines face-to-face learning with online learning (through the use of internet facilities / media), blended learning designs and implements learning both in terms of content and delivery done online. In this case, students do not only rely on the material provided by the teacher, but can search for material in various ways, including searching the library, asking classmates or friends online, opening websites, looking for learning materials through search engines, portals, or blogs, or it could be with other media in the form of learning software and learning tutorials. Various innovations in the use of learning technology can very easily be found and used,

Some of the results of research on Blended Learning in the research journal by Annisa Ratna Sari[7]mentioning another impact of using classical learning concepts with the lecture method will cause students' critical thinking skills to be less honed because students are not accustomed to thinking outside the context conveyed by the lecturer and become passive in choosing additional learning sources outside of the learning resources provided by the lecturer. Therefore, the blended learning strategy is an alternative in improving student learning outcomes.

The combination of classical learning added with the use of the internetbe a supplement in increasing student achievement. This is due to better pedagogy, increased access and flexibility, and increased cost-benefit[7] The addition of learning innovations will arouse the independence and confidence of students who have tried to find and explore learning resources not only from the teacher. Student independence plays an important role in learning success. Sandi (2012) states, students who have high independence excel in blended learning that is more student-centered[8]. Hence, increaseStudent independence is critical in improving learning outcomes that need to be of concern to teachers and other educational researchers. Especially during this pandemic, online learning is one of the right ways to keep learning activities going.

Technology in learning conceptually it has been proven to contribute to learning activities in the form of knowledge on solving learning problems, the provision of professional personnel who can arouse learners to learn, various learning resources, and the need for the latest information that can be accessed quickly[1, p. 4]. Amali further stated[1] The ICT growing so rapidly has provided convenience to various problems faced by society and especially students. Information technology-based learning such as e-learning by the government is also hoped for its development. Boediono (2013) when giving the inaugural lecture at Surya University in Jakarta stated, "E-learning, if designed properly, will be able to answer most of the obstacles. And with that, we can accelerate the distribution of education". In other words, online-based learning has a positive effect in overcoming Indonesia's educational challenges. Starting from this thought, the presence of blended learning is an essential solution to the needs of the nation today.

Seeing the importance of blended learning learning strategies in today's digital era, some experts also argue why blended learning is the strategic choice for learners today. Graham explain three important reasons why a Teachers prefer to implement blended learning compared to online and classical learning, namely: better pedagogy, increased access and flexibility.

Blended learning[9] is a Teaching and learning strategies that aim to achieve learning objectives by combining class-based / face-to-face learning with information and technology-based learning conducted online. So far, online learning strategies have only been limited to providing material and assigning assignments, so it is still necessary to add appropriate learning innovations, be able to generate independence and explore learning resources not only from teachers. So there needs to be additional integration in blended learning to make it better, so that

students can get learning experiences that make learning more meaningful.

Constructivism based learning[10] is the right choice to be integrated with blended learning, because constructivism can make learning more real because there are student activities that must be carried out through structured learning practices.

According to constructivist understanding, knowledge is a construction (formation) of people who know something (schemata). Knowledge cannot be transferred from teacher to other people, because everyone has their own scheme of what they know. The formation of knowledge is a cognitive process in which a process of assimilation and accommodation occurs to achieve a balance so that a new scheme (plural: schemata) is formed. Someone who learns means to form understanding or knowledge actively and continuously[11].

For constructivism, learning activities are active activities, where students build their own knowledge, skills and behavior. Learners find their own meaning from what they learn. Students themselves are responsible for their learning outcomes. They themselves make reasoning with what they learn, by looking for meaning, comparing what they already know with new experiences and situations.

Constructivism is one of the most important principles of educational psychology is that teachers do not merely impart knowledge to students. Students must build knowledge in their own minds. Teachers can assist in this process by providing opportunities for students to find and apply their ideas for learning[12]. The constructivism paradigm views students as individuals who already have initial abilities before learning something. This initial ability will become the basis for constructing new knowledge[13].

The constructivism approach requires students to build knowledge in their own minds. Teachers can assist this process by teaching that makes information more meaningful by giving students the opportunity to discover or apply their own ideas. The teacher can provide students with ladders that can help students reach a higher level of understanding, but it must be done so that the students themselves climb the ladder. Therefore, so that learning is more meaningful for students and educators, the constructivism approach is a good solution to be applied.

Another reason for the need for a constructivist approach in learning is the knowledge that students will have starting from the activeness of students to seek and find. Knowledge will not be obtained from passive students. To build a new knowledge, students will adjust a new knowledge with the old knowledge they already have through social interaction with other students. This is different from behavioristic[14]which emphasizes behavior patterns that are repeated become automatic. A person's behavior can be strengthened or stopped through reward or punishment. So it is with cognitivistic[15]which states that the knowledge will be represented by the scheme, if the information in accordance with the scheme will be received, if it will not be adjusted or the scheme will be adjusted. So cognitivistic emphasizes the rearrangement of cognitive structures in which a person stores information.

The process of acquiring knowledge will occur if the teacher can create ideal learning conditions, what is meant here is a teaching and learning process that is in accordance with the characteristics of learning and takes into account the perspectives of elementary school students. The learning referred to above is learning that prioritizes student activeness, explaining minds-on and hands-on abilities as well as interactions and recognizing the existence of initial conceptions that students have through previous experiences.

Based on the explanation above, constructivism-based blended learning is very appropriate to be applied to online learning today, because it makes learning more meaningful. The learning material will be accompanied by student activities in the form of practical activities from the implementation of the material being studied. Learning will be presented in the form of student activities that must be carried out by students at home independently with instructions and

teacher directions via online and forms of assessment of the results of activities in the form of written reports and videos made directly by students while carrying out activities.

Learning like this is expected to make online learning more effective and successful in increasing student competence in accordance with the expected learning objectives. Students will continue to be active and get new experiences even through online learning.

4 Conclusion

Constructivism-based blanded learning is online learning accompanied by student activities in the form of practical activities in accordance with the subject matter. Students can independently carry out activities through instructions that have been made by the teacher. So online learning will not be monotonous and boring because it is accompanied by student activities so as to make learning more meaningful for students. Contrusivism-based blanded learning is expected to be transformed into teaching materials or student modules that must be adapted to the material in the curriculum and student abilities.

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The Impact of Remote Learning on Unnes Student Satisfaction during The Covid-19 Pandemic: Structural Equation Modeling Approach

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Abstract. *The remote learning process during the Covid-19 pandemic impacted high student expectations of service quality. If educational institutions, especially lecturers, cannot provide quality services to students, there will be a problem of dissatisfaction in learning. Student dissatisfaction has an impact on low student participation during the learning process. This can reduce student participation and lower independent learning online. Therefore, institutions and related parties must analyze the quality of learning services consisting of tangible, reliability, responsiveness, assurance and empathy for student satisfaction. The method used to analyze these factors is to use the structural equation modelling (SEM) method. SEM analysis results show that the service quality factors consisting of tangible, reliability, responsiveness, assurance, and empathy, which significantly influence student satisfaction, significantly affect UNNES student satisfaction during the learning process using virtual learning. The important elements that are very influential are tangible and responsiveness with a significance level of $\alpha = 5\%$ with a value of t> 1, 96, namely 0,009 and 0.004 with an estimate of 0, 44 and 0. 79. SEM analysis results also show that the factor reliability, assurance and empathy have no significant effect on student satisfaction, which is indicated by the t value <1.96, namely 0,664 0,438, 0,396 with an estimated value of -0,281, 1,166 and -0,722*

Keywords*: Tangible, Responsiveness, Service Quality, Student Satisfaction, Structural Equation Modeling (SEM)*

1   Introduction

The Covid-19 pandemic globally has affected all aspects of life, both socially and economically. One of the institutions greatly affected by this pandemic is educational institutions. Almost all schools and colleges, which initially held a face-to-face learning process, have switched to online learning. This has caused many controversies, especially for parents, teachers, lecturers and students, especially concerning online learning facilities and infrastructure. Therefore, educational institutions and related parties must be more careful and responsive in observing students' needs and desire to know what students want and fulfil these desires by providing quality services to students.

The quality of service encourages students to forge strong bonds and relationships between lecturers and students. Good quality service in a higher education institution will create learning satisfaction and comfort for students. According to [1] in their research on student satisfaction

in business schools in Pakistan, it explained that service quality significantly affects student satisfaction. Student satisfaction has been a major challenge for universities and colleges it has been recognized that student satisfaction is a major source. According to [2] student satisfaction is a competitive advantage and satisfaction also leads to students retention, an attraction for new students and positive word of mouth communication.

Several factors affect student satisfaction during remote learning, using online or online learning. This can be seen from several research results that examine student satisfaction with the quality of learning services. Based on the research results by [1] on business schools in Pakistan shows that service quality has a strong influence on student satisfaction. Besides, the system and service dimensions are important factors in increasing the learning process's ease [3]. Student satisfaction is also greatly influenced by tangible and responsiveness factors, and this is under the results of research conducted by [4]. This is also supported by other studies on student satisfaction with service quality which greatly affects student satisfaction [5]; [6]. Service quality is an important factor in surviving and winning people's interest in choosing the next level of study.

Based on these descriptions, this study intends to analyze the influence and quality of e-learning services on student satisfaction using the Structural Equation Modeling approach. These influencing factors can be used as a reference by related institutions in developing strategies so that student satisfaction can continue to increase.

2 Pandemic Covid-19

At the beginning of 2020, the world was shocked by the coronavirus outbreak (Covid-19), which infects almost all countries in the world. WHO Since January 2020 has declared the world entered into a global emergency related to this virus. In Indonesia, the government has issued a disaster emergency status starting from February 29, 2020, to May 29, 2020, related to this virus pandemic with total time the government has taken 91 days 4. Steps to get solve this extraordinary case are by socializing the movement of Social Distancing.

Based on the Circular (SE) [7] issued by the government on March 18, 2020, all indoor and outdoor activities in all sectors are temporarily postponed to reduce corona's spread, especially in the education sector. On March 24, 2020, the Minister of Education and Culture of the Republic of Indonesia issued Circular Letter Number 4 of 2020 [8].Regarding the Implementation of Education Policies in an Emergency for the Spread of Covid-19. The circular explains that the learning process is carried out at home through online / distance learning to provide meaningful learning experiences for students.

3 Remote Learning

Remote learning (RL) is learning by using media to occur between teacher and learner. In RL between teachers and learners not face to face, with words others through RL are possible between teachers and learners are different places, even can be separated by a distance very far. Remote learning (too also called remote education) is the training given to participants or students who did not gather together in one place regularly to receive lessons directly from the instructor. Materials and specific detailed instructions sent or made available to the participants, who then carry out tasks to be evaluated by the instructor. In fact, it can make possible that instructors and participants are separate not only in a separate manner geographic but also time.

The presence of information technology in supporting daily activities is increasingly beneficial. In its development, the current education world cannot be separated from information technology to convey messages and knowledge to everyone. Not only providing information, with the development of information technology, educational institutions also provide online

services (remote learning) for students as a means of supporting academic activities. In Indonesia, e-learning system can become a solution to overcome the backwardness of education in international world. The lag can be due to the remoteness, limited facilities and infrastructure, to the lack of qualified educators [9]. Semarang State University is one of the higher education institutions in Central Java that strives to provide learning satisfaction by providing quality services to students. One of the On line services used by Semarang State University to support the continuity of academic activities is the E-Learning System (ELENA). Elena is one of the methods used to measure the quality of e-learning based on end-users perceptions. In this study, the extent to which users' perceptions of ELENA service quality are perceived (actual) with the level of expectation (ideal). However, the reality shows that there are still complaints from students about the institution's quality of services, including tangible factors, reliability, responsiveness, assurance, and empathy. This has an effect on the decline in student graduates during the Covid-19 pandemic. This can be seen from the average graduates in the graduation period during 2020 in the following table 1.

Table 1. Students Graduated Departement of Education in 2019-2020

Description	Step 1	Step 2	Step 3	Step 4
2019	1	53	330	77
2020	108	34	33	22

Sumber: http://data.unnes.ac.id/index.php/lulusan/masastudi

Based on table 1, it can be seen that the decline in graduates during the pandemic that occurred in 2020. Therefore, educational institutions must be more aware of improving infrastructure quality and service by understanding the variables that affect student satisfaction. According to [10]Students who graduate with feelings satisfied to the university will help universities in reaching a wider market.

As stipulated by MEN.PAN No 63/KEP/M.PAN/7/2003, 2003)regarding General Guidelines for Public Service Delivery explains that service quality is a transparent and accountable certainty of procedures, time, and financing that must be carried out in full by every agency and service unit of government agencies following their overall duties and functions. According to [12], the service itself is the maximum effort provided by service officers from an industrial company to meet customer expectations and needs so that satisfaction is achieved. Meanwhile, according to [13] the definition of quality in the term conformance to requirement, which is by what is required or standardized, if a product has quality if it is following predetermined quality standards including raw materials, production processes, and products.

4   Student Satisfaction

Student satisfaction can be seen as customer satisfaction. Satisfaction students do not just depend on teaching considerations only, but must there is an in-depth analysis to find out overall influencing factors that contributes to satisfaction college student [14]. Customer satisfaction, term which is often used in marketing, is a measure of how the product is and services provided by the company meet or exceed expectations customers [15].Student satisfaction as the favorability of a student's subjective evaluation of the various outcomes and experiences associated with education [16]. Whereas [17] define satisfaction as "the sum of a student's behavioral beliefs and attitudes that result from aggregating all the benefits that a student receives from using the blended system. According to [18]; [19] student satisfaction is a complex concept, consisting of several dimensions. Service quality can be seen from five dimensions, including direct evidence (tangible), reliability (reliability), responsiveness (responsiveness), assurance (assurance) and empathy (empathy) [20].

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5   Structural Equation Modelling

Structural Equation Modeling (SEM) is a multivariate analysis technique developed to cover the limitations of the previous analysis model which has been used extensively in statistical research.

According to [21] A technique statistic used to construct and test statistical models is usually deep forms of causal models. SEM is a hybrid technique that includes confirmatory aspects of factor analysis, path analysis and regression that can be considered a particular SEM case.

6   Method

This study uses a Structural Equation Modeling (SEM) approach to analyze the complex relationship between service quality factors and student satisfaction. The conceptual model used is based on the development of the [1] model, which shows the relationship between service quality and student satisfaction formulated in the following hypothesis:
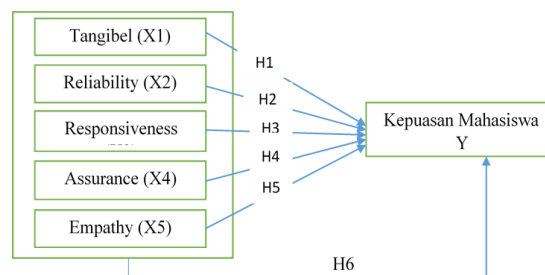

Image 1. Relationship between Service Quality and Student Satisfaction

a.   Hypothesis 1:
      Ho: Tangible does not affect student satisfaction
      H1: Tangible affects student satisfaction
b.   Hypothesis 2:
      Ho: reliability does not affect student satisfaction
      H1: reliability affects student satisfaction
c.   Hypothesis 3:
      Ho: responsiveness does not affect student satisfaction
      H1: responsiveness affects student satisfaction
d.   Hypothesis 4:
      Ho: assurance does not affect student satisfaction
      H1: assurance affects student satisfaction
e.   Hypothesis 5:
      Ho: empathy does not affect student satisfaction
      H1: empathy affects student satisfaction

The data collected was taken from the population using a questionnaire with a likert scale of 1-5 as a data collection tool. The sample of this research is using a simple random sampling technique. In this study, the number of samples taken was 250 students considering that it can be eliminated if there is any missing data. The amount of missing data is not more than 10% [22]. Based on the study of research that has been done previously from several sources, a questionnaire consisting of 15 attributes was generated. The number of questionnaire items for each variable and the questionnaire items' source can be seen in Table 2.

Table 2. Service Quality Construction and Indicators

Tangibel	1. Lecturer Performance
	2. Mastery of ICT by Lecturers
	3. Ease of using e-learning
Reliability	1. According to the level of Knowledge
	2. According to Job Skills
	3. Work Experience
Responsiveness	1. Clarity of Material
	2. Giving Tasks
	3. Feedback
Assurance	1. Lecturer Competence
	2. Courtesy
	3. Credibility
Emphaty	1. Attention to students
	2. Multidirectional communication
	3. Sympathy

The questionnaire distributed by researchers to 123 respondents was obtained from UNNES PGSD students even semester 2020/2021. Number and percentage general description of respondent characteristics based on gender 47%;(male gender 30.42%, female 50.25%), domicile 55.46%, learning time 60-90 minutes 48.32%, internet fluency 54, 20%, and credit budget > 100 thousand.

Validity Test and Reliability Test Validity test is carried out to determine the extent to which the measuring instrument can measure what it wants to measure. Based on the data from the questionnaire results for the assessment of student satisfaction, the validity of questions 1 to 15 was tested using the product-moment correlation equation (Pearson). All variables are valid because r count> r critical (0.300) (Sugiyono, 2016).

Reliability testing is done to determine whether the questionnaire that has been made is reliable or not by using the Alpha cronbach formula. Because the value of r count (0.967)> 0.60 (Suyuthi, 2005), the questionnaire data is declared reliable, it can be concluded that the questionnaire can be trusted with the correctness of the data.

Analysis of the measurement model used in SEM is Confirmatory Factor Analysis (CFA); with this tool, it is known whether the existing indicators really can explain a construct. The suitability test analysis uses a measure of conformity or Goodness of Fit (GOF). The criteria used as a measure of conformity are normed chi-square, CFI (Comparative Fit Index), GFI (Goodness of Fit Index) and RMSEA (The Root Mean Square Error of Approximation) to test the suitability between the model and the data. Structural model analysis using Multiple Regression Analysis. With this tool, it can be seen whether there is a significant relationship between exogenous (independent) and endogenous (dependent) variables. If there is a relationship, how strong is the relationship?

6.1 Measurement Model Analysis

The measurement model analysis was performed using Confirmatory Factor Analysis (CFA). With CFA, it is known whether the existing indicators can really explain a construct. By carrying out CFA, it is possible that an indicator is considered not to have a strong influence or can explain a construct. The criteria used are for the validity test is at-value of 1.96, Standard Loading Factor (SLF) 0.5, and for the reliability of Construct Reliability (CR), 0.70 & Variance Extracted (VE) 0.50.

$$Construct\ Reliability = \frac{(\sum Std.Loading)^2}{(\sum Std.Loading)^2 + \sum \varepsilon_j}$$

$$Variance\ Extracted = \frac{\sum Std.Loading^2}{\sum Std.Loading^2 + \sum \varepsilon_j}$$

Table 3. Model Reliability Results

Latent variable	CR Value	VE Value	Conclusion Reliability
KM	0,799	0,668	Good
TAN	0,950	0,614	Good
REL	0,976	0,819	Good
RES	0,955	0,657	Good
ASS	0,974	0,805	Good
EMP	0,973	0,794	Good

Table 3 above shows that the whole latent variables have good model reliability because CR > 0.70 and VE > 0.50.

6.2 Suitability Test Analysis

In data processing, it has been explained that several measures are used to determine the GOF of a model. Four measures can be used as a basis for indicating that a model is fit by utilizing the normed chi-square test, CFI, GFI and RMSEA. From Table 4, it can be seen that the estimation results are within the target level of fitness so that it can be said that the model is fit.

Table 4. Fit Summary Model

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	45	248,074	126	,000	**1,969**
Saturated model	171	,000	0		
Independence model	18	1321,363	153	,000	8,636

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,044	**,844**	,788	,622
Saturated model	,000	1,000		
Independence model	,302	,291	,208	,261

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,812	,772	,898	,873	**,896**

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	**,068**	,073	,105	,000
Independence model	,250	,238	,263	,000

Based on table 4, it can be seen that the confidence level is around 90 per cent, the RMSEA population for the Default model is between 0.073 and 0.105. while the significance level is around 90 per cent, the RMSEA population for the independence model is between 0,238 and 0.263

6.3 Structural Model Analysis

The structural model analysis was performed using Multiple Regression Analysis. With this tool, it can be seen whether there is a significant relationship between exogenous (independent) and endogenous (dependent) variables. If there is a relationship, how strong is the relationship? The criteria used are t 1.96 for a significance level of 5% and t 1.282 for a significance level of 10%. Structural model analysis can be seen in Table 5.1.

a. Analysis of the relationship between tangible variables and customer satisfaction variables. Based on the identification of the value of the tangible variable path coefficient, it is proven to significantly affect customer satisfaction at a significance level of $\alpha = 10\%$ because the t-value> 1.282 in the initial model and the final model with a significance level of $\alpha = 5\%$ > 1.96, namely 0.07 and 0,09 with estimated values of 0.45 and 0.44. Thus Hypothesis 1: H1 is accepted; tangibles are statistically proven to affect customer satisfaction. This is in line with the theory that builds this hypothesis based on a study of tangible literature that has a positive effect on customer satisfaction [5], [1].

b. Analysis of the relationship between the reliability variable and the Customer Satisfaction variable. Based on identifying the value of the variable path coefficient, the reliability variable does not significantly affect customer satisfaction at the significance level of $\alpha = 5\%$ because the t-statistic <1.96 is 0,34 and 0,66 and with SLF values in the initial and final models are 0,11 and -0.28. Thus Hypothesis 2: H1 is rejected; reliability does not statistically affect customer satisfaction.

c. Analysis of the relationship between the Responsiveness variable and the Customer Satisfaction variable. Based on identifying the path coefficient value, the responsiveness variable significantly affects customer satisfaction at a significance level of $\alpha = 5\%$ with a t-statistic value> 1.96, namely 0,001 and 0,004. The SLF value in the models are 0,69 and 0.79. Thus Hypothesis 3: H1 is accepted; responsiveness statistically affects customer satisfaction. This is in line with the theory that builds this hypothesis, which is based on literature studies that responsiveness positively affects customer satisfaction (Akbar, 2009; Ijaz et al., 2011)
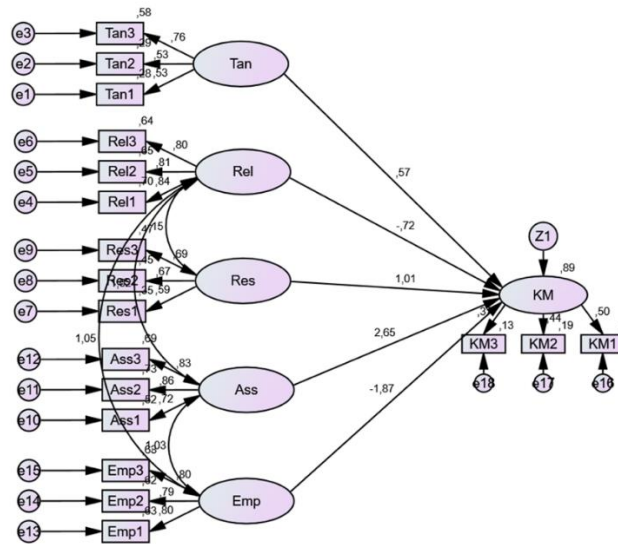
Figure 2. Measurement Model

Table 5. GOF Measurement Results from the initial model and after modification.

GOF size	Target Match Rate	Initial estimation results	The final estimation result
CMIN/DF	Between 2-5 and <2	4,993	1,969
GFI	Approaching one is very good	0,696	0,844
CFI	Approaching one is very good	0,556	0,896
RMSEA	< 0,08 good fit	0,181	0,068

Table 6. The results of the analysis of the influence between latent variables

Path analysis	Estimation		CR value		sig-value		Conclusion
	Early	End	Early	End	Early	End	
TAN → KM	0,459	0,440	2,704	2,603	0,007	**0,009**	Significant
REL → KM	0,116	-0,281	0,942	-0,434	0,346	0,664	Not significant
RES → KM	0,698	0,790	3,442	2,871	0,001	**0,004**	Significant
ASS → KM	-0,259	1,166	-2,075	0,776	0,038	0,438	Not significant
EMP → KM	0,158	-0,722	1,234	-0,848	0,217	0,396	Not significant

d. Analysis of the relationship between the Assurance variable and the Customer Satisfaction variable. The identification of the assurance variable's path coefficient value significantly affects customer satisfaction at the significance level α = 5% t-statistic <1.96, namely 0,03 and 0,04 and the SLF value at initial models are 0.25 and 1,16. Thus Hypothesis 4: H1 is accepted; assurance does not statistically affect customer satisfaction.

e. Analysis of the relationship between the Empathy variable and the Customer Satisfaction variable. Based on the identification of the empathy variable's path coefficient value, it does not significantly affect customer satisfaction at the significance level α = 5% because the t-statistic <1.96 is 0.21 and 0.39 and the value The SLF in the initial and final models

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is 0.15 and 0.72. Thus Hypothesis 5: H1 is rejected; empathy does not statistically affect customer satisfaction.

7   Conclusion

This study analyzed remote learning's impact on student satisfaction during the COVID-19 pandemic using e-learning (ELENA). The model developed is service quality as an exogenous variable and student satisfaction as an endogenous variable. The results obtained based on the theory developed and processed using SEM show that the tangible and responsiveness dimensions significantly affect student satisfaction. This study indicates that the quality of the e-learning system to maintain student satisfaction must pay attention to the dimensions of service quality, which consist of tangibles such as ease of access to elements and more attractive learning features. Meanwhile, students hope that all lecturers can carry out the remote learning process properly from the responsiveness dimension.

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Digital Literation and Development Emotional Social Skills at Elementary School Students in The Social Era 5.0

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Abstract. The change in the educational paradigm in facing the social era 5.0 in academic units is to prepare superior human resources (teachers). The teacher acts as a learning material provider and an inspiration for the development of student creativity. Teachers must face two things in the social era: technology adaptation and competence, namely 21st-century life skills, namely having leadership skills, digital literacy, communication, emotional intelligence, entrepreneurship, global citizenship, teamwork, and problem-solving. Creativity, critical thinking, communication, and collaboration). Meanwhile, the competencies that students must-have in the 21st century consist of 6 basic literacy skills (numeracy literacy, scientific literacy, information literacy, financial literacy, cultural literacy and citizenship). In addition, students must also be able to think critically, reason, be creative, communicate, collaborate and have problem-solving skills. The six abilities are part of digital literacy that must be understood and understood to not deviate from existing cultural norms. Therefore, students' social-emotional abilities in facing the challenges of the 5.0 social -era need to be honed and developed so that they do not fall into negative things. At the social-emotional development stage, education is an essential dimension in children's development because elementary school-age brings many changes in children's social and emotional lives.

Keywords: digital literacy, social-emotional skills, elementary school student, social era 5.0

1   Introduction

Digital literacy is the knowledge and ability to use digital technology, communication tools, or networks in the process of finding, evaluating, using, and creating information, as well as utilizing it in a healthy, wise, intelligent, thorough, precise, and law-abiding manner [1]. The development of increasingly sophisticated digital technology makes anyone get various information quickly and easily through the internet network.

The development of digital literacy is high-speed, one of which impacts education, especially education in Indonesia. Education is not only done in traditional discussions between teachers and students in the classroom. However, at this time, the teaching and learning process was not focused on the teacher but instead used technology to find information as a learning resource. Students are given the freedom to practically increase their knowledge of search engines [2].

21st-century education or better known as the digital era, teachers face challenges in dealing with diverse students, very complex and challenging material, and demands for high-

level critical thinking skills. Therefore, teachers must be more creative and innovative in carrying out the learning process by adding insight through reading books and looking for more renewable reading sources. The role of teachers has also shifted from teacher-centred to student-centred. They should teach more about values, ethics and culture to shape and develop student personality with character.

Childhood is a crucial period in the development of human life because childhood is the earliest period in the life span that will determine development at later stages. At each stage of child development, it can be prepared for the next stage, one of which is through educational planning. In social, emotional development, education is a crucial dimension in child development.

The elementary school period brings many changes in the social and emotional lives of children. Changes in their relationships with themselves, relationships with peers, relationships with parents also occurred, and relationships with schools in a more academic sense [3].

2   Digital Literacy

Digital literacy is an interest in individual attitudes and abilities in using digital technology and communication tools to access, manage, analyze, and evaluate information, build new knowledge, communicate with others in order to participate effectively in society [4].

Eight essential elements for developing digital literacy, according to [5] are: (1) Cultural, namely understanding the various contexts of digital users; (2) Cognitive, namely the power of thought in assessing content; (3) Constructive, namely the creation of something expert and actual; (4) Communicative, namely understanding the performance of networks and communications in the digital world; (5) Responsible confidence; (6) Creative, doing new things in new ways; (7) Critical in addressing the content; and digital literacy as a life skill; and (8) Be socially responsible.

Digital Literacy or 21st-century skills, covered in learning and innovation skills, critical thinking in problem-solving, communication and collaboration skills. The five types of skills covered by the general term digital literacy include: 1). Photo - visual literacy is the ability to read and infer information from visuals; 2). Reproductive literacy is the ability to use digital technology to create new works of work; 3). Branching literacy is the ability to navigate the non-linear media of digital space successfully; 4). Information literacy is the ability to search, find, assess and critically evaluate information found on the web; 5). Socio-emotional literacy refers to the social and emotional aspects present online, whether it is possible through socializing, and collaborating or simply consuming content [6].

3   Emotional Social Skills

Development is an eternal and permanent process that leads to an organization at a higher level of integration, based on growth and compulsion in learning, and there is an organization or structure of higher behaviour. In the process of development, individual and environmental characteristics determine behaviour to become actual and manifest. [7].

According to [8], development is a behaviour change based on a person's psychological or spiritual condition. Everyone obtains this change through habituation and practice or study. *Learning* is the development that comes from practice and effort. Through learning, children gain the ability to use inherited resources in a way that children must get learning opportunities to develop.

According to [9] social-emotional development is a process that includes changes in individual relationships with other people, emotional changes and personality changes. In the development of the world of socio-emotional education, it occupies a critical position and the cognitive development of students. Because the socio-emotional development of students at elementary school is very influential in the school environment and the community environment. The socio-emotional development of elementary-age students is very influential on behaviour, control, adjustment and rules. When students can condition themselves with their environment, their social-emotional functions will be better. Social and family environmental factors influence the socio-emotional development of students.

Emotional development is closely related to children's social development. If the child can relate and have positive emotions with other people, they will find it easier to interact socially with other people. Therefore, emotional and social development is often referred to as socio-emotional development.

Social development is a process of attaining maturity in social relations and learning to conform to the norms that apply to traditional and moral groups. Social development in children of age is characterized by expanding relationships or interactions in learning activities in class and when playing outside of the classroom. Apart from family, children can also form new bonds with peers [10].

Socio-emotional development is the child's sensitivity to understand the feelings of others when interacting in daily life [11]. In this sense, the child is strived to provide sensitive attitudes to the environment. How to interact with children is given the understanding that everyone is different and has something in common. Therefore, equality is treated as a gift, and differences are treated as a blessing for diversity from the Creator. Thus, socio-emotional maturity will significantly affect the way children interact in responding to any problems they face

4   Emotional Social Characteristics of Elementary School Children

Elementary age students (6-12 years) have developmental tasks related to social, emotional skills. When a child enters elementary school, he will spend more time at school, namely with his teacher and friends. The following is a table of differences in emotional characteristics of children and adults.

Table 1. Emotional Characteristics of Children and Adults

Child's Emotions	Adult Emotions
1. was brief and ended suddenly	1 lasts longer and ends slower
2 looks more powerful or stronger	2 doesn't look great or strong
3 temporary or superficial	3 deeper and longer
4 happens more often	4 rarely happening
5 can be seen clearly from his behavior	5 difficult to know because he was better at hiding it

(Source: [12])

Important factors that affect the social and emotional learning of elementary school-age children, which are very useful in helping students learn to manage emotions better and increase empathy, include the following:

4.1 Pleasure

The characteristics of elementary school children are related to physical activity, namely that children like to play, move, work in groups, and enjoy direct practice [13]. In connection

with this concept, it can be described: Elementary school children like to play. Educators are required to understand children's development, provide physical activities with a play model. The learning material is made in games, especially for lower grade elementary school students (grades 1 to 3) who are still quite thick with the play zone. So that the design of the learning model has a fun play concept but still pays attention to the achievement of the teaching material.

4.2 Appreciation

Elementary school children are different from adults who like to sit for hours, but different children may sit quietly for a maximum of 30 minutes. Educators play a role in making learning that is constantly moving dynamically, and exciting games provide a stimulus to children's interest in moving high.

4.3 Motivation

Elementary school children like to practice directly. Elementary school children have the characteristics of being happy to do things in a practical, not theoretical, model. Based on the three previous concepts of pleasure (like playing, moving, in groups), elementary school children, of course, it is very effective in combination with direct practice. Educators provide direct learning experiences for children so that classical theoretical model learning is not needed or given during evaluation.

4.4 Perspective

Perspective is the basic assumptions that have contributed the most to the social psychology approach. The behavioural perspective states that our social behaviour is best explained by directly observable behaviour and the environment that causes our behaviour to change. The cognitive perspective explains our social behaviour by focusing on how we mentally organize (thoughts, feelings) and process information from the environment [14]. The teacher's role is as a role model in acting and speaking so that students can imitate examples of the teacher's behavior.

4.5 A sense of friend's loyalty

Elementary school children enjoy group activities. Elementary school children generally group with peers or their age. The concept of classroom learning can be made a group assignment model. Educators provide material through simple assignments to be completed together. The task is in the form of a combination of psychomotor elements (movement activities) that involve cognitive elements. For example, elementary school children are given the task of role-playing material through drama/dialogue games, so to express their characters, they will practice first and then practice according to their abilities.

4.6 Empathy

Empathy is the ability to understand emotionally what other people feel, see things from their perspective, and imagine yourself in their shoes. Empathy puts students in the shoes of others and feels what they should feel. The role of the teacher provides direct experience through social service activities in schools, social institutions and so on.

4.7 Share

Fostering concern for fellow friends regardless of social status, economy, race, religion and culture. This activity can be started with activities that can foster a positive attitude in students through giving, sharing, and loving each other.

5   Social Era 5.0

Society 5.0 It is a super-intelligent society where technologies such as Big data, the Internet of Things (IoT), artificial intelligence (AI), and robots are integrated into every industry and in all social segments.

(Source: mti.binus.ac.id)   (Source: Google docs)
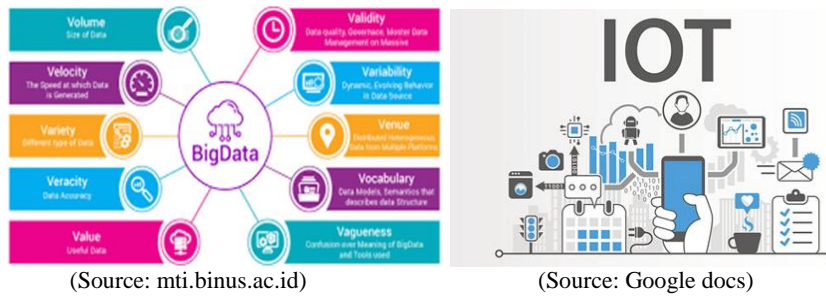
Figure 1. Social Era 5.0 Skills

Society 5.0 is A New Humanism that offers a new model for solving social problems to achieve Sustainable Development Goals (SDGs) (Aris, 2021). Therefore, the role of education in this era must be revolutionized and oriented towards renewable learning. According to Edy (2021), Society 5.0 was made as a solution to Revolution 4.0, which was feared to degrade humankind and character. In this era of Society 5.0, character values must be developed, empathy and tolerance must be fostered in line with the development of competencies that think critically, innovatively, and creatively. Society 5.0 aims to integrate virtual space and physical space into one so that everything becomes easy with artificial intelligence.

Artificial intelligence (AI) is based on the principle that human intelligence can be defined so that machines can easily mimic it and carry out tasks, from the simplest to the more complex. The goals of artificial intelligence include learning, reasoning, and perception. Therefore, learning in the 21st century or social-era 5.0 must equip students with specific skills consisting of 3 skills: basic literacy, competence, and character.

The development of competence and character of students through AI prioritizes how students need to understand: who they are as humans; why society, culture and tradition matter; how to get better in areas that machines cannot do; while learning how machines can increase our capacity as humans [15]. An illustration of the AI learning approach for students is attached in the following picture.
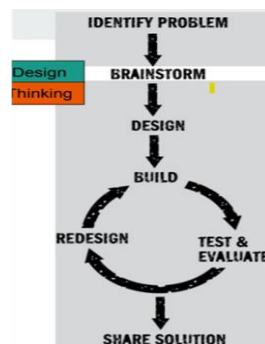
Figure 2. Illustration of AI Learning Approach (source: [15])

AI Learning Approach to Students
a. High-Touch and High-Tech Learning
  - High Touch: project-based learning through teacher guidance
  - High-Tech: adaptive learning through technology
b. Design Thinking
  - Divergen thinking
  - Visual thinking
c. Context STEM/STEAM
  - Storytelling
d. Student Activity
  - Nullius in verba: don't trust other people
  - Questions in the form of facts and theories
  - Different perspectives
  - Stories that can affect other people

6 The Role of Educators in The Social Era 5.0

Education 5.0 is a general term used by education theorists to describe the various ways to physically and indirectly integrate cyber technology into learning. To face the industrial revolution era 5.0, education is needed that can form a creative, innovative, and competitive generation. One of these can be achieved by optimizing the use of technology as an educational aid that is expected to produce output that can keep up with or change the times for the better. Education 5.0 responds to the needs of the 5.0 industrial revolution, where people and technology are aligned to create new opportunities creatively and innovatively. [16] explains "that the new vision of learning promotes learners to learn not only skills and knowledge that are needed but also to identify the source to learn these skills and knowledge."

Industrial Revolution 5.0, which is full of super-fast technology, will bring significant changes, one of which is the education system in Indonesia. Changes in the education system will undoubtedly impact curriculum reconstruction, the role of teachers as educators and the development of ICT-based educational technology. This is a new challenge to revitalize education to produce intelligent, creative and innovative people who can compete globally.

Fisk (2017), as quoted by Aziz Hussin, there are nine trends or trends related to education 5.0, namely as follows: First, learning at a different time and place. Students will have more opportunities to study at different time and place. E-learning facilitates opportunities for distance and independent learning. Second, individual learning. Students will learn with learning tools that are adaptive to their abilities. This suggests that students at higher levels are challenged with more challenging assignments and questions after passing certain competency degrees. Students who have difficulty with the subject will have the opportunity to practice more until they reach the required level; Third, students have choices in determining how they learn; Four, project-based learning. Current students must be able to adapt to project-based learning, as well as in terms of work; Five, field experience. Technological advances enable learning of specific domains to be effective, thus providing more room for acquiring skills that engage student knowledge and face-to-face interactions; Six, data interpretation. The development of computer technology eventually took over the tasks of manual analysis (mathematics), and immediately handled every statistical analysis, described and analyzed data and predicted future trends; Seven, multiple assessments. Assessments must change, students' factual knowledge can be assessed during the learning process, and application of knowledge can be tested while students work on their projects in the field; Eight, student involvement. Student involvement in

determining learning material or curriculum is essential; Finally, mentoring or guiding students is crucial to building student learning independence.

At the primary and secondary education levels, the Ministry of Education and Culture of the Republic of Indonesia has developed learning facilities through ICT through the Rumah Belajar portal, which teachers and students can easily access. Rumah Belajar makes it easier for students and teachers to get learning resources other than through books with various existing features. The existence of the Learning House is expected to be able to meet the need for learning that can be accessed anywhere, anytime, and with anyone.

The 21st century is the century of openness or globalization. Therefore, the learning content is expected to fulfil century skills, namely: 1) learning and innovation skills including mastery of diverse knowledge and skills, learning and innovation, critical thinking and problem-solving, communication and collaboration, and creativity and innovation, 2) literacy skills. Digital includes information literacy, media literacy, and ICT literacy, 3) career and life skills including flexibility and adaptability, initiative, social and cultural interactions, productivity and accountability, and leadership and responsibility.

As educators in society 5.0, teachers must have skills in the digital field and think creatively. According to Zulfikar Alimuddin, Director of Hafecs (Highly Functioning Education Consulting Services) assessed that in the era of society 5.0 (society 5.0), teachers are required to be more innovative and dynamic in teaching in class [17]. Educators in this 5.0 society century must become driving teachers who prioritize students over themselves, take the initiative to make changes to their students, take action without prompting them, continue to innovate and sided with students.

The concept of learning in schools in facing Society 5.0 needs to be developed by the teacher, including several components: first, HOTS ability in the learning process. HOTS (Higher, Order, Thinking, Skills) is the ability to solve complex problems, critical thinking and creativity; Second, the renewal of the futuristic learning orientation of learning, introducing learning that is not only about mastery of the material but also needs to connect related to the use for the betterment of society 5.0; Third, by selecting the suitable learning model. To provide space for students to find concepts of knowledge and creativity; Fourth, developing teacher competence. Competence in the cognitive, affective and psychomotor domains of teachers also needs to be improved in order to be able to adapt to industry 4.0 and society 5.0. equipped with scientific insights, attitude, and skills are characteristics in preparing society 5.0; Fifth, providing futuristic learning resources and infrastructure as needed in the form of IT-based intelligent buildings in the form of classrooms, libraries and laboratories supported by IoT and AI facilities that support learning resources and learning media for students [18].

The five competencies that teachers must prepare to enter the Industrial Revolution 5.0 era, namely, first, educational competence. Second, competence for technological commercialization. Third, competence in globalization. Fourth, competence in future strategies, and fifth, counsellor competence [19].

Meanwhile, [20] argues that a teacher must face four changes that will shape the classroom of the future: making education entirely technological
a. The layout of the classroom will change immensely;
b. Virtual and augmented reality will change the educational landscape;
c. Flexible assignments will accommodate multiple learning styles; and
d. MOOCs and other online learning options will impact secondary education.
Other skills that teachers need to have in the face of the Industrial 5.0 era include:
a. Friendly with Technology The world is constantly changing and developing to a higher level, one of the changes is marked by advances in technology

b. Cooperation (Collaboration) Maximum results will be difficult to achieve if done individually without collaboration or collaborating with other people

c. Creative and Taking Risks Creativity is one of the skills needed in the Top 10 Skills 2020; creativity will produce a structure, approach or method to solve problems and answer needs.

d. Have a Good Taste of Humor. A humorous teacher is usually the teacher most often remembered by students. Laughter and humour can be essential skills to help build relationships and relax in life.

e. Teaching Whole (Holistically) In various learning and learning theories, we recognize individual and group learning (Arjunaita, 2020).

7 Conclution

The industrial revolution era 5.0 has changed the way of thinking about education. The changes that were made were not only the way of teaching but also the change in the perspective of the concept of education itself. Therefore, the development of current and future curricula must complement students' abilities in pedagogic dimensions, life skills, the ability to live together (collaboration) and think critically and creatively. Develop soft skills and transversal skills, and invisible skills that are not related to specific occupations and academics. However, it is helpful in many work situations such as interpersonal skills, cohabitation, the ability to be global-minded citizens, and media and information literacy.

To ensure that the adjusted curriculum is implemented optimally, teachers' competencies are educational competence, competence for technological commercialization, competence in globalization, competence in future strategies, and counsellor competence. Teachers also need to have a technology-friendly attitude, be collaborative, be creative, take risks, have a good sense of humour, and teach holistically.

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Pocket and Audio-Visual-Animated Influence to The Knowledge and Attitudes of Female-Age-Women in Prevention of Tuberculosis Transmission

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Abstract. Prevention of tuberculosis transmission in female prostitutes can be conveyed through audio-visual methods and pocket books, which can be more interesting and easy to understand, as part of health promotion, so that the target audience can learn the message for adoption. The purpose of this study was to determine the effect of using pocket books and audiovisual animation on increasing the knowledge and attitudes of female prostitutes in preventing tuberculosis transmission. Quasi-experimental research design nonrandomized pretest posttest control group design. The results of the study, there was a change in the mean of knowledge before and after being given pocketbooks and audio-visual media by 15.88 in the intervention group, changes in the mean attitude of 39.40 in the intervention group. There is an effect of giving pocket books and animated-videos on the knowledge and attitudes of women women in preventing tuberculosis transmission with p value <0.01. Pocket books and audio-visual media can be used as alternatives to provide health education to families and communities in efforts to prevent tuberculosis

Keywords: Pocket book, Audio-Visual-Animation, Prevention, Tuberculosis

1 Introduction

Tuberculosis is a disease caused by easily transmitted bacteria. Tuberculosis attacks the lungs a lot, but these bacteria can also spread to other organs such as the urinary tract and bones [1]. For women, tuberculosis can attack and spread to the uterus, causing an impact on fertility as much as 1% and 2% [2]. Curing tuberculosis takes a long time, so the role of the family in treatment is very important. The sub-optimal role of the family in providing care and prevention causes the transmission of TB disease to other family members, as a result the number of sufferers tends to increase [3]; [4]

The highest TB burden in the world, after India, is China and South Africa. The estimated prevalence of TB cases is 600,000 and the estimated incidence is 450,000 new cases per year, with the number of deaths reaching 65,000 people per year [5]. The report of the Directorate General of PP & PL shows that the 2011 Case Detection Rate (CDR) of Pulmonary TB was 82.2%, with the number of new cases of 194,780 cases, and the coverage of patients who were declared cured of 80.4% and complete treatment of 6.3%, with a success rate (SR) of 86.7% [6].

Indonesia is in the third position of TB sufferers in the world until 2019 where the number of TB sufferers is 842 thousand cases found every year [7]. Cirebon 12 April 2019. Deli Serdang Regency, North Sumatra Province, data on the number of TB sufferers from 34 Puskesmas as many as 734 per 1,050,421 (35.12%) in women in 2017 [5]. Various efforts to control pulmonary TB have been explored and promoted, various complementary and innovative activities that empower national or international resources have also been implemented [8]. For example, collaborations on pulmonary TB and HIV control, patient management strategies, drug resistance, control of marginalized groups and vulnerable, increasing access to quality and availability of drugs, expanding quality care services, empowering communities and families through i social mobilization, health education, and effective ways to carry out TB care in the community, as well as increasing the independence of patients in care activities [9][5][10][10][8]

A preliminary study conducted in the working area of the Tanjung Rejo Percut Sei Tuan Public Health Center in Deli Serdang Regency with in-depth interviews with six housewives with pulmonary TB patients who expressed disappointment with their physical condition, due to weight loss, weakness, feeling sad because of frequent coughing and embarrassment due to illness. which he suffered. Since suffering from pulmonary tuberculosis, mothers cannot complete household chores and feel a burden such as sweeping, mopping, washing clothes and even cooking for family members. Meanwhile, the other three mothers said that the disease she was suffering from was a contagious disease. When communicating coughs, they feel alienated by family members. In general, the WUS said that they were bored with their illness and felt a burden on the family, and felt that their family did not pay attention to them.

To overcome these various problems, it is necessary to increase the knowledge and attitude of WUS regarding the prevention of tuberculosis transmission to both individuals and families [11] So far, the delivery of information about tuberculosis through lecture methods by cadres and health workers, however the level of knowledge and attitudes of WUS is still low. For this reason, it is necessary to make various efforts to improve the knowledge and attitudes of WUS with health education media that make learning more interesting, allow learning outcomes to be longer lasting and provide real experiences of the process of absorbing material using sight and hearing senses such as audio-visual animation media and books. pocket [12]

Several previous studies, such as research [13], stated that audiovisuals are an interesting media, educational aids that use them to stimulate the senses of hearing and sight, which can be played over and over again. The results of the study, effective to improve attitudes with video media with a duration of 10 minutes, the duration of the video influences someone's interest and absorption of information. The longer the video plays, someone's interest will increase.[14] ;[15]

The results of the study [16] show that there is an increase in the knowledge of respondents before and after getting education from pocket books. This can be seen from the difference after providing education using illustrated pocket books and in Madurese language, the majority of respondents have a high level of knowledge. Book media has the advantage of presenting a large number of messages or information. Messages or information can be learned by respondents according to their needs, interests and speed, each can be learned anytime and anywhere because they are easy to carry [17][17] [18]

The purpose of this study was to determine the effect of using pocket books and audiovisual animation on increasing knowledge and behavior of female prostitutes in preventing TB transmission. The hypothesis of this study is: There is an influence of pocket book media and audio-visual animation media on the knowledge and attitudes of fertile aged women towards the prevention and transmission of tuberculosis.

2   Method

The nonrandomized pretest posttest control group design quasi-experimental research design, by doing a pre-test before giving pocketbooks and audio-visual animation on prevention of tuberculosis transmission, then given treatment using pocketbooks and audio-visual animation, then post-test. The research location is in the working area of Tanjung Rejo Health Center, Percut Sei Tuan District, Deliserdang Regency. The population in this study were women who had tuberculosis in the working area of the Tanjung Rejo Health Center and the sample in this study was the entire population as a sample of 50 respondents. The sample criteria are: Women of childbearing age diagnosed with tuberculosis, who are undergoing tuberculosis treatment, WUS who use pocket books and audio-visual animation on prevention of tuberculosis transmission, have not read books and don't watch television related to the prevention of tuberculosis transmission, are willing to be respondents, Women of childbearing age aged 20-40 years, and domiciled in the working area of the Tanjung Rejo Community Health Center, Percut Sei Tuan District, Deliserdang Regency.

Collecting data on knowledge and attitudes by using a questionnaire through interviews, by first testing the validity and reliability. The questionnaire was compiled about the knowledge and attitudes of WUS in preventing the transmission of tuberculosis in WUS. The research implementation stage was by conducting a pre-test before the intervention and post-test after the intervention by providing pocket books and audio-visual animations about the prevention of tuberculosis transmission.

Data analysis was performed by statistical tests with a significance degree of 95%. The analysis was carried out, namely: 1) Univariate analysis to determine the frequency distribution and the average score of knowledge, the attitudes of WUS about the prevention of tuberculosis transmission. 2) Bivariate analysis was used to determine the effect of giving pocket books and audio-visual animation media on knowledge and attitudes of female prostitutes regarding the prevention of tuberculosis transmission. To see the increase in knowledge and attitudes of WUS about tuberculosis prevention infection, it was analyzed using the Paird T test, if the data were normally distributed and if the data were not normally distributed, the Wilcoxon test was used. To assess the effect of the Pocket Book and Animated Audio Visual on the Knowledge and Attitudes of Women of Fertile Age (WUS) regarding the prevention of tuberculosis transmission in the intervention group and the control group, the analysis was carried out using the Independeth T test statistical test if the data were normally distributed and the Mann Whithney test if the data were not distributed. normal.

3   Results

The Tanjung Rejo Community Health Center in Deli Serdang Regency has a working area of nine villages. Data from the Puskesmas report in 2019, the number of new cases of tuberculosis sufferers was 188 people, 92 male and female 86 sufferers but 50 respondents became the research respondents.

3.1   Characteristics of Respondents

Research that has been conducted on 50 fertile aged female respondents (WUS) on the effect of pocket books and audio visual animation on knowledge and attitudes in preventing tuberculosis can be seen in table 1.

Table 1. Characteristics of Fertile Age Women in providing pocket books and audio-visual- animation in the Tanjung Rejo Health Center working area

No	Characteristics	n	%
1	Age		
	20-30 year	26	52
	31-40 year	13	26
	41-50 year	11	22
2	Education		
	Primary School	21	42
	Junior high school	15	30
	Senior High School	13	26
	College / Bachelor	1	2
3	Profession		
	Housewife	29	58
	Entrepreneur	3	6
	Private Employees	8	16
	Government Employees	2	4
	Farmer	8	16

3.2 Knowledge and Attitude

The knowledge and attitudes of WUS in preventing TB transmission can be seen in table 2.

Table 2. Distribution of WUS Knowledge and Attitudes before and after giving the Pocket Book and audio-visual animation in the Tanjung Rejo Community Health Center working area

Category	Intervention			
	Before		after	
	f	%	f	%
Knowledge				
Good	3	6	14	28
Enough	22	44	27	54
Less	25	50	9	18
Attitude				
Positive	20	40	32	64
Negative	30	60	18	36
amount	50	100	50	100

3.3 Effect of pocket books and animated audio-visuals

The effect of pocket books and audio-visual animation on the prevention of tuberculosis transmission in the Tanjung Rejo Community Health Center can be seen in table 3.

Table 3. Distribution of WUS knowledge and attitudes in providing pocket books and audio-visual animation before and after the intervention in the Tanjung Rejo Community Health Center Work Area

Variable	Intervention				Control			
	Mean	Std	Min	Max	Mean	Std	Min	Max
Knowledge								
Before	51.12	19.09	10.00	93.00	51.28	15.49	10.00	80.00
After	67.00	10.74	50.00	80.00	52.76	14.86	20.00	100.00
Delta	15.88	22.17			1.48	5.22		
Attitude								
Before	50.00	24.74	30.00	80.00	46.90	26.10	15.00	100.00
After	89.40	41.21	35.00	120.00	58.40	27.76	10.00	100.00
Delta	39.40	47.71			11.50	12.05		

Table 3 shows that there was a change in the mean of knowledge before and after being given a pocket book and audio-visual animation of 15.88 in the intervention group, and changes in the mean attitude in the intervention group 39.40.

The effect of providing pocket books and audio-visual animation on the prevention of TB transmission in the Tanjung Rejo Community Health Center

Table 4 Effect Of Pocket Books And Audio-Visual Animation On Wus' Knowledge And Attitudes In Preventing Tuberculosis Transmission

Variabes		Intervention Med (25th-75thPercentile)	Control Med (25th-75thPercentile)	p value[b] between group
Knowledge				
Before		54.00 (40.00-66.00)	50.00 (40.00-66.00)	0.947
After		70.00 (60.00-80.00)	55.00 (40.00-66.00)	<0.01
Change		10.00 (0.00-34.00)	0.00 (0.00 – 5.00)	<0.01
p value[a] within group		< 0.01[a]	<0.06[a]	
Sikap				
Before		30.00 (30.00-80.00)	30.00 (23.75-72.50)	0.05
After		120.00 (35.00-120.00)	60.00 (32.50-80.00)	<0.01
Change		40.00 (5.00-90.00)	40.00 (5.00 – 90.00)	<0.01
p value[a] within group		< 0.01[a]	< 0.01[a]	

a. Difference within the groups (before & after) using wilcoxon test, at significant level of 5%
b. Difference between the groups (intervention & comparison) using Mann whitney test, at significant level of 5%

From table 4 it can be seen that in the intervention and control groups there was no difference in the mean knowledge through pocket books and audio-visual animation about the prevention of tuberculosis transmission, with a p value of 0.947. After the intervention there was an influence of knowledge through pocket books and audio-visual animation with p value <0.01. Likewise with attitudes, there is a difference in the mean knowledge of the intervention and control groups about the prevention of tuberculosis transmission with a p value <0.01 and there is also a difference in the mean knowledge of the intervention and control groups.

There was an effect of giving pocket books and audio-visual animation on attitudes in the intervention group with p value <0.01, while in the control group there was no difference in the mean attitude in the intervention group and the control group with p value 0.05. After being given the pocket book and video intervention in the intervention group, there was a difference in the mean knowledge of the intervention group and the control group with p value <0.01

4   Discussion

Characteristics of respondents based on table 1, the majority of respondents aged 20-30 years 52%. Age is one of the factors that can describe a person's maturity, both physical, psychological and social maturity. Age will affect a person's mindset, so that as a person ages, the more experience and information they have, so that later it will affect a person's attitude and behavior. The emotions of a person above 20 years of age have begun to stabilize and are able to solve problems and accept responsibility [19][20]; [21].

The majority of respondents' education is elementary schools as much as 42%, only two percent have high education. Low education generally has low abilities compared to those with higher education, has the ability to understand more quickly. Education is an effort to develop personality and abilities inside and outside of school and lasts a lifetime. Education will affect the learning process, the higher a person's education, the easier it is to receive clearer information [19]; [13].

Respondents' occupations are generally IRT (housewives) 58%, civil servants two percent. The results of this study are in line with [22] research, that WUS with the work of the IRT has a lot of free time so that the supervision becomes more optimal. Research by [23], the work of WUS does not affect compliance with tuberculosis treatment.

Based on table 2, the majority of WUS knowledge before being given a pocket book was less (50%) and sufficient (44%). This is in line with [24] research that education, occupation, age of a person greatly affects knowledge, to get information, for example things that support health so that it can improve the quality of life. The characteristics of the majority of respondents are primary school education, their occupation is a housewife, and the majority are 21-30 years old. Work also affects working mothers' knowledge which will have an influence on family life. According to Huclok, the more mature a person's level of maturity and strength will be in thinking and working. Age is one of the factors that can describe a person's maturity, both physical, psychological and social maturity. Age will affect a person's mindset, so that as a person ages, the more experience and information they have, so that later it will affect a person's attitude and behavior. [11].

The majority of respondents' attitudes before the intervention were negative (60%) and after the intervention the majority are positive (64%). Research [25] said that attitudes are influenced by personal experience to be the basis for the formation of attitudes, personal experiences must leave a strong impression, therefore attitudes will be easier to form if personal experiences occur in situations involving emotional factors, in addition to personal experiences. attitudes are also influenced by the mass media, in conveying information, pocket book media and audio-visual animation are needed [26] ; [27]. The advantages of pocket book media according to [28], can provide more information, It can be learned anytime and anywhere because it is easy to carry. Meanwhile, animation media has the benefit of making learning more interesting, allowing longer and lasting learning outcomes, providing real experiences [25].

Table 3 shows a change in the mean knowledge before and after being given pocketbooks and audio-visual animation in the intervention group of 15.88, and the control group at 1.48.

Changes in the mean attitude also occurred in the intervention group and the control group, namely 39.40 for the intervention group and 11.50 in the control group. Edgar Dale's cone, in (Nursalam and Efendi 2009) reading will remember (print media) 10% of the material read is the material being read, hearing will remember 20% of what is heard, seeing will remember 30% of what was seen, heard and seen will remember (audio-visual) 50% of what was heard and seen. In this study using a pocket book (printed media) and listening and seeing will remember (audio visual) will make it easier for respondents to know and remember about the prevention of tuberculosis transmission, good knowledge of 28% and sufficient knowledge of 54% and positive attitude of 64%. [29]. In delivering the material, it may not be optimal considering the limited time the respondent has in providing pocket books and audio-visual media.

Many factors influence the success of health promotion, including: education level, socioeconomic, customs, community trust, the availability of time from the community, especially female women who may have to take care of their children and families. This means that it is not absolutely just discussing the prevention of tuberculosis transmission but there are other activities [30].

From table 4 it can be seen, Before the intervention with pocket books and audio-visual animation, there was no difference in the mean knowledge in the intervention group and the control group with a p value of 0.947. After the intervention, there was an effect of giving pocket books and audio-visual animation on knowledge in the intervention group with p value <0.01. Before being given the pocket book intervention and audio visual animation, there was no difference in the mean attitude in the intervention group and the control group with p value 0.05. There is an effect of giving pocket books and audio-visual animation on attitudes in the intervention group and the control group with p value <0.01.

This is in accordance with several research results which state that providing pocketbooks and audio-visual animation can increase the knowledge and attitudes and behavior of WUS, so that prevention of tuberculosis transmission can be prevented through health education and awareness of WUS [31]; [32]. Health education can determine the success of the tuberculosis treatment program so that it does not spread to other family members [33][33][32]. The benefits of pocket books according to [34], can present messages or information in large numbers, messages or information can be learned by respondents according to their needs and interests, can be learned anytime and anywhere because they are easy to carry, pocket books are a learning media that convey health messages in the form of books containing text and pictures. The pocket book consists of several pages, is an interesting medium because it can stimulate the sense of sight so that it is easier to convey information and can be read at any time and easy to carry everywhere [14].

Audiovisual is an interesting medium, an educational aid whose use is to stimulate the senses of hearing and sight, which can be played over and over again [14]; [35]. In this study, the existence of animated audio-visual media with a duration of 10 minutes is effective for increasing knowledge and attitudes, the duration of the video will affect someone's interest and absorbing information. The longer the video is shown, one's interest will decrease [36]. Media that is no less interesting is the media booklet [13]). The results of this study are consistent with research conducted by [37] on the difference in the effect of counseling using print media and audiovisual media on increasing knowledge in tuberculosis sufferers. Research conducted by [38] on health education using the same media, namely poster and video print media, can increase maternal knowledge about tuberculosis and its prevention.

Based on the results of this study, health education can improve attitudes and behavior. Attitudes clearly show reactions to the suitability of stimuli in everyday life, attitudes are the willingness to act

and not the implementation of actions. The higher the knowledge, the higher the good attitude and will be formed, but attitude is a predisposition for the emergence of action [39].

5   Conclusion

The use of pocket books and animated audio-visuals on the prevention of tuberculosis transmission can increase knowledge and attitudes, there is a change in the mean knowledge and attitudes of women before and after being given pocketbooks and audio-visual animation to the intervention group and there is an effect of providing pocket books and audio-visual animation on knowledge and the attitude of WUS in the intervention group with p value <0.01. Pocket books and animated audio-visuals can be used as alternatives to provide health education to families and communities in an effort to prevent tuberculosis transmission.

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Improving Writing Skills Based on Developing Learning Models of *Non-Examples Examples, Think Talk Write* and *Mind Mapping* (Exwrimap)

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Abstract. The purpose of this study was to assess the improvement of students' writing skills in English by relying on a combination of three learning models Examples Non-Examples, Think Talk Write, and Mind Mapping which were later abbreviated as EXWRIMAP. It is a collaboration of existing models, namely: Examples non-examples model is a learning model that in the process relies on images, Think Talk Write is a learning model that motivates on students' writing skills, and Mind Mapping is a learning model that is considered to provide additional English vocabulary. The research methodology used is a research and development method with the ADDIE model. The study began with the performance analysis and needs analysis stages of Junior High School (Madrasah Tsanawiyah) students. The most common problem is writing skills in English subjects. It occurs because of the lack of students' English vocabulary which is difficulty in writing. The next stage is to design a draft of EXWRIMAP model based on the analysis results. To develop the model, the Delphi technique was judged by experts through Delphi 1 limited trial and Delphi 2. The Delphi process and limited trial need support from suggestions and input from experts for improvement and refinement of the model. The technique of collecting data fulfilled by observation, questionnaires, and test instruments for the test of the effectiveness of the model. They portrayed the students' enthusiasm for the application of the model, students' responses to the model, the feasibility of the model by experts and model teachers, the students' pretest and post-test scores. The results of Delphi 2 were a draft model that was tested by the implementation stage in two schools which were considered to represent all Junior High School in Citamiang District, namely: Junior High School (Madrasah Tsanawiyah) Sukabumi City and Junior High School (Madrasah Tsanawiyah) Ummi Kulsum. The same instrument was used and its result showed the increasing in students' writing skills in Language subjects. English with a score of 94.46 and 94.07 in the post-test. This showed the success of the research with the proven learning model EXWRIMAP can improve the writing skills of students in English subjects.

Keywords: Writing skill, the method of ADDIE, learning models of Examples non-Examples, Think Talk Write, Mind Mapping.

1   Introduction

The development of the quality of education has not been very significant despite the government's maximum efforts. Improvement must also be balanced with increased awareness

and personal competence of teachers which must also be improved in line with the development of education globally. Many teachers have not been able to apply what they have received from the training. Teachers still use the teacher-centered method because it is considered more practical and does not need tools or media. Most teachers do not have references and other teaching materials. Students are also not taught learning-strategies, they think and motivate themselves to achieve learning goals. It is an incomplete learning process and has not achieved educational learning objectives.[1,2,3]

Learning English is one of the subjects that teachers have difficulty in teaching grammar and vocabulary especially in writing skill. Moreover, it is conveyed in a conventional teacher-centered way, it is increasingly difficult with very minimal vocabulary mastery, and the teacher's ability to make all students absorb the learning and also determines the success of achieving the learning goals.[4]

The purpose of learning English in junior high school is to develop the potential of students to have communicative competence in interpersonal, transactional, and functional discourse, using accurate and acceptable language elements, regarding various factual and procedural knowledge, and instilling noble character values nation, in the context of life in the home, school, and community environment. Students should be able to apply their ability to express what is understood both verbally and in writing [5,6]. Automatically, if students can express their understanding in oral or written form, it will have an impact on the acquisition of significant values, namely reaching or even exceeding the grade achievement that has been determined by the school.

To achieve this goal is not easy, mainly to form learning subjects that can build the ability to explore from simple to higher-order thinking, with a process from being teacher-centered to being student-centered. So far, in the teaching and learning process, teachers are still predominantly applying conventional learning, through the lecture method, not providing opportunities for students to be active, building thinking skills and independently developing their potential. Learning activities at this time are still dominated by teachers and tend to apply the lecture method so that in learning the atmosphere that is created tends to be centered on the teacher and students become passive and only listen to or receive information.[7,8.9]

The fundamental factor for the difficulties felt by students in learning English is the lack of vocabulary because most students are passive speakers, which means students rarely communicate using English.

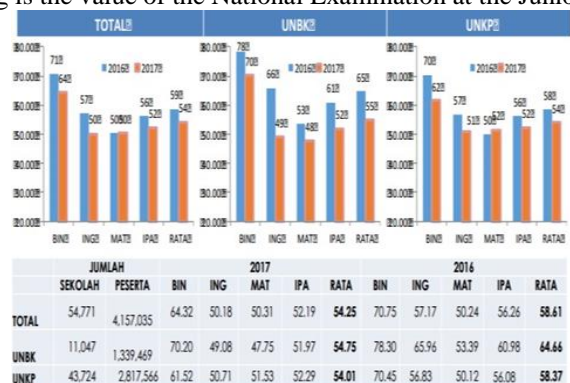The following is the value of the National Examination at the Junior High School level:

	JUMLAH		2017					2016				
	SEKOLAH	PESERTA	BIN	ING	MAT	IPA	RATA	BIN	ING	MAT	IPA	RATA
TOTAL	54,771	4,157,035	64.32	50.18	50.31	52.19	54.25	70.75	57.17	50.24	56.26	58.61
UNBK	11,047	1,339,469	70.20	49.08	47.75	51.97	54.75	78.30	65.96	53.39	60.98	64.66
UNKP	43,724	2,817,566	61.52	50.71	51.53	52.29	54.01	70.45	56.83	50.12	56.08	58.37

Figure 1. The Data for The National Examination Scores per Subject

In learning English, the fundamental problem is because students do not understand the meaning of the vocabulary to make text or questions that are read or answered, and this problem is experienced by almost all students at all levels. Writing skills in English are important to facilitate communication in today's digital age.

The following problems were identified:

a. The achievement of students' writing skills in English has not been maximal.
b. The low learning motivation of students to learn English
c. The low English vocabulary of students
d. Lack of teacher understanding of the characteristics of students
e. The number of teachers who still use conventional learning methods
f. Lack of teacher competence in the learning model.
g. The students lack enthusiasm in understanding English because English is a foreign language for Indonesian people.

2 Methods

This research activity was carried out in the area of Citamiang District, Sukabumi City, at 1 State Junior High School and 2 private Junior High Schools in the Citamiang District, Sukabumi City, West Java Province. The researchers collaborated with English teachers who were members of the English Group Teacher as partners. In the implementation of the trial, the learning model will be carried out by three model teachers from members of the English Group Teacher whose schools are asked to be the places for limited model trials and extensive trials.

Research and development methods are used to produce certain products and test the effectiveness of these products. This type of research is different from other educational research because the aim is to develop products that are suitable for use. Research starts from a potential or problem. Potential is anything that if utilized will have added value.[10]

According to Benny (2014), the ADDIE model is used to design a learning system. The activity stages contained in the following are given examples of activities at each stage of developing a learning model or method, namely:

a. Analyze (Analysis)
b. Design (Design)
c. Develop (Development)
d. Implement (Implementation)
e. Evaluating (Evaluation)

3 Result and Discussion

3.1 Delphi Technique 1

After drafting the development of the EXWRIMAP learning model (Examples non-examples, Think Talk Write and Mind Mapping), expert judgment is carried out using the Delphi I technique, expert judgment for learning materials for the EXWRIMAP model has ready to examine it.

Furthermore, the draft EXWRIMAP model is revised by the suggestions and input provided by the experts, both content experts and expert models, by revising the Lesson Plan and validating the material and model so that accepts from expert judgments can be obtained for the material and the model is suitable to get limited trial.

Limited trial activities are in the model development stage, where the model will be trialed in one school to see how far this model can solve problems and to what extent this model can achieve the target of learning objectives. It is as well as to test whether this model can make learning run on time or later. By doing the trial limited to one school, experts can assess and find shortcomings and can provide suggestions and input as material for the development of the EXWRIMAP learning model.[11,12]

The subject matter in the second learning limited trial was writing too short and simple descriptive text. The learning activities undertaken consisted of four stages; observe, ask questions, gather information, process. The teacher first makes apperception, of course, after praying together, then the teacher greets students to check the readiness of students in learning and then takes students one by one to find out the whereabouts of students. After that, the teacher explains the descriptive text. In the activity of observing the teacher, conveying the competencies to be achieved, explaining the purpose of learning and group assignments, then the teacher provides a picture of *My House* for students to observe.

Figure 2. Limited trial implementation at Junior High School, in Sukabumi
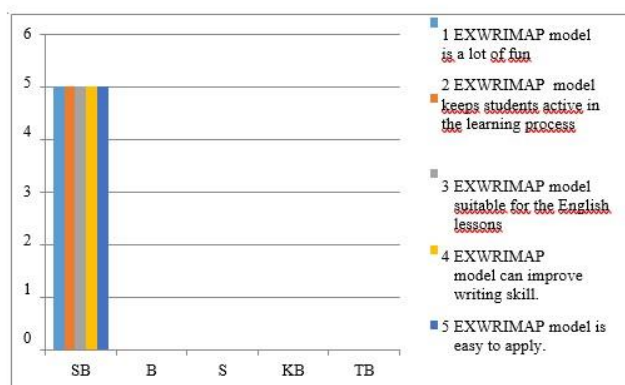
Figure 3. Feasibility test of the EXWRIMAP by the model teacher.

The graphic above explains the assessment of the model teacher towards the EXWRIMAP learning model, the model teacher assesses this model as a lot of fun, in the learning process it makes students as the subject of active learners. It is also considered suitable for the characteristics of English subjects. It can improve the writing skills of participants students, and easy for teachers to apply.

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3.2 Delphi Technique II

After reflection on the EXWRIMAP development model (Examples non -Examples, Think Talk Write and Mind Mapping), the Delphi II technique was carried out with expert judgments for the EXWRIMAP learning model (Examples non-Examples, Think Talk Write and Mind Mapping) and expert judgment for Model learning content EXWRIMAP.

The topic of the second broad trial of learning was writing a short and simple descriptive text about *My House*. The learning activities undertaken consisted of four stages; observe, ask questions, gather information, process. The teacher first makes apperception, of course, after praying together, then the teacher greets students to check the readiness of students in learning and then takes students one by one to find out the whereabouts of students. After that, the teacher explains the descriptive text. In the activity of observing the teacher, conveying the competencies to be achieved, explaining the purpose of learning and group assignments, then the teacher gives images of *My House* to the students to observe.

In the activity of asking, the teacher to display the pictures, while students are listening to the pictures, then the students and their groups work together to find the keywords that are implied in the picture and students are welcome to write the words found.

In the activity of gathering information, students make individual small notes about the pictures. Then they write the keywords for each branch and develop the main branches with curved lines using the colorful markers provided. Furthermore, they use one keyword to make a sentence which is then arranged into a paragraph.

In processing activities, students and their groups work together to discuss the contents of the notes (talk process), then individually make writing (writing process) in their language into descriptive text. [13]

Figure 4. Implementation of extensive trials at MTs Ummi Kulsum

Based on the results of limited and extensive trials and testing the effectiveness of the model by Expert Judgment, the recommended learning model EXWRIMAP was created a result of the collaboration of the Examples non-examples and Think, talk, write and mind mapping models that have been modified. The EXWRIMAP learning model emphasizes the development of students' thinking and imagination, alertness and accuracy, and activeness during the learning process and trains students to work with others. The characteristics of EXWRIMAP model are: first, in the process it is carefully observing images that indirectly train students to utilize the sense of sight to obtain information. Second, enriching vocabulary because students directly look for the words implied in the image and encourage the students to look for the meaning of the word in English. Third, it is innovative and independent in the sense of motivating the students to find their vocabulary and translate it themselves. Fourth, think fast and be active

because students are required to move fast, be active, and be precise in arranging pictures and sentences.

One of the advantages of the EXWRIMAP learning model is that students actively become the subject of independent learners, starting with students observing images to get implied words, discussing with the group to find out what it means in English, discussing with the group to arrange words into sentences that describe images and think critically by assessing the results of other groups with the students can better understand the subject matter of learning.

Based on the data, the student's writing skill writing is a language skill that requires the practitioner to be skilled in using vocabulary and language structures.[14,15]

Learning that is carried out both during limited and extensive trials can not only improve students 'writing skills but also increase students' enthusiasm in learning English. Based on the data above, it can be concluded that the enthusiasm of students when learning using the EXWRIMAP model in all trials can be categorized as high. Students are actively involved with a pleasant classroom atmosphere so that students become confident in expressing ideas and being creative in developing strategies to work together in solving problems [16,17].

4   Conclusion

The result of the model development process that has been implemented and model validation by Expert Judgment through research and development (Research and Development), it is recommended the model named EXWRIMAP Learning Model (Examples non-examples and Think, talk, write and mind mapping).[18,19,20]

The EXWRIMAP learning model is a learning model designed to answer learning problems and ability gaps that are commonly found in the learning process. This model was born from a collaboration of two existing learning models (Examples non-examples and Think, talks, write and mind mapping) which are expected to make the learning process more interesting, increase enthusiasm in learning, and be effective in delivering teaching materials.

It is shown that the average Writing Skill score has been increasing, that learning English using the EXWRIMAP learning model can improve students' enthusiasm for learning and significantly increase the value. It can be said that the research and development that has been carried out is successful.

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Correlation of Knowledge and Attitude with Compliance with Druging in Lans with Hypertension in Regions Work of Poigar Public Health Center

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Abstract. (Hypertension is a degenerative disease, which is found more in the elderly. With increasing age it causes physiological changes in various organs of the body, especially the circulatory system, one of which is stiffness in the arteries so that blood pressure tends to increase. In addition, the increasing age of the elderly, the ability to think such as remembering begins to decline and affects knowledge and attitudes about medication adherence. The purpose of this study was to analyze the relationship between knowledge and attitudes with adherence to taking medication in the elderly with hypertension at Poigar Public Health Center. This research is an analytic survey research with a cross sectional approach. The sample consisted of 43 elderly people with hypertension and taking hypertension drugs. Data analysis used chi square statistical test. The results of the correlation analysis showed that knowledge was related to medication adherence in the elderly with hypertension ($p = 0.003$) and attitude was related to medication adherence in the elderly with hypertension ($p = 0.000$). So it can be concluded that knowledge and attitudes are related to adherence to taking medication in the elderly with hypertension at Poigar Public Health Center. It is advisable for the elderly to routinely have their blood pressure checked and take hypertension medication regularly as well as actively participate in health education conducted by health workers during visits to the elderly posyandu at the Puskesmas.

Keywords: Knowledge, Attitude, Elderly, Compliance with Hypertension Medication

1   Introduction

The success of development is the aspiration of a nation which can be seen from the improvement of the standard of living and life expectancy (UHH) / life expectancy (AHH). However, increasing life expectancy may result in an epidemiological transition in the health sector due to increased morbidity due to degenerative diseases such as hypertension [1]. Hypertension or what is known as high blood pressure is a condition in which there is an increase in blood pressure above the normal threshold of 120/80 mmHg. According to the WHO (Word Health Organization), the blood pressure limit that is considered normal is less than 130/85 mmHg. If the blood pressure is more than 140/90 mmHg, it is considered hypertension (this limit is for adults over 18 years). The World Health Organization (WHO) said that the number of hypertension sufferers will continue to increase along with the increasing population in 2025, an estimated 29% of the world's population is affected by hypertension. WHO says that developing economies have hypertension sufferers by 40%, while developed countries only 35%, Africa holds the top position for hypertension sufferers, which is 40%. America region by

35% and Southeast Asia 36%. Asia region this disease has killed 1.5 million people every year. This indicates that one in three people suffer from hypertension [2]. The main results of the [3], concluded that the prevalence of hypertension in the Indonesian population over the age of 18 years based on a doctor's diagnosis was 8.4% of hypertension sufferers, 8.8% of hypertension sufferers took medication, and 34.1% population measurement results [3]. According to the Department of Health and Human Service [4], hypertension is found in 60-70% of the population over 65 years of age. Elderly over 80 years of age often experience persistent hypertension, with persistent systolic pressure above 160 mmHg. The typical type of hypertension often found in the elderly is Isolated Systolic Hypertension (ISH), where the systolic pressure is high (above 140 mmHg), but the diastolic pressure remains normal (below 90 mmHg). The elderly are at high risk for degenerative diseases such as coronary heart disease (CHD), hypertension, diabetes mellitus, gouth (rheumatism) and cancer. One of the diseases suffered by the elderly is hypertension. The prevalence of hypertension increases with age. Increasing age causes various physiological changes in the body such as thickening of the artery walls due to collagen buildup in the muscle layer, so that blood vessels gradually lose their elasticity and become stiff, increasing the risk of atherosclerosis. In old age there is also a decrease in the elasticity of the peripheral blood vessels which will increase the resistance of the peripheral blood vessels which in turn will increase the occurrence of systolic hypertension. Elderly people often develop hypertension due to stiffness in the arteries so that blood pressure tends to increase. Older people who are getting older are likely to have decreased intelligence and ability to accept or remember. The increasing age of a person can have an effect on the increase in knowledge gained, but at certain ages the ability to receive or remember knowledge will decrease. Knowledge of hypertensive sufferers will be closely related to the attitude to comply with treatment because the higher the knowledge, the desire to comply with treatment will also increase. Research conducted [5], at the Drupadi Elderly Posyandu towards 70 elderly people with hypertension, concluded that there is a significant relationship between the level of adherence of the elderly about hypertension with adherence in taking medication, the higher a person's level of compliance with hypertension, the higher also the level of adherence in taking medication. Adherence in undergoing treatment is needed to detect early complications of hypertension. Based on the initial survey conducted by the author on March 26, 2019 at the Poigar Public Health Center, 43 elderly with hypertension came for treatment. Based on interviews with puskesmas officers, it was stated that there were some elderly people who did not comply with their treatment. This of course requires proper handling and identifying whether knowledge and attitudes are related to elderly disobedience in taking medication at Poigar Public Health Center.

2   Research Methods

This research is an analytical survey research with a cross sectional approach in which data concerning the independent variable or independent variable and the dependent or dependent variable are collected at the same time [6]. This research has been carried out in the working area of the Poigar Public Health Center. The population in this study were all hypertensive elderly who sought treatment at the Poigar Public Health Center in the time interval from May to July 2019, totaling 43 elderly people who took hypertension medication, sampling with total sampling, that is, the entire population is sampled and fulfills the inclusion criteria. Instruments in primary data collection with using a questionnaire consisting of demographic data of respondents and questions about the knowledge and attitudes of the elderly about adherence to taking hypertension medication. Data analysis is univariate analysis to determine distribution

the frequency of each variable while bivariate analysis to determine the relationship or correlation between the independent and dependent variables using SPSS version 22 software and the statistical test used is the chi-square test, one of the statistical tests to determine the relationship between variables and categorical data types.

3   Results

3.1   Characteristics of Respondents
The distribution of respondent characteristics can be seen in Table 1, as follows:

Table 1.

Characteristic of Responden	n	%	
Age			
60-69 Years	30	69.8	
70-90 Years	13	30.2	
Gender			
Male	16	37.2	
Female	27	62.8	
Education			
primary school	34	79.1	
Junior high school	9	20.9	
profession			
Fisherman	10	23.3	
Farmer	5	11.6	
housewife	28	65.1	
Total	**43**	**100**	

Based on Table 1 above, it can be seen that the elderly age category is mostly aged 60-69 years as many as 30 or 69% of respondents. Most of the sexes were women as much as 27 or 62.8%. Most of education has SD education as much as 34 or 79.1%. Most respondents work as housewives (IRT) as many as 28 or 65.1%.

3.2   Univariate Analysis
Univariate analysis to see the distribution of each variable can be seen in Table 2 as follows:

Table 2.

Univariate Analysis	n	%	
Knowledge			
Poorly	4	9.3	
Good	39	90.7	
Attitude			
Poorly	5	11.6	
Good	38	88.4	
Obedience			
Obedient	38	88.4	
Not obey	5	11.6	
Total	**43**	**100**	

The data in Table 2 shows that most respondents have good knowledge as much as 39 or 90.7%. Based on the attitude, most of the respondents had a good attitude as much as 38 or

88.4% and the level of compliance of most of the respondents had an obedient attitude as much as 38 or 88.4%.

3.3 Bivariate Analysis

a. The Relationship between Knowledge of the Elderly and Compliance with Hypertension Medication at Poigar Public Health Center can be seen in Table 3 as follows;

Table 3.

Knowledge of the elderly	Compliance with hypertension medication				Total	%	P Value
	Not Obey		Obedient				
	n	%	n	%			
Poorly	3	7.0	1	2.3	4	9.3	
Good	2	4.7	37	86.0	39	90.7	0.003
Total	5	11.6	38	88.4	43	100	

The data in Table 3 above shows that of the 4 respondents with insufficient knowledge, 3 or 7% of respondents did not obey in taking hypertension medication while 1 or 2.3% of those who obeyed took hypertension medication. The data also shows that of the 39 respondents with good knowledge, 2 or 4.7% of respondents who are not obedient to take hypertension medication while those who are obedient in taking medication are 37 or 86% of respondents. Judging from the significance value (probability) of 0.003 less than α 0.05 (0.003 <α 0.05), then Ha is accepted or there is a relationship between knowledge and elderly compliance in taking hypertension medication at Poigar Public Health Center.

b. The Relationship between Elderly Attitudes and Compliance with Hypertension Medication at Poigar Public Health Center can be seen in Table 4 as follows:

Table 4.

Attitude of the Elderly	Compliance with hypertension medication				Total	%	P Value
	Tidak Patuh		Patuh				
	n	%	n	%			
Poorly	4	9.3	1	2.3	5	11.6	
Good	1	2.3	37	86	38	88.4	0.000
Total	5	11.6	38	88.4	43	100	

The data in Table 4 above shows that out of 5 respondents with insufficient attitudes there were 4 or 9.3 respondents who were not obedient in taking hypertension medication while those who were obedient were 1 person. The data also shows that of the 38 respondents with a good attitude as much as 1 or 2.3% of respondents who are not obedient in taking hypertension medication while those who are obedient in taking hypertension medication are 37 or 86%. while those who obeyed in taking medicine were 37 or 86% of respondents. Judging from the significance value (probability) of 0.000 less than α 0.05 (0.000 <α 0.05), then Ha is accepted or there is a relationship between attitude and

adherence to the elderly in taking hypertension medication at Poigar Public Health Center.

4 DISCUSSION

4.1 The Correlation Between Elderly Knowledge and Compliance with Hypertension Medication at Poigar Public Health Center.

Based on the bivariate analysis using the Chi Square statistical test, the value of $\rho = 0.003$ was obtained. The value of $P < \alpha$ 0.05 indicates that there is a relationship between knowledge of the elderly and adherence to taking medication at Poigar Public Health Center. This means that the better the knowledge of the elderly about hypertension, the more obedient the elderly will be in taking hypertension medication. This is supported by univariate data analysis showing that most respondents have a good knowledge category, in this case the elderly understand and understand about hypertension, its causes, symptoms, complications and prevention of hypertension. Although most of the elderly have low education, namely primary school education, knowledge of the elderly about health is not only obtained from formal education but health information can also be obtained from family, health workers, neighbors. Education is the guidance that someone gives to others in order to understand hypertension and management or treatment of hypertension. It cannot be denied that the higher a person's education, the easier it is to receive information and in the end the knowledge he / she has will increase, with more information received, the more knowledge about adherence to taking hypertension medication [6], defines knowledge as the result of knowing and occurs through one's five senses (sensing) towards a certain object, namely through the senses of sight, hearing, smell, taste and touch. In this study, it was also found that there were still 2 people with good knowledge but disobedience, this could be due to the low or lack of information that the elderly got. In addition, treatment adherence to hypertension sufferers can be influenced by age where in old age there is a decrease in cognitive function so that it affects the ability of the elderly. in remembering so that it does not adhere to hypertension treatment. [1], explained that in this case, a process called the aging process will occur. The aging process is a life cycle characterized by the stages of decreasing various functions of the body's organs, which is marked by the increasing vulnerability of the body to various diseases that can cause death, for example in the cardiovascular system and blood vessels, respiratory, digestive, endocrine and so on. The results of this study are in line with research conducted by [5] at the Drupadi Elderly Posyandu towards 70 elderly people with hypertension, concluding that there is a significant relationship between the level of adherence of the elderly about hypertension with adherence in taking medication, the higher the level of one's adherence to the disease. hypertension, the higher the level of compliance in taking medication. Likewise, research conducted by Rachmayanti at Posyandu Melati, Ampel Village, Surabaya City on 50 elderly people shows that there is a relationship between knowledge and blood pressure control measures in the elderly. Knowledge of hypertension sufferers will be closely related to adherence to treatment because the higher the knowledge, the desire to comply with treatment will also increase.

4.2 The Correlation Between Elderly Attitudes and Compliance with Hypertension Medication at Poigar Public Health Center.

Based on the bivariate analysis using the Chi Square statistical test, the value of $\rho = 0,000$ was obtained. The value of $P < \alpha$ 0.05 indicates that there is a relationship between the attitude of the elderly and adherence to taking medication at the Poigar Health Center. This means that the better the attitude of the elderly, the more obedient in the treatment of hypertension. Attitude is a response based on the assessment or tendency of the elderly to act to comply with treatment.

The good attitude of the elderly can be seen in filling out the questionnaire that most respondents agree to have their blood pressure checked at the health center, especially if they feel dizzy, have blurred vision, have heavy necks, reduce ready-to-eat food such as canned food or salted food, get more rest to reduce the burden on thoughts can cause blood pressure to rise. Although there are still respondents with an attitude that is not obedient to treatment, this can be caused by busyness or activity. The respondent's busyness can be a trigger in skipping the medication schedule so that the target of treatment is not achieved, in this case there are respondents who work as fishermen so they forget to take medicine or don't take medication at all. The results of this study are supported by research [7] concluded that there is a relationship between the level of adherence with a job on hypertensive patients at the first level health facilities in Bandung City. states that the busyness or activity of an individual is a variable that can be a trigger in skipping the medication schedule so that the treatment target is not achieved. In this study there was also 1 respondent with a lack of attitude but obedience to the treatment of hypertension because of the desire of the respondent to recover, so that any information provided by health workers was acceptable so that the respondent would comply with hypertension treatment. The results of this study are in line with research conducted by [2], in the upstream village of Pancur Batu District towards 108 respondents, showing a significant influence between attitudes towards hypertension disease. In accordance with the theory put forward by Newcomb in [8] that attitude is a person's assessment of stimuli. A person's attitude will affect health behavior. If an individual has a good attitude towards a stimulus or health object, he will have an attitude that shows or shows, accepts, recognizes, approves and implements the norms that apply where the individual is located. Conversely, if he has a bad attitude towards a stimulus or health object, then the individual will have an attitude that shows or shows rejection or becomes vulnerable to disagreeing with the prevailing norms where the individual is, supported by Green's theory in [9] which states that attitude is part of the predisposing factors that influence a person's behavior.

5 Conclusions and Suggestions

5.1 Conclusion
Based on the results of research and discussion of the relationship between knowledge and attitudes of the elderly with adherence to taking medication at the Poigar Public Health Center which was carried out from May to July 2019, conclusions can be drawn:
a. Knowledge of the elderly about adherence to taking hypertension medication at Poigar Public Health Center is in the good category as many as 39 (90.7%).
b. The attitude of the elderly about adherence to taking hypertension medication at Poigar Public Health Center is in the good category 38 (88.4%).
c. Elderly compliance in taking hypertension medication at Poigar Public Health Center is in the good category 38 (88.4%).
d. There is a correlation between knowledge of the elderly and adherence to taking hypertension medication at Poigar Public Health Center (p = 0.003 <. A 0.05)
e. There is a correlation between the attitude of the elderly and adherence to taking hypertension medication at Poigar Public Health Center (p = 0.000 <. A 0.05)

5.2 Suggestion
a. For the elderly
It is hoped that the elderly will be more proactive with various counseling conducted by health workers, especially those with less knowledge and attitudes and not only limited to

hypertension but other degenerative diseases. The elderly must routinely have their blood pressure checked at the nearest health facility.

b. For community health centers
    It is hoped that health workers will make a health education program, especially to conduct intensive counseling about the dangers of hypertension and how to prevent it, not only for the elderly but generally for the community.

c. for researchers
    Other authors can conduct further research by looking at factors regarding compliance with hypertension treatment such as family support, elderly access to puskesmas, economic level, and other characteristics of the elderly.

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Increasing MSMEs Performance by Utilization of Accounting Software

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Abstract: National MSMEs currently have an important role in the Indonesian economy. Its growing number makes competition even tougher. The problem with the financial management of MSMEs isthat the majority of MSMEs still use financial management traditionally, meaning the accounting information system is still not implemented. The reason it is not used by this accounting system is that in addition to assuming the accounting system is a complicated problem, using accounting services is also considered a waste because it requires not a little funds. On the other hand, with the rapid development of information technology, MSMEs businesses are also required to keep up to date with that development. Therefore, to improve business performance, MSMEs businesses must be able to adapt to technological developments. One of the necessary digitization processes in MSMEs business isthe preparation and management of financial statements using accounting software. This is because the company's accounting process is an important activity for the smooth running of a business. The assessment of an MSMEs business can be smooth or can not be known from how the accounting report is drafted. In addition, from financial statements and accounting processes the company can be known that the company is in good health or not. The solution to this problem is with the use and utilization of accounting software, because in addition to its easy application, it is also quite cheap.

Keywords: Accounting, Accounting software; Performance; MSMEs

1 Introduction

Manuscripts one of the most common reasons when MSMESs go out of business is a mistake in the financial management process. It proves that financial management is important if the business wants to keep running. Errors that occur in the process of recording financial statements sometimes have a huge impact on the entire business. For example, such as the mistake of calculating profit and loss, which results in MSMES actors not realizing that the amount of debt turns out to be higher than the amount of profit. These mistakes can actually be solved by using accounting software, so that the adverse impact on MSMES business can be anticipated. By using accounting software, MSMES owners can evaluate performance results with the data attached to the accounting software. Besides being able to know the details of money in and out, they also become highly competitive and can leave competitors who are not aware of the importance of accounting. If not applied as quickly as possible,then the MSMES actors may be out of competition,because the amount of profits and losses of the company is not recorded with the correct structure. Accounting software is a program that can help businesses to compile cash flow and calculate income-expenses practically without having to understand about accounting.

The accounting process of the company is a very important thing for the smooth running of a business. The assessment of a MSMES business is said to be smooth or not, it can be known from how the preparation of business accounting report. In addition, from the financial statements in the accounting process of the company can be known whether the company is in good health or not.

In terminology, financial and accounting information is very closely related. Financial information or often known as accounting information is information yang provided by the accounting system yang made by accountants. This information is usually represented in the form of financial statements, such as income statements and balance sheets. This information also includes all the financial ratios generated from these financial statements. Meanwhile, accounting itself is essentially the measurement, decomposition, and communication of financial information from economic entities. Although there are various definitions of accounting that have been put forward by experts, the term accounting is often likened to financial reporting. Accounting itself can also be seen as a financial information system. Warren, et al [1] argues that accounting can be defined as an information system because it processes and processes data yang where information as *input* yang *produces output in the* form of information from accounting yang can be used by interested parties yang, be it yang comes from internal or external yang aims to know the financial activities and performance of a business. Furthermore, Rommey and Steinbart [2] more clearly define the accounting information system specifically as a system yang collect, record, stores and process data in order to produce information yang useful for decision makers.

This study aims to discuss and study the effect of accounting software on MSMES work performance which includes: profit calculation, transaction recording, and financial statements.

2   Methods

This study uses descriptive approach as a method in which we describe conditions based on the facts. Theoretically, descriptive method is an approach that tries to seeks solutions from existing problems. We present, analyze, and interpret the data, and then we conclude and provide recommendations.

3   Result and Discussion

To ensure the success of financial management yang good, owners and managers of MSMESs need to be more oriented strategically and this requires improvement in financial information management yang can open greater business opportunities yang. In this context, the assistance of information technology in the form of Computerized Accounting System or CAS. CAS is very necessary. Gorton [3] found that yang companies make financial planning when starting a business and use CAS is likely to have a high probility to grow better. These findings are supported by other research, such as Smith [4] found that the use of information technology will improve the company's performance in the rate of return on capital and sales per car cloud yang higher. Similarly, Reid and Smith [5] believe information processing played an important role for the success of the company. Furthermore, because the growth of MSMESs has an impact on increasing financial challenge yang faced by the company, McMahon [6] argues that there is a great need to give

attention yang carefully to financial management and financial reporting if MSMESs yang grow want to succeed well and progress. He continued concluded that the improvement of supervision and financial management in MSMESs growing should start from improving the quality of yang significant from the financial reporting system.

In Indonesia, several studies on MSMEs also indicated similar problems with occurredin many other countries [7]. Similar to previous studies, Iriayanti and Azis [8] found that in addition to business competition and high energy prices, financial access is one of the main obstacles of ten problems faced by MSMESs in six regions in java Island (Jakarta, Banten, West Java, Central Java, Yogyakarta, and East Java). In more than 180 researched MSMESs, 62% consider the lack of capital as caused by slow business growth. The respondents argued that financial institutions do not favor them, because there is a lot ofdifficulty when they try to apply for credit frombanks due to the complexity of prerequisites that can not be met by MSMESs. Therefore, it is necessary to improve the provision of information, especially finance in accordance with *accounting standards and financial auditing (auditing)* that can facilitate the MSMESs access to financing.

To meet the needs of MSMES business owners in Indonesia, accounting software needs to meet established standards. These standards not only facilitate the accounting process, but also help companies to comply with theapplicable regulations in Indonesia. For example, for companies engaged in sharia transactions, the standards set are different from other accounting systems. So to be able to manage the accounting of companies with sharia transactions required accounting software that meets the Indonesian accounting system. Broadly speaking accounting software has the understanding ofcomputer programs that serve to facilitate therecording of transactions and other accounting activities. Forms of accounting activities are various financial related records, such as debtreceivables, capital, assets, costs, and so on. The recording is also inseparable from the activities of making invoices, compiling financial statements, asset management, stock management of goods, and reconciliation of goods. Through computer accounting program, all these activities can be completedeasily. In the absence of an accounting program, business owners and financial managers will spend a lot of time making financial statements and the like.

Before there was accounting software, all tasks related to finance and accounting were done manually. Record sales transactions,send invoices, up to the calculation and creation of financial statements. The company's finance department must enter thedata carefully one by one to prevent errors from occurred.

From the results of several studies obtained the application of accounting software inMSMES businesses provides the benefits:

a. Work on financial statements can be done in a short time. Keep in mindthat financial statements are a crucial aspect for the company.

b. Errors in the work of financial statements will result in losses to the company. Through accounting programs whose systems run automatically, errors caused by human error can be minimized.

c. If something happens, it is only required to correct the inputted data, and there is no need to repeat the entire calculation process from the beginning. In time and energy of course this is more effective.

d. When all accounting-related work runs automatically, it will improve the productivity and performance of the company. This means that employees no longer need to do administrative work so that they focus more on strategic work.

e. Accounting software is able to support the decisions that will be taken by the company. This is because all data stored in the computer system can be used as supporting data.

4 Conclusion

From the above discussion, it can be concluded that the role of accounting software is very important for the advancement of MSMES business, especially in increasingly tight competition conditions. There is almost no negative effect on the company from the use of this accounting software, so there is no risk whatsoever to be used in MSMES companies. However, from several types of accounting software that are currently widely offered, MSMES businesses need to carefully choose the software to suit the needs in their companies.

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Writing Literacy to Accelerate Student's Interior Design Innovations for New Normal

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Abstract. The Covid 19 Pandemy has impact nearly all aspects of life, including education. While social interaction are being limited and most of activities are done from home, interior designers are still have to do their main job, which is to create a built environment accourding to current human needs. The availability of internet as a source of vast information help designers to keep up to date with the the newest issues. Writing literacy become imperative as designers need to constantly create design solutions based on multidisiplin researches. However writing literacy needs to form as a habit since the undergraduate curicculum. This paper discuss the undergraduate students design process which very dependent on writing literacy as a part of design method. The result of this paper are expected to be a reference for teaching and learning approach of similar courses.

Keyword: Innovations; Interior Design; New Normal; Writing Literacy

1 Introduction

Interior designers work to create built environments that facilitates human activity such as living, working, studying, recreation, etc. It is an interior designers main role to have awareness to what is needed to be accomodates into the design. As it is a response to the needs, either it is cultural, functional, aesthethical etc. Not only because we spend our lives mostly indoors "it is due to the fact that interiors surround us. We do not merely pass them on the street; we inhabit them.. we become its content" [1]

Himpunan Desainer Interior Indonesia (HDII) or The Associaton of Indonesian Interior Designer is a professional organisation of Indonesian Interior Designer. It is a member of Interaction Federation of Interior Designer/Architects (IFI) in 1985, therefore HDII referrring to IFI as in defining a professional interior architect/ designer which are stated in www.ifiworld.org as qualified, by education, experience and applied skills, accept the following responsibilities:

a.   Identify, research and creatively solve problems pertaining to the function and quality of the interior environment

b.   Perform services relating to interior spaces including programming, design analysis, space planning, aesthetics and inspection of work on site, using specialized knowledge of interior construction, building systems and components, building regulations, equipment, materials and furnishings

c.   Prepare schematics, drawings and documents relating to the design of interior space in order to enhance the quality of life and protect the health, safety, welfare and environment of the public

As stated above it is clear that an interior designer needs to enhance the qualitiy of human life and in the process needs to identify, research and creatively solve problems. Designers

mostly communicate through visual media and find it difficult to verbalize design as design process is intuititive and non-conscious. However, Robert Haddad in his journal emphasize on the fact that current clients also demand for a well researched designer [2], to ensure the success of the design outcomes. Hence writing literacy is a must and should be installed as a habit for interior design students.

The development of technology, internet and social media contribute to the escalation of changes in human activity which impact the change of human culture. For example: The latest is the appearing of online driver service applications which indulge public with personal services range from car driver, food buying and delivery service, groceries shopping, etc. The application is very successful because it helped many people finding job ar additional income. Hence, many interior buildings is replanned to specially catter the online drivers. [3]. This changes, forced lecturers to adjust studio or project task and specifications. Formal interior design references book and researches has yet to catch up, hence studentts are guided to do independent research based on blogs, article or visual information to define the reference to which they develop their design.

Another sudden change in human's activity is the appearance of Covid 19 pandemy which change the way people live, work and interact with each other. Interior design could not be change in a fast manner. Change in interior have a costly implications as it related to change in interior elements like furniture, surfaces, sirulation, etc. Pandemy also force people to work in online manner, which limits movement to minimize human interactions.

This condition also poses a chalenge to the students as part of their reference collecting process is to do comparative study. However the pandemy limits their surveying activities, while at the same time they have to be able to design according to the "New Normal" habit which eventually leads to change in culture. On the positive side this condition allows adaptation in which students needs to hone their writing literacy as a reference to create a design that better answer problems.

2   Writing Literacy in Student Design Thinking for New Normal Design Ideation

As indicated by the course name, in Trend and Material Management Course students are taught how an architect and interior designer, designed something that becomes a trend or architectural/ interior design style. Students are also given a task practice a general design thinking process, which includes analytic and creative process, to present innovation design concept for New Normal.

This course is also part of the Kampus Merdeka – Merdeka Belajar (Independent Campus – Independent Learning) program which is followed by students from other universities in other cities who are interested in taking this course. Hence the writing literacy is also important to achieve a uniform approach in developing design as different cities with different development might not have the same of interior design development which are challenging for comparative study.

Students are given three stages to work on their writing literacy process which includes looking for both academic and non-academic resources like online paper research, online books, online articles, online products information from certain brand, etc (students are encouraged to reference articles which include author name and publication date).

The three stages are:
a.   Researching on former design that address society needs (especially past design that answer pandemic or health problem)

b. Researching multidiscipline invention both knowledge or product regarding to Covid 19 prevention or pandemic related issues (for example school or work from home activities problems)
c. Researching ideas or product that could be used to create Innovation Design Concept for New Normal

In all three stages students are asked to share their writing and designing process in Google Slide as a process to inspire each other.

2.1 Researching on Former Architeture and Interior Design that Address Society Needs

Most of interior design students think designer is the same as fahsion design. Trend avaliable tomostly in color or magazine to reflect the change in soicety preferences. However in the real world seldom house or offices change their interior elements in regards to trend. Since interio is a place where people live and work for a certain amount of time, hence they tend to choose interior element accoirding to their personal liking. Even in commercial spaces.

Hence in the Trend dan Material manajemetn coursem studnets are explained that the style in history is a ctually in a answr to the culture needs at the time wither it is religion or culture.

The student are given task to do online research and to find interior or architeture related designs that is intended to address pandemi, health or life quality isues in the past time. The students then discuss several findings which related to the spread of tuberculosis pandemi in the 19th Century. History stated that Modernist or Modern Movement is influenced by architect/ designer address to tuberculosis issues at the time [4]. Alvar Aalto and Le Cobusier are famous architects who design both buildings, interior design elements includes furnitureswith initial intention to address the increasing of health quality but also becomes iconic design of the modern day.

Picture 1. Alvar Aalto's Paimio Chair (1930's), which were invented to ease the seating activities of tuberculosis patients become one of design icon. The chair is made with wood bending tecnology (source: https://www.moma.org/collection/works/92879)

Some of house products which we take for granted like white kitchen tiles is developed to help prevent the spread of infection so dirt or grimme could easily be spotted and cleaned. Even the house designed at the time includes sleeping porches for people to be exposed to the sunlight which could kill viruses, the creation of closets to organize clothes and goods better and to help clean the room easier, and the availability of powder room for to be used by guest and separate them to use family bathroom and spread germs. [5].

With this findings students having and insight of how former designers are able to create a creative design that becomes a trend based on their professional effort in increasing life quality.

2.2 Researching Multidiscipline Inventions

Design Inspirations is done through researching inventions that already being developed such as the developing of Ultraviolet Box to conserve respirators that is being re-use by healthcare worker in India do to shortness of personal protective equipment (PPE) [6]

Interior product manufacturers itself already developed several office products that address long ditancing and the spread of germs in the workplace [7]. Food and Beverage industries also installed acrylic table shields to protect customers eating in eateries amongst other safety regulation. [8] The aesthetic aspect of course becomes a design challenge. The students use this as a reference for their idea conceptual development.

Some students also paying attention to the work/school from home acitivities [9]. As working or studying at home which mingle with household activities and ambience could affect the focus and attitude needed for working or studying.Designers has putting effort in keeping wellness also have to be considered by balance studying or working at home with by sports activities which could still be incorporated indoors [10]

2.3 Researching ideas or product that could be use to create Innovation Design Concept for New Normal

Students develop conceptual design along by researching available products or knowledge. Research has shown that corona virus could live around 3 hours in air although it weakened it's capability to infect. It could also live for 3 days in surfaces like plastic and steel but it last no more than 24 hours on card boxes [11] which being an important consideration since people on homestays interacts more with card boxes while handling food or goods sending to their homes.

Some of the their findings are incorporate into the design innovations are the evidence that natural UVC light from the sun could kill corona virus and man made UVC light could be used to disinfect surfaces, air and liquids [12], A box could be formed with timer based UV light exposure to disinfects goods inside. [13]

Antibacterial High Pressure Laminatd Product [14] could be used to line furniture surfaces.Nanotech technology also being developed to impregnate textile with zinc, silver and graphite which are viral inhibitor. Textile it is going to be used for mask and robes [15], but of course could be expand to be installed on other interior elements. While the use of constructed barrier in form of traansparent acrylic window is a preferable choice as it still enable visual and safety better than using breakable glass. [16]

As for work or school from home activities, several students do research on tools or equipment to develop equipments especially for children who needs a creative studying tools to support their various activity [17] while on the same time considering safety [18].

3 Conceptual Design Development

Students summarize their findings in writing and write their conceptual idea while generating the design in visual presentations. The design itself could also be upscaling existing ideas or product either with a more complete capabilities or better aesthetic. Their ideas resulted in three design categorize which are: disinfectan facilities, public facilities and work/school from home facilities. Some of the conceptual ideas are shown as follow.

Picture 2 - 4. Disinfectant Equipments: UV box to disinfect delivery packages (conceptual design by Andre Christian Wydiadhana), Mobile Phone and Watch disinfectan box which also incorporate wireless charger for mobile phone (conceptual design by Andy Lunarto), New Normal Mat (conceptual design by Albert Nathaniel

Picture 5 - 7. Public Equipments: Public Seat and Bag Disinfectan (conceptual design by Surya Dharma Winata), New Normal Cinema Seat (conceptual design by Siti Hidayatul Mukharima), New Normal Office Table Design (conceptual design by Trifandy)

Picture 8 & 9. Work/ School From Home Facilities: Multipurpose Kids Learning Table (conceptual design by Veronica Anastasha), Push Pull Whiteboard (conceptual design by Tasha Velasca)

The conceptual ideas are being diseminate by students in ASEDAS 2021, International Digital Art Exhibition, a curated virtual exhibition. The disemination is hoped to give inspirations to others and escalate the development of interior design elements in New

Normal.At the time of this writing there are no information yet of which conceptual design are accepted

4   Conclusion

Writing literacy are needed by interior designer in a world where human activities and culture are changing faster. Interior designer has to embrace multidiscipline knowledge more than ever and design thinking based on writing literacy becomes imperative and has to be practiced since undergraduate education.

Usually comparative studies or visual information provide as a main reference for creating a design. However writing literacy could give a better design result, especially under circumstances where rapid changes resulted in a condition where products or ideas might not be created yet. Hence, by doing research in multidicipline fields students, and eventually interior designer, could gathering information and inspiration that could be use in concepting innovation ideas as being shown in this course.

The students are able to create conceptual ideas for New Normal interior design elements, especially furniture design, which are being diseminate in International Exhibition to inspire others.

More studies are needed to develop a more practical methodologies to support design process which will resulted in better interior design outcomes.

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Cultural and Civic Literacy to Strengthen Pancasila as the National Identity and Unifier of Diversity in Indonesia

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Abstract. Indonesia is a country that is rich in natural resources and has diversity in ethnicity, religion, race, and culture as a matter of pride that needs to be maintained and preserved. Efforts to protect and preserve diversity are not easy because lately a lot of information has been circulating leading to intolerance, hate speech, instant culture, not accepting differences, news hoaxes, and various expressions that discredit certain groups and even the government. Social media as a means of communication and information is both beneficial and a threat. Beneficial because it can be used as a learning tool, improve friendship, increase the number of relationships, increase nationalism, business and others. As a threat if not accompanied by adequate literacy skills. Through cultural and civic literacy, every citizen is invited to intelligently use, receive and process information so that life as the nation's children who have been knitted by the founding fathers can continue. The roles of families, communities, educational institutions, religious and cultural figures as well as the government also influence the realization of civic literacy and cultural literacy. Every citizen has the same opportunity to fill independence towards a prosperous Indonesian society as stated in the Preamble to the 1945 Constitution. The spirit of unity is the keyword for peaceful coexistence in diversity. Unity is strengthened through Pancasila and the slogan Bhinneka Tunggal Ika as the national identity. Cultural and civic literacy nurture our togetherness through a common mission to protect Indonesia's home as a place to live.

Keywords: Bhinneka Tunggal Ika; Cultural and Civic Literacy; Diversity; Pancasila

1 Introduction

Indonesia as a large and plural country needs to realize that maintaining unity and integrity is crucial for the survival of the nation and state. History has proven and reminded us that the Indonesian nation has experienced colonialism for a very long period. The occupation brought suffering, misery, and poverty. This history must be conveyed to the younger generation through families, schools, campuses, and also through social media. The development of technology and information places social media as the main means of communication and dissemination of information. The young generation as the nation's next-generation needs to know and have the awareness to take part in caring for the unity and integrity of the nation as capital to live together and build the nation towards a better life. This awareness needs to be built and manifests in harmonious relations among the nation's children. Currently, there is hoax news, intolerance, hate speech, high individualism, indifference. Attitudes like this can lead to the disintegration of the nation. We seem to sink into comfort for ourselves and lose our conscience. Words on

social media no longer recognize ethics and manners. In the past, we were known as a friendly, polite, and cultural nation that manifests in mutual respect, tolerance, and lives in harmony.

As a social being, change is certain and cannot be avoided, and it is commonplace. But how to make every change lead to goodness and progress for the Indonesian nation, and not the other way around. We live in a siege of information. Advances in technology and information make everyone can connect on social media. Through social media, everyone can exchange information with fellow media users. The information in circulation is not always correct, therefore it requires the ability to review and analyze any information that is circulating. Millennials as the largest social media users need to be observant and critical. Some certain individuals or groups use social media to commit fraud, tricking readers even though the author knows that what he wrote is not true. Anticipation of various information circulating on social media requires literacy. Literacy as a solution to disinformation for millennials in Indonesia (Pratiwi, 2019: 67)[1]. Disinformation is the delivery of misinformation, whether done on purpose to confuse others. Disinformation can occur in people who easily believe the information obtained without seeing or looking again for the source of information. Cultural and civic literacy helps shape the mindset of people who are smart in thinking, smart in attitude, and smart in acting. The disinformation that circulates can lead to friction, conflict, and division/ disintegration. Cultural and civic literacy is the ability of individuals and communities to behave towards their social environment as part of a culture and nation (Ministry of Education and Culture, 2017). The ability of the Indonesian people to behave towards the social environment needs to be continuously nurtured and developed. Cultural literacy is a necessity in the context of non-negotiable national diversity. Through cultural literacy all differences become beautiful. It is a fact that humans are created because of love. Therefore humans love peace (Harahap, 2017: 11)[2].

In the era of globalization, it is essentially an era of world society competition where boundaries between countries are increasingly blurred. However, in every Indonesian citizen, there must be a spirit of independence, a soul of warrior who is needed in upholding the Republic of Indonesia. The spirit of national unity and integrity is stated in the third principle of Pancasila and the motto Unity in Diversity. As a country that has very diverse natural resources and communities (ethnicity, race, religion, language, culture, customs, and geographical conditions of an archipelagic country), which lives in peace side by side because of the internalized values of Pancasila and is implemented in its society. That the figures who formulated Pancasila were not creators, but they were extractors of the existing values of the Indonesian nation and summarized as Pancasila (Latief in Meinarno, 2016: 13)[3]. The experience of living together as the nation's children in differences that have a greater intensity of conflict is the background of the value content contained in Pancasila. The values of Pancasila are extracted from the earth and the pluralistic society of Indonesia and respect for diversity / difference as a national character. This is in line with that stated by Asmaroini (2017: 52)[4].

The formulation of the problem in this paper is how the role of cultural and civic literacy can strengthen Pancasila (Bhinneka Tunggal Ika) to glue the differences that exist to realize one Indonesia. The formulation of this problem is raised because of the various phenomenon that occur in the life of the nation and state. Various "sara" issues were raised on various media including social media, rampant hedonism, consumerism, instant culture and apathy. The purpose of this writing is to raise awareness of the soul of the nation's children to study the cultural heritage of the ancestors as stated in the Pancasila as part of the nation and state that has an important role in realizing a safe, peaceful and prosperous Indonesia.

2 Research Methods

This study uses a qualitative descriptive method to provide an overview of the social phenomenon that occurs in society with a literature study approach. Data collection is done through e-books, e-journals, books, and proceedings. The data collection technique is done by taking notes, reading and processing data, and drawing conclusions. The purpose of this research is to explain the phenomenon of the existence of various disinformations, hoax news that leads to the disintegration of the nation which can be overcome with cultural and civic literacy to strengthen Pancasila as an identity and unifier of diversity.

3 Discussion

National awareness is a sense that comes naturally due to social togetherness that grows from culture, history, and past aspirations. History provides a very valuable lesson, how important it is to crochet unity and integrity. During the colonial period, various sufferings were experienced which led the founders of the country to put aside differences and achieve unity which in turn led the Indonesian nation to independence. The independence that had been proclaimed with the aspirations to be achieved and contained in the Preamble to the 1945 Constitution was then used as a reference for filling independence. Various progress and achievements have been made, infrastructure development has been carried out and efforts to improve human resources have been and will continue to be encouraged. However, it is unfortunate that there is another side to this nation that is being eroded. The long history seems to be forgotten, the identity of the Indonesian nation, which was once known as a friendly, caring, mutual, helpful, deliberative nation began to disappear. Looking back we find that the founding fathers were aware of the dangers that loomed amid our pluralism. Advances in technology and information continue to develop and manifest in various media including online media. Online media offers convenience and efficiency. So that everyone can send information, receive, and access information. Unfortunately, a lot of information turns out to be hoaxes and cannot be justified. Mastel in Cristiany Juditha, (2018: 32)[5] reveals that currently, it is not easy to find information that is considered true. The results of research on 1,146 respondents revealed that 44.3% of them received hoax news every day and 17.2% received hoax news more than once a day. This condition is certainly concerning and it is necessary to find a way out so that hoax news can be minimized and recipients of information can filter so that they do not become victims of the spread of hoaxes. Hoax news is mostly spread through social media. This condition can be used as a momentum for the government to take action to prevent it. As written by Siswoko (2017: 16)[6] regarding government policies to prevent the spread of fake news or hoaxes and research results conclude that the government is taking other steps beyond blocking sites by forming the National Cyber Agency and collaborating with the Press Council and Facebook. The efforts made by the government are not optimal if they are not supported by community literacy. Literacy awareness needs to be continuously socialized, developed, and implemented so that unity and integrity are maintained.

3.1 Cultural and Civic Literacy

Through civic literacy, each individual is made aware of his rights and obligations as citizens, the meaning and importance of national integration, the meaning, and importance of national identity, national insight, democracy, nationalism, and national resilience. All of these materials' contents are included in the civic education material. Civic education is a subject that is given to all types and levels of education as an effort to provide information, instill and foster

students' awareness to know their identity as part of the Indonesian nation. Through civic education, awareness is created for every citizen to be a good citizen. Citizens who exercise their rights and obligations in a balanced manner. Willing to accept the difference as a given condition. It cannot be denied. Difference/diversity is a gift from God to the Indonesian people. This diversity has existed since the Indonesian nation was founded. The awareness of seeing and studying history helps every Indonesian, especially the younger generation, to open up to differences and be willing to work together, work hand in hand to develop Indonesia. Through literacy, citizens have an awareness that differences are not to be contested but something to be grateful for as a nation's wealth. Through civic education, cultural and civic literacy can be formed. Cultural and civic literacy should be attached to the activities of national and state life.

The implementation of cultural and civic literacy supports the realization of a harmonious, peaceful, and prosperous community life even though living in diversity and difference. Literacy is meant as comprehensive skills that include the ability to read, write, literate technology, politics, think critically, and be sensitive to the surrounding environment (Irianto & Febrianti, 2017)[7]. Cultural literacy shows that abilities and skills in understanding and having attitudes towards Indonesian culture as a national identity and civic literacy are the abilities, skills, and awareness to be able to understand/sort out the rights and obligations as citizens and the willingness to practice relationships and interactions. Through cultural literacy all differences become beautiful. It is a fact that humans are created because of love. Through civic literacy, moral values are revived as a basis for building, fostering, and developing smart and good citizens, (Ristekdikti, 2016: 1)[8] explains that learning civic education is learning Indonesian, learning to be human who has an Indonesian personality, builds a sense of nationality, and loves the Indonesian homeland. This statement shows that the development of civic literacy is the development and application of civic education materials in social life. Civic education plays a role in influencing, fostering a mindset, harmonious, tolerant behavior following the motto of Bhinneka Tunggal Ika. As a teaching material, it is important that civic education is delivered attractively and involves students in exploring various phenomena and problems that can threaten the unity of the nation.

Methods of discussion, inquiry, and various other methods including presenting short videos/films that can arouse a sense of humanity, a sense of nationalism, a sense of empathy, sharing and a willingness to accept differences can be selected. The goal of civic education is not just knowing but how students become actors of all the good things they have learned. Knowledge without implementation has no impact on others. The roles and functions of community leaders, religious leaders, educational figures can contribute through socialization, seminars, discussions with the community as part of civic literacy, and on these occasions, regional songs, regional dances, or national documentary films, or other forms of literacy can be shown as part of cultural literacy.

The large and varied number of regional arts owned by the Indonesian people seems to be neglected, losing prestige to outside culture. This condition is very unfortunate. If there is no awareness from the younger generation, those local arts will disappear. Future generations cannot see and enjoy it. These arts may also be claimed by other nations as theirs. The pride of the parents towards their sons/daughters who can speak the local language, sings folk songs, do regional dances are fading, it is no longer a matter of pride. The national anthem is rarely sung. The national anthem which was created with great enthusiasm, full of love, pride, and hope for the nation became meaningless. Most of the younger generation have not memorized the lyrics of the national songs.

3.2 Pancasila as the Identity and Unifier of the Nation

Pancasila is the national principle and the way of life of the Indonesian nation that must be cultivated and must be endeavored so that there is appreciation and practice of the noble values of Pancasila in various fields of life for all people. Conflicts that occur can certainly erode unity and even lead to the disintegration of the nation and can lead to a civil war that leaves countless tears, suffering, and material losses. National unity as one of the important milestones that were achieved when the Youth Pledge was made and then inscribed in the third principle of Pancasila and the slogan Bhinneka Tunggal Ika, seemed to be being tested. Will this nation be able to go through various "differences" and knit back the nationality with the belief that differences are not to be contested but how the existing differences become colors and enrich as well as become an attraction for foreign nations to study and come to Indonesia. Cultural and civic literacy not only saves and develops local and national culture but also builds the identity of the Indonesian nation in the midst of a global society so that they continue to love and be able to preserve this culture (Pratiwi, 2019: 51)[9].

The existence of nationality can be measured from the following three indicators: First; a sense of nationality is always related to efforts to foster and maintain a collective identity that binds and fosters a sense of brotherhood. Second; there is an obsession and shared ideals to build collective goodness and pride. Third: there is an understanding and appreciation of national symbols such as an appreciation for the flag, national anthem, hero figures, geographical location, and the values needed to actively participate in society (Samsuri in Sulianti 2018: 49)[10].

The purpose of civic literacy is to develop quality and responsible citizen participation, citizens who understand their duties, roles, and responsibilities as citizens towards national and state life in the context of the Republic of Indonesia which holds the principle of Unity in Diversity. The identity of the Indonesian nation, which was once known by many nations in the world as a friendly, caring, cooperative, helpful, and deliberative nation began to disappear. Overcoming the insistence on value shifting in the midst of national life, various activities such as symposiums, seminars, focus group discussions (FGD), and workshops were carried out. All of these activities need to be packed in an attractive manner and broadcast through various media so that they can be conveyed to all generations. Mass media is still the choice of most middle-aged people, whereas social media is the main choice of the younger generation. Apart from presenting these various events, the most important thing is the social environment and the exemplary figures. The role models of teachers and lecturers become a reference for students. Parents become guides and role models for their children.

When various problems occurred, the Indonesian nation seemed to be reminded of its identity again. Pancasila, which is extracted from its cultural wealth, has become a hot topic of discussion. The awareness of the nation and state is revived with an understanding of the diversity and multiculturalism of the nation. The values contained in the Pancasila Precepts are clear and can be used as guidelines in respecting differences in beliefs. Through the First Precepts, every person is invited to have faith and obey to worship according to their beliefs, to have a tolerant attitude, be willing to cooperate, be open, independent, and responsible. The survival of the state and nation of Indonesia in the era of globalization requires us to preserve the values of Pancasila so that the future generations of the nation can still live and practice them and so that the essence of these noble values is maintained and becomes the guide for the Indonesian nation throughout the ages (Asmaroini 2017: 52)[11].

4   Result

The spirit of nationalism of all the nation's children needs to be nurtured and developed by maintaining a balanced relationship and still recognizing their existence and identity. Unity does not mean eliminating differences. The educational process must be able to empower and provide knowledge and experience of value to students as a whole in a conducive environment that is able to provide reinforcement to students so that these values become internalized to form a character as the character of a whole Indonesian human being. Increasing awareness and social responsibility and citizenship of each individual for the advancement of society, nation, and country. Interpreting diversity starts with family, school, and neighborhood.

Cultivating correct values in a small community has an impact on the wider community, including the nation. Cultivating nationality/diversity starting from childhood has a bigger impact. On the other hand, failure to instill the values of diversity can give birth to individuals who are not ready to accept differences. The history of the process of becoming Indonesia must never be forgotten and, a sense of belonging, nationalism does not fade so that it becomes a "binder" in facing various national challenges. National history must not be lost, let alone be forgotten. Nationalism does not only appear when a nation is faced with challenges, threats from other nations. Nationalism must live in everyday life. Strong nationalism becomes a "guard door" in communicating, spreading information through social media. The information circulating is true, polite, ethical, and accountable information.

In the family, the parents become role models, setting an example when making relationships with fellow children of a pluralistic nation. The living environment through village officials, RT, RW carries out interesting, programmatic, and sustainable activities about Indonesianness, including the history of the formation of the Unitary State of the Republic of Indonesia. Schools and campuses as educational institutions take part and are responsible for implementing the curriculum on the history of the nation's struggle. The material does not always have to be in the form of a story, but it can be through videos, role plays, and so on. A great nation is a nation that remembers the services of its heroes. This memory is manifested in various activities involving all citizens.

5   Conclusion

Pancasila as the basis of the state and outlook on life should be the frame in knitting the life of the nation and state. Pancasila is used as a reference in every relationship that occurs. The values contained in the principles of Pancasila have provided a sign that every element of the nation's children can live side by side peacefully. The difference is an asset to continue to cultivate and build national integration. Advances in information technology can be used as a means of learning, strengthening unity, supporting each other, sharing experiences that motivate and foster nationalism. Literacy intelligence needs to be built continuously. Through cultural literacy and citizenship, each individual can place himself, know his rights and obligations and be able to implement all the good values that have been received.

The government in collaboration with educational institutions for all levels and types of education can carry out various social and innovative events such as singing competitions for the national anthem, poetry reading competitions, national songwriting competitions, national hero recognition competitions, narrating songs or culture from their respective regions, student exchanges (which are currently being promoted by the government), speech competitions, video competitions, discussions and seminars related to cultural and civic literacy. Schools and colleges can raise and revive local cultural values, by inserting them into each teaching material.

The delivery of teaching materials should always be linked to real examples of everyday life. Students can learn from various cases that occur in society such as queuing culture, cooperation culture, democracy culture (not interrupting the conversation), accepting differences, respecting elders culture, willingness to give unconditionally. Cultural and civic literacy is a means of shaping the personality of students, students, and also society.

In communities in the RT, RW, and Village environment, community gatherings can be held on certain days, especially before the National Education Day, Kartini Day, Heroes Day, Proclamation Day, and other opportunities to get closer to residents and convey various information that strengthens ties among the nation's children. Collecting reading books from the community and creating a shared library are also fine undertakings. People who are more economically capable can help people who are less fortunate in various forms. One of them is through the provision or installation of an internet network that can be used by residents together, especially for school children. Delivery of material is not only based on theory but is directly related to real conditions in the field. The utilization of the environment as a learning resource helps all participants get a pleasant learning atmosphere so that they can better understand, and can absorb well. Learning lasts a lifetime. There is no final word. As long as life is still in the body, the body continues to learn, explore, sort, and process information. Cultural and civic literacy play a role in making Indonesia a just and prosperous society.

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Effects of Self-Efficacy Exercise on Self-Care in Congestive Heart Failure Patients

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Abstract. Heart failure is a cardiovascular disease which increases the incidence and mortality rates that are still high in Indonesia. The problems experienced by patients with heart failure are frequent re-treatment and death and disability. Heart failure patients who experience recurrence due to lack of self care. The purpose of this study was to determine the effect of self-efficacy exercise on self care for patients with congestive heart failure. This type of research is a quasy experiment with a non equivalent control group design pre test post test design. The sample is heart failure patients who were treated in August - September 2018 at the Kraton Pekalongan Hospital and Kajen Pekalongan Hospital. The sample selection technique uses consecutive sampling. The sample in this study amounted to 32 in the intervention group and 32 in the control group. Data analysis using Wilcoxon test and Mann Whitney test. The results of this study showed that there were significant differences in self care between the control group and the intervention group after being given a self-efficacy training intervention with a p value of 0.001.

Keywords: Heart Failure, Self care. Self-efficacy training

1   Introduction

Heart failure is a cardiovascular disease which has an increased incidence and prevalence. According to WHO published in 2015 an estimated 17.5 billion people in 2012 died of cardiovascular disease including heart failure [1].The prevalence of heart failure based on the results of Riskedas (2013) obtained from interview data diagnosed by doctors in Indonesia was 0.13 percent, and those diagnosed by doctors or symptoms were 0.3 percent. The highest prevalence of heart failure based on diagnosed by doctors in DI Yogyakarta (0.25%), followed by East Java (0.19%), and Central Java (0.18%). Indonesian Basic Health Research (Riskesdas) in 2013, showed that heart failure is a disease that causes death in Indonesia with a range of 9.7% of all heart disease [2]

Heart failure patients often return to the hospital due to recurrence. The majority of causes of recurrence are caused by patients not taking the recommended therapy, for example not being able to carry out treatment therapy properly, violating dietary restrictions, not following medical follow-up, excessive physical activity, and not being able to recognize the symptoms of recurrence. Research from Majid (2010) get results that one of the factors that influence the incidence of hospitalization for heart failure patients is the independence of patients in self care [3]. Self Care in hearth failure patients according to Riegel, et all (2009) is an active decision

making process that includes the selection of behavior to maintain physiological stability (maintenance) and respond to the symptoms experienced (management) and how patient confidence in the overall effort self care that has been done (confidence)[4].

According to Hu & Arou's research (2013), it turns out that self-efficacy has been recognized as a major factor influencing self-care and chronic disease management [5]. Self-efficacy is an important predictor for determining the hospitalization of patients with heart failure. Increased risk factors for patients with heart failure associated with low self-efficacy, which is indicated by poor heart function [6]. Therefore nurses have a very important role in increasing the patient's self-efficacy which is expected to influence patient behavior in improving self-care of patients with heart failure. One of the roles of nurses can be done to improve self-efficacy by providing self-efficacy training. Therefore, researchers are interested in conducting research on the effect of self-efficacy exercises on self care in patients with congestive heart failure.

2   Method

This type of research is quasy experimental with the aim to reveal the causal relationship of certain treatments[7]. This research is a non equivalent control group pre test post test design. This study uses a control group without randomization. In this study the determination of the control group and the intervention group was determined by the researcher.

The population is the whole subject of research under study[8]. The population in this study were all patients with heart failure who underwent treatment in June - July in Pekalongan Palace Hospital with 45 patients and Kajen Regional Hospital in Pekalongan District with 40 patients. and Kajen Regional Hospital in Pekalongan. The sample selection technique uses consecutive sampling. The sample in this study amounted to 32 in the intervention group and 32 in the control group. The inclusion criteria were heart failure patients who were hospitalized in both new patients and re-hospital, heart failure patients who were willing to be respondents, did not experience cognitive impairment and patients with NYHA I-III with stable conditions

Data analysis:
a.   Univariate analysis

This analysis is carried out to describe all variables, namely independent variables and dependent variables using a frequency distribution table. Univariate analysis aims to simplify or facilitate the interpretation of data into useful information in the form of narrative and frequency distribution tables of respondents according to the variables studied. Univariate analysis in this study illustrates the characteristics of respondents based on age, duration of illness, sex, education and smoking history.

b.   Bivariate analysis

Bivariate analysis is done by looking at the normality of data from each variable. The data normality test in this study used the Shapiro Wilk test because the sample <50. The normality test results in the control group were found to be $p = 0.001$ and in the intervention group the p value was 0.001. This shows that the value of $p < 0.05$, so the data are not normally distributed. Therefore to find out the differences in self care before and after the intervention in the control group and the intervention group using the Wilcoxon test. Meanwhile, to find out the difference test between self care in the dick group and self care in the intervention group using the Mann Whitney test

3 Result

3.1 Univariat Analysis

Based on the table above shows that the average age of respondents in the control group and intervention group was 49.0 years and 52.4 years respectively. Whereas the average length of illness for respondents in the control group and intervention group was 3.3 years and 2.7 years, respectively.

Table 1 Average Age of Respondents and The Average Length of Illness for Respondents

Variable	Group							
	Control group			Intervention group				
	Mean	SD	Min-Max	Mean	SD	Min-Max	C1 95%	P
Age	49	7,78	35-65	52	7,6	37-65	46-51	0,856
Length of Pain	3,3	1,3	1 - 5	2,7	1,1	1 – 5	2,8-3,7	0,151

Based on the table above shows that there are 25 respondents (78.9%) are the majority are male. The educational background of the respondents were mostly high school educated in the control and intervention groups, each of which were 17 people (53.1%). Based on the table above shows that there are 25 respondents (78.9%) are the majority have a history of smoking and the majority of respondents belong to the NYHA I functional class that is 14 respondents (43.8%). (Table 2)

Table 2. Characteristics of Respondents by Gender, Education and Smoking History

Variable	Group				
	Control group		Intervention group		
	n	%	N	%	P
Gender					
Male	25	78,1	25	78,1	0,749
Female	7	21,9	7	21,9	
Education					
SD	5	15,6	6	18,8	0,754
SMP	10	31,2	12	37,5	
SMA	17	53,1	14	43,8	
Smoking History					
Yes					
No	25	78,1	26	81,2	1,000
	7	21,9	6	18,8	
NYHA					
NYHA I	14	43,8	14	43,8	1,000
NYHA II	13	40,6	13	40,6	
NYHA III	5	15,6	5	15,6	

3.2 Bivariat Analysis

Based on the table above, it shows that the level of self care in the control group and the intervention group is obtained $p = 0.001$, where the value of $p < 0.05$ so that it can be concluded that there is a difference between the level of self care in the control group between before and after the self-efficacy exercise and there the difference between the level of self care in the intervention group between before and after self-efficacy exercises. In the table above also

shows the p-value = 0.711 where the value of p> 0.05 so that it is concluded that there is no significant difference in self care between the control group and the intervention group before self-efficacy exercises are performed. Whereas after the intervention was obtained the p-value = 0,000 where p value <0.05 can be concluded that there are significant differences in self care between the control group and the intervention group after self-efficacy exercise.

Table 3. Self Care in Congestive Heart Failure Patients Before and After Conducting Self-Efficacy Training in Control and Intervention Groups (N = 32)

Variable	Pre Test				Post Test				p
	Mean	SD	Min -Max	C1 95%	Mean	SD	Min - Max	C1 95%	
Control	39,1	0,95	37-41	38-39	40,09	1,17	37-42	39-40	0.001
Intervention	39,2	0,37	38-40	38-39	64,72	5,30	59-90	62-66	0.001
P value	0,711				0,001				

In the table shows that in the control group there were 20 respondents experienced an increase in the value of self care after the intervention and 12 respondents did not experience changes in the level of self care after the intervention. In the intervention group, all 32 respondents experienced an increase in self care after self-efficacy exercises were conducted. For p homogeneity value, p value = 0.202 where p> 0.05 so that it can be concluded at the beginning before the intervention conditions or variations in self care in the control group and the intervention group are the same. congestive heart.

Table 4. Differences between the Control Group and the Intervention Group before and after self-efficacy exercise in patients with congestive heart failure

Group	Different	Mean Different	p
Control Group		0,99	0,202
Negatif Rank	0		
Positif Rank	20		
Ties	12		
Intervention Group		25,52	0,202
Negatif Rank	0		
Positif Rank	32		
Ties	0		

4   Discussion

4.1 Self Care in Heart Failure Patients before Self-Efficacy Exercises

Based on the results of the study prior to the intervention, the majority of respondents were at a relatively low level of self care with low scores in both the control and intervention groups. This is in line with the results of previous studies which also found that heart failure patients still have poor self-care. The lack of self-care in heart failure patients is also found in other countries both in developed and developing countries [9]. Research on self care and self-quality of heart failure patients conducted by Britz and Dunn (2010) mentions that some patients report that they have not carried out self care appropriately as taught for example by obeying the medication given, a low salt diet. Regular physical activity, fluid restriction, daily weight monitoring, early recognition of signs and symptoms. In this study, the level of self care that is

still low in patients with heart failure caused by patients due to lack of understanding and ignorance of patients about proper care to be done in patients with congestive heart failure [10].

4.2 Self Care in Heart Failure Patients after Self-Efficacy Exercises

Based on the results of research conducted, it can be concluded that after self-efficacy exercise the level of self care in heart failure patients has increased both in the control group and the intervention group. However, changes in self care behavior in the control group did not occur significantly. Patients tend to still do the same self care behavior. This is shown in the dimensions of self-care maintenance of patients who have not been able to perform activities regularly, patients have not been able to maintain a low salt diet. In the dimension of self care management, patients have sometimes not been able to make the right decisions if they have problems with their health due to heart failure. In the dimension of self care confidence, patients are still not sure to take appropriate actions when patients experience health problems due to heart failure.

In the control group, patients experiencing an increase in congestive heart failure did not get a self-efficacy exercise intervention, but the intervention obtained by the patient was only discharge planning done by the nurse. Nurses provide health education before patients go home on the advice to take medication regularly, maintain diet and maintain physical health with exercise.

Education provided by nurses to patients can make an increase in self care in patients with congestive heart failure in the control group. Providing education in discharge planning is important to facilitate individual changes or modifications. Knowledge is a very important domain for the formation of one's actions. Knowledge is needed as support in growing self-confidence as well as attitudes and behavior every day, so it can be said that knowledge is a fact that supports one's actions

In the intervention group all heart failure patients experienced changes in the level of self care. Self care in heart failure patients has increased after self-efficacy exercise. This is shown in the dimensions of self care maintenance, patients can carry out physical activities regularly, patients are able to maintain a low salt diet, and patients monitor body weight every day. In the dimension of self care management, patients are able to make the right decisions if they have problems with their health due to heart failure. When the patient experiences swelling in the legs, the patient is able to recognize it and take appropriate action by reducing a lot of water intake. In the dimension of self care confidence, patients have the confidence to take appropriate actions when bunches and symptoms of heart failure are experienced.

In the intervention group the patients received self-efficacy exercises with various stages carried out. Improved self-care ability in patients with heart failure after self-efficacy exercises due to increased patient knowledge after being given education related to self care in patients with heart failure. Increased patient knowledge will improve the cognitive abilities of patients. Supporting research states that there is a relationship between cognitive decline and low self-care behavior in patients with heart failure. Nine out of ten studies reported a significant positive relationship between mild cognitive impairment and self-care for heart failure, specifically in relation to medication adherence or generic actions from self-care behavior.

Self care is also influenced by an increase in self-confidence of patients about their ability to live a life after a client is diagnosed with congestive heart failure through several educational studies and its effect on improving self care is inseparable because it forms a strong and dynamic relationship [11].

4.3 Effects of self-efficacy exercise on Self Care Patients with congestive heart failure

The results of the study show that self-efficacy exercises are effective in improving self care in patients with congestive heart failure. This is in line with research that has been conducted on Self-efficacy training for Patient with End Stage Renal Disease by providing training interventions to improve self-efficacy with health coaching strategies showing the results that self-efficacy training is useful in controlling the weight of end-stage renal failure patients undergoing hemodialysis[12].

Some factors that can affect self efficacy are mastery experience, vacarious experience, verbal persuasion, modeling influence and social persuasion. Individual experience and success are the main sources. in the formation of the patient's own efficacy. Learning from the experiences of oneself and others through observation and imitating correct health behaviors can improve self-efficacy. Through verbal persuasion, the client gets the influence and suggestion that he is able to overcome the problem [13].

The self-efficacy exercise conducted in this study includes 4 stages. The first stage is the mastery experience where the patient is explored experience in doing self care. Experience is one of the strong contributors in developing skills in self-care. The experience experienced by patients will make patients learn so many things that there is a desire to change behavior based on that experience [5]. The second stage is role modeling. At this stage the patient is shown a video about how to do self care appropriately. Health counseling aims to change unhealthy behaviors into healthy ones, which means that they can change the knowledge of respondents who are not good to be good. The provision of health education is to achieve changes in the behavior of individuals, families, and communities in fostering and maintaining healthy behavior and a healthy environment, and plays an active role in efforts realize the optimal degree of health. This is consistent with research on the influence of education through video stating that health education media through video media has several advantages, namely more interesting and easier to understand, with video a person can learn on his own, can be repeated in certain parts that need more clear, can display something detailed, and can be accelerated or slowed down [14].In the third stage, verbal persuasion. In this case the patient is given verbal support to improve self care. This support also involves the family directly. Verbal persuasion carried out in the stages of self-efficacy training in heart failure patients by providing motivation and support to patients. The last stage in the implementation of self-efficacy exercises is physiological arousal. In this stage the patient is given counseling guidance to solve problems or obstacles that arise in conducting self care. Intense guidance by establishing communication can increase patient confidence to make changes in behavior[5].

Factors supporting self-care for patients with heart failure are experience and care skills. Researchers state that there are several factors that influence decisions about self-care, including knowledge, experience, and skills. Some self-care interventions aim to increase patient knowledge, but insufficient knowledge to change self-care behavior. In addition to gaining knowledge, patients need to have the skills to plan, set goals, and make decisions as well as self-confidence or self-efficacy[4]. Verbal persuasion is carried out in the stages of self-efficacy training in heart failure patients by providing motivation and support to patients. Motivation is a force that drives humans to achieve goals. Maintaining autonomy is the highest goal of patients with heart failure, followed by physical health, maintaining social relationships and eliminating symptoms. Nurse and family support plays an important role in supporting the self-care of patients with heart failure. Qualitative research on the study of self-care in heart failure patients, six The main factors influencing self-care for heart failure are caregivers: social networks and social support, place, financial and financial capacity, work and work, and groups and programs

supporting heart failure patients. Nurses make important contributions to the care of patients with heart failure [15].

An important outcome in self-efficacy training in heart failure patients is increasing self-confidence. Trust in self-care is an important factor influencing self-care and intervention. Self-confidence must be considered as a way to improve self-care. One study found that self-care confidence was more important than cognition in predicting self-care for heart failure patients. Confidence in self-care is an important factor influencing self-care and intervention [16].

5 Conclusion

Self-efficacy exercises can affect self care in patients with congestive heart failure so that the results of this study can be used as a study material in improving health services, especially as an alternative to independent nursing interventions, in this case self-efficacy exercises to improve self-care in congestive heart failure patients.

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The Relation between Lecturer Role and Software Academic to Elevate Writing Literacy Case on Business Students

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Abstract. The impact of technology also includes an impact on the educational environment, with the development of increasingly advanced technology able to facilitate activities in educational activities. This technological development certainly has a very good impact and accelerates human activities. Students are the highest stage in the world of education. There is many software nowadays that can be used by students to improve their writing skills. For example, google translate to make it easier for students to understand foreign language writing to increase references in writing. Students can understand various writings from various foreign languages. The role of lecturers to increase interaction with students is able to increase student activity to better understand and be more creative to improve their writing skills. Students are also greatly helped by the facilities such as Mendeley, endnote, Turnitin and other free journal facilities so that they can improve student skills to think more creatively. Students can look for references and document written files that are able to support student writing. Students feel helped by facilities that can be used to support writing.

Keyword: lecturer role, software academic, elevate, writing literacy

1 Introduction

The development of information technology, especially in the last two decades, has made human life easier and more complex. There are many new activities or activities that can be carried out to facilitate human activities with increasingly advanced technological developments. The impact of technology also includes an impact on the educational environment, with the development of increasingly advanced technology able to facilitate activities in educational activities. This technological development certainly has a very good impact and accelerates human activities.

Students are the highest stage in the world of education. Students with the highest level of intelligence and maturity in general. Students who are highly educated are expected to be able to generate ideas by expressing them through writing. Students who enter the final stage will reach the compulsory stage of writing their final assignments and at this stage students are considered mature in starting to write, especially scientific writing in the field of science that they contain. The essence of literacy is reading-thinking-writing activities [1]. Literacy refers to the ability to read and write at an appropriate communication stage in a well-educated society [2].

Kern (2000) states that, literacy involves communication, communicate with one another using ICT. The ability in writing for each person will certainly be different, but at the stage of entering the final semester students should have started to become proficient in writing. Writing ability cannot be equated for every student because of many factors that influence it. Several factors influence students' ability to write, such as the role of lecturers in class to direct students. Through learning in the classroom, students must also have different understandings of the material provided by the lecturers in class. According to Garcia, M. C. and Antonio, J. M. (2013), various ICT tools have become part of life in society and has become an important part of education. one of them is the use of software to support writing skills.

Another factor is the existence of supporting facilities for students to make it easier to learn and understand many things, especially in adding writing references and making it easier to understand. One of the facilities that can support students in improving their writing skills is the software facility. The ability and intelligence of humans that continue to develop are able to produce several software that can help facilitate human activities, especially in the field of education. Software is able to simplify human work and make it easier to learn something in an era where more and more software can be used. Skills needed to create multilingual learning are high reading comprehension, good writing skills, language skills and various digital media skills [5].

There is many software nowadays that can be used by students to improve their writing skills. For example, google translate to make it easier for students to understand foreign language writing to increase references in writing. Students can understand various writings from various foreign languages. Mendeley or Endnote is a software for a reference list that is able to store files in the form of books and journals so that it will make it easier for students to document all their scientific files and can make it easier to organize references used to improve their personal abilities and the quality of their writing.

Turnitin is a software to check plagiarism or the level of similarity of writing to another people's work. One way to avoid plagiarism from another people's work. This software is also able to improve student abilities. The existence of software that is able to detect similarities in writing and even be able to show sources with the same writing, students will definitely try to think more creatively in writing, especially in finding ideas. Students will definitely prefer to think of ideas rather than being detected copying another people's work.

Lecturers who teach in the class play a big role in directing students both how to write, look for ideas, put ideas into writing. Lecturers who already have experience will definitely lead students to understand better about. It is generally believed that good teaching requires good communication between teachers and students and between students. Through effective cooperation between teachers and students, you can get the best productivity in the classroom. Therefore, the role of the teacher is essential for effective teaching. Teachers should provide support. An understanding teacher can effectively create a positive classroom atmosphere and encourage students to perform well and be motivated in the classroom. Supportive teachers are also teachers who pay attention to the learning process and provide all students with opportunities to improve learning and participate in the learning process [6].

2 Methods

The research method used in this research is qualitative research. Qualitative research is a research method in which the collected data and analysis are of high quality. Qualitative research is also called a naturalistic research method because the research is conducted in a natural environment (natural environment), as described by Sugiyono (2011). The qualitative research

of Moleong (2013) is an exploratory process, which provides descriptive data based on the spoken language or observed behavior of the respondent.

The information assortment technique is finished with primary data and secondary data. Primary data by conducting in-depth interviews with key respondents. Secondary data is done by finding out literature and numerous data via the internet. The analysis was meted out from the results of interviews with students and lecturers of business students to seek out the connection between Lecturer Role and package educational to elevate writing literacy. will the role of lecturers and software support their writing literacy. the primary stage is conducting interviews and analyzing the issues sweet-faced and final the results of the interview. And the end the result show the relation between Lecturer Role and package educational to elevate writing literacy.

3   Results

Writing is an activity that looks easy but is not easy. The ability to translate ideas and ideas into writing that has good value or content is not easy to do. Students find it very helpful to improve their writing skills with the many directions or roles of lecturers. Steps for finding ideas and presenting supporting data when you want to write a topic. The relation between lecturer role to elevate writing literacy case on business students. Students agree that the role of lecturers is very large in increasing students' understanding of writing and developing their writing.

Lecturers have a role to play in improving the environment that supports students to write. The lecturer's experience in writing with various cases really helps students to develop ideas when writing. The lecturers 'concern to improve students' understanding of writing greatly improves student understanding, especially writing practice so that it will facilitate student understanding. The role of lecturers to increase interaction with students is able to increase student activity to better understand and be more creative to improve their writing skills.

Lecturers also always try to improve the role of students to actively participate in asking questions when they don't understand and come up with ideas to improve the quality of writing. The role of lecturers is very important to direct students to write by building good communication so that students can come up with their ideas. Interaction and exercises in class will improve students' ability to write [9].

Students are also greatly helped by the facilities such as Mendeley, endnote, Turnitin and other free journal facilities so that they can improve student skills to think more creatively. Students can look for references and document written files that are able to support student writing. Students feel helped by facilities that can be used to support writing. The role of existing academic software is to make writing more effective and able to produce better writing. Lecturers as facilitators on campus have a role to direct students to better understand and be able to write better [10]. There is any impact lecturer role and software academic to elevate writing literacy case on business students.

4   Conclusion

Students are the highest stage in the world of education. Students with the highest level of intelligence and maturity in general. Students who are highly educated are expected to be able to generate ideas by expressing them through writing. Students who enter the final stage will reach the compulsory stage of writing their final assignments and at this stage students are considered mature in starting to write, especially scientific writing in the field of science that

they contain. Another factor is the existence of supporting facilities for students to make it easier to learn and understand many things, especially in adding writing references and making it easier to understand. One of the facilities that can support students in improving their writing skills is the software facility.

There is many software nowadays that can be used by students to improve their writing skills. For example, google translate to make it easier for students to understand foreign language writing to increase references in writing. Students can understand various writings from various foreign languages. Mendeley or Endnote is a software for a reference list that is able to store files in the form of books and journals so that it will make it easier for students to document all their scientific files and can make it easier to organize references used to improve their personal abilities and the quality of their writing.

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5   Suggestions

Suggestions from the results of this study are:
a. Lecturers must be active in establishing two-way communication in the classroom to support the implementation of teaching and learning activities in class, especially in improving students' writing literacy.
b. The campus must facilitate academic software to support students in improving their writing skills and creativity.
c. The campus must be able to increase activities that encourage activities that can improve students' writing literacy.
d. Students must practice frequently in addition to receiving directions from lecturers and other facilities to improve their writing skills.

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Feasibility Analysis of Fourthgrade Studenttextbook Contents with The Theme "The Beautiful of Togetherness"

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Abstract. This research aims to determine: 1) How is the appropriateness of the content in the suitability aspect of the KI and KD material descriptions, 2) How is the appropriateness of the content in the aspect of material accuracy, 3) How is the appropriateness of the content in the supporting material aspects of classroom student textbook learning IV with the theme "The Beauty of Togetherness" 2013 Curriculum at SDN Pakujaya 02 Kota Tangerang Selatan.This research uses qualitative research with mix research methods. Data collection techniques are interviews, observation and questionnaires. The data analysis techniques are data reduction, data presentation, and conclusion drawing. The results of the research and discussion were categorized as quite feasible:"Cultural Diversity of My Nation" getting 56.1%,"Togetherness in Diversity" getting 56.2%, and "Be Grateful for Diversity" getting 57.1%. Based on the results the textbook can be concluded that this book is suitable for use in schools.

Keywords: Analysis, Content Feasibility, Student Textbooks.

1   Introduction

Elementary school education is a reference for success in following education at the next level so that humans as a whole can develop themselves through their divine, moral and civilized potentials. Through education, humans are prepared to acquire basic skills in life to create a good quality of life and be able to develop it. With this basic provision, it is hoped that humans will be able to manifest themselves as individuals, members of society, citizens and mankind, both in developing and educating the life around them and in continuing to a higher level of education. Education in elementary schools will be a strong foundation for further education, provided that the education provided is precise and in-depth according to the needs of students. The introduction is built on four main points, namely gap analysis; there is a statement of novelty/novelty value; the existence of research/writing/hypothesis objectives; and the existence of a state of art (previous research /studies).

The purpose of education is to educate the life of the Indonesian nation as regulated in the Sisdiknas Law No. 20 of 2003 concerning the national education system article 3 stipulates that, "National education has the function of developing capabilities and forming a dignified national character and civilization in order to educate the nation's life, aiming at developing the potential of students to become human beings who believe and fear for God, have a noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens ".

According to Law No. 14 of 2005 Article 1 explains that, "Teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education, primary education and secondary education". In teaching, teachers are responsible for providing teaching in schools and have a role as providers of learning needs for students. Therefore, to achieve these goals, the teacher must understand the material being taught to students and increase their knowledge in accordance with the development of science.

One of the successes of education in implementing the curriculum 2013 is adequate facilities and learning resources. Learning resources have an important role in relation to the preparation of teaching materials. From learning resources, we can get various kinds of teaching material needs. Teaching material is one component that has an important role in the learning process. One of the teaching materials needed is a textbook. Textbooks are mandatory reference books that are used as learning resources that support a teaching program in an educational unit to achieve learning objectives.

Permendiknas Number 2 of 2008 Article 1 explains that, "Textbooks for basic, secondary and tertiary education, hereinafter referred to as textbooks, are mandatory reference books for use in primary and secondary education units or tertiary institutions that contain learning material in the context of increasing faith., piety, noble character and personality, mastery of science and technology, increased sensitivity and aesthetic abilities, enhancement of kinesthetic and health abilities which are compiled based on national education standards ". Science, insights and information can be obtained from books.

Therefore, the existence of textbooks is expected to develop human quality and optimize learning activities that provide meaningful learning material. This happens when the teacher considers the entire book to be correct without first analyzing the textbook material.

If the curriculum is updated, the textbooks used by students must adjust to the applicable curriculum. So that it does not cause inequality for those who use it. The curriculum 2013 textbook is different from the textbooks in the previous curriculum. Student textbooks in the curriculum 2013 are theme-based. Because the learning is thematic-integrative, all subjects are put together and divided into several themes. Like the fourth grade student books, there are nine themes, one of the themes is "The Beautiful of Togetherness".

The curriculum 2013 textbook consists of student books and teacher books. Books published by Kemdikbud 2013 need to be read and analyzed first. Are the textbooks that have been published in accordance with the curriculum 2013 or not. To find out, a textbook needs to be analyzed the feasibility of its contents. The analysis of this textbook is aimed at the fourth grade students' textbook with the theme "The Beautiful of Togetherness" as the object of research.

The 2013 thematic learning curriculum for grade IV elementary school student books currently has had many changes. The number of changes from the 2013 thematic curriculum learning student book certainly raises questions about the appropriateness of the content contained in the 2013 thematic learning curriculum for grade IV student books. Basically, student books that meet competency standards are student books that match the material with KI / KD and pictures supporting the material. Student books that have complete material in their entirety, in-depth and clearly. In accordance with the student grade level and in accordance with student characteristics.

In reality, the students' books on thematic learning curriculum 2013 for grade IV Elementary Schools still have some deficiencies in the scope of the material. The material in the student book for thematic learning curriculum 2013 for grade IV has less detailed discussion on several subjects. So that the teacher finds it difficult to teach the material if you

only use student books. This problem was caused by the change in the 2006 KTSP curriculum to the curriculum 2013, which made a difference in teaching materials, especially student books, in the scope of the material.

The student textbook like other forms of teaching materials, textbooks have certain characteristics. Some of these characteristics include the following:

a. Formally, textbooks are published by certain publishers and have ISBN;
b. The compilation of textbooks has two main missions: 1) Optimizing the development of declarative and procedural knowledge, as well and; 2) This knowledge must be the main target of the textbooks used in schools.

The student textbook function:

a. As a reference material or reference material by students;
b. As an evaluation material; and
c. As a tool for educators in implementing the curriculum. (according to Prastowo, 2011)

According to (Prastowo, 2011) the purpose of student textbook is:

a. Make it easier for educators to deliver learning material;
b. Give students the opportunity to repeat lessons or learn new lessons; and
c. Providing interesting learning material for students.

Prastowo(2011) also described that the student textbooks was:

a. Assisting educators in implementing the curriculum because it is arranged based on the applicable curriculum;
b. Become a teacher's guide in determining teaching methods; and
c. Provide opportunities for students to repeat lessons or learn new lessons.

Bonawati (in Amelia &Saputra, 2017) are mentions the student textbook criteria:

a. Interesting for student use;
b. Able to provide student motivation; and
c. Contains attractive illustrations for its users.

According to the 2014-2018 National Education Standards Agency (BSNP), said that in terms of the content of the textbook, there are three sub-components that must be fulfilled:

a. The suitability of the material description with KI and KD:
   1) Completeness of the material,
   2) Material breadth, and
   3) Depth of material.
b. Accuracy of Material: the choice of discourse, text, pictures, and illustrations is in accordance with the competencies that must be achieved and is useful for fulfilling the curiosity of students.

2   Methods

In this study using a qualitative approach with mix research methods. This is done so that researchers can describe clearly and in detail and get in-depth data. According to (Mawardi, 2019) "A qualitative approach is often called naturalistic inquiry" (p. 23). Qualitative research aims to gain a deep understanding of human and social problems in order to provide a picture of what is happening in the research.

According to (Moleong, 2017) qualitative research is research that intends to understand the phenomena experienced by research subjects such as behavior, perception, motivation, action etc., holistically and by means of descriptions in the form of words and language in a special context. natural and by utilizing various natural methods (p. 6). So, qualitative

research is a descriptive study that describes the various kinds of phenomena that the researcher actually observes.

Meanwhile, according to (Sugiyono, 2017) qualitative research methods are often called naturalistic research methods because research is carried out in natural conditions (natural setting) is called a qualitative method, because the data collected and the analysis are more qualitative in nature (p. 8). So, qualitative research is descriptive research that describes or obtains information to be used as data and describes real events observed by researchers.

3   Result and Discussion

The suitability of the material description with KI and KD. The analysis score from learning 1-6 totals 168 (questionnaire score).Based on the results of questionnaires, interviews and observations conducted by researchers on respondents, the analysis that has been carried out for the components of the suitability of the material description with KI and KD in sub-theme 1 "Cultural Diversity of My Nation" has presented material that is complete and in accordance with KI and KD.

Sub-theme 1 on "The Diversity of My Nation's Culture" (lessons 1-6) in the textbook on the theme "The Beauty of Togetherness" has presented complete material.

Accuracy of Material. The analysis score from learning 1-6 totals 160 (questionnaire score). The material in sub-theme 1 is in accordance with the three book compilations, namely relevance, consistency and adequacy. Relevance has been proven by the suitability of the material discussed with KI / KD included in the curriculum, consistency has also been proven by discussion in the form of a sub-theme that is in accordance with KI / KD, and adequacy has also been included in this lesson where the presentation of material and practice questions is not too good. a lot or a little.

Learning Support Materials. The analysis score from learning 1-6 totals 177 (questionnaire score).In sub-theme 1 on "Cultural Diversity of My Nation", the suitability of the development of science is presented in each subject. Features, examples and practice questions are appropriate to reflect existing events and occurrences. The examples presented have also been accurate and reflect in everyday life. The practice questions presented have also been accurate. The references presented are also interesting with learning materials. In sub-theme 1 "Cultural Diversity of My Nation" has opened the students' diversity to know and appreciate the various kinds of Indonesian cultural diversity. Through the practice questions and assignments presented have also added to students' insight in fostering mutual respect, tolerance, honesty and love for the diversity of Indonesian cultures. In sub-theme 1 "Cultural Diversity of My Nation" does not contain elements of SARA, pornography, and bias.

Table 1. Feasiblility Score Results

Indicator	Subtema	Eligibility Score
1. The suitability of the material description with KI and KD 2. Accuracy of Material	1. Cultural Diversity of My Nation	56,1%
	2. Togetherness in Diversity	56,2%

3.	Learning Support Materials	3.	Be Grateful for Diversity	57,1%
			Total AverageFeasiblility	**56,5%**

4 Conclution

The student textbook for fourth grade elementary school with the theme "The Beautiful of Togetherness" of the curriculum 2013 revised edition 2017 in SDN Pakujaya 02 Kota Tangerang Selatan is included in the feasible category. The aspect of content feasibility, namely the suitability of material descriptions with KI and KD, the accuracy of material and learning support materials in sub-theme 1 concerning "Cultural Diversity of My Nation", namely getting a percentage of 56.1%. Whereas in sub-theme 2 "Togetherness in Diversity", namely obtaining a percentage of 56.2%. And in sub-theme 3 "Be Grateful for Diversity", which is getting a percentage of 57.1%. Based on the results of the percentage of content feasibility of the three indicators as a whole from sub-themes 1-3, namely obtaining an average value of 56.5% which is categorized as quite feasible, while 43.5% is in the less feasible category. So the student textbook for fourth grade elementary school with the theme "The Beautiful for Togetherness" curriculum 2013 SDN Pakujaya 02 Kota Tangerang Selatan is feasible to be taught because it gets a content eligibility percentage of 56.5% which is classified as suitable for use in schools.

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Factors Affecting The Implementation of Ews (Early Warning Score)

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Abstract. Early Warning Score (EWS) focuses more on detecting emergencies before they occur, so it is hoped that with earlier management, life-threatening conditions can be handled more quickly or even avoided so that the resulting output is better. According to data for the last 3 months regarding Early Warning Score (EWS) data at RSBP Batam, especially in the Teratai room, there were 694 patients and the complete Early Warning Score (EWS) observation sheet was only 156 patients, while in the Orchid room there were 415 patients with Early observation sheets. Complete Warning Score (EWS) in only 203 patients. This study is to determine the factors that influence the implementation of the Early Warning Score (EWS) in the Lotus room and the Orchid Room of the RSBP Batam 2020. The research method used quantitative research design using correlation descriptive design with cross-sectional approach. The population in this study were all nurses in the room lotus and orchid room RSBP city of Batam in 2020 a total of 32 respondents. The analysis of this research is the univariate analysis and bivariate analysis and data processing using the chi-square test (p <0, 05). The results of the chi-square test analysis showed a p-value <0.025. This shows that there are knowledge factors, nurses' perceptions, skills, and external factors of system quality. Therefore, Ho refused and Ha is received so that it can be concluded that there are factors that affect the implementation of EWS Early Warning Score) at room lotus and orchid room RSBP city of Batam in 2020.

Keywords: Early Warning Score, Factors, Hospital

1 Introduction

Early Warning Score (EWS) is a system of requests for help to address patient health problems early. *The Early Warning Score* (EWS) is based on the assessment of changes in the patient's condition through systematic observation of all the patient's physiological changes. This system is a concept of a proactive approach to improve patient safety and better patient clinical outcomes by standardizing the assessment approach and establishing a simple physiological parameter scoring. (Nurmaila 2019) The early warning system establishes patient observation scores based on routine physiological measurements of vital signs. An early warning score was calculated for patients using five simple physiological parameters: mental response, pulse, systolic blood pressure, respiratory rate, temperature, and urine output (for patients with a urine catheter). Each parameter has a value over 3 and a score lower than 0 points than the total value using the early warning scoring system score, namely systolic blood

pressure, body temperature, heart rate, respiratory rate, level of awareness, blood oxygen saturation. (Daphne 2015).

Early Warning Score (EWS) has been widely implemented by several hospitals in Indonesia, especially since the Hospital Accreditation Commission in Indonesia (KARs) established EWS in the National Accreditation Standard known as SNARS Edition 1 of 2017. The explanation of EWS is listed in Patient-Focused Service Standards: Chapter 4 Patient Service and Care (PAP) 3.1 on Detecting (recognizing) Changing Patient Conditions. The EWS system allocates points in a weighted manner based on the disturbance of a predetermined set of vital signs from an arbitrarily agreed "normal" range. An *early warning scoring system* (EWSS) was introduced by Morgan, *et al.*, (1997) as a simple tool that ward staff can apply to identify patients with a critical illness. In 2012, the Royal College of Physicians conducted an evaluation and standardization of the EWSS. It became known as the *National Early Warning Score* (NEWS).

Hospitals in Indonesia that have implemented and implemented this *Early Warning Score* (EWS) are Siloam Hospitals. Siloam Hospitals Group or Siloam Hospitals received awards at the 2014 Patient Safety Awards at the fourth international congress regarding patient safety in Kolkata, India, 5 to 6 September 2014. (Dian Indriani Hidayat 2020)

Based on the results of previous research conducted by Putra et al (2019) with the title "Knowledge of Nurses in Implementing Early Warning Scoring in the Nursing Room at RSUD Dr. Soedirman Kebumen", the results of nurses' knowledge about EWS were good (35.9%), most of the education was a nurse. D3 (61.5%), attended BTCLS training (87.1%), working duration was less than 5 years (48.7%).

Early Warning Score is a standard national accreditation Hospital (SNARS), and therefore the health workers, especially nurses have to master the application of the concept of *Early Warning Score* (EWS) well. Currently, the Batam Government Agency Hospital has implemented this system but it is not optimal. According to the results of interviews from several nurses, they are aware of the importance of this EWS but because of the large number of patients and the organizational structure that is still not focused on, it makes the nurses not have time to fill out this EWS observation sheet. (RSBP Batam, 2020).

Based on the data obtained, only 1 person has just attended training on EWS (*Early Warning Score)*, namely the Head of the PIE RSBP Batam Room, but for the nurse implementing the EWS (*Early Warning Score)* this has been socialized, based on data according to education in the lotus room of professional education Nurse 3 people (0.15%), Bachelor of nursing 1 person (0.05%), and D3 education 15 people (0.75%) while in the orchid room nurse professional education 1 person (0.07%), Bachelor of nursing 1 person (0.07%), and 11 people with D3 education (0.84%), and based on the length of time working in the lotus room> 5 years as many as 18 people (0.94%), and <5 years as many as 1 person (0, 05%), while in the orchid room> 5 years there were 11 people (0.84%), and <5 years there were 2 people (0.15%).

According to the last 3 months of data regarding the *Early Warning Score* (EWS) data at RSBP Batam, especially in the Teratai room, there were 694 patients and the complete *Early Warning Score* (EWS) observation sheet was only 156 patients, while in the Orchid room there were 415 patients with the *Early* observation sheet. Complete *Warning Score* (EWS) in only 203 patients.

2 Methods

This research was conducted with a correlational quantitative design. The independent variable in this study is a factor internal: knowledge, skills, and perception of nurses, and external factors: quality system and the quality of the information in the room and the dependent variable of this research is the application of the *Early Warning Score* (EWS). This research will be conducted in January 2021. This research will be conducted in the Lotus room and Orchid room RSBP by distributing questionnaires to nurses in the lotus room and orchid room, with a population of 3 2 respondents. Univariate analysis using frequency distribution tables and bivariate analysis using the chi-square test.

3 Results and Discussion

3.1 Univariate Analysis

a. Nurse Knowledge Level About Implementation of *Early Warning Score* in Lotus Room and Orchid Room, Batam City Hospital

Table 1. Frequency Distribution of Nurses' Knowledge Level About *Early Warning Score* in the Lotus Room and Orchid Room at RSBP Batam City

Knowledge Level	Frequency (n)	Percentage (%)
Low	19	59.4
High	13	40.6
Total	**32**	**100**

According to the table 1 note that the average level of knowledge of nurses about the implementation of Early Warning Score is low that as many as 19 respondents (59,4%).

b. Perceptions of Nurses About Implementation of *Early Warning Score* in Lotus Room and Orchid Room, Batam City Hospital

Table 2. Frequency Distribution of Nurses' Perceptions About *Early Warning Score* in Lotus Room and Orchid Room, Batam City Hospital

Nurse Perceptions	Frequency (n)	Percentage (%)
Good	17	53.1
Not good	15	46.9
Total	**32**	**100**

According to the table 2 note that the average perception of nurses regarding the implementation of Early Warning Score well as many as 17 respondents (53, 1%).

c. Nursing Skills About Implementation of *Early Warning Score* in Lotus Room and Orchid Room, Batam City Hospital

Table 3 Frequency Distribution of Nurse Skills About the Implementation of *Early Warning Score* in the Lotus Room and Orchid Room of the RSBP Batam City

Nurse Skills	Frequency (n)	Percentage (%)
Good	15	46.9
Not good	17	53.1
Total	**32**	**100**

According to the table 3 note that the average skills of nurses on the implementation of Early Warning Score is not good, that as much as 17 respondents (53,1%).

d. Implementation of *Early Warning Score* in Lotus Room and Orchid Room at RSBP Kota Batam.

Table 4. Frequency Distribution of *Early Warning Score* Implementation in Lotus Room and Orchid Room, Batam City Hospital

Application of the EWS	Frequency (n)	Percentage (%)
Done	10	31.3
Are not done	22	68.8
Total	**32**	**100**

Based on table 4, it is known that the average nurse in the lotus room and orchid room did not fill in the EWS observation sheet as many as 22 respondents (68,8%).

e. External Factors of Implementation of *Early Warning Score* in Lotus Room and Orchid Room of RSBP Batam City

Table 5. Frequency Distribution of External Factors Implementation of *Early Warning Score* in Lotus Room and Orchid Room at RSBP Batam City

External Factors	Frequency (n)	Percentage (%)
1. System Quality		
Good	26	81.3
Not good	6	18.8
2. Quality of Information		
Good	30	93.8
Not good	2	6.3
Total	**32**	**100**

According to the table 5 note that the implementation of EWS in quality system runs fine in the amount of (81,3%), and quality of information (93.8%).

3.2 Bivariate Analysis

Bivariate analysis was carried out using chi-square to determine the factors of knowledge, perception, skills, system quality, and information quality on the application of the EWS. With the normality test using *Kolmogorov-Smirnov* with the results of all factors distributed normally ($> 0,05$) and then the chi-square test was carried out using SPSS statistical software.

a. The Nurse's Knowledge Factor Towards the Implementation of *Early Warning Score* in the Lotus Room and the Orchid Room of the RSBP Batam City.

Table 6. Analysis of the knowledge factor on the Implementation of the *Early Warning Score* in the Lotus Room and the Orchid Room at the RSBP Batam City

Knowledge Level	Application of the EWS				P-Value
	Done		Are not done		
	N	%	n	%	0.000
Low	0	0	20	90.9	
High	10	100	2	9,1	
Total	10	100	22	100	

According to the table 6 is known that nurses who have little knowledge and do not perform well EWS implementation of 20 respondents (90,9%). The results of the chi square test obtained a *p-value of* 0.000 (p <0,05) which means that there is a factor of knowledge of nurses on the application of EWS.

b. Nursing Skills Factors Toward Implementation of *Early Warning Score* in Lotus Room and Orchid Room RSBP Batam City

Table 7. Analysis of Nurse Skills Factors on the Implementation of *Early Warning Score* in the Lotus Room and Orchid Room at RSBP Batam City

Nurse Skills	Application of the EWS				P-Value
	Done		Are not done		
	N	%	n	%	0.003
Good	2	15.4	13	68.4	
Not good	11	84.6	6	31.6	
Total	12	100	19	100	

According to the table 7 known that nurses who have the skills are not good at doing the implementation of EWS as much as 11 respondents (84,6%). The results of the chi square test obtained a *p-value of* 0.003 (p <0,05) which means that there is a factor of nurse skills towards the application of EWS.

c. Perception Factors of Nurses Toward Implementation of *Early Warning Score* in Lotus Room and Orchid Room of RSBP Batam City

Table 8. Analysis of the Nurse's Perception Factors on the Implementation of *Early Warning Score* in the Lotus Room and Orchid Room of the Batam City Hospital RSBP

Nurse Perceptions	Application of the EWS				P-Value
	Done		Are not done		
	N	%	n	%	
Good	8	80.0	6	27.3	0.005
Not good	2	20.0	16	72.7	
Total	10	100	22	100	

According to the table 8 known that nurses have a good perception of dani did the application of EWS as many as 16 respondents (72.7%). The results of the chi square test obtained a *p-value of* 0.005 (p <0.05), which means that there is a factor of the nurse's perception of the application of EWS.

d. External Factors of System Quality on the Implementation of *Early Warning Score* in the Lotus Room and Orchid Room of the RSBP Batam City

Table 9. Analysis of External Factors of System Quality in the Implementation of *Early Warning Score* in the Lotus Room and Orchid Room of the RSBP Batam City

System Quality	Application of the EWS				P-Value
	Done		Are not done		
	n	%	n	%	
Good	13	100	13	68.4	0.025
Not good	0	100	6	31.6	
Total	13	100	22	100	

Based on table 9 it is known that external factors went well in helping to implement the EWS by 100%. The results of the chi square test obtained a *p-value of* 0.025 (p < 0.05), which means that there are external factors (system quality) in the application of the EWS.

e. External Factors of Information Quality on the Implementation of *Early Warning Score* in the Lotus Room and Orchid Room of the RSBP Batam City

Table 10. Analysis of External Factors Quality of Information in Implementation of *Early Warning Score* in Lotus Room and Orchid Room of RSBP Batam City

Quality of Information	Application of the EWS				P-Value
	Done		Are not done		
	n	%	n	%	
Good	12	92.3	18	94.7	0780
Not good	1	7,7	1	5.3	
Total	13	100	19	100	

According to the table 10 mind that external factors (quality information) is good but not done well in assisting the implementation of EWS by 94, 7%. The results of the chi square test obtained a *p-value of* 0.780 (p < 0.05) which means that there are no external factors (quality of information) in the application of the EWS.

4 Discussion

4.1 Description of Nurse's Knowledge Level Towards Implementation of *Early Warning Score* in Lotus Room and Orchid Room of RSBP Batam City

The results of the research note that the average level of knowledge of nurses about the implementation of Early Warning Score is low that as many as 19 respondents (59, 4%). The results of this study are not in line with the research conducted by (Zega, 2019) regarding the Description of Nurses 'Knowledge about the Nursing Early Warning Scoring

System in the RIC Inpatient Room at the General Hospital of the Adam Malik Center in Medan, the results of research on the majority of nurses' knowledge are good as many as 24 people (96, 0%) and a minority of less than 1 person (4.0%), all respondents *comprehension* knowledge is in the good category with 25 people (100%) and there are not enough and insufficient categories. Of the 20 questions contained in the questionnaire on the level of nurses' knowledge about EWS in the lotus room and the orchid room of RSBP Batam, there were questions with the dominant answer value that the nurse filled was "no", namely the statement " I use EWSS in assessing the condition of emergency patients ", "I give a yellow label to a patient with an EWSS score of 3", "I give a red label to a patient who has respiratory and cardiac arrest ", "Patients with RR 18-20x / i, HR 101-110x / i and response confusion. will be labeled yellow, SpO2 <93 ". Nurses' knowledge about EWS in this study is still at a low level. Q: What Knowledge of nurses greatly affects nurses in identifying score EWS. A study conducted by the theory of Galen et al. (2016) that when nurses misidentify the EWS score, it will cause the patient's condition to worsen. The EWS assessment aims to detect patient health problems (Saaab et al., 2017). The application of the EWS is also important for patients on the ward, but in reality, there are still many nurses who have not implemented it so that it has an impact on EWS documentation. A study conducted by Kyriacos et al. (2009) identified that one of the factors associated with patient mortality on the seventh day after surgery in six wards (55 postoperative patients) was due to one of the nurses documenting EWS. Researchers in this study assumes that most of the nurses' knowledge about EWS is still low. This condition is most likely caused by the lack of training received by nurses on how to implement and identify EWS scoring in the lotus room and orchid room of RSBP Batam City. Therefore, training is needed to increase the knowledge level of nurses so that nurses in the lotus room and the orchid room of RSBP Batam City can fill in the EWS observation sheet appropriately and can prevent worsening of the patient's condition.

This research is supported by Sartika's (2017) theoretical research regarding the level of knowledge of nurses regarding the application of EWS, that knowledge is the result of "knowing" and this occurs after a person senses a certain object. Knowledge is closely related to education, that with high education the person will have a wider pattern of knowledge. Reinforced by Christin's research (2015), it explains that the knowledge of nurses is also an important factor in shaping the readiness of nurses to face unexpected conditions, such as sudden cardiopulmonary arrest and requiring quick resuscitation.

4.2 Overview of Nurses' Perceptions of the Implementation of Early Warning Score in the Lotus Room and Orchid Room of the Batam City Hospital Hospital

The results of this study show that the average nurse's perception of the implementation of the Early Warning Score is good, namely 17 respondents (53, 1%). Based on the results of hypothesis testing using Chi-Square, a significant *p-value was* obtained *of* 0.005 (p <0.05), which means that there is a factor of nurses' perceptions of the implementation of EWS in the Lotus room and the RSBP Orchid room in 2020. The results of this study are in line with the research conducted by Athika Diah (2020) regarding nurses' perceptions of the implementation of the Early Warning Score (EWS) in Banyumas Hospital, 41.7% of the results of treatment had a good perception and at the stage of assessing the perception of nurses at a good level (67.6%). This research is supported by Gibson's (2016) theory saying that perception is a process in which a person; selecting, receiving, organizing, and interpreting information from the environment. Perception involves cognitive and emotional sense will object perceived and refers to the

sensory receptors respond to the stimulus. This statement is supported by Bennet's theory (Luanaigh, 2018) that perception is a cognitive process experienced by each person in understanding information about their environment through the senses, and each person can give a different meaning. This can be influenced by: (1) the level of knowledge and education of a person, (2) factors on the perceptions and/or the perpetrators of the perception, (3) the perceived object or target factor, and (4) the factors of the situation in which the perception is carried out. On the part of the perpetrator, perceptions are influenced by personal characteristics such as attitudes, motivations, interests or interests, experiences, and expectations. The nurse's perception is the nurse's views, feelings, interpretations, and understanding of what happens to the client. The assumption of researchers in this study, the perception of nurses in the implementation of EWS RSBP hospital in the city of Batam should be preceded by a training program created through discussions with nurses, doctors, and medical directors of the hospital. The program includes lectures and applications learned through direct clinical guidance from nurses, as well as training of doctors on the application of the EWS as a detecting tool for patient deterioration.

4.3 Nursing Skills About Implementation of *Early Warning Score* in Lotus Room and Orchid Room, Batam City Hospital

The results of this study note that nurses who have poor skills in implementing EWS are 11 respondents (84, 6%). The results of the chi-square test obtained a *p-value of* 0.003 (p <0,05) which means that there is a factor of nurse skills towards the application of EWS. The results showed that most respondents were not skilled in filling out the Early Warning Score (EWS) sheet. These skills include temperature, pulse, respiration, oxygen saturation, blood pressure, and level of patient awareness. The skills of nurses in filling out the EWS sheet were found to record vital signs on the EWS sheet. This shows that the problem in terms of EWS filling skills is a process that is maintained by nurses to follow up changes in vital signs that occur in patients.

The results of this study are not in line with research conducted by (Jamal, Nurul Aini 2019) on Knowledge, Attitudes and Skills Nurses on *the Early Warning Score* (EWS) in Dr. H. Adam Malik skills of nurses on *Early Warning Score* (EWS) shows that of Of the 136 respondents studied, all nurses had good skills in detecting early deterioration of patients using the *Early Warning Score* (EWS), namely 136 people (100%). This is because the majority of respondents have good knowledge and attitudes.

This research is supported by Abidin's (2011) theory. Skills are the skills a person has in doing a job based on education, high expertise, and responsibility for the job. The skills or actions suggested by Notoadmodjo (2012) are movements or actions of the body after stimulation or adaptation from within or from outside the body of an environment. The response to the stimulus is obvious in the form of an action or practice that can be easily observed by others.

The researchers in this study assumed that the skills to fill out the EWS sheet were made by making decisions by nurses in activating the Code Blue team. This is in line with research conducted by Massey, Chaboyer & Aitken, (2014) which states that skills in early detection of changes in patient conditions affect nurses' decisions in working with the Code Blue team fan at RSBP Batam. Skills and competencies are created through the capacity of the nurse to integrate the knowledge of abilities and experience in decision making. Nursing skills and decision-making are always followed by experience or years of service in the hospital.

4.4 Description of External Factors of System Quality Against Implementation of *Early Warning Score* in Lotus Room and Orchid Room RSBP Batam City

The results of this study show that external factors (system quality) work well in helping the implementation of EWS by 100%. Based on the results of hypothesis testing using Chi-Square, a significant *p-value of* 0.025 (p < 0.05) was obtained, which means that there is a system quality factor in the application of EWS in the Lotus room and the RSBP Orchid room in 2020.

This study is in line with Andika's research (2014) which states that system quality has a positive and meaningful relationship to system use so that system quality improvement and user training can increase system use. Research Soraya said that the better the quality of the system will be the higher the level of use of the system. Improving the quality of the system is a priority if you want to increase the intensity of system use. Past research Soraya (2014) found results that are in line that a quality system influences the use of the system. Soraya said that the hospital as an information system provider is expected to continue to improve the quality of the system to increase the use of the information system in the hospital.

This research is supported by the theory of Perwira (2017) regarding factor analysis related to the use of the Early Warning System inpatient clinical changes. Based on the results of observations, EWS work on patient clinical changes takes a long time, causing user perceptions about the quality of the system to be less good. In addition, the form and flow of the EWS in the clinical changes of the patient are felt to be too complex, difficult to study, and difficult to implement in the patient care process. The EWS form is not evenly distributed across all rooms. The old patient care habits in which PPA including DPJP monitor the clinical progress of the patient with a vital sign temperature chart form causes resistance to EWS in the patient's clinical changes.

This research is also strengthened by Andika's (2015) theory. System quality describes system performance and system views for users. A good quality system is easily accessible, easy to use and learn, efficient, and has complete features as needed.

The researchers in this study assumed that the quality of the EWS system on patient clinical changes was significantly related to the use of EWS in the lotus room and orchid room of the RSBP Batam city so that efforts to improve the quality of the system were needed so that it could be used more quickly and easily, and further training in system use was needed. for all care professionals, especially the nurse in charge.

4.5 Description of External Factors Quality of Information Against Implementation of *Early Warning Score* in Lotus Room and Orchid Room RSBP Batam City

The results of this research note that external factors (quality information) are good but not done well in assisting the implementation of EWS by 94, 7%. Based on the results of hypothesis testing using Chi-Square, a significant *p-value was* obtained of 0.780 (p < 0.05), which means that there is no information quality factor in the application of EWS in the Lotus room and the RSBP Orchid room in 2020. This is in line with the research. Perwira and Erlirianto (2016) where the quality of information does not have a significant effect on interest in using the system, but the use of the system is mediated by user satisfaction factors on system use. Searching for quality information is not the main motivation for users to use a system. Motivation tends to be influenced by other factors such as the speed and ease of the system.

This research is supported by Anjaryani's (2009) theory. The quality of information reflects the quality of the output of the information system, namely regarding the usefulness and reliability of data. The aspects of relevance and completeness of information are fundamental issues related to perceptions of the quality of information. Good quality information is important to avoid errors in the use of the system.

The assumption of researchers in this study, the quality of information does not have a significant effect on interest in using the system, but the use of the system is mediated by user satisfaction factors on system use. Searching for quality information is not the main motivation for users to use a system. Motivation tends to be influenced by other factors such as the speed and ease of the system.

5 Conclusion

It can be seen that the average level of knowledge of nurses about the application of the Early Warning Score is still low, namely, 19 respondents (59.4%), the perception of nurses about the implementation of the Early Warning Score is good, namely, 17 respondents (53.1%), the skills of nurses on application The Early Warning Score was not good, namely, 17 respondents (53.1%), and the implementation of EWS in the quality of the system was running well (81.3%), and the quality of information (93.8%). The analysis of this research is the univariate analysis and bivariate analysis and data processing using the chi-square test (p <0.05). The results of the chi-square test analysis showed a value of p <0.025. This shows that there are factors of knowledge, perceptions of nurses, skills, and external factors of system quality. Thus, Ho is rejected and Ha is accepted, so it can be concluded that there are factors that influence the implementation of the EWS Early Warning Score in the lotus room and orchid room RSBP Batam City in 2020.

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The Relationship of Therapeutic Communication with Inpatient Satisfaction

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Abstract. The dissatisfaction of patients to care healthcare one of which is influenced by factors communication therapeutic nurse in providing care nursing. The purpose of this study was to see whether there was a relationship between nurse therapeutic communication and inpatient satisfaction at the Orchid Room at the BP Batam Hospital in 2020. This type of research was descriptive quantitative correlation and cross-sectional design, variable the independent communication therapeutic nurses the dependent variable in patient satisfaction. The population in this study were all patients admitted to Orchid Ward BP Batam with day carelessness over three days. The average number of patients is 108 patients per month. Technics taking samples is total sampling. Analysis of the research is that univariate and bivariate and processing test data using Chi-square ($p \leq 0.05$). The results showed that most of the respondents whose in patient satisfaction were not satisfied with poor nurse communication were 50 respondents (78.1%). The results of the analysis using the Chi-Square statistical test with 95% CI obtained p-value = 0.000, meaning $p < 0.05$, thus Ho is rejected and Ha is accepted, so it can be concluded that there is a significant relationship between Therapeutic Communication Nurses and Inpatient Satisfaction in the Orchid Room. Hospital BP Batam Year 2020.

Keywords: Communication Therapeutic, Satisfaction, Patient

1   Introduction

The hospital is one of the health facilities in which to carry out efforts health. Health effort is any activity to maintain and improve health, aimed at realizing an optimal degree of health for the community. Health efforts are carried out with a maintenance approach, health improvement (*Promotive*), disease prevention *(Preventive)*, disease healing (*Curative*), and health recovery (*Rehabilitative*), which are carried out comprehensively, integrated, and continuously (Permenkes No 34, 2016).

Quality of service is to show any form of actualization of service activities that satisfy the people who receive the services specified in the five elements, namely with responsiveness (*Responsiveness*), requires the existence of a guarantee (*Assurance*), show evidence of a physical (*Tangible*), show empathy (*Empathy*) and those who provide services by reliability (*Reliability*) are given in consequence to satisfy the ministry (Nursalam, 2016).

According to data from the *World Health Organization* (WHO) in 2016 throughout the United States and Europe, consumer satisfaction plays an increasingly important role in the quality of care and health reform. In the last 10 years, the proliferation of a survey that focuses

exclusively on the patient's experience, as the experience of care while waiting, the quality of basic amenities, and communication with the service of health, among 17 countries, Italy was rated second by the WHO, but only 20% of the population say they are satisfied with their health care system.

Based on the data National Census that houses government hospital is homesick most major used for hospitalized patients as much as 37.1% and homesick private as much as 34.3%. The rest of the community chooses health services in maternity clinics and Public Health Centre because the location is closer to their homes. Each patient expects to get the best service and be able to communicate well where the patient feels comfortable when communicating with nurses. According to the Ministry of Health of Indonesia in 2015, they found their complaints about dissatisfaction patient to nurse communication. The average data obtained from several hospitals in Indonesia shows that 67% of patients complain of dissatisfaction in receiving health services (Depkes, 2015).

Therapeutic communication is one of the factors that play an important role in determining patient satisfaction because quality nursing services are not only determined by the accuracy of service but how nurses can develop communication relationships with patients in providing nursing services for the success and recovery of patients. Not infrequently the patient feels outcomes or results not by he hopes, but the patient feels satisfied because the nurse can communicate well to the patient (Depkes, 2015).

Therapeutic communication carried out by nurses aims to provide information and maintain communication with patients, patient families, and other health workers. Nurses are in a unique position to understand the needs and wants of patients and their families. The relationship of mutual giving and receiving between nurses and patients in nursing services is called the therapeutic communication nurse who is a professional communications nurse (Intan Juwita Sagala, 2019).

Interactions are conducted by nurses to patients aims to foster a relationship of mutual trust with the patient, so it will grow a sense of trust of patients to nurses to complain that she felt. Of the complaints of these patients, nurses know the picture that is clear about the condition of the client who is being treated as well as the signs and symptoms that are displayed. Illustration of this that will be used as a reference in determining the issue of nursing and nursing actions to be carried out by the complaint and nursing problems being experienced by the client, so it helps in speeding up the healing process. The hope is that the length of the client's stay will be shorter and shortened by the presence of therapeutic communication activities (Intan Juwita Sagala, 2019).

Research conducted by Alemu, et al in Dora (2019) at the Hospital of Debre Markos, Ethiopia, obtained the result that the training of communication interpersonal nursing ward is very important. This training was able to make a significant change in the patient satisfaction level from 25.1% to 82.5%. This indicates that the communication therapeutic very instrumental important in increasing the satisfaction of patients. Research more done by Dzomeku et al in Siti (2015), in a study of 100 patients in Ghana, showed that as many as 70.7% of patients are less satisfied with the service that is given by a nurse (Siti, 2015).

Research else that is done by Akbar, et al in Astutik (2018), in the installation of inpatient hospitalization in a private hospital in Makassar, it is known that patient dissatisfaction towards communication therapeutic that is done by a nurse caused by nurses only Now and occasionally say hello when entering into patient care rooms, never introduce themselves, never explain the rules that apply in the hospital, and nurses rarely provide an explanation of nursing actions to be given to patients. Nurses sometimes use scientific language which is difficult to be understood by the patient. Patients also said that nurses do not ever tell the time of the meeting

and a plan of action that will be done next, nurses rarely provide an opportunity for the patient to ask, nurses sometimes when leaving the rooms of patients do not take leave up in advance, as well as in communicating nurse looks rarely friendly.

This research was supported by Irawan in Sembiring (2019), at RSUD Dr. Rasidin Padang City, who said that the cause of patient dissatisfaction with therapeutic communication was because nurses did not deliver greetings, nurses could not provide a sense of security and comfort, nurses were less friendly, less responsive when patients had complaints, the nurse did not pay enough attention, the nurse did not explain and introduced the person in charge of the shift if he wanted to be contacted when the patient needed. Based on the data it can be concluded that the number of satisfaction of patients is still relatively low, so the satisfaction of hospital patients becomes problems both in Indonesia and in the outside country.

The low rates of patient satisfaction will affect the development of Rumah Sakit, with such a lack of satisfaction of patients can lead to the loss of confidence of patients to the hospital. One way to increase patient satisfaction can be done by improving therapeutic communication in the nursing process in serving patients. Because one important indicator of the quality of care homesick is the satisfaction of patients.

Rumah Sakit BP Batam is a home Hospital referral of type B and one of the institutions responsible for providing health care with an emphasis on healing and recovery for the people of Batam. BP Batam Hospital is not only used as a place for health services, but is also used as a place of education for prospective doctors, nurses, midwives, and other health workers as well as students from various universities who want to do research. Care homesickness consists of servicing ambulatory path and inpatient hospitalization. Services inpatient hospitalization is one of the services the medical mainstream in the hospital as a place where there is the interaction between the client and the nurse in a time that is quite long.

Care inpatient unit consists of a surgical, non-surgical, obstetrics, children, perinatology, ICU / CVCU, and spatial isolation of disease infection emerging (PIE). Figures visits inpatient hospitalization Rumah Sakit BP Batam always experienced an increase from year to year. The number of patient visits to the BP Batam Hospital in 2017 was 8409 people, in 2018 there were 9173 people, and in 2019 there were 9210 people, while the number of inpatient visits to the Orchid room averaged 108 people per month (RSBP Batam, 2020).

From the survey results Orchid Hospital inpatient BP Batam on a survey of patient satisfaction in general about the hospital service in August 2020, obtained the category of very satisfied 37% satisfied 45% and less satisfied 18%. In general, the level of satisfaction of patients had maximal standardized patient satisfaction in the health service are set out in the nation by the Ministry of Health. According to the Ministry of Health Regulation of the Republic of Indonesia of 2016 concerning Minimum Service Standards for patient satisfaction, which is above 95% (Depkes, 2015).

When the discovered ministry of health with the level of satisfaction of the patients were below 95%, it is considered that the health services provided do not meet the minimum or not qualified. Where for the speed of responding there are still some who are not satisfied, so here it is necessary to implement therapeutic communication by nurses who are tasked with increasing patient satisfaction in receiving health services.

From the results of studies preliminary who do researchers dated 10 October 2020 through interviews with 10 patients at the Orchid Lounge BP Batam Hospital found 6 patients said nurses did not provide information about the condition of the health of patients, whereas 4 patients said that nurses provide information about the state of health of the patient. Additionally, 8 patients said nurses did not introduce themselves when the first contact with patients, 2 patients again said that the nurse when contact first with the patient, the nurse introduced himself. A total of 5

patients said the nurse did not explain the procedure of action being performed, and 5 more patients said that the nurse explained the procedure of action taken by the nurse. According to the 7 patients, nurses currently wanted out of the room the patient is not any farewell, in 3 patients again said that the nurse is currently wanted out of the room the patient is always saying goodbye. It is demonstrated that the communication therapeutic are performed by nurses in Anggrek BP Batam Hospital is not optimal. Based on the above phenomenon, the researchers are interested in researching "Relations Therapeutic Communication Nurse with Satisfaction Patients Hospitalized Inpatient n Space Orchid House Hospital BP Batam Year 2020".

2   Methods

This research is a *descriptive quantitative correlation* with *a cross-sectional* design. The research was conducted in the Orchid Room of the BP Batam Hospital from January 27, 2021, to February 20, 2021. Participants in this study were all patients who were treated in Orchid room BP Batam Hospital with the treatment of approximately three days as many as 108 people with Mechanical *total sampling*. Data were collected through a questionnaire or questionnaire. Data analysis was performed using univariate and bivariate analysis and then the data was processed using the *Chi-square* test ($p \leq 0.05$) with a computerized program (*IBM SPSS Statistics 23.0 for windows*).

3   Results and Discussion

3.1   Univariate Results
a.   **Communications Therapeutic Nurse diruang Orchid House Hospital BP Batam Year 2020**

Table 1. Respondent Frequency Distribution Based on Nurse Therapeutic Communication in the Orchid Room of BP Batam Hospital 2020 year

Nurse Therapeutic Communication	f	%
Good	48	44.4
Not good	60	55.6
amount	108	100.0

The results showed that of the 108 patients treated at the Anggrek Room at the BP Batam Hospital in 2020, more than half (55.6%) of respondents said the therapeutic communication of nurses was not good. According to the theory of Revelation in Astutik (2018), states that phase of work is the core of the whole process of communication therapeutic, because in it nurses are required to assist and support the patient to express feelings and thoughts, and then analyze the responses or messages were delivered by the patient. In the phase of work is the stage where the nurses and patients have a longer time-to face and nurses also listen to it actively and with full attention so it is able to help the patient to define the problem of health.

Of the 10 statements on the therapeutic communication questionnaire, there were 2 lowest scores on the parameter "relax" with the statement "the nurse is relaxed to me" the result was 84 (78%) respondents answered no. and the parameters of "being polite" with

the statement "the nurse leaned body towards you" obtained results do not answer is 78 (72%) of respondents. Based on this, the researchers assume that a relaxed nurse's attitude and good body gestures are a form of non-verbal communication that can affect therapeutic communication itself, because the more relaxed attitudes of nurses and nurses who are polite illustrate that the nurse is ethical well, and can communicate well and so als vice versa. Lack of nurse therapeutic communication was also due the number of patients per day with an average of 17-20 patients per day. The number of patients is not proportional to the number of nurses on duty per shift, which is only 3 people, 1 PJ shif and 2 administrators so that the nurse's performance is not as optimal as the respondent wants. And according to the theory of Stuart (2016) be relaxed and leaning body to the way you or the future is one of the forms showed concern that workers health have time to listen to patient complaints through the techniques of communication therapeutic.

b. **Satisfaction Patient Care Inpatient diruang Orchid House Hospital BP Batam Year 2020**

Table 2. Respondent Frequency Distribution Based on Inpatient Satisfaction in the Orchid Room at BP Batam Hospital 2020 year

Satisfaction Patient Hospitalization	*f*	*%*
Satisfied	44	40.7
Not Satisfied	64	59.3
amount	108	100.0

The results showed that of the 108 patients treated at the Anggrek Room at the BP Batam Hospital in 2020, more than half (59.3%) of respondents said they were dissatisfied. According to the theory Budiastuti in Astutik (2018) which affects the satisfaction of patients is care nursing particularly communication that is planning how the information that is given by health care personnel and how Complaint complaints from patients quickly accepted by nurses in providing a response or assistance to the complaints of patients and what needed by the patient.

In this study, the results obtained are in accordance with the existing theory that the nurse's therapeutic communication affects the patient's level of satisfaction, because it gives attention to the patient and informs what action plan the patient will undergo, the patient will create a feeling of being appreciated, cared for and understood by the patient so that it arises. feeling of satisfaction. Patient satisfaction is the feeling of pleasure or disappointment of someone who appears after comparing the results (performance) to performance (expected results. A person will feel satisfied if what is obtained is in accordance with his expectations.

Of the 15 statements on the questionnaire satisfaction of patients hospitalized inpatient contained the value low in reliability parameter is "Timeliness nurse arrived diruangan when you need a" respondents rarely was 85 (79%) of respondents. Based on this case the researchers assume that due to a high workload and the number of nurses is still less make nurses overwhelmed doing the routine care of all the actions that will be given to the patient, it makes the interaction of nurses with patients less, while nurse with a patient just a formality just Karna documentation in the medical record and SIMRS to do a nurse too much, and when the patient asked the nurse comes spatial nurses are not

directly away so make patients are waiting, so that the dissatisfaction of respondents due to nursing care that is given is not satisfactory.

3.2 Bivariate Results

a. Relations Therapeutic Communication Nurse with Satisfaction Patients Inpatient hospitalization diruang Orchid Hospital BP Batam 2020.

Table 3. The Relationship between Nurse Therapeutic Communication and Inpatient Satisfaction in Orchid Room at BP Batam Hospital 2020 year

Communication Therapeutic Nurse	*Satisfaction of Patients Hospitalized Confinement*				amount		*P value*
	Satisfied		Not Satisfied				
	f	*%*	*f*	*%*	*f*	*%*	
Good	34	77.3	14	21.9	48	44.4	0,000
Not good	10	22.7	50	78.1	60	55.6	
amount	44	100	64	100	108	100	

Results of the study showed that of 108 respondents showed that the majority of respondents were not satisfied hospitalization satisfaction with communication nurse unfavorable is 50 respondents with the percentage (78.1%). Based on the test statistic *Chi Square* was obtained *p value* = 0.000 means *p* <0,05 hence Ho refused and Ha is received so that it can be concluded that there is a significant relationship between Therapeutic Communication Nurse with Inpatient Satisfaction in the Orchid Room Rumah Sakit BP Batam Year 2020.

Results of the study is consistent with research that is performed by Chichi Hafifa Transyah (2017), entitled relationship with the application of therapeutic communication nurse patient satisfaction in Padang, the results showed that more than half of that 64% of patients are not satisfied with the implementation of therapeutic communication nurse. More than half, namely 74% of nurses, lack of therapeutic communication with patients. So there is a significant relationship between patient satisfaction with the implementation of nurse therapeutic communication in the internal inpatient room of dr. Rasidi Padang in 2017 (p = 0.003 (<0.05) (Toni & Transyah, 2018).

And research more done by Dora (2019) which called relationship communication therapeutic nurse with patient satisfaction with the results of the univariate analysis showed that 43.3% of respondents said they were satisfied and 56.7% of the respondents are not satisfied, the bivariate analysis in getting p value = 0.000 This means that there is a significant relationship between the therapeutic communication of nurses and the satisfaction of non- surgical inpatients at Makassar Hospital. The results of this study were also supported by research conducted by Haryanto in Siti (2015) entitled the relationship between nurse therapeutic communication and patient satisfaction at the Kendal Islamic Hospital, the results obtained were the value of p = 0.01 (p <0.05) which indicated that There is a relationship between nurse therapeutic communication and patient satisfaction.

Analysis researcher can be concluded that the communication therapeutic nurse may affect the satisfaction of patients in care nursing at home sick. By doing good therapeutic communication it will create patient satisfaction in terms of nursing services in the hospital. With nurses always applying therapeutic communication, the patient will feel satisfied and will feel valued as a patient, so this will benefit the hospital and also benefit

the patient himself. Application of therapeutic communication by nurses is important and must be done in order to provide maximum nursing care for patients and provide quality that is good for the hospital.

4   Conclusion

From the results of the analysis of the data can be inferred about the Relationship Communication Therapeutic Nurse with Patient Satisfaction Inpatient hospital at Orchid Lounge BP Batam Year 2020 as follows:
a.   More than half (55.6%) of respondents said the therapeutic communication of nurses was not good
b.   More than half (59.3%) of respondents said they were not satisfied.
c.   Most of the respondents were not satisfied hospitalization satisfaction with the communication of nurses who are less good is the 50 respondents with a percentage (78.1%).
d.   The results of the analysis by using the test statistic Chi Square with a CI of 95% was obtained *p value* = 0.000 means $p < 0.05$ hence Ho refused and Ha is received so that it can be concluded that there is a significant relationship between Therapeutic Communication Nurse with Inpatient Satisfaction in Orchid Lounge Hospital BP Batam Year 2020.

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Factors Associated with Anxiety and Depression in Cemotherapy Patients

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Abstract. Cancer is an abnormal cell growth that is caused by a mutation genes in the human body that can turn malignant. One therapy which is used in suppressing the growth of cancer cells is chemotherapy. Wrong One effect of chemotherapy is the emergence of anxiety due to its side effects arising from chemotherapy. The phenomenon found in the chemotherapy room is There are 4 dominant factors, including age, gender, education and type of cancer. This research was conducted to determine the factors associated with anxiety in patients undergoing chemotherapy at BP Batam Hospital. Method research with quantitative methods. The sample consisted of 60 respondents who underwent chemotherapy at BP Batam Hospital in 2021 with sampling techniques namely total sampling. The data were processed using the Chi-square test. Analysis Univariate results the predominant patient characteristics were aged 45-59 years 38 patients (63.3%), female gender 36 (60%), education level by level SMA 23 (38.3%), Type of breast cancer 36 (60%), the 3rd chemotherapy cycle 11 (18.3). Bivariate results showed that there was a relationship between age (p-value 0.000) and gender (p-value 0.037), and the type of cancer (p-value 0.000) at the level of anxiety and education has no significant relationship with the level of anxiety (p-value 0.836). It is concluded that age and type of cancer are the most related factors against anxiety. The results of this research are expected to be used as basic data for nurses in the nursing division and chemotherapy services at the BP Batam Hospital Exploitation of Batam to carry out activities to reduce anxiety on patients undergoing chemotherapy.

Keywords: Cancer, Chemotherapy, Anxiety Level

1 Introduction

Disease of cancer is a group of diseases that is characterized by the growth and spread of cells abnormal that is not controlled which could resulting in death. The cancer incidence rate is high and is the third leading cause of death in Indonesia after heart disease and stroke. Data that show in 2018, from 185 in the world there are 35 types of cancer that have been obtained by the investigators. Every year approximately 9.6 million people worldwide die from cancer and 1 in 6 deaths are caused by cancer (World Health Organization, 2018).

According to Globalcan data, taking ASEAN- wide data on the number of new cancer cases 2020 amounted to 2.2 million with the highest number of cancer cases in Southeast Asia, breast cancer 298,445 (25.8%), cervical cancer 190,874 (16.5%) and colon cancer 52,907 (4.6%). In 2013, the prevalence of the incidence of cancer in Indonesia by 1.4%, or about 347 792 inhabitants, while the incidence of cancer is highest is cancer of the cervix occupies the

sequence both with the prevalence of 0.8%, where the provinces with the highest prevalence in the Riau Islands, North Maluku and DI Yogyakarta. Referring to the data presented by Rikesdas 2018, there is a breast cancer rate of 42.1 per 100,000 population with an average death rate of 17 per 100,000 population and cervical cancer of 23.4 per 100,000 population with an average death rate of 13.9 per 100,000 population. (RISKESDAS, 2018)

Based on the data record of medical in Rumah Sakit Agency Concession Batam (RSBP) in September 2019 to September 2020 shows the number of patients were diagnosed with cancer and underwent chemotherapy as many as 807 people with the incidence of cancer is highest is cancer of the breast, cancer of the ovary, colon cancer and cancer cervix (RSBP 2019). From these data, interviews were conducted with patients who underwent chemotherapy at RSBP Batam, namely 10 patients interviewed 8 were female and 2 were male, aged around 40-60 years, experienced anxiety when diagnosed with cancer so they were afraid and anxious about undergoing chemotherapy but with The doctor and nurse explained that the patient wanted chemotherapy. 10 Patients who are about to undergo chemotherapy are very afraid and very anxious, the anxiety experienced by the patient because he has just taken his first chemotherapy procedure. It was found that some of the patients had their first chemotherapy, chemotherapy to cycle two and three seem more calm. But found also impact negatively on the Home Hospital BP Batam on worries that excessive at the time prior to therapy first who lived to do is patients are reluctant to undergo chemotherapy with reason dizziness, not tasty body, afraid and not ready to face treatment.

Subsequently found two patients who underwent chemotherapy with educational background not in school and not graduate school experience anxiety to chemotherapy to the next, whereas 8 patients with a high school education to diploma only feel anxiety when the first time undergoing chemotherapy and subsequent chemotherapy was quieter. Female patients with breast cancer have higher anxiety about cancer due to fear of not being able to get together with family anymore and disturbing body image.

Patients with thyroid cancer who will do the third chemotherapy, saying that he had felt tired doing chemotherapy is routinely because he felt less believe themselves to be the change that he experienced in himself. The patient with ovarian cancer received his third chemotherapy, said that he was no longer anxious because he could accept everything that was happening to him, he also said that he was excited to undergo chemotherapy because he wanted to recover quickly from his illness.

Study Preliminary were carried out in harmony with the research that is carried out by Tsaras 2018 on anxiety in cancer patients that analyzes multivariable showed that symptoms of anxiety were more severe associated with age ≥60 years, the type of sex women, where lived the outskirts of the city, an index of mass body <18.5, and cancer stage III. Age ≥60 years, the type of sex women. (Tsaras et al., 2018)

According to the study (Putra Shah, 2015) entitled Relationship Support Families with Level Anxiety in Patients Cancer in Undergoing Chemotherapy in RSU Dr. Pirngadi city of Medan in 2015. Based on the results of the distribution of the frequency of the level of anxiety in patients with cancer to undergo chemotherapy obtained the majority of the anxiety level of patients undergoing chemotherapy in a majority of light as much as 26 patients (44.1%). According to researchers this is caused by other than good family support, the majority of patients undergoing chemotherapy are in the third chemotherapy cycle (22 patients) so that the patient's anxiety level has started to decrease. In addition to the chemotherapy cycle factor, the level of anxiety is also influenced by age. The factor related to the patient's anxiety level in undergoing chemotherapy is the patient's age. The patient's experience in undergoing treatment is also an intrinsic factor related to the patient's level of anxiety.

From the results of interviews that have been conducted and theories that are in the background behind the causes associated with anxiety that the diagnosis of cancer, chemotherapy prime and four dominant factors found in Batam Bp Hospital such as age, sex, type of cancer and education. Therefore, researchers are interested in examining the anxiety level of chemotherapy patients while undergoing chemotherapy and then analyzing factors related to chemotherapy patient anxiety, factors such as age, gender, education level, type of cancer.

2 Method

This research was conducted with the design *of quantitative* using questionnaires ZSAS *(Zung Self-Rating Anxiety Scale.* The independent variables in this study were age, gender, education level, type of cancer, and the dependent variable is the level of anxiety of patients who undergo chemotherapy. The data were taken using a questionnaire, The data were analyzed using the *chi-square* technique.The population and sample of the study were 60 patients.

3 Results and Discussion

3.1 Univariate Analysis
a. Patient Characteristics Based on Age

Table 1. Distribution of Age Characteristics of Chemotherapy Patients at BP Batam Hospital 2021

Age	Amount	Percentage (%)
17-25 years	1	1.7
26-35 years	4	6.7
36-44 years	8	13.3
45-59 years	38	63.3
60-74 years	9	15.0

Table 1 shows that the majority of patients are in the age range 45-59 years as many as 38 patients (63.3%)

b. Characteristics of Patients by Type Sex

Table 2. Distribution Characteristics Type Gender Chemotherapy at Home Hospital BP Batam 2021

Type Sex	Amount	Percentage (%)
Man	24	40
Women	36	60
Total	**60**	**100.0**

Table 2 shows that 60 patients who have male gender are 24 people (40%) and female as many as 36 people (60%).

c. Patient Characteristics Based on Education

Table 3. Distribution of Chemotherapy Education Characteristics at BP Batam Hospital 2021

Education	amount	Percentage (%)
Not school	6	10.0
SD	12	20.0
Junior High	10	16.7
High school	23	38.3
bachelor	9	15.0
Total	**60**	**100.0**

Table 3 shows that the majority of education in patient chemotherapy are high school graduates with 23 people (38.3%) and the least little school which 6 (10%).

d. Patient Characteristics Based on Cancer Type

Table 4. Distribution of Characteristics of Types of Chemotherapy Cancer at BP Batam Hospital 2021

Types of Cancer	Amount	Percentage (%)
Breast	36	60.0
Testicles	11	11.7
Ca Colon	13	13.3
Total	**60**	**100.0**

Table 4 shows that the majority of cancer chemotherapy at BP Batam Hospital is breast cancer, 36 people (60%), Testicular Cancer (13.3%), Colon Cancer (colon) 13 people (11.7%).

e. Patient Characteristics Based on Chemotherapy Cycles

Table 5. Distribution of Chemotherapy Cycle Characteristics

Cycle	Amount	Percentage (%)
Cycle 1	25	46.7
Cycle 2	10	8.3
Cycle 3	11	18.3
Cycle 5	2	3.3
Cycle 6	2	1.7
Cycle 7	4	6.7

Table 5 shows that the majority of patients with cancer who undergo chemotherapy with the cycle of the 1st 28 people (46.7%) and cycle the bit cycle 6 (1.7%).

f. Anxiety Level Category

Table 6. Distribution of the frequency of anxiety levels

Category	Amount	Percentage (%)
Mild anxiety	20	33.3
Moderate Anxious	31	51.7
anxious weight	9	1.5
Total	**60**	**100.0**

Table 6 shows that the category of anxiety in cancer patients undergoing chemotherapy at BP Batam Hospital is the majority of moderate anxiety is 31 people (51.7%), mild anxiety is 20 people (33.3%) and Anxious weight 9 (1.5%).

3.2 Bivariate Analysis
a. Bivariate Analysis Results

The bivariate analysis was performed using *chi-square* to determine the relationship between gender, education, gender, age on the level of anxiety of patients who undergo chemotherapy. With the normality test using the *Kolmogorov-Smirnov,* the results of all factors are normally distributed (> 0.05) and then tested by *chi-square is* carried out using SPSS statistical software.

Table 7. Distribution of factors related to the level of anxiety in chemotherapy patients

Characteristics Demographics	Light anxiety N (%)	Being anxious N (%)	anxious weight N (%)	P value
Age				0.037
17-25 years	0	1 (100%)	0	
26-35 years	2 (50%)	2 (50%)	0	
36-44 years	5 (62.5%)	3 (37.5%)	0	
45-59 years	8 (21.1%)	21 (55.3%)	9 (23.7%)	
60-74 years	5 (55.6%)	4 (44.4%)	0	
Type Gender:				
Man	18 (75%)	6 (25%)	0 (0%)	0,000
Women	2 (6.9%)	25 (69.4%)	9 (25%)	
Education:				
Not school	2 (33.3%)	2 (6.5%)	2 (33.3%)	0.836
Elementary	4 (33.3%)	7 (58.3%)	1 (8.3%)	
Junior High	2 (20%)	7 (70%)	1 (10%)	
High school	8 (34.8%)	11 (47.8%)	4 (17.4%)	
Bachelor	4 (44.4%)	4 (44.4%)	1 (11.1%)	
Cancer Type:				
Breast	2 (5.6%)	25 (69.4%)	9 (25%)	0,000
Testicles	10 (90.9%)	1 (9.1%)	0	
Ca Colon	8 (61.5%)	5 (38.5%)	0	

Results of the study found the age of the majority of 45-59 years with anxiety were 21 (55.3%), anxiety heavy 9 (23.2%) with contained the relationship between age and anxiety level with a *p-value of* 0.037. Furthermore, patients with various sex women with levels of anxiety mild 2 (6.9%), anxiety were 25 (69.4%) and severe anxiety 9 (25%) and male patients with mild anxiety levels of 18 (75%), anxiety while 6 (25%) with *p-value =* 0.000 indicates a relationship between gender and anxiety level. Furthermore, the level of education the majority of patients who undergo chemotherapy have anxiety were 11 (47.8%) with education graduate high school with a *p- value =* 0.836, which means there is no relationship between education and the level of anxiety. Furthermore, with the majority of cancer types of cancer breast with anxiety were 25 (69.4%) with a *p-value =* 0.000.

4   Discussion

4.1   Overview The level of anxiety Patients who Undergoing Chemotherapy at Home Hospital Board of Batam.

The results of research conducted at BP Batam Hospital found that 60% (36 people) of cancer patients experienced moderate anxiety. This research is in line with research (Manullang, 2020) with the patient's anxiety levels of cancer in undergoing chemotherapy at the hospital. Haji Adam Malik Medan is mostly anxious (44.8%). Likewise with research (Damanik, 2015) on the level of anxiety of cancer patients undergoing chemotherapy at RUD Arifin Achmad, which stated that the majority of cancer patients undergoing chemotherapy were anxious (44.8%).

Assumptions investigators is that patients who undergo chemotherapy experience anxiety at being perceived levels in cancer patients undergoing chemotherapy is a natural thing, and this is still included in the responses are adaptive, patients answered questions with emotional responses, but they can be controlled.

Medium anxiety is a phase of anxiety where the perception of the environment decreases, the individual focuses more on important things at that time, putting other things aside so that someone experiences selective attention but can do something more focused (Stuart and Sundeen, 1998) in research (Hayati, 2016). Manifestations can be seen from the level of anxiety was it among others anxious / nervous, afraid for no apparent reason, frequent urination, difficulty sleeping, headache, sore throat or sore muscles, shortness of breath, hands cold and always sweaty.

The assumption of the next researcher is that the results of the questions that have the dominant answer are that patients who have anxiety are experiencing complaints of insomnia, headaches, neck pain, which are influenced by the effects of chemotherapy. Even though they are familiar with chemotherapy treatment, patients still cannot avoid the effects of chemotherapy which cause anxiety.

This study was supported by research (Myungsun & Yongae, 2015) regarding the administration of chemotherapy at specific frequencies according to the type of drug chemotherapy can result in a change in the status of functional respondents due to the effect of the side which inflicted. Effects of chemotherapy in patients can affect in the biological, physical, psychological, and social. Effects of chemotherapy greatly vary depending on the drug were administered. Effects side that weight often arise in patients after chemotherapy and often times can not be tolerated by the patient, and even cause death. This is strengthened by research (Setiawan, 2015) explaining the influence of patient adaptation about chemotherapy on the anxiety level of chemotherapy patients. Anxiety is also an important part of the personality system, which is a foundation and center for the development of behavioral neurosis and psychosis.

4.2 Relationship Age with Anxiety Patients who Undergoing Chemotherapy in Hospital Board of Batam.

The results of the study with the test statistic by using test of *chi-square* shows the percentage difference significant with p = 0.037 (<0.05) with the age of the majority of 45-59 years with anxiety were 21 (55.3%), anxiously weight of 9 (23, 2%). The results of this study are in line with statistical tests by using test of *chi-square* shows the difference in percentage is meaningful with p = 0.005 means there is a significant relationship between mother's age with chemotherapy in breast cancer mother in Rumah Sakit Umum Daerah Zainoel Abidin Banda Aceh in 2018.

The assumption of the researchers is that the number of patients 60 and 38 chemotherapy patients is between the ages of 45-59 years, with dominant chemotherapy cycles of the initial cycle 1,2,3 which can cause high anxiety in chemotherapy patients and patients with breast dominant cancer.

The results of this research are also in accordance with the results of the research conducted (Anwar, 2018). Middle adulthood is the longest age range in the developmental period. The age limit for middle adulthood begins around the age of 40 to 65 years. Most individuals in this age in cancer patients breast feel very worried when the effect of the side of the chemotherapy would make her not interesting, so that will arise feelings angry at the circumstances and not infrequently with rejection of the actions of chemotherapy.

The next researcher's assumption is that the age between 45-59 includes those who are still categorized as active to do work and other activities, the researchers found that some of the patients are no longer working because they have to undergo chemotherapy due to cancer, resulting in anxiety because they feel they are not productive and become a burden.

The researcher's assumptions are supported by the journal (Inhestern et al., 2017) which reveals that cancer patients with productive working age (15-65 years) with the development of cancer and chemotherapy, which may be a cause of stress even years after diagnosis. People with cancer need to adapt to the uncertainty of cancer diseases, which can affect work life and family life and can increase anxiety. To fulfill their developmental tasks, cancer survivors of working age struggle to keep working, raise their children and return to 'normal' life, which can pose additional burdens.

4.3 The Relationship between Gender and Anxiety of Patients Undergoing Chemotherapy at the Batam Business Administration Hospital.

The results of analysis conducted by researchers relationship sex with patient anxiety is 9 (25%) patients with female sex experience level of anxiety by weight, 25 (69.4%) experienced anxiety moderate, 15 (40.5%) experienced mild anxiety. Patient sex male experiencing mild anxiety 18 (75%) and anxiety were 6 patients (25%) with the results of the study with the test statistic by using test of *chi-square* shows the difference in the percentage significant with p = 0.000 means that there is a relationship between the type of genitalia with anxiety levels. In a study that found that the number of female patients and male more dominant women because that was found was a patient of women with this type of breast cancer.

According to the assumptions of researchers women more at risk of cancer than women because women prone to emotion and feeling is great so if excessive can cause a decrease in immunity for relying too much emotion. This statement is supported by theory (Lubis, 2009) in research (Wulandari, 2015) that women when in a state of stress or emotions such as anger and sadness, the hypothalamus which is the center of emotions will be stimulated and then will stimulate the pituitary gland, which in turn stimulates the adrenal glands, so out hormones glucocorticoids. If the hormones are out in excessive will occur damage to the body that lead to antibodies and decreased inflammatory response. The reduced system of immunity is facilitate the entry of cancer cells attack the body, because of the ability of these cells to recognize and fight the enemy can not function as well.

4.4 Relationship Education with Anxiety Patients who Undergoing Chemotherapy at Home Hospital Board Concession Batam.

The results of the analysis further, namely the relationship of education with the anxiety of patients who undergo chemotherapy are the majority of educational end high school with anxiety lightweight 8 (34.8%), anxiety was 11 (478%) and anxiety weighs 4 (17.4%) with the result that there is a relationship education with a level of anxiety with p = 0.836 with a significance level of α = 0.05. The results showed that there was no significant relationship between education level and anxiety. Patients with levels of education undergraduate experience severe anxiety one patient, while in patients with primary school education only one who experienced severe anxiety, but at the level of higher education is high school there were 14 patients with anxiety moderate and severe.

The assumption of researchers is that the background behind education is not associated with the level of anxiety a person in the face of chemotherapy, because of the level of education a person's status can not be associated with the perception that can cause anxiety. Results of the study found that there is no relation between education and the level of anxiety, researchers assume it can be seen from most of the patients had a level lower but have knowledge that sufficient in terms of chemotherapy, this occurs when patients with low education but actively looking for information either formally as well as non-formal to increase knowledge but have a

mild level of anxiety as well as some patients who have higher education who easily accept the information given also have a mild level of anxiety.

The assumption of researchers in line with the research (Arman, 2013) were performed in DI Dr DR. Wahidin Sudirohusodo Makasar, that is, based on the results of statistical tests using the program, the value of p = 0.346 with a significance level of α = 0.05 was obtained. It's showed no relationship between the education level of the client with breast cancer and the client's anxiety level with chemotherapy. From the results of the analysis above, it can be concluded that there is no relationship between the level of education and the level of anxiety.

This is supported by the theory put forward by Stuart and Sundeen (1995) in research (Arman, 2013) which states that the more often a person experiences stressors, the experience in dealing with these stressors will increase so that the anxiety experienced decreases. This is different to that proposed by (Hawani, 2020) that the level of anxiety is associated with the level of education for someone in identifying stressors in themselves alone or outwardly, education levels are also associated with awareness and understanding of the stimulus.

4.5 Relationship Type Cancer with Anxiety Patients who Undergoing Chemotherapy at Home Hospital Board Concession Batam.

The results of the analysis conducted by researchers related to the type of cancer with patient anxiety, namely the majority of patients with breast cancer with mild anxiety 2 people (5.6%), moderate anxiety 25 (68.4%) and severe anxiety 9 (25%). with the results there is a relationship between the type of cancer and the level of anxiety with p = 0.000 <0.05. The researchers' assumption is that breast cancer cases in hospitals are increasing from year to year and based on research by researchers. This is in line with research conducted (Damanik, 2015) regarding the anxiety of patients undergoing chemotherapy, it was found at Arifin Achmad Hospital that the majority of cancer patients studied were breast cancer with 19 patients (48.7%) of 39 patients, also found by researchers. (Manullang, 2020) the number of cancer most prevalent is breast cancer with the number of 31 (58.7%) patients darn reinforced with breast cancer data in 2020 with the number of patients with breast cancer continues to increase.

According to the assumptions of researchers, women are more at risk of cancer of breast compared to women by as factors of hormonal, where the hormone estrogen in women is more than that in men, with the exposure to estrogen which is higher in the breast gland, it will cause changes in the growth of cells in the breast gland. This is supported by peneltiian of the American Cancer Society (2020), states that the hormone estrogen stimulates the growth of glandular breasts, thus causing a change in the growth of cells of the mammary gland.

Researchers find cancer testis in space chemotherapy Rumah Sakit BP Batam by the number of patient 11, with predominant anxiety levels of light, according to the assumptions of researchers the number of patients who menagalmi testicular cancer are few and the majority of patients with testicular cancer with chemotherapy cycles were already ketahap further so that the level of anxiety low.

This study is in line with research (Zirti, Myh, & Yunir, 2020) that the prevalence of testicular cancer is not as much as other cancers with 3-10 new cases occurring per 100,000 men / per year in Western societies.2 However, testicular tumors are less common in Western society. In Asia compared to western countries, the incidence is very low at 0.4 per 100,000 population. According to research results (Cappuccio et al., 2018) men with testicular cancer have anxiety problems with body image, fertility and sexuality. This is the same as breast cancer in women with body image anxiety components.

5 Conclusion

Characteristics of patients who dominate are aged 45-59 years 38 patients (63.3%), type sex women 36 (60%), level of education to the level of high school 23 (38.3%), Types of cancer breast 36 (60%), cycles of chemotherapy to 3 11 (18.3). The categories of anxiety in cancer patients undergoing chemotherapy at the BP Batam Hospital were the majority of moderate anxiety, 31 patients (51.7%), 20 patients with mild anxiety (33.3%) and 9 patients with severe anxiety (1.5%). Results of the analysis were carried out research with the anxiety of patients with age is the result of p-value 0.037 < 0.05 means that H0 is rejected and Ha accepted that is, there is a significant relationship between age and patient anxiety, gender, namely the p-value of 0.000<0.05 means that H0 is rejected and Ha is accepted, that is, there is a significant relationship between gender and patient anxiety, education, namely the results of the p-value 0.836 <0, 05 means that H0 is accepted and Ha is rejected, that is, there is no significant relationship between education and patient anxiety, the type of cancer, namely the p-value of 0.000 <0.05 means that H0 is rejected and Ha is accepted, which is a significant relationship between the type of cancer and patient anxiety.

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Qualitative study of Social Stigma Among Patients Post Covid-19

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Abstract. Corona virus is a large family of viruses that cause diseases in humans and animals. In humans it usually causes respiratory infections, ranging from the common cold to serious diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). In the world there are data confirming positive cases of COVID 19 as many as 58,900,547 people including the death toll of 1,393,305 people. The 5 countrieswith the highest cases of COVID 19 positive confirmation in the world are the United States, India, Brazil, Russia and France. In Indonesia, COVID 19 positive cases reached 506,302 confirmed cases with 425,313 cases recovered and 16,111 cases of death. This study was conducted to find out the factors that are the cause of the phenomenon of stigma of society towards patients post COVID 19 in housing X pekanbaru city in 2020. Researchmethod with qualitative research is descriptive research and tends to use analysis and approach used in this study is a phenomenonological approach. Sample withdrawal withpurposive sample technique, the sample numbered 10 participants who had been stigmatised and willing to do interviews. The data analysis that researchers used in this study was the analysis of NVivo data with NVivo 12 plus software. The characteristics of the participants consisted of 4 men and 6 females, with an age range of > 28 years and < 45 years. Based on the results of interview analysis and the use of NVivo data analysisobtained 2 themes namely perception and anxiety. The conclusion of this study is that stigma is closely related to public perception and high anxiety levels so that there is a social stigma against post-COVID 19 patients in housing X.

Keywords: Covid 19, Stigma, Perception, Anxiety

1   Introduction

Corona viruses are a large family of viruses that cause disease in humans and animals. In humans usually cause disease infections of respiratory tract, from the common cold to serious diseases like Middle East Respiratory Syndrome (Mers) and Syndrome Respiratory Acute weight of Severe Acute Respiratory Syndrome (SARS). Coronavirus kind of new which is found in humans since the incident outside the ordinary appears in Wuhan China, in December 2019, later named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS- COV2), and cause disease Coronavirus Disease-2019. (Indonesian Ministry of Health, 2020).

Like other respiratory illnesses, COVID-19 can cause mild symptoms including runny nose, sore throat, cough and fever. About 80% of cases can recover without the need for special

treatment. Approximately 1 out of every 6 people may be suffering from a severe illness, such as with pneumonia or difficulty breathing, which usually appears in phases. Although the number of death disease is still low (about 3%), but for those who aged up, and people with the condition medical that already exist before, they are usually more prone to become ill seriously. Seeing the development to date, more than 50% of confirmed cases have been declared better, and the cure rate will continue to increase. (Indonesian Ministry of Health, 2020).

In the world, there are as many positive case confirmation data as COVID 19 58,900,547 people including the death toll of 1,393,305 people. The 5 countries with positive confirmed cases of COVID 19 are the United States with 12,119,654 people, India with 9,177,840 people, Brazil with 6,97,401inhabitants, Russia with 2,238,828 inhabitants and France with 2,106,660 inhabitants. (WHO, 2020). In Indonesia there are positive cases of COVID 19 reached the number 506 302 cases of confirmed reports of cases settle as many as 425 313 cases and cases of death as many as 16 111 cases. Following 7 Province with the case COVID 19 terkonfimasi namely DKI Jakarta as much as 127,164 (25.6%) cases, East Java as many as 58,679 (11.8%) cases, West Java as many as 48,380 (9.7%) cases, Central Java as many as 47,380 (9.5%), South Sulawesi as many as 19,896 (4.0%), and Riau as many as 18 642 (3.7%) cases. (COVID 19 Indonesia, 2020).

Negative stigma when Covid 19 occurred in patients and health care workers who treat patients stigma 19. Covid negatives were given only going to make matters worse both mentally as well as the spread of the disease it themselves. Some DPOs and PDPs also experience psychological pressure from the surrounding environment. This happens because people often get various news negatively about the disease is though from the data that there IDI mentions the possibility of recovering the disease it was 97%. The stigmatization of the very impact on someone's immune related Covid 19 and will take effect in the process of healing the patient Covid19. (Bali Health Office, 2020).

In the quotation from the journal "Social stigma in the time of Corona Virus in 2020" at the conclusion that knowledge is not sufficient and conflicting information about the transmission of SARS-CoV-2. Uncertainty and anxiety those people have made them believe the information is biased and vague that provided by traditional media, media social as facebook, twitter, instragraam and experts who proclaimed themselves. Information that is wrong about Covid 19 has spread to fast for the whole world. The anxiety caused by the lockdown, much unknown around Covid 19 and fear of infection, has created stigma in local communities. (Sotgiou Giovanni, 2020).

The results of the observation of the news about the pandemic COVID 19 well was in the print media, electronic media and media social, not only discrimination on patients COVID 19 and patients post COVID 19 people also reject the nurse who lived in the area specified for nurses working at Home Hospitals that receive patients COVID 19, the most extreme is the denial of burial the bodies of the victims COVID 19 by a number of citizens, not just simply refused, citizens and even throwing stones at the officers medical which served to bring the bodies of the victims COVID 19 by ambulance. This incident raises the pros and cons in the community, groups of society pro assessing stigmatitasi and behavioral discrimination are things human as a form of protection of citizens but on the other hand how stigmatitasi and discrimination in ultimately ending in violence.

Based on the results of observations and interviews on 10 citizens of Housing Griya Mas Kota Pekanbaru found that people never do stigma against patients who had been declared cured of COVID 19, people feel very anxious to get back interact as before with patients who have been cured because people are afraid of contracting COVID 19. In addition, people tend to stay away from patients who have recovered and unconsciously discriminate against them because

they think the patient is post-patient COVID 19 still has the potential to transmit the remnants of the virus that could be transmitted to the other.

The results of observations and interviews with residents who live in the neighborhood of Housing X found several problems that have the potential to cause stigma in the community for post COVID 19 patients, including the low level of public knowledge about COVID 19 so that the public is more chose to stay away from people who have recovered from COVID 19, the anxiety people redundant because of fear of contracting the disease is also a matter that underlie the occurrence stigmatitasi, news circulated that have not been in testing the truth also be a factor triggering the behavior of stigmatitasi, and the social environment have a behavior that is deviant in dealing with patients who have recovered from COVID 19.

2   Methods

This type of research is descriptive research and tends to use analysis. Process and meaning (subject perspective) are emphasized more in qualitative research. The method of research qualitative is a method of research that is based on the philosophy of post-positivism. The approach that is in use in research this is the approach fenomenalogi.

The sampling technique in research this is the technique of purposive sampling, which is a method of determination of the respondent to be used as a sample based on the criteria for certain.

The sample in the qualitative research method is purposive which means it is in accordance with the aims and objectives of the study.

Selection of participants in this study is the citizens who never did stigma against patients post Covid 19 in the neighborhood of Housing X, Pekanbaru City.

The study population was 132 people. The research sample was 10 people. Samples research as much as 10 people associated with the saturation of the data, the saturation of data is a state in which the data were obtained no longer get additional information even though there are additional cases were new, stuff is happening because there is a saturation of information.

3   Results and Discussion

3.1   Results

As for the interpretation and discussion results of this study, the researchers found that negative stigma tends occur in patients who have recovered from COVID 19 in X housing in Pekanbaru city in 2020, this can be due to two things, two things are found by researchers as two themes that are the dominant emerging from the interviews that stigma negative occurs because the perception of the public that one of the patients post COVID 19 and the level of high anxiety about the potential transmission of COVID 19 from patients who have recovered from COVID 19. following this discussion.

Participants in this study were residents who lived in housing X Pekanbaru City. Research is carried out in the region work Puskesmas Sidomulyo, housing is already there are more less

15 years of the past. This housing is located in RW 015 and there are 5 RTs, the research was conducted in RW 015 RT 005, while the number of families in RT 005 is 132 families.

Characteristics of Respondents

Table 1. Characteristics of Respondents

Variabel	P1	P2	P3	P4	P 5	P6	P7	P8	P 9	P 10
Inisial	Tn. R	Tn.O	Tn. W	Tn. I	Ny. P	Ny. V	Ny. M	Ny. R	Ny. O	Ny. S
Usia	30 thn	35 thn	31 thn	42 thn	29 thn	33 thn	36 thn	31 thn	31 thn	37 thn
J K	L K	L K	L K	L K	P R	P R	P R	P R	P R	P R
Status	Kawin	Kawin	Kawin	Kawin	Kawin	Kawin	Kawin	Kawin	Kawin	Kawin

Based on the results of the structural interview analysis conducted, the researcher has identified several sub-themes from the formulation of three major themes related to the research objectives. These themes consist of:
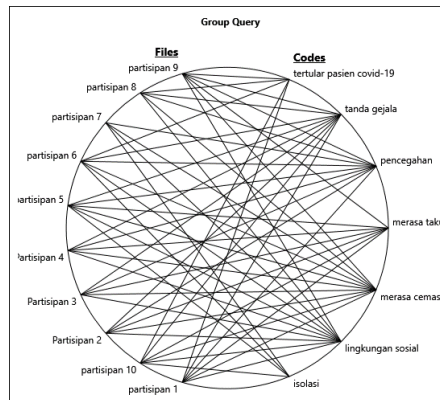
Figure 1. Sub-Theme

The results of this study were obtained through semi-structured interviews with 6 open questions with participants and field notes during the interview. From the results of data analysis, the researcher got 2 themes major with regard to research objectives. The theme obtained is based on the formulation of several sub-themes that were obtained during the interview process, this theme is a help in formulating the theme with the application of the results of the NVIVO 12 test.
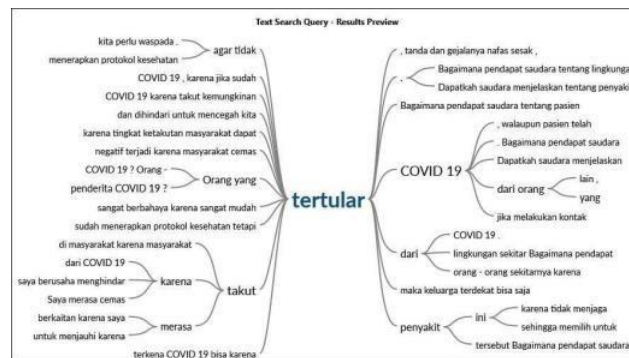
Figure 2. Text Search Query Contracted

This schema describes the statements of participants who have the keyword fear of being infected with the help of the Text Search Query Tools in NVIVO 12 plus.

Figure 3. Text Search Query Feeling Fear

This schema describes the statements of participants who have the keyword fear of being infected with the help of the Text Search Query Tools in NVIVO 12 plus.
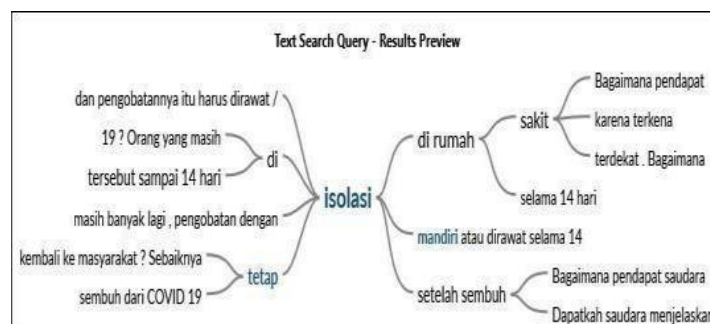
Figure 4. Text Search Query Self-Isolation

This schema describes participant statements that have the keyword remain self-isolating with the help of the Text Search Query Tools in NVIVO 12 plus.

Figure 5. Text Search Query Anxious

This schema explains the statement of the participant who has the keyword feeling anxious with the help of the Text Search Query Tools in NVIVO 12 plus.

Figure 6. Text Search Query Social Environtment

Based on the results of the analysis of the data articles associated with the stigma of society to patients post covid 19 words - words that most frequently appear by using the software NVivo 12 plus on a word cloud of them COVID, brother, recover, the public, patients, contracting, and other forth. Picture below is the show Word Cloud which is used in the source of the research this.

3.2 Discussion

Researchers assume that occur negative stigma society to patients post COVID 19, the negative stigma it can be caused due to the perception of the public that one of the patients who had recovered from COVID 19 votes society towards people with COVID-19 becomes the source of transmission. Society is familiar with the teachings about cause and effect if a person is affected by a disease and what effects. It's that led to the emergence of the term stigma negative it.

Perception is an activity in the form of perceiving, integrating, and give ratings on the objects of physical or social. The sensing is usually dependent on the stimulus of physical and social that are in the environment. SENSARI of the environment is the one that will be processed together closely with things others who 've studied before, either in the form of expectations, values, memories, attitudes and others. (Young, 2017).

By reference to the journal with the title " Stigma and behavior of people in the patient positive COVID 19" with methods of research literarur review in conclude that there is an increasing number of reports of stigmatization public against those people from areas affected by the epidemic, in Indonesia stigma appears in the behavior of social as isolating paasien that has healed, reject and exclude people from one daeerah yangberpindah to regions other, exclude ethnic certain because in anggaap pembaawa virus, isolate medical personnel who work at home sick, refuse corpse because in regard there are viruses that can be transmitted. (Laurika Setiawati, Ike Sariti, 2020).

There is consensus that stigma research takes two oppositional and isolated paths:
a. Approach the micro-social, characterized by employment psychological (social), check the stigma at the individual and between individuals.
b. Approach the macro-social, symbolized by the work of sociological, related to the analysis of the level of the group (social / cultural) and structural.

Results of the study are in get researchers in line with the two reference journals researcher previously with the theme of the study were the same that stigma negative society to patients post COVID 19 in housing X Pekanbaru in 2020 tends to occur because of the perception that is wrong in society towards patients who have recovered from COVID 19 perception that could arise because people tend to assume that patients who have recovered from COVID 19 still potentially as transmission COVID 19 in the community, the community feel fear that there are still remnants of the virus in people who have recovered from COVID 19, and the public

perception of people who have recovered from COVID 19 still have to do independent isolation for 14 days.

a. **Contracting,** diseases transmitted arising as a result of the operation of a variety of factors from the agent, landlord or the environment. This form is reflected in the terms which in known widely today. Namely a multiple cause (multiple causation of disease) as opposed to a single cause (single causation). In the efforts of experts to gather knowledge about the incidence of the disease, they have been doing controlled experiments to test up to where the disease was biased prevented so as to improve taaraf of life of patients.

b. **Feeling Fearful,** fear is an emotional response to a threat. Fear is a survival mechanism the basis of which occur as a response to a stimulus specific, such as a sense of pain or the threat of danger. Some experts psychology also have to mention that fear is one of the emotional base, in addition to happiness, sadness, and anger. Fear must be distinguished from another emotional state, namely anxiety, which generally occurs in the absence of any external threat.

c. **Isolation Mandiri,** principle, according to Iwan, patients do not get transmitted to the other. They must provide an example so that those who are not exposed can become more aware of the importance of health protocols, namely using masks, maintaining distance and washing their hands diligently. (dr. Iwan Aflanie, 2020).

d. **Worry,** Researchers assume that the stigma negative occurs due to anxiety society if infected COVID 19, people tend to feel frightened, wary was, parno to reestablish contact with patients who have recovered from COVID 19. People have a tendency to feel anxious at the things that have not known or well in a different group or another. It is this that led to the emergence of a negative stigma against certain groups, including the stigma negative patients COVID-19.

Journal else with the title "Stress psychological community as a result of the pandemic COVID 19", while the researcher is with the combined method of qualitative and literarur review, researchers have concluded there is a threatening situation and unpredictable as pandemic corona virus. Possible reactions are related dengaan stress as a response to the pandemic COVID 19 which includes a change in concentration, irritability, anxiety, insomnia, reduced productivity, and conflicts interpersonal, but it especially applies to the group that exposed the impact. In addition to the threat of the virus 's own, not adaa doubt that quarantine measures undertaken in banyaak countries, have the effect of negative psychological, further improve the symptoms of stress. (Mutiara Unvi Zahra, 2020).

The support of all parties so that sufferers of COVID-19 can be motivated to recover is highly expected. The role of the government, health practitioners, and community leaders in providing education related to COVID-19 will greatly help so that the community does not attach a negative stigma to people related to COVID-19. Although not included into the patient COVID-19, but harustetap attention to patterns of life healthy (consumption of vitamin C and E), keep cleanliness, wash hands with soap, use cloth masks if necessary, maintain body immunity, sunbathe every day, maintain social distancing / physical distancing, pay attention to recommendations from WHO, the government, the Ministry of Health, and so on (Allika Nurfadias Magulili, 2020).

Based on the reference journal that has been in review the researcher, the researcher concluded agree with the results of previous studies which concluded that the stigma negatively against paasien post COVID 19 can be caused due to anxiety levels high society to re-establish contact with patients who have been cured daari COVID 19, people feel anxious if until contracting COVID 19 then it will be a disgrace and shunned by the social environment, society

anxious if to get infected then all activity will be disrupted due must undergo quarantine independently or get treatment which intensified in the House of Pain.
a. Feeling anxious
b. Social environment

4 Conclusions and Suggestions

4.1 Conclusions
Based on the research results, several conclusions can be made as follows:
a. People who live in housing X tends to leave a stigma negatively on patients who have recovered from COVID 19, people assume that patients who have recovered from COVID 19 still at risk for transmitting the disease COVID 19 to the other, people tend to restrict themselves and family to return interact with patients who have been Rid of COVID 19, people tend to stay away from patients and families of patients who have recovered from COVID19.
b. Based on the research that on get with the help of data analysis software NVivo 12 plus theme in the first that supports the negative stigma that is perception. Society tends to have the perception that one of the patients who had recovered from COVID 19, people assume that a patient who has been cured of COVID 19 still has the potential to melularkan disease COVID 19 because the public has a perception still exist remnants of the virus that is left behind, people feel afraid to go back contact with patients who have recovered from COVID 19, and the public assumes that the patient has recovered from COVID 19 remains still further to insulation independently at home for 14 days to assure not exist remnants of the virus that is left behind.
c. The study also found the theme of the two who were supporting the occurrence of a negative stigma in the community that is the anxiety, the public seems to have worried that very high if the back interact with patients who have been cured of COVID 19, people feel anxious if re- contact with patients who have been cured of COVID 19, the risk of exposure to COVID 19, and if not expose the public will get a stigma negatively on the environment they live in, and all activities will be annoyed at having to receive treatment either it at home Hospital as well as insulation independently for 14 days at home. Anxiety is also in support with social environmental response in responding to patients who have recovered from COVID 19, the majority of people tend to avoid and stay away from patients who have recovered from COVID 19 things this can be evidenced by the results of the interviews that have dilakukaan by researchers.

4.2 Suggestion
a. **For Health Service Institutions**
   1) For Health Workers
       It is expected that research this can be a source of reading that is relevant for personnel of health to add information about the stigma of society towards patients post COVID 19, and is expected to force health to build the perception of society towards a better and provide education to the community in order to decrease the stigmatization in kalangaan society.
   2) For Undergraduate Nursing Students
       It is hoped that the results of this research can become a reading source for undergraduate nursing students and can add knowledge to their readers.

3) For Further Researchers

It is hoped that this research can become a reference for future researchers who want to carry out research related to the same title and be able to further develop it variable penelitiaan to obtain information that is more much.

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Cold Compresses Effect of on Postoperative Orif Pain in Fracture Patients

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Abstract. The effect of cold compress administration using cold pack in patients post orif surgery is to reduce the sensation of pain. Fractures are both a potential and actual threat to a person's integrity, which can lead to physiological and psychological disorders. Orif is a fixation tool used to clamp bones. Pain is a major problem in postoperative orif patients. One of the non-pharmacological efforts in reducing pain is by compressing cold using a cold pack. The purpose of this study is to determine the effect of cold pack administration in reducing pain in post orif fracture patients. The research design used is quasy- experiment pre-test and post-test without control with the research subject determined by using purposive sampling technique that amounts to 15 respondents. In all respondents, cold compress intervention treatment was carried out using cold pack. from shapiro wilk test results on the patient's pain level before cold compress with significance values of 0,001 and 0.004 after cold compress where p value < 0.05. All patients given cold compressesexperienced a decrease in the frequ ency of pain scales where clients experienced more mild pain by 10 patients (66.7%) who experienced mild pain and as many as 5 patients (33.3%) who are experiencing moderate pain. These results indicate that cold compress treatment has an effect in reducing postoperative orif pain. Nurses are advised to apply cold compress therapy as one of the non-pharmacological interventions to reduce postoperative orific pain.

Keywords: Compress; Experienced; Determined

1   Introduction

Today's technological advances have a positive and negative impact on life. One of the negative impacts is the frequent occurrence of various accidents. Motor vehicle accidents and work accidents are examples of events that can cause fractures (Astutik, 2011). Fracture is the loss of bone continuity, whether total or partial due to physical trauma, angular strength, energy, bone state and soft tissue (Price &Wilson, 2013). Based on data from the World Health Organization (WHO) in 2011, there are 5.6 million people who died due to accidents and about 1.3 million people have physical disabilities. In Indonesia fractures are the third largest cause of death under coroner's heart disease and tuberculosis. According to (Riskedas, 2018) of the many cases of fractures in Indonesia, fractures in the lower extremities due to accidents have the highest prevalence among fractures in indonesia among other fractures is about 67.9%. From 92. 976 people with lower extremity fractures due to accidents, 19,754 people suffered fractures in the femur, 14,027 people suffered cruris invoices, 3,775 people experienced tibia fractures, 970 people suffered fractures to small bones in the legs and 337 people experienced fibula

fractures.

Fractures are both potential and actual threats to a person's integrity, which can lead to physiological and psychological disorders (Prasetyo, 2010). The first principle of handling fractures is the act of reduction and immobilization. Surgical reduction is called open reduction performed in more than 60% of fracture cases (Aslam, 2009). Immobilization in the management of fractures is an action to maintain the reduction process until the healing process occurs. Screw and plate installation or pen is one form of reduction and immobilization performed by surgical procedures commonly known as Open Reduction and Internal Fixation (ORIF).

ORIF is a fixation tool used consisting of several long metals that penetrate the axis of bone and are connected by clamps so that the bones are reduced in clamps by the metal (Canale, 2016). One of the clinical manifestations in fracture patients performed by ORIF adala is pain (Rizaldi, 2014). Pain is a subjective condition in which a person exhibits verbal or non-verbal discomfort (Astutik, 2011). Pain in fracture sufferers is sharp and piercing. Sharp pain can also be caused by bone infections due to muscle spasm or suppression of sensory nerves (Helmi, 2012).

Cold compresses can relieve pain because cold compresses can reduce blood flow to a part and reduce edema bleeding which is thought to cause analgetic effects by slowing down nerve delivery speed so that pain impulses reach the brain less (Price &Wilson, 2013).

The administration of cold compresses at this time has been widely developed by using cold packs as a substitute for ice cubes. Cold packs have several advantages compared to ice cubes. The use of ice cubes can not be done for a long time because the ice cubes will melt and turn into carbon dioxide and ice cubes can only be used once in a short time. While the use of cold pack can be used many times by cooling the cold pack first in the freezer with a temperature of 3.50C (Arofah, 2009).. Cold pack also has frost resistance up to 8 - 12 hours at outside temperature (Kristanto &Arofiati, 2016). Treatment in the administration of cold compresses using cold packs can be done near the location of pain or on the opposite side of the body but related to the location of pain, compress is done diving 10-15 minutes.

Based on research conducted by Anugerah, Purwandri, and Hakam in 2017 on "The effect of cold compress therapy on post ORIF pain in fracture patients at Dr. H. Koesnadi Bondowoso Hospital" was obtained as a result that cold compresses can relieve postoperative fracture pain. While the research conducted by Kristanto &Arofiati (2016) on "Effectiveness of cold pack use compared to relaxation of deep breath to overcome post-ORIF pain" to moderate pain patients (scale 4-5) obtained the result that the administration of cold pack is proven to provide a decrease in pain effect up to 2 -3 points compared to relaxation of deep breath that only decreased by 1 point. Some previous studies have explained that cold packs are effective at reducing pain in mild orthopedic cases (Kristanto &Arofiati, 2016).

Based on the data obtained in RS X, the highest data on fracture cases was in 2019 as many as 143 cases, with ORIF actions as many as 63 cases. In 2020 there will be an increase in fracture cases to 248 cases, with ORIF measures as many as 64 cases. Preliminary studies that have been conducted against the Head of Hospital X hospital room obtained data that has never been done cold compress administration using cold pack by nurses to reduce post ORIF pain in fracture patients. This is because the patient has received pharmacological therapy in the form of analgesics to overcome the pain. While the results of interviews conducted on the families of patients in the ward obtained data of the patient's family said that it is not yet known the usefulness of cold compresses to overcome the pain felt by patients and patients have also never received cold compress treatment to overcome the pain experienced.

Meanwhile, there has been no research on the effect of cold compresses on orif postoperative pain in RS X Pekanbaru. Based on the description of the background that has been stated above, researchers are interested in conducting research on "The effect of cold compressing on postoperative pain orif in fracture patients in hospital room X in Pekanbaru.

2   Methods

This research is quantitative research. Quantitative research is a way used to answer research problems related to data in the form of numbers and statistical programs (Wahidmurni, 2017). The research design used is quasy-experiment. Quasy-experiment research is a study that tests an intervention on a group of subjects with or without a comparison group but does not randomize to include the subjects into the treatment or control group. The study used a pre-test and post-test without control approach, where researchers only intervened in one group without comparison. The number of samples in this study was 15 respondents who fit the inclusion criteria, namely post ORIF H-1 patients, willing to be respondents to research and awareness of compos mentis patients. In this study, researchers used a data collection tool of assessment instrument sheets, which is designed to contain general data on patients including name, age, gender, pain value before intervention, pain value after intervention, cold pack, Numeric Rating Scale pain measurement tool. Then do the documenting. Data analysis in this study is univariate and bivariate analysis. Bivariate data analysis using Wilcoxon Test with the result of ρ value < α (0.05).

3   Results

3.1   Univariate analysis

Univariate analysis is used to describe variables bound in free variables to get an idea or characteristics of the sample. The variables analyzed were characteristics of respondents including age, gender, and occupation. The results of the analysis are as follows:

Table 1. Frequency Distribution of Respondents PostOperative ORIF Fracture Patients (n=15)

Variable	Resondent (n=15)	
	F	%
Age		
21-30	3	20,0
31-40	6	40,0
41-50	2	13,3
51- 60	4	26,7
Gender		
Male	12	80,0
Female	3	20,0
Profession		
Not Working	1	6,7
Housewife	2	13,3
Self employed	7	46,7
Civil servants	5	33,3

Based on table 1, it can be described that the age distribution of respondents was found to be almost half of the respondents as many as 6 people (40.0%) 31-40 years old. Gender distribution of respondents found most respondents as many as 12 people (80.0%) is a man. The

distribution of the frequency of respondents' work was found to be almost half of the respondents as many as 7 people (46.7%) is self-employed.

3.2 Bivariate Analysis

Frequency Distribution effect of Cold Compress on Orif Post Operative Pain In Fracture Patients In Hospital X.

Table 2. Frequency Distribution of Respondents Effect of Cold Compresses on ORIF PostOperative Pain in HospitalIzed Fracture Patients X (n=15) Before Treatment

Variable	Before Treatment	
Pain level		
Respondens (n=15) No pain	0	0,0
Mild pain	0	0,0
Moderate pain	15	100,0
Severe pain	0	0,0
Very severe pain	0	0,0

Based on table 2, it can be described that the distribution of pain levels in patients with fractures post orif surgery before cold compress treatment was found by all respondents as many as 15 people (100%) moderate pain category.

Table 3. Frequency Distribution of Respondents Effect of Cold Compresses on ORIF PostOperative Pain in HospitalIzed Fracture Patients X (n=15) After Treatment

Variable	After treatment	
Pain level	F	%
Respondent s (n=15) No pain	0	0,0
Mild pain	10	66,7
Moderate pain	5	33,3
Severe pain	0	0,0
Very severe pain	0	0,0

Based on table 3, it can be described that the distribution of pain levels in patients with fractures postoperative cold compress treatment was found to be more than half of respondents as many as 10 people (66.7%) in the category of mild pain.

3.3 Effect of Cold Compresses On Orif PostOperative Pain in Fracture Patients In Hospital X

Based on the test obtained that the data is normally distributed, so it can be done with Wilcoxon test. Wilcoxon test results in this study were to determine the effect of cold compresses on postoperative orif pain in fracture patients in respondents by measuring through the pain scale before treatment and after treatment. The analysis results are displayed as follows:

Table 4. Analysis of The Effect of Cold Compresses on ORIF PostOperative Pain in HospitalIzed Fracture Patients X (n=15)

Variable	N	Nilai P Value
Pain before treatmnent	15	0,002
Pain after treatmnent	15	0,002

4 Discussion

Distribution of PostOperative Pain Frequency orif Before Administration of Cold Compresses In Fracture Patients In Hospital X

The results showed that the distribution of all patients postoperative pain ORIF before being given a cold compress was found as many as 15 respondents (100%) who experience moderate pain.

The results of this study are in line with research conducted by Anugerah (2017), obtained by the results of the study showed that as many as 5 respondents (50%) moderate pain, 3 respondents (30%) severe pain, and 2 respondents (20%) experience mild pain.

Another study conducted by Anggraini (2020), explained that in the results of the study obtained pain scale before administration of cold compresses moderate pain category as many as 9 respondents (60%) and weight category of 6 respondents (40%). According to the International Association for The Study of Pain (IASP), pain is a subjective and emotional sensory that does not lift, associated with actual or potential tissue damage, describing the condition of the occurrence of damage.

In the study it was seen that all respondents before the cold compress was 100% experiencing moderate pain, then the cause of orif postoperative pain is caused by surgical wounds. But other possible reasons must be considered. The appearance of pain is closely related to receptors and the presence of pain stimuli. Pain receptors are closely related to the nociceptor which is a free nerve ending that has little or no myielin spread over the skin and mucosa, particularly in visera, joints, arterial walls, liver, and gallbladder. (Hidayat, 2006). In Suci Artanti 2020 research, about the effectiveness of cold therapy administration to pain orthopedic patients obtained dingi therapy proved effective to reduce pain, cold therapy is safe to use when appropriate procedures. Modification of the use of cold therapy equipment does not have a significant effect on pain but improves patient comfort.

Pain receptors can respond due to simulations or stimuli. The stimulation can be chemical substances such as histamine, bradykinin, prostaglandins, and various acids released when there is damage to tissues due to lack of oxygen. Other stimulation can be thermal, electrical, or mechanical. Furthermore, the stimulation received by these receptors is transmitted in the form of pain impulses to the spinal cord by two types of fibers that are tightly twisted or seranut A (delta) and slow invasion C. Impulses transmitted by delta fibers have inhibitor properties. Afferent fibers enter the spinal cord through the dorsal root as well as synapses in the dorsal horn. Dorsal horn consists of several intertwined layers. The layer is sustantia gelatinosa which is the main channel of impulses. Then the pain impulse crosses the spinal cord on the inter neurons and into the spinal asendens pathway, the thalamic ract spino pathway (STT) or spinotalamus and spino recticular tract (SRT) pathways that carry information about the nature and location of pain.

If the pain of this surgery is not resolved it can cause stress in the patient and will affect the patient's daily activities and sleep rest. According to Brunner &Suddart (2014), that postoperative pain will increase stress and negatively affect wound healing post surgery. Pain management is very important after oeprasi. Pain felt by the patient can reduce anxiety in the

surgical wound, breathe easier, and can tolerate mobilization as early as possible. According to Potter &Perry (2006), that a person experiencing pain will have an impact on their daily activities and sleep rest.

According to Smetzler &Bare (2014) states that if pain is not handled adequately, it will cause discomfort can also affect the respiratory system, digestion, endocrine, cardiovascular, immunologic, and stress and can cause depression inability to do activities. This incompetence starts from limiting participation in activities to not being able to fulfill personal needs such as eating and dressing.

Effect of Cold Compress on PostOperative Pain ORIF After Administration of Cold Compresses In Fracture Patients In Hospital X

Cold compress is one of the nursing actions and is widely used to lower pain. The cold sensation that is felt provides physiological effects that can decrease inflammatory response, decrease blood flow, able to lower edema and reduce local pain. Physiologically 10-15 minutes after being administered cold compresses occurs vasocontriction process of smooth muscle reflex effects that can arise due to stimulation of the autonomic nervous system and able to stimulate the production of endorphin hormones. (Novita, 2010)

The purpose of administering cold compresses is to lower body temperature in hyperthermia, prevent widespread inflammation, reduce congestion, reduce local bleeding, and reduce pain in a local area (Asmadi, 2008).

All patients given cold compresses experienced a decrease in the frequency of pain scales where more clients experienced mild pain by 10 patients (66.7%) experienced mild pain and as many as 5 patients (33.3%) who experience moderate pain. These results showed that cold compresses are very good at treating post ORIF pain problems with the result of reduced pain after administration of cold compress interventions. Cold compress will give comfort to the patient by providing comfort and soothing sensation so that the patient's feelings become more relaxed and calm. According to Brunner &Suddart (2014) that cold compresses include nonpharmacological techniques in pain management because with cold compresses a person eats will form soothing and pleasant stimulation-st that is received by sensory stimuli. So that muscle tension and discomfort will be resolved, the body becomes relaxed and comfortable.

Cold compress intervention is also one of the nonpharmacological interventions in Nursing Intervention of Classification (NIC) according to Burleccheck (2013) in pain control intervention indicators. The administration of cold compresses will stimulate the senses of taste that flow into the uncomfortable areas as the tense muscles become more relaxed. Decreased pain. affects the adrenal simpato, so the hypothalamus does not activate the mechanism of sympathetic nerves and adrenal medulla to produce epineprin and non-epineprin hormones. Then there is a decrease in blood pressure, breath, pulse, and sweat (Brunner &Suddart, 2014).

The results of a study conducted by Anugerah (2017), showed that there is a significant influence of cold compress therapy on postoperative pain in ORIF fracture patients. The results of another study conducted by Anggraini (2020), showed there was an influence on the administration of cold compresses to decrease the pain scale in fracture patients with a p value of 0.000.

In the study, 10 respondents (66.7%) decreased the scale of pain to mild pain and as many as 5 respondents (33.3%) experienced a pain scale room but was insignificant and was still in moderate pain. Other possible factors that can cause no decrease in pain are cold compress media used such as the level of cold water, softness of the fabric used, or the use of rubber bag media. The rubber bag medium is more durable to withstand cold temperatures so that the cold sensation that blocks the transmission of pain will be more constant. (Grace, 2017)

The decrease in pain intensity felt according to Price &Wilson's theory that cold therapy can not only reduce muscle spasm tetapu can also cause analgetic effects that slow down the speed of nerve transmission so that pain impulses that reach the brain less. Therefore, the pain will be reduced. Surgery or other trauma causes prostaglandins, which cause sensations from nosceptive receptors and are secreted pain mediator substances such as histamine and serotonin that cause sensari pain.

Cold compressing can increase the release of endorphins that block the transmission of pain stimulus and also stimulate nerve fibers that have a large diameter of alpha-beta thus decreasing the transmission of pain impulses through alpha-delta small fibers and fiber c. pain reduction mechanisms by administering cold compresses based on gate control theory explaining pain transmission mechanisms. If the dominant input comes from alpha-beta fibers, it will close the defense mechanism. If the dominant comes from alpha-delta fibers and c fibers, it will open the defenses and the patient perceives the sensation of pain. Endorphin production is able to relieve the pain felt. Endorphin production can be increased through skin stimulation. Skin stimulation includes with massase, emphasis of fingers, and administration of cold or warm compresses. (Grace, 2017)

Based on this, according to the researchers' analysis of this study, it is also proven that the administration of cold compresses to reduce pain in patients post-surgery ORIF. Cold compress is a cold sensation that is felt to provide physiological effects that can decrease inflammatory response, decrease blood flow, able to lower edema and reduce local pain (Novita, 2010). Patients feel comfortable with a stimulus through the skin that affects the stress response, thus releasing endorphin hormones that are able to weaken the pain response and can reduce pain or lower the pain threshold.

The limitation of researchers in the administration of cold compresses is the difference in the medium of cold compresses provided so that the media greatly affects the consistency of temperature given when the compress is cold. So that the consistency when administering cold compresses becomes unequal (not constant). Researchers have observed and monitored so that the temperature of the cold pack can be maintained cold, but the presence of room temperature is also very affecting. Difficulty focusing attention and concentration to stay relaxed in patients post ORIF surgery in cold compress interventions can also be an obstacle in research. According to Potter &Perry (2009), environmental calm will help postoperative patients not to focus

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Factors Affecting Peripheral Arterial Disease in Type 2 Diabetes Mellitus Patient

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Abstract. One of the complications of Diabetes Mellitus is that the leg pulse is not palpable due to interference with blood flow to the leg (Peripheral Arterial Disease (PAD)). Factors that affect PAD are age (over 50 years of age are at risk of PAD), hypertension (can cause arteries to dilate and cause endothelial injury), physical activity (lack of physical activity causes endothelial dysfunction,), duration of DM and diet. Based on a preliminary study at Pekanbaru Hospital, it was obtained from 5 patients, 80% were> 50 years old, 100% had diabetes> 5 years, 60% had hypertension, 80% had uncontrolled diet, 60% rarely did physical activity. The research objective was to determine the factors that influence PAD in clients with type 2 DM. This study was a quantitative study with a cross sectional design. The sample was 30 patients with type 2 diabetes mellitus. The sampling technique was accidental sampling. The research analysis was univariate and bivariate using the chi-square. Through the study, it was found that the age of PAD patients was adults (63.3%), DM> 5 years (63.3%), hypertension (83.3%), uncontrolled blood sugar (66.7%), uncontrolled diet (60%) and not doing physical activity (46.7%). Through statistical tests, it was found that there was a relationship between age (p value 0.000), there was no relationship for long suffering from diabetes (p value = 0.095), there was no relationship with hypertension (p value = 0.112), there was a relationship with blood glucose control (p value 0.003), there was a relationship diit (p value = 0.049) and there is a relationship between physical activity (p value = 0.000) to the occurrence of PAD.

Keywords: Peripheral Arterial Disease (PAD), Diabetes Mellitus Type 2

1   Introduction

Diabetes Mellitus (DM) is a disease in which the condition of glucose levels in the blood exceeds normal limits (Mahdiana, 2015). The Diabetes Federation (IDF, 2018) states that there are currently 415 million people in the world who experience diabetes.Indonesia is ranked 4th with the highest number of DM sufferers in the world, which is 15 million people and it is estimated that this number will continue to increase to 21.3 million in 2030. Hyperglycemia in diabetes mellitus, especially in type 2 diabetes mellitus causes complications of both microangiopathy and macroangiopathy (Black & Hawks, 2014), one of which is neuropathy and Peripheral Arterial Disease (PAD) (Ilminova, 2015). PAD is a disruption of blood supply to the upper or lower extremities due to obstruction caused by atherosclerosis, but can also be caused by thrombosis, embolism, vasculitis, or fibromuscular dysplasia (Aryani, 2016).

The prevalence of DM neuropathy in the world is 54,000 people per year and cases of PAD in the world are estimated that more than 202 million people in the world suffer from PAD (Fukrapti and Naqiyya, 2020). The prevalence of PAD in Indonesia is around 1,455,000 people. The risk of developing PAD increases with the severity and duration of diabetes, where those who suffer from DM have a 7-15-fold higher likelihood (Ilminova, 2015). Until now, there is no definite data regarding the number of PAD patients in Riau Province. Based on a preliminary study at the Awal Bros Hospital (RSAB) Pekanbaru, it was found that the number of DM patients was 300 people per month and there were 30 cases of peripheral arterial disease every month (Medical Record RSAB Pekanbaru, 2021).

The biggest cause of PAD is the presence of atherosclerosis, so it can be said that atherosclerosis risk factors are also a risk factor for PAD (Rooke, 2011). The prevalence of atherosclerosis increases in diabetes mellitus, hypertension, hypercholesterolemia, diabetes, physical activity and smoking (Antono & Hamonangani, 2014). Individuals with diabetes are at greater risk for developing PAD. The failure of efforts to control blood glucose levels in the long term has an impact on the emergence of various microvascular and macrovascular complications (Vienna, 2012).

About 15-20% of people over 50 years of age have a risk of suffering from PAD (Efi, 2012). The relationship between PAD and age reflects the longer exposure to atherogenic factors with the cumulative effect of aging in the blood vessels. In the aging process, which can naturally cause the blood vessels of the elderly to experience atherosclerosis and the potential for cell proliferation, DNA damage and the process of apoptosis. The amount of NO (Nitrogen Monoxide) and the vascular response to NO decreases with age. The decrease in NO results in impaired relaxation of blood vessels (Wang & Martin, 2012).

Physical activity can prevent the atherosclerosis process (Li and Siegrist, 2012). Physical activity in type 2 DM patients can improve glycemic control and reduce the risk of cardiovascular disease and death in type 2 DM patients. Lack of physical activity is a risk factor for endothelial dysfunction (Hamasaki, 2016). The results of Loprinzi and Abbott's (2014) research show that there is a relationship between physical activity and PAD as measured by checking ABI. Patients with type 2 diabetes have light physical activity with RR = 0.77, 95% CI: 0.62-0.96.

Another risk factor for atherosclerosis is hypertension. High blood pressure can cause the arteries to stretch and dilate excessively and cause injury to the endothelium. Abnormality of smooth muscle tone, blood vessels, coagulation disorders, proliferation of vascular smooth muscle cells, fibrinolysis and persistent inflammation caused by endothelial dysfunction. Hypertensive patients have an approximately 2-5% risk of developing PAD and hypertensive patients 35-55% are known to suffer from PAD. How to detect PAD in hypertensive patients is rarely done (Powell TM, 2011). This is in accordance with research conducted by Maria (2013) where it was found thatThere was a very significant relationship between blood pressure and the ABI value (P = 0.037). Chi-square test showed that there was a significant relationship between blood pressure and ABI value (P = 0.049), while the risk factors were age (P = 0.144), obesity (P = 0.488), LDL cholesterol (P = 0.197) and smoking history (P = 0.512) there was no relationship.

One of the risk factors for PAD is diet. A healthy diet for PAP sufferers is aimed at slowing down the atherosclerosis process, having a healthy ideal body, reducing the risk of PAD, heart disease, and stroke. A person who has DM and PAD is allowed to eat fatty foods, namely unsaturated fats, or foods that are low in fat and low in salt. Foods that contain unsaturated fats include canola, soybeans, nuts, vegetable oil, avocado, and fatty fish such as mackerel, herring, salmon, trout, and sardines.

Based on a preliminary study conducted at RSAB Pekanbaru, data were obtained from 5 patients, 4 of whom were> 50 years old, 5 patients had diabetes for more than 5 years. Of the 5 patients, 3 of them had grade 1 hypertension and 2 others had prehypertension, 4 patients said they had tried to adjust their diet but hypertension and diabetes were still not well controlled. 3 patients also said that they rarely do physical activities such as jogging, gymnastics, leg exercises and so on in their daily lives.

Based on the above background, the researchers are interested in conducting research on "factors that affect Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in the internal disease polyclinic RSAB Pekanbaru".

2   Methods

This type of research is a descriptive correlative study with a cross-sectional research design. This research was carried out in the polyclinic room of RSAB Pekanbaru. The sampling method in this research is accidental sampling. The number of samples in the study were 30 respondents who matched the inclusion criteria (willing to be respondents, the patient had a diagnosis of type 2 diabetes mellitus, the patient was compos mentis) and exclusion criteria (respondents refused to be the object of the study, the patient had a history of heart disease, the patient was severe pain and there is an ulcer in the patient's leg). Researchers used a questionnaire sheet (containing the initials of the name, age, gender, education, occupation, vital signs, history of cholesterol, length of diabetes, history of hypertension, blood sugar control, diit and physical activity carried out daily) and the observation sheet for the Peripheral Arterial Disease level by using ABI measurements, then documenting. The data analysis of this research is univariate and bivariate. Bivariate data analysis was performed by using the Chi-square test with a confidence degree of 95%.

3   Results and Discussion

3.1   Research Result
a.   Univariate Analysis

Table 1. Characteristics Clients with Type 2 Diabetes Mellitus at Internal Medicine Polyclinic RSAB Pekanbaru

No.	Characteristics of Respondents	Frequency	Percentage (%)
1	Age		
	a. Adult	19	63.3
	b. Elderly	11	36.7
2	Gender		
	a. Man	15	50
	b. Women	15	50
3	Education		
	a. Elementary School (SD)	1	3.3
	b. Senior High School (SMA)	16	53.3
	c. College (PT)	13	43.3
4	Profession		
	a. Does not work	4	13.3
	b. Private	11	36.7
	c. entrepreneur	2	6.7
	d. Housewife	10	33.3

No.		Frequency	Percentage
	e. Government employees	3	10
5	History of Hypertension		
	a. Not	5	16.7
	b. Yes	25	83.3
6	Blood Sugar Control		
	a. Not controlled	20	66.7
	b. Controlled	10	33.3
7	Control Diit		
	a. Not controlled	18	60
	b. Controlled	12	40
8	Long Suffering from DM		
	a. $\leq$ 5 years	11	36.7
	b. > 5 years	19	63.3
9	Physical Activity		
	a. Are not done	14	46.7
	b. Done	16	53.3
	Total	**30**	**100**

Based on table 1, it is known that the majority of respondents' age is 19 respondents (63.3%), 15 respondents (50%) female, 16 respondents (53.3%) high school education level, the respondent's occupation is private as much as 11 people (36.7%), 25 respondents (83.3%) with a history of hypertension, 20 (66.7%) uncontrolled respondents' blood sugar, 18 uncontrolled respondents (60%) suffering from diabetes> 5 years as many as 19 respondents (63.3%) and respondents who do not do physical activity as many as 14 people (46.7%).

Table 2. Peripheral Arterial Disease (PAD) Clients with Type 2 Diabetes Mellitus at Internal Medicine Polyclinic RSAB Pekanbaru

No.	Peripheral Arterial Disease (PAD)	Frequency	Percentage (%)
1	1-1.4 (Normal peripheral arterial circulation)	17	56.7
2	0.91-0.99 (There is a slight decrease in peripheral arterial circulation, correlate with clinical assessment)	11	36.7
3	<0.90 (Decrease in peripheral arterial circulation)	2	6,7
	Total	**30**	**100**

Based on table 2, it is known that PAD clients with diabetes mellitus type II diabetes mellitus are in the category 1-1.4 (normal peripheral arterial circulation) as many as 17 respondents (56.7%), 0.91-0.99 (There is a slight decrease in peripheral arterial circulation, correlated with clinical assessment) as many as 11 respondents (36.7%) and <0.90 (decrease in peripheral arterial circulation) as many as 2 respondents (6.7%).

b.   Bivariate Analysis
1)   Relationship Age Against The Occurrence of PAD

Table 3. Relationship age against the occurrence of PAD

No.	Age	PAD						Total		*p value*
		1-1.4		0.91-0.99		<0.90				
		n	%	n	%	n	%	n	%	
1	Adult	16	84.2	3	15.8	0	0	19	100	0.000
2	Elderly	1	9,1	8	72.7	2	18.2	11	100	
	Total	17	56.7	11	36.7	2	6.7	30	100	

Based on table 3, it is known that from 19 respondents who have an adult age, 16 of them have a PAD value of 1-1.4 (84.2%) while of the 11 elderly respondents, 8 of them have a PAD value of 0.91-0.99 (72.7%). Chi square test results obtained p value = 0.000 (α <0.05), so there is a relationshipage towards the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in internal medicine polyclinic at RSAB Pekanbaru.

2) Relationship long suffering from DM to the occurrence of PAD

Table 4. Relationship Long Suffering from DM to The Occurrence of PAD

No.	Long Suffering from DM	PAD						Total		p value
		1-1.4		0.91-0.99		<0.90				
		n	%	n	%	n	%	n	%	
1	≤5 years	9	81.8	2	18.2	0	0	11	100	
2	> 5 years	8	42.1	9	47.4	2	10.5	19	100	0.095
	Total	17	56.7	11	36.7	2	6.7	30	100	

Based on table 4, it is known that from 11 respondents who suffered from diabetes <5 years, 9 of them had a PAD value of 1-1.4 (81.8%) while of 19 respondents who had diabetes> 5 years, 9 of them had a PAD value of 0.91-0.99 (47, 4%%). Chi square test results obtained p value = 0.095 (α> 0.05), so there is no relationshiplong suffering from DM to the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in internal medicine polyclinic at RSAB Pekanbaru.

3) Relationship Hypertension Against The Occurrence of PAD

Table 5. Relationship Hypertension Against The Occurrence of PAD

No.	Hypertension	PAD						Total		p value
		1-1.4		0.91-0.99		<0.90				
		n	%	n	%	n	%	n	%	
1	Not	4	80	0	0	1	20	5	100	
2	Yes	13	52	11	44	1	4	25	100	0.112
	Total	17	56.7	11	36.7	2	6.7	30	100	

Based on table 5, it is known that from 5 respondents who suffer from hypertension, 4 of them have a PAD value of 1-1.4 (80%) while of the 25 respondents who have hypertension, 13 of them have a PAD value of 1-1.4 (52%). Chi square test results obtained p value = 0.112 (α> 0.05), so there is no relationshiphypertension against the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in internal medicine polyclinic at RSAB Pekanbaru.

4) Relationship Blood Glucose Control in The Presence of PAD

Table 6. Relationship blood glucose control in the presence of PAD

No.	Blood Glucose Control	PAD						Total		p value
		1-1.4		0.91-0.99		<0.90				
		n	%	n	%	n	%	n	%	
1	Not controlled	7	35	11	55	2	10	20	100	
2	Controlled	10	58.8	0	0	0	0	10	100	0.003
	Total	17	56.7	11	36.7	2	6.7	30	100	

Based on table 6, it is known that of the 20 respondents whose blood glucose was not controlled, 11 of them had a PAD value of 0.91-0.99 (55%), while of the 10 respondents whose blood glucose was controlled, 10 of them had a PAD value of 1-1.4 (58.8%). Chi square test results obtained p value = 0.003 (α <0.05), so there is a relationshipblood glucose control with the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in internal medicine polyclinic at RSAB Pekanbaru.

5) Relationship Diit Against The Occurrence of PAD

Table 7. Relationship Diit Against The Occurrence of PAD

No.	Diit	PAD						Total		p value
		1-1.4		0.91-0.99		<0.90				
		n	%	n	%	n	%	n	%	
1	Not controlled	7	38.9	9	50	2	11.1	18	100	
2	Controlled	10	83.3	2	16.7	0	0	12	100	0.049
Total		17	56.7	11	36.7	2	6.7	30	100	

Based on table 7, it is known that from 18 respondents who were not controlled, 9 of them had a PAD value of 0.91-0.99 (50%), while of the 12 respondents who were controlled, 10 of them had a PAD value of 1-1.4 (83.3%). Chi square test results obtained p value = 0.049 (α <0.05), then there is a relationshipdiit against the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in internal medicine polyclinic at RSAB Pekanbaru.

6) Relationship physical activity against the occurrence of PAD

Table 8. Relationship physical activity against the occurrence of PAD

No.	Physical activity	PAD						Total		p value
		1-1.4		0.91-0.99		<0.90				
		n	%	n	%	n	%	n	%	
1	Are not done	2	14.3	10	71.4	2	14.3	14	100	
2	Done	15	93.8	1	6.3	0	0	16	100	0.000
	Total	17	56.7	11	36.7	2	6.7	30	100	

Based on table 7, it is known that from 14 respondents who did not do physical activity, 10 of them had a PAD value of 0.91-0.99 (71.4%) while of the 16 respondents who did physical activity, 15 of them had a PAD value of 1-1.4 (93.8%). Chi square test results obtained p value = 0.000 (α <0.05), so there is a relationshipphysical activity against the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in internal medicine polyclinic at RSAB Pekanbaru.

4 Discussion

4.1 The Relationship of Age to The Occurrence of PAD

The average respondent in this study was classified as middle elderly with an age range of 45-65 years. Type 2 diabetes mellitus aged less than 70 years has a higher risk of experiencing

microvascular complications such as neuropathy, retinopathy, and nephropathy (Floch, Doucet, Bauduceu, & Verny, 2013).

Through research, it is known that the majority of respondents' age is early adulthood as many as 19 respondents (63.3%). Of the 19 respondents who had early adulthood to late adulthood, 16 of them had a PAD score of 1-1.4 (84.2%) while of the 11 elderly respondents, 8 of them had a PAD value of 0.91-0.99 (72.7%). Chi square test results obtained p value = 0.000 (α <0.05), so there is a relationship between age and the occurrence of peripheral arterial disease (PAD) in clients with type 2 diabetes mellitus in the internal medicine polyclinic at RSAB Pekanbaru.

Age is a factor in adults, with increasing age the ability of tissues to take up blood glucose decreases. This disease is more common in people aged over 40 years than in younger people. Conditions that occur in human life are like the aging process which is a natural process throughout life starting from the beginning of life. In the elderly, metabolic disease can occur mainly due to decreased hormone production, such as in women who are approaching the age of 50. Diabetes mellitus is often found in elderly people aged 70 years and over (Komsah, Sofiani and Irawati, 2019).

The relationship between PAD and age reflects the longer exposure to atherogenic factors with the cumulative effect of aging in the blood vessels. In the aging process, which can naturally cause the blood vessels of the elderly to experience atherosclerosis and the potential for cell proliferation, DNA damage and the process of apoptosis (Wang & Martin, 2012).

The results of this study are in accordance with the statement of the American College of Cardiology Foundation / American Heart Association (ACCF / AHA) (2017) that the age factor is a person's main risk for suffering from PAP. The risk of PAP increases with age, from 3% at <50 years of age to> 20% at ≥70 years of age. The relationship between age and PAP reflects a longer length of exposure to atherogenic factors along with the cumulative effects of aging.

4.2 Long Relationship Suffering from DM to The Occurrence of PAD

Through research, it is known that most of the people who suffer from diabetes> 5 years are 19 respondents (63.3%). It is known that of the 11 respondents who suffered from diabetes <5 years, 9 of them had a PAD value of 1-1.4 (81.8%) while of the 19 respondents who had diabetes> 5 years, 9 of them had a PAD value of 0.91-0.99 (47.4%). The results of the chi square test obtained p value = 0.095 (α> 0.05), so there is no long-term relationship with DM to the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in the internal medicine polyclinic at RSAB Pekanbaru.

The length of time a person experiences Diabetes Mellitus can exacerbate the risk of complications of Diabetes Mellitus, one of which is the obstruction of peripheral vascularization so that it can reduce the value of the Ankle Brachial Index and foot sensitivity, and result in ulcers. The prolonged increase in blood sugar levels results in damage to the lumen of blood vessels which will affect peripheral circulation. Hyperglycemia in a long time will cause a buildup of glucose levels in certain cells and tissues which are then converted into sorbitol which causes damage and changes in cell function. Sorbitol is slow metabolized, plus the formation of Advanced Glycation End Products (AGEs),

Through this research, it can be seen that the number of respondents who have diabetes> 5 years is 19 respondents (63.3%) and <5 years as many as 11 respondents (37.7%). Not only the duration of DM that affects the incidence of PAD, such as controlled diets, controlled blood glucose, age etc. The duration of suffering from DM is one of the things that affects the severity of peripheral neuropathy in DM patients.

The results of this study are in line with the research of Lintang, et al. (2019) which shows that the average length of time for respondents suffering from diabetes is 9.8 years. Respondents who had normal degree of PAD were 52.5%, mild grade PAD was 12.5%, moderate PAD was 32.5% and severe degree PAD was 2.5%. The results of the Spearman test for the two variables obtained a p value of 0.651. This shows that there is no strong relationship between the duration of suffering from type 2 diabetes mellitus with the incidence of Peripheral Artery Disease in patients with type 2 diabetes mellitus at Kedaton Public Health Center, Bandar Lampung City.

4.3 The relationship of hypertension to the occurrence of PAD

Through research it is known that respondents who have a history of hypertension are 25 respondents (83.3%). Of the 5 respondents who suffered from hypertension, 4 of them had a PAD value of 1-1.4 (80%) while of the 25 respondents who had hypertension, 13 of them had a PAD value of 1-1.4 (52%). Chi square test results obtained p value = 0.112 ($\alpha > 0.05$), so there is no relationship between hypertension and the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in the internal medicine polyclinic at RSAB Pekanbaru.

Patients with Type 2 diabetes also experience disruption of blood flow to the heart due to blood viscosity so that the burden on the heart to pump blood throughout the body increases and over time hypertension can occur. Hypertension is a disease caused by various causes. In patients with DM generally as a result of macrovascular complications. Meanwhile, PAD is a disease that generally occurs in DM sufferers due to microvascular complications. Both are diseases that complicate DM sufferers, but that does not mean that the two are always related, this is strongly influenced by other factors as well as the individual characteristics of DM sufferers themselves (Rihiantoro and Purbianto, 2012).

Hypertensive patients have an approximately 2-5% risk of developing PAD and hypertensive patients 35-55% are known to suffer from PAD. How to detect PAD in hypertensive patients is rarely done. Clinicians or patients often ignore the symptoms of PAD. Clinicians who can be aware of the symptoms of PAD in patients are about 49% and PAD patients diagnosed and undergoing treatment are less than 25% (Powell TM, 2011).

Based on the results of Jelantik's (2014) study of 50 respondents with Type 2 Diabetes Mellitus, it was found that 88% of respondents had hypertension and 12% of respondents did not suffer from hypertension. This study is not in line with Valliyot's (2013) study showing that people who have a history of hypertension have 5 times the risk of suffering from Type 2 Diabetes Mellitus compared to people who do not have a history of hypertension.

4.4 Relationship between blood sugar control and the occurrence of PAD

Through research, it is known that there were 20 respondents (66.7%) who had uncontrolled blood sugar, of the 20 respondents whose blood glucose was not controlled, 11 of them had a PAD value of 0.91-0.99 (55%) while of 10 respondents whose blood glucose was controlled, 10 among them have a PAD value of 1-1.4 (58.8%). Chi square test results obtained p value = 0.003 ($\alpha < 0.05$), so there is a relationship between blood glucose control and the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in the internal medicine polyclinic at RSAB Pekanbaru.

High blood glucose levels have far-reaching negative impacts not only on carbohydrate metabolism, but also on protein and fat metabolism. As a result, atherosclerosis can occur in the tissues, especially in the peripheral areas of the legs. High blood glucose accelerates the process of atherosclerosis in large blood vessels such as the aorta, coronary arteries, or arteries that supply blood to the legs and brain. As a result, the risk of heart attack and stroke is much greater

in diabetics than non-sufferers of the same age, race, weight, and gender. In addition, blood circulation to the legs is also hampered (Widodo & Muzaky, 2017).

Endothelial dysfunction and atherosclerotic conditions that occur due to hyperglycemia cause narrowing of the lumen of blood vessels to the periphery. Lumen reduction causes circulation to the periphery to decrease, this circulation deficit causes a decrease from the ABI Score to below 0.9. According to the American Heart Association (AHA), a small ABI score indicates a peripheral circulation deficit resulting in PAD in these patients (AHA, 2018). The results of this study are in accordance with the research of Ezekia (2020) where there was a significant relationship between HbA1c (p = 0.001), fasting blood sugar (p = 0.006), blood sugar 2 hours post prandial (p = 0.004), and hypertension (p = 0.047) with PAP in patients with Type II diabetes in patients with Diabetes Polyclinic at Sanglah Hospital Denpasar.

4.5 The relationship between the diet and the occurrence of PAD

Through research, it is known that the uncontrolled number of respondents is 18 people (60%). Of the 18 respondents whose diet was uncontrolled, 9 of them had a PAD value of 0.91-0.99 (50%), while of the 12 respondents whose diet was controlled, 10 of them had a PAD value of 1-1.4 (83.3%). Chi square test results obtained p value = 0.049 (α <0.05), so there is a relationship between the diet and the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in the internal medicine polyclinic at RSAB Pekanbaru.

Many factors affect the ABI value in DM sufferers, including blood glucose levels, given insulin therapy, diet therapy, physical activity, and age. ABI is used to support the diagnosis of vascular disease in DM by providing an objective indicator of arterial perfusion to the lower extremities. Rest / Diabetic diet 1500 kcal (carbohydrate 828 kcal, protein 60 g, fat 33 g), heart diet II, low salt diet II / oxygen 2 liters / minute. A low-salt diet is a diet containing foods consisting of low sodium food ingredients such as those found in table salt, baking soda, baking powder and fitsin (MSG) (Dalimartha, 2018). The results of this study are in line with Safitri's (2019) study where there is a relationship between levels of glycosylated hemoglobin (HbA1C) and the incidence of peripheral artery disease (PAP) in people with type 2 diabetes mellitus with a p value = 0.487.

4.6 The relationship of physical activity to the occurrence of PAD

Physical activity is a body movement produced by skeletal muscles that requires energy expenditure including activities performed while working, playing, doing household chores, traveling, and engaging in recreational activities (WHO, 2017). Physical activity in type 2 DM patients can improve glycemic control and reduce the risk of cardiovascular disease and death in type 2 DM patients. Lack of physical activity is a risk factor for endothelial dysfunction.

Through research, it is known that the respondents who do not do physical activity are 14 people (46.7%). Of the 14 respondents who did not do physical activity, 10 of them had a PAD value of 0.91-0.99 (71.4%) while of the 16 respondents who did physical activity, 15 of them had a PAD value of 1-1.4 (93.8%). Chi square test results obtained p value = 0.000 (α <0.05), so there is a relationship between physical activity and the occurrence of Peripheral Arterial Disease (PAD) in clients with type 2 diabetes mellitus in the internal medicine polyclinic at RSAB Pekanbaru.

Exercise therapy is recommended for symptomatic PAP patients. Exercise therapy is recommended for 30-45 minutes for each session and performed at least 3 times each week for up to 12 weeks. The effect of physical exercise on decreased afterload by improving endothelial function can be compared with the effects of well-known pharmacological therapies (eg, ACE inhibitors).

The results of the above research are also in accordance with the research conducted by Loprinzi and Abbott (2014) which examined physical activity using an accelerometer against peripheral artery disease assessed using ABI. The results showed that there was a relationship between physical activity and peripheral artery disease as measured by ABI checking. Patients with type 2 diabetes have light physical activity with RR = 0.77, 95% CI: 0.62-0.96.

5   Conclusion

a.   The age of Peripheral Arterial Disease (PAD) patients was early to late adulthood as many as 19 respondents (63.3%)
b.   The duration of the patient with Peripheral Arterial Disease (PAD) suffering from DM is> 5 years as many as 19 respondents (63.3%)
c.   Peripheral Arterial Disease (PAD) patients suffering from hypertension were 25 respondents (83.3%)
d.   Blood sugar in patients with uncontrolled Peripheral Arterial Disease (PAD) was 20 people (66.7%),
e.   Diits of uncontrolled Peripheral Arterial Disease (PAD) patients were 18 people (60%)
f.   There were 14 patients with peripheral arterial disease (PAD) who did not do physical activity (46.7%).
g.   The analysis results showed that the p value = 0.000 (α <0.05) means that it can be concluded that there is a relationship between age and the occurrence of peripheral arterial disease (PAD).
h.   The results of the analysis showed that the p value = 0.095 (α> 0.05) means that it can be concluded that there is no long association with DM to the occurrence of peripheral arterial disease (PAD).
i.   The results of the analysis showed that the p value = 0.112 (α> 0.05) means that it can be concluded that there is no relationship between hypertension and the occurrence of peripheral arterial disease (PAD).
j.   The results of the analysis showed that the p value = 0.003 (α <0.05) means that it can be concluded that there is a relationship between blood glucose control and the occurrence of peripheral arterial disease (PAD).
k.   The results of the analysis showed that the p value = 0.049 (α <0.05) means that it can be concluded that there is a relationship between the diet and the occurrence of peripheral arterial disease (PAD).
l.   The results of the analysis showed that the p value = 0.000 (α <0.05) means that it can be concluded that there is a relationship between physical activity and the occurrence of peripheral arterial disease (PAD).

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Decreased The Anxiety Scale of Hemodialysis Patients with The Autogenic Relaxation

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Abstract. Chronic Kidney Disease (CKD) is a decrease in the function of the kidney organs sothat they are unable to filter the body's electrolyte ureum, maintain the balanceofbody fluids, and chemicals. One of the management of patients with CKD is doing hemodialysis.CKD patients under going hemodialysis will have effect for physiological, psychological, and social influences. Lifestyles change during hemodialysis, besides that normal life is disturbed resulting in feelings loss. This resultsin psychological problems in CKD patients and results are a depression, anxiety, and stress. The purpose of this study was to determine the effect of autogenic relaxation therapy on anxiety levels of CKD patients on hemodialysis. The design of this research is a quantitative study with a quasi-experimental design, the approachused is the pre testand post test without control group. Respondents of this study were CKD patientson hemodialysis at X Hospital Pekanbaru. The samples are 15 respondents in the autogenic therapy intervention group. Statistical test using the Wilcoxon Test. The results of statistical tests in the intervention group showed the effectiveness of autogenic therapy on reducing anxiety levels with p value <0.05. Based on the research above, the recommendation of this study, that inpatients with CKD, nursing interventions of choice by nurses in hemodialysis patientscan be carried out, non- pharmacolog with autogenic therapy, that can reduce theanxiety level to increase comfort during hemodialysis.

Keywords: CKD, Hemodialysis, Anxiety, Autogenic Relaxation Therapi

1   Introduction

Chronic Kidney Disease (CKD) is a disease in which the function of the kidney organs has decreased so that it is unable to work at all in terms of filtering the body's electrolyte disposal, maintaining the balance of body fluids and chemicals such as sodium and potassium in the blood or urine production (Daniswara, S., 2015). The kidneys are the most important organs for human survival. Kidney function, among others, as a regulator of the volume and composition of the blood, the formation of cell blood red, regulating the amount of liquid electrolyte concentration in the extra cells, helps maintain the balance of acid -base, regulator of pressure of blood as well as spending foreign components (Utami, G. A, Bayhakki, Zurmeli, 2015).

According to the *World Health Organization* (2015) the incidence of CKD is increasing from year to year, the number of patients with failing kidneys in the year 2015 reached 2.2 million people. CKD disease in countries developing has been reached 73,000 people and is the third largest disease in the world by number 350,000 (Utami, G. A, Bayhakki, Zurmeli, 2015). According to the WHO (2017) reported that patients with failing kidneys Chronic has increased

from the previous year, the global incidence of failed kidneys Chronic more than 500 million people and are dependent with undergoing dialysis (hemodialysis) is 1.5 million people.

From the data Indonesian Renal Registry, a patient recently who undergo hemodialysis in Indonesia in 2015 some 21 050 increase in the year 2016 reached 25 446, in 2017 rose again to 30,831 patients a new (Saputri, R., Rahayu, D. A., & Semarang, U. M, 2019). Indonesia in the year 2018 patients with failing kidneys chronic increased by 19.3% (Wahyuningsih, S. A, 2020).

Treatment of patients with CKD can be given two therapies, namely conservative and replacement therapy. Conservative therapy is therapy with regulating protein intake, which aims to slow further kidney damage. Replacement therapy in the form of dialysis and kidney transplantation. Methods are most much done is hemodialysis (Daniswara, S., 2015)

According to the Health Office (2012) West Sumatra is in position 123 of 33 provinces with a prevalence of 33.27% figure incidence of asthma. According to the Department of Health Kota Padang (2016) for diseases of the respiratory tract section below, asthma occupies position 4 of 7 types of diseases that occur throughout the year 2016 with a number of events as many as 1,779 cases (773 cases in men and 1006 cases in women).

Hemodialysis is a process used in patients in a state of acute pain and require treatment dialysis short term or patients with diseases of kidney -stage end of which require long jangaka therapy or permanent (Makrufah, I., 2019). Hemodialysis requires a time that is not a moment to once therapy, thus making the patient feel saturated, especially if basically he does not accept the state of the disease from the start and not be able to perform activities of daily normal.

Disorders of psychological which exist in the form of, stress, depression, upset, shocked, scared, sad, bored, broke up, and feel into the load keluarga.serta cause anxiety. (Saputri, R., Rahayu, DA, & Semarang, U. M, 2019). Patients CKD can overcome the condition of the psychological is to perform the techniques that exist, to make

The patient is more relaxed, such as deep breath relaxation techniques, 5 finger hypnosis techniques, murotal techniques, aromatherapy techniques, music therapy and autogenic relaxation techniques. According potter and perry, 2010 in the journal Ekarini, NLP, Krisanty, P., & Suratun, S, 2018 of various techniques such therapy autogenic more effectively relieve anxiety, because relaxation autogenic is the type psiofasiologikal of psychotherapy basis by using the self-suggestion, which can lower the rate of heart and pressure of blood are high, menurunan muscle tension and reduce stress symptoms in individuals who experience various situations (such complications).

Relaxation Autogenic it itself is a relaxation short that form a sentence or word brief that can make the mind becomes quiet, and comes from the individuals themselves, such as "I'm quiet and comfortable" and "I can do this".Relaksasi this can be done by imagining yourself in a relaxed state, focus on heart rate and breath regulation, so that vital signs can be normal and can be controlled (Saputri, R., Rahayu, DA, & Semarang, U. M, 2019).

The results of the study Saputri, R., Rahayu, DA, and Semarang, U. M (2019) are statistically no effective therapy autogenic in reducing anxiety in patients with CKD who undergo hemodialysis. From the research results of Arsa, P.S. A., 2018 the provision of RIMA therapy (autogenic relaxation, movement, and affirmation) on the anxiety value of ESRD (End Stage Renal Disease) patients which was carried out for seven days showed significant results which meant that there was an effect of RIMA therapy. This research is in accordance with that conducted by (Nelson, Adamek, and Kleiber, 2017) which states that therapy autogenic can be significantly lowered the value of anxiety. Another study by (Lim and Kim, 2014) also states that autogenic therapy can reduce anxiety, autogenic therapy can inhibit the work of the sympathetic nervous system so that excess hormones will decrease and reach a balance point.

When the initial research conducted at Rumah Sakit X in Pekanbaru are conducted through interviews with the number 15 the patients CKD who undergo hemodialysis obtained by 9 patients with the impact of problems experienced kondisipsikologis less well, said to feel anxious and worried about the current conditions, easily offended, do not wait, often experience disturbances of sleep, not able to work so it was not able to meet the financial, frightened and yet ready to face death. The mean average patient deal with a sense of anxiety prior to using therapy murottal, music therapy and relaxation breath in, but patients say the feeling of anxiety that arise kembali. So, the purpose of this study was done to determine the effectiveness of therapy autogenic on the condition of psychological CKD patients who undergo hemodialysis.

2 Methods

Type of this research is quantitative with the design of experiments quasi (quasi experimental). Models were used in this study is the pre test and post test without control group. Which aims to determine the effect of therapeutic relaxation autogenic to the level of anxiety in patients with CKD who undergo hemodialisa.Populasi this research is the whole patient CKD ambulatory path that undergo hemodialysis in spaceHemodialysis Rumah Sakit X Pekanbaru many as 60 people.

The sampling technique in research this is the technique of purposive sampling, which is a method of determination of the respondent to be used as a sample based on the criteria for certain, with the number of samples as much as 24 people with Inclusion and Exclusion criteria.

The data are used in research this is the data primer.Data primer obtained from sujek research by using kuisionermengenai level of anxiety given kepeda respondents after treatment relaxation autogenic on respondents, the questionnaire was given when the *pre- test* and *post- test.*

3 Results

The results of the study of CKD patients who underwent hemodialysis before (post test) were carried out autogenic relaxation therapy, the distribution of respondents' anxiety levels in CKD patients in the pre- test measurement found more than half of the respondents as many as 11 people (73.3%) were in the category of mild anxiety and moderate anxiety 4 people (26.7%).

The results of the study after (pre-test) were given autogenic relaxation therapy, the distribution of respondents' anxiety levels in CKD patients after autogenic relaxation therapy was carried out in the post-test measurement, it was found that more than half of the respondents as many as 12 people (80.0%) were in the category of not anxious, mild anxiety 2 people (13.3%), and 1 person was anxious (6.7%).

The results of the study are presented in the form of univariate and bivariate analyzes were previously performed data processing with statistical tests using a computer. The complete research results are discussed as follows.

3.1 Characteristics of Respondents

Table 1. Frequency Distribution of CKD Patient Respondents in New XPekan Hospital in 2020 (n = 15)

Variable	Respondents (n = 15)	
	f	**%**
Age		
21-30 years	2	13.3
31-40 years	2	13.3
41-50 years	5	33.3
51-60 years	6	40.0
Type Sex		
Man	7	46.7
Women	8	53.3
Old HD		
<1 month	9	60.0
1 month	6	40.0
Education		
SD	4	26.7
Junior High	4	26.7
High school	3	20.0
Diploma III	1	6,7
Profession		
Does not work	1	6,7
IRT	4	26.7
entrepreneur	6	40.0

Based on table 1, it can be illustrated that the age distribution of respondents was found that almost half of the respondents as many as 6 people (40.0%) were aged 50-60 years. Distribution types of sex of respondents found Most of the respondents as many as 8 people (53.3%) were women. Distribution longer respondents hemodialysis are found mostly large respondents were 9 people (60.0%) is HD < than 1 month. Distribution of education of respondents found most large respondents as many as 4 people (26.7%) are SD and SMP. Frequency distribution the occupation of the respondents found almost half of the re spondents were 6 people (40.0%) are self-employed.

Table 2. Analysis of the Effect of Pre-test and Post-test Anxiety Levels Before and After Treatment of Autogenic Relaxation Therapy on CKD Patients at RSX Pekanbaru, 2020

Variabel	n	*p value*
Pre test	15	0, 001
Post test	15	

3.2 Analisa Bivariat

Tabel 3 Frequency Distribution of CKD Patient Respondents Based on Anxiety Levels Pre test and Post test Before and After Treatment of Autogenic Relaxation Therapy at X Hospital Pekanbaru in 2020(n = 15)

Variabel	Pre test		Post test	
	f	%	f	%
Tingkat Kecemasan				
Responden(n=15)				
TidakCemas	0	0,0	12	80,0
KecemasanRingan	1	73,3	2	13,3
KecemasanSedang	4	26,7	1	6,7
KecemasanBerat	0	0,0	0	0,0

Based on table 3, it can be illustrated that the distribution of respondents' anxiety levels in CKD patients in the pretest measurement was found that more than half of the respondents as many as 11 people (73.3%) were in the mild anxiety category. The distribution of the respondents' anxiety level in CKD patients after autogenic relaxation therapy was carried out in the posttest measurement, it was found that more than half of the respondents as many as 12 people (80.0%) were in the not anxious category.

Based on table 2 of the Wilcoxon test results, it was found that the p- value = 0.001 (p-value <0.05). By thus be concluded that the therapy relaxation autogenic effect on the level of anxiety patients with CKD with hemodialysis.

4   Discussion

4.1 Anxiety Level Before being given Autogenic Therapy

The results of the study of CKD patients who underwent hemodialysis before (posttest) were carried out by autogenic relaxation therapy, the distribution of respondents' anxiety levels in CKD patients in the pretest measurement was found that more than half of the respondents were 11 people (73.3%) were in the category of mild anxiety and moderate anxiety 4 people (26.7%).

From the results of Lestari's research, A. 2017, anxiety based on the Zung Self Rating Anxiety Scale (ZSAS) questionnaire shows that the anxiety level of chronic kidney failure respondents who underwent hemodialysis at Wates Hospital was mostly in the mild anxiety category as many as 32 people (42.4%). The results of this study are also in accordance with Tanvir (2013) which shows that most chronic kidney failure patients undergoing hemodialysis experience mild levels of anxiety. Someone is suffering anxiety disorder when the person is unable to cope with the stressor he is facing. This condition can occur clinically and persist and last for at least 1 month.

This is in line with the research of Saputri, R., Rahayu, D. A., & Semarang,

U. M (2019) which shows the condition of anxiety before the intervention group most experienced many anxious normal 19, Anxious Lightweight 10, Worried Medium 14, Heavy Anxious 5 people, and most low experiencing anxiety is very severe that four patients with CKD

who undergo Hemodialysis. This indicates CKD patients undergoing hemodialysis are still many who experience anxiety.

According to Lester, A., 2017, Relationships action hemodialysis with the level of anxiety the patient lies on a cycle / old patient perform actions hemodialysis, patients who commit acts of hemodialysis one times the level of anxiety being, whereas patients who commit acts of hemodialysis two times the level of anxiety is mild or even old patient live action hemodialysis then the level of anxiety is reduced due to the patients already reached the stage of accepted (receiving) against the implementation of the hemodialysis (Rahman, 2013).

4.2 Asthma Control Level *Pre test-Post test* in Asthma Patients in the Control Group

The results of the study after (pretest) were given autogenic relaxation therapy, the distribution of respondents' anxiety levels in CKD patients after autogenic relaxation therapy was carried out in the post test measurement, it was found that more than half of the respondents as many as 12 people (80.0%) were in the category not anxious, mild anxiety 2 people (13.3%), and were anxiousmoderate 1 person (6.7%). This is in line with the research of Saputri, R., Rahayu, D. A., & Semarang,

U. M, 2019 where Anxious normal 37 people, Anxiety light 7 people, Worried were 6 people, Worried weight one person, Anxiety very heavy one person. The results of the research value of anxious groups of intervention are the influence that significantly between before and after given therapy autogenic. Scores anxious after autogenick therapy in group intervention has a range of value that is lower than the sebelumdilakukan therapy autogenic. \

Based on research Wahyudi, J. T, Imardiani, Rosida, L. 2019 Having given autogenic relaxation therapy in patients Intensive CareUnit, anxiety down at 36.67 and the mean value obtained nilaistandar deviation of 17.254 with anxiety lowest 17 and anxiety top 70. With the result value mean before therapy relaxation autogenik43,55 and the value of the standard deviation of 17.951 with anxiety lowest 20 and anxiety top 80. the principle that underlies the decrease anxiety by techniques autogenic relaxation therapy are waging the flow of blood and can stimulate hormone endorphins. When someone does autogenic relaxation, the beta-endorphins going out and captured by receptors in the hypothalamus and system limbic which serves to regulate anxiety and as a medicinal tranquilizer natural.

Relaxation autogenic also can improve the coping become more adaptive is to always express the problems that relate to health so as to get the treatment that is right. (Wijayanti, D. 2016)

According to the analysis and assumptions of researchers after being given most of the therapy respondents are in the not anxious category. That is because the effect of the relaxation autogenic to create CKD patients undergoing hemodialysis become relaxed, comfortable, quiet, and make things better. Not any more anxiety can be interpreted that already inability of a person are in overcoming anxiety that occur on her and was able to adjust themselves better.

4.3 Effect of Therapy Relaxation Autogenic Against Level Anxiety

Based on the results were obtained researchers found the effect of administration of therapeutic relaxation autogenic to decrease the level of anxiety in patients with CKD who undergo hemodialysis.

The study is in line with research conducted by Saputri, R., Rahayu, DA, and Semarang, U. M (2019) are statistically no effective therapy autogenick in reducing anxiety in patients with CKD who undergo hemodialysis. The results of the study menunjukkanbahwa results of correlation test of Wilcoxon in group intervention known p value of 0.000 <0.05, which means

there is the effectiveness of autogenic therapy to decrease the level of anxiety in patients with CKD yangmenjalani hemodialysis.

Based on the research of Arsa, P. S.

A. (2018) The Wilcoxon test in the treatment group obtained a p-value of 0.00 (p <0.05) which means that there is a difference between the post test and pre test in the treatment group. And this shows the effect of RIMA therapy (autogenic relaxation, movement and affirmation) therapy in ESRD patients undergoing hemodialysis.

Interventions were carried out 3 times, in the first week of 2 interventions, and second week 1x intervention. But the research results show a decrease in anxiety. From the results of interviews at respondents who live HD < 1 month and who underwent HD 1bulan, decrease anxiety this happens because of respondents apply this autogenic relaxation therapy at home as much as 2-3 times a day according the suggestion of researchers. According to the assumptions and analysis of the researchers, there was a decrease in anxiety after being given autogenic relaxation therapy. Although still there are patients who experience anxiety mild and moderate after therapy autogenic this, but things that also can be caused due to the mechanism of coping someone who is different in facing imasalah faced. Results of the study showed the technique of relaxation autogenic can decrease the level of anxiety. This shows that relaxation techniques autogenic can be used as one of the alternative therapy to overcome anxiety in patients with CKD who undergo hemodialysis.

5   Conclusions

Based on the research results, several conclusions can be made as follows:

a. Characteristics of the age of the respondents found almost of half of the respondents as many as 6 people (40.0%) were in the age of 50-60 years. The distribution of respondents' gender was found that most of the respondents as many as 8 people (53.3%) were women. The long distribution of hemodialist respondents was found that most of the 9 respondents (60.0%) were HD < 1 month. The distribution of respondents' education found that most of the respondents were 4   people (26.7%) are SD and SMP. The frequency distribution of the respondents' work was found that almost half of the respondents as many as 6 people (40.0%) were self-employed.

b. The distribution of respondents' anxiety levels in CKD patients in the pre-test measurement was found that more than half of the respondents as many as 11 people (73.3%) were in the mild anxiety category. The distribution of the respondents' anxiety level in CKD patients after autogenic relaxation therapy was carried out in the posttest measurement, it was found that more than half of the respondents as many as 12 people (80.0%) were in the not anxious category.

c. Wilcoxon test results, obtained p value = 0.001 (p value <0.05).

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Digital Literacy Based on Local Wisdom in Language **Learning**

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Abstract. This paper aims to determine the application of language teaching in the digital era based on local wisdom. Who plays a role in the learning process. The Indonesian language subject is very likely to help in the application of local wisdom for students in this digital era by incorporating it into learning. Indonesian is one of the lessons in which it teaches various kinds of lessons related to everyday human life. In this digital era, learning Indonesian based on local wisdom has to be improved by the presence of technology and the proliferation of slang languages that do not reflect positive characters. The community has a broad role in helping the world of education in introducing local wisdom in the lives of their students. With the mastery of digital literacy, students are able to use digital technology tools to become citizens who have a sense of nationalism, are responsible, have a sense of pride in being Indonesian citizens, and can set a good example for the next generation, and preserve local culture and regional languages. Learning Indonesian based on local wisdom in the digital era is very appropriate so that students are able to develop an interest in using Indonesian, have a sense of love for the country, and form student understanding and skills in solving social problems that occur in life. Respondents strongly agree that digital literacy can be mastered if individuals have adequate language skills through language learning. Respondents also strongly agree that language has an important role in digital literacy. From the results and discussion, it was also found that good and correct language can affect a person's literacy skills. Even though they are good at digital literacy, respondents agree that the characteristics of locality must be maintained.

Keywords: digital literacy, local wisdom, Indonesian language learning

1   Introduction

At this time, learning in each educational unit must be adjusted to the development of information technology. The development of learning is also directly proportional to changes and shifts in the educational paradigm which is marked by the use of teaching aids such as audio, visual and school equipment that are adapted to the times. In addition, learning must be adjusted to the demands of the curriculum in accordance with the materials, methods, and level of students' learning abilities. This is so that learning objectives can be achieved effectively and efficiently. So far, language learning is still limited to theoretical learning and tests. The aspects that are assessed are still in the cognitive level of students only. Learning media should emphasize the appreciation of students for language learning materials that are able to develop cognitive, affective, and conative intelligence. Therefore, it is necessary to develop forms of learning media that are right on target by paying attention to the level of appreciation of students. The results show that in the digital era, everyone can make good use of and optimize the use of

the internet, especially in the field of education. In this digital era, digital literacy can be used in language learning based on local wisdom. Local wisdom can be defined as wisdom or noble values contained in local cultural wealth. By raising local wisdom in language learning with digital literacy, namely the absorption of teaching materials with digital devices, students are expected to be able to recognize their culture and the values in it. Character building taught in schools can also be carried out if students know, understand, and live the local wealth in the form of local wisdom that contains philosophy and noble values. The quality of education by itself will be reflected in the quality of human resources, where our human resources are generally still low, meaning that the quality of education is currently still low in the majority. Understanding of student behavior in the learning process is very important, especially for teachers. There is a current tendency to return to the idea that children are better off if the environment is created naturally.

According to Haryati Soebadio (in Agus Wibowo, 2015) Local wisdom is an identity or cultural personality of a nation that causes the nation to be able to absorb, even cultivate, culture originating from outside / other nations into its own character and abilities. Local wisdom is integrated with the character of the community, because its existence is always carried out and preserved in certain conditions, it is even highly respected. According to Manurung (2021), the development of current technology, such as the increasing use of online games available on smart phones, is the main reason millennials are lazy to read books. The role of parents is very important at this time, at a time of a pandemic that requires most people to self-quarantine at home, parents should direct the millennial generation to read digital books more often than play gadgets and access things that are not useful. Digital reading for language learning teaching materials can be directed to the value of local wisdom. Eskicumah (2015) states that the use of technology in education has influenced the structure of the education system, thus technology can be used in learning activities. According to (Sztompka, 2008), local wisdom is seen as an adaptation of people's life experiences that have been applied from generation to generation so that it becomes a community tradition in question. Local wisdom is an adaptation result of a community that comes from generation to generation (Wibowo and Gunawan, 2003). Based on research, when students do digital literacy, the class atmosphere is conducive and student involvement in the class is quite good. They finally realized that their portable computers and smartphones provided many benefits and could certainly support them in the learning process, especially learning Indonesian. The inculcation of local wisdom values in Indonesian language learning is a positive action to rebuild regional cultural values as the identity of the Indonesian nation. Language learning based on local wisdom is very appropriate because it is easily understood by students as local ideas that are wise, full of wisdom and good value that will be understood by students and students by making activities that contain elements of a sense of nationalism and patriotism so that the application of Indonesian can be understood. continues to be applied.

2   Methods

In this study the authors collected data via social media Line and Whatsapp. In this study, qualitative methods and descriptive analysis were used. Bogdan and Taylor (in Moleong: 2002) define qualitative research as research that produces descriptive data in the form of written or spoken words from people and observable behavior (p. 9). The author conducted the research from December 2020 to January 2021. In this study, 22 students and female students were the sources of research data. Taking data sources that will be used as research samples, the authors take a random sampling technique, namely random data collection. Literature study is all the

efforts made by researchers to gather information that is relevant to the topic or problem that will be or is being researched. Data collection techniques by asking written questions to be answered in writing to be answered in writing also by the respondent with a type of questionnaire. A combination of open questionnaires and closed questionnaires. After the data is obtained the writer analyzes the data by analyzing the results of the questionnaire that has been filled in by the respondent, then the dollar data is by entering the data in the frequency table statistically. The research procedure is made as follows:

a. Make a research design
b. Determine the subject and object of research
c. Creating a research instrument
d. Carry out data collection and research
e. Carry out data processing and research
f. Make a research report

3   Results and Discussion

Local wisdom-based learning combined with Indonesian language learning is very relevant in the era of society 5.0. The purpose of learning Indonesian is so that students are able to develop knowledge, understanding, and skills to solve social problems that occur in students' lives, according to their learning abilities. Local wisdom-based learning to instill character education can be done in various ways, namely integrating into subjects, through local content subjects, through self-development, etc.

Following are the results of data processing obtained from respondents' answers through online questionnaires (google form).

a. In this digital era, is Indonesian language learning still relevant?

The Relevance of Indonesian Language

■ Strongly agree ■ Strongly agree
■ Strongly agree ■ Strongly agree

In accordance with the results of the respondents' answers, it was found that the highest percentage were students who agreed that learning Indonesian is still a relevant language at 72.7%, the second percentage was students who chose strongly agree at 18.2%, and the highest percentage. The lowest was the students who chose to disagree at 9.1%.

b. In this digital era, can noble values in local wisdom filter out negative influences from outside cultures?

Local Wisdom as a Filter
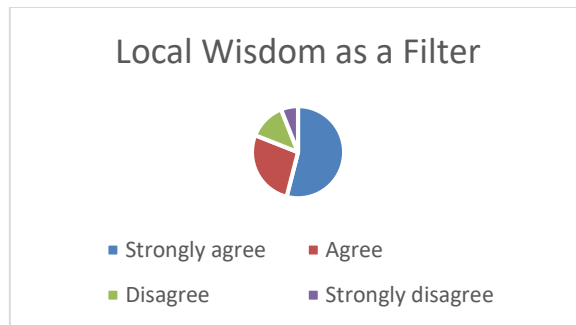
Strongly agree	54%
Agree	27%
Disagree	13%
Strongly disagree	6%

c. In this digital era, has the millennial generation been influenced by foreign cultures?

The Influence of Foreign Cultures on The Millennial Generation
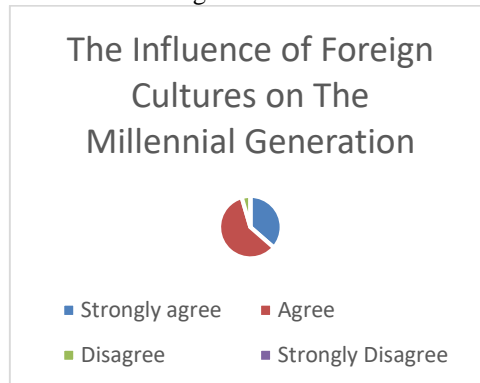
Strongly agree	36,40%
Agree	59,10%
Disagree	4,50%
Strongly Disagree	0%

d. In this digital era, can local wisdom significantly improve student character?

The Influence of Local Wisdom on Character
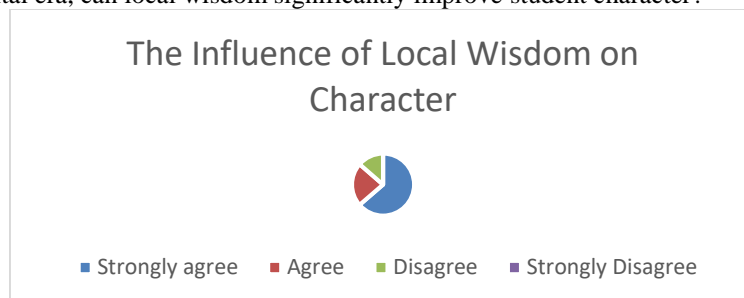
Strongly agree	63,60%
Agree	22,70%
Disagree	13,60%
Strongly Disagree	0%

In this digital era, Indonesian language is still a relevant language in the eyes of students. Local wisdom also makes it easier for students to education and the learning process. Local wisdom is very suitable when combined with language learning that you want to learn. This is because students do not want Indonesian local wisdom to just disappear. Local wisdom can also strengthen national character through the optimization of local wisdom-based education through language learning. From the questionnaires that we distributed to female students, Indonesian people consider local wisdom to be outdated or outdated. This has proven that local wisdom has begun to fade in the eyes of the Indonesian people. So what should we do? By reducing the use of foreign products also has a good impact on the development of local wisdom that you want to maintain, holding local Indonesian art exhibitions can also invite domestic and foreign people to increase local wisdom so that it does not become extinct, teaching Indonesian language inserts local wisdom in theory learning or assignments. practice, giving examples in the form of videos or pictures of local wisdom to the community, bringing them closer together such as providing interesting facts about the local wisdom of an area, etc. The application of language learning based on local wisdom can also increase public awareness in using good and correct language and reduce slang when using social media in this digital era so that it can continue to preserve the language of the community itself.

4 Conclusion

Based on the results and discussion, the following conclusions are obtained.

a. Today's digital technology is increasingly sophisticated causing major changes in the world. Humans have made it easy to access information in many ways, and can enjoy the facilities of digital technology freely, but the negative impact also appears as threatening. With increasingly sophisticated technology, students lose interest in language learning, especially the use of good and correct Indonesian so that they use more slang or indecent language that they should not apply.

b. The entry of foreign culture and slang culture does not rule out a cultural shift in which the use of good and correct Indonesian is less mastered. One of the efforts that can be made to uphold Indonesian as the language of unity is by utilizing local local wisdom. This aims to maintain the existence of local culture so that it is not forgotten and can use the Indonesian language appropriately.

c. Local wisdom actually contains a lot of exemplary and wisdom in life. The importance of local wisdom in our education in a broad sense is part of the effort to improve our national sustainability as a nation. Character education is not just teaching something that is right and wrong but character education also instills habits (habituation) about good things so that students understand (cognitively) what is right and wrong, are able to feel (affective) good values and are used to doing it. (psychomotor). Learning Indonesian based on local wisdom is in line with the goals of national education, namely religious, honest, tolerance, discipline, hard work, creative, independent, democratic, curiosity, national spirit, love for the country, respect for achievement, friendly / communicative, peace-loving, likes reading, cares about the environment, cares about social, and is responsible.

d. Language learning based on local wisdom is very appropriate because it is easily understood by students as local ideas that are wise, full of wisdom and good value that will be understood by students and students by making activities that contain elements of a sense of nationalism and patriotism so that the application of language Indonesia can be done consistently.

e.   The application of local wisdom-based language learning may increase public awareness in using good and correct language and reduce slang when using social media in this digital era so that it can continue to preserve the language of the community itself. By raising local wisdom in teaching materials, students are expected to be able to recognize the culture and the values in it. Character building taught in schools can also be carried out if students fully understand each of their cultural values. This is believed because each student has their own culture and that culture is very close to them.

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Emotional Freedom Techniques for Anxiety Patient before Cardiac Catheterization

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Abstract. Coronary Heart Disease is a disruption of heart function due to lack of blood due to a narrowing of the coronary arteries. Invasive action taken to treat CHD is cardiac catheterization. The problem that often arises in pre-cardiac patients is anxiety. This anxiety must be handled because it can interfere with the patient's hemodynamic condition to become unstable. One way to deal with anxiety is the Emotional Freedom Technique (EFT). This study aims to determine the effect of EFT on patient anxiety who will undergo cardiac catheterization at Awal Bros Hospital in Batam. The design of this study used a quasi-experiment with a one-group pre-post test with a control group approach. This study aimed to determine the effect of emotional freedom techniques on anxiety levels in patients before cardiac catheterization in Angio Rs Awal Bros Batam in 2021. The population used in the study There were 30 nurses in the Angio Rs Awal Bros Batam room. Data processing and analysis were done manually and computerized using statistical programs. The results of this study are there is the effect of emotional freedom techniques with anxiety levels in patients before cardiac catheterization in the Angiography Room of Rs Awal Bros Batam in 2021 indicated by the chi-square results which show the value of value = 0.003 (> α 0.05). used as information for future researchers who will examine the Emotional Freedom Technique (EFT) by observing the presence of confounding factors such as age and environment.

Keywords: Emotional Freedom Techniques, Anxiety, Heart Characterization

1 Introduction

Coronary heart disease (CHD) is the main cause of mortality in Indonesia, which is 26.4%. This is also in the opinion of Trotter, Gallagher and Donoghue that CHD is the main cause of mortality and morbidity and affects the quality of life of patients. Various techniques have been developed to open blood vessels and return blood through the coronary arteries, one of which is cardiac catheterization is an invasive procedure where one or more catheters are inserted into the heart and certain blood vessels, the catheter is inserted through a peripheral vessel, usually the femoral, then into heart chamber. Currently, cardiac catheterization is recommended because it is a non-operative invasive procedure so that complications can be minimized as low as possible. Patients with stable angina pectoris (APS) who face diagnosis of coronary angiography and the possibility of further intervention with cardiac catheterization are often anxious and feel uncomfortable because stress. Anxiety and discomfort as a physiological and psychological response to the body, as seen by changes in blood pressure, pulse, respiration, and temperature. Rosfiati, et al., The Effect of Back Massage on Anxiety Levels 103 Patient

responses took the form of various psychological responses including the emergence of anxiety, fear, tension and even depression. Patients who undergo cardiac sation catheterization with coronary angiography and cardiac catheterization still experience anxiety even though they have been well prepared including providing an explanation of the procedure and all the risks that can occur and informed consent signed by the patient (Azizah, 2017).

In Indonesia, heart and blood vessel disease continues to increase and will give a burden of illness, disability and socio-economic burdens to the sufferer's family, community, and country. The prevalence of coronary heart disease in Indonesia in 2013 based on a doctor's diagnosis was 0.5%. Meanwhile, based on the doctor's diagnosis, the symptoms were 1.5%. Meanwhile, the prevalence of heart failure in Indonesia in 2013 based on a doctor's diagnosis was 0.13%. Cardiovascular disease is a disease caused by impaired heart and blood vessel function. There are many kinds of cardiovascular disease, but the most common is Coronary Heart Disease. (Oktiawati et al., 2020)

Currently there is an epidemiological transition, namely a shift in disease patterns, from initially being dominated by infectious diseases, to shifting to non-infectious disease patterns (chronic, degenerative and accidental diseases). The existence of this epidemiological transition is evidenced by the increasing number of deaths due to non-infectious diseases. One of the non-infectious diseases that currently tends to show a fairly high increase in mortality is cardiovascular disease (Oktiawati et al., 2020)

The application of PCI tools can improve a person's quality of life and reduce the risk of recurrence (Jamal, Shrive, Ghali, Knudtson, & Eisenberg, 2003) and can reduce the incidence of infarction, improve vascularity, and reduce bleeding complications. However, some patients expressed anxiety about this procedure. About 24% –72% of patients undergoing PCI experience anxiety. (Oktiawati et al., 2020)

One of the management of CHD is Percutaneous Coronary Intervention (PCI). The PCI tool functions to repair narrowing and blockages in the coronary arteries in the heart, which is done by ballooning and / or stenting (UPF TEAM DI-INB PJNHK, 2010). In Canada, the implementation of PCI increased by 36% from 1994 to 2001 In Indonesia, the implementation of PCI has also increased, in 2013 there were 469 people who underwent PCI at Hospital X. (Widya Shari et al., 2014)

Interventions to overcome patient anxiety must be carried out in an integrated manner, which includes pharmacology and non–pharmacology. Integrated therapeutic management can be more effective in overcoming anxiety (Widya Shari et al., 2014) states that non-integrated therapeutic management can lead to repeated attacks, longer treatment, increased anxiety, fear to major depression. Nurses as health workers play a role in overcoming anxiety in PCI patients, one way is through non-pharmacological interventions.

Based on the data contained in the medical record room at the Batam Bros. Hospital, the number of patients who underwent the PCI procedure found 66 the number of patients in the last 6 months that were performed by PCI, almost all patients before cardiac catheterization experienced anxiety, Therefore this is a problem in constraints In further action and prolonging the PCI action, it is hoped that this EFT will be effective in handling patient anxiety before taking cardiac catheterization.

Results of interviews with 10 patients who were subjected to cardiac catheterization 3 Patients said their heart was racing, restless, confused and worried about their condition after cardiac catheterization, 6 of them said the nurse did not explain in detail what the cardiac catheterization was like, the patient was getting worse. Anxious Due to Lack of Knowledge, Lack of Nurse Education Who Can Calm Patients So They Are Not Anxious, 1 Patient Among them Said Lack of Motivation from family, Emotional freedom techniques (EFT) therapy can

overcome a person's anxiety problem based on the root of the main problem through the set-up process that will be carried out and can affect the human subconscious by means of self-suggestion. The amount of anxiety that will be used as an affirmation sentence when tapping. In EFT there is also an element of eye movement desentizitation repatterning (EMDR) technique through nine gamut procedures (eye movements) to control emotional feelings. This technique is to stimulate the balance of the left brain and right brain. Based on the above background, the researchers are interested in researching the effect of EFT intervention on the level of anxiety of patients who will undergo cardiac catheterization in the Angiography Room of Rs Awal Bros Batam Year 2020

2 Methods

This study was an analytical study design *Cross Secctional Study* is a study design that is studying the dynamics of the correlation and association between variables inde pen den EFT with anxiety and the dependent variable using T test.

3 Results and Discussion

3.1 Characteristics of Respondents

Table 1. Characteristics of Respondents by Age

No.	Age	f	Percentage
1	20-30	3	10%
2	31-40	10	33%
3	41-50	17	57%
	Total	**30**	**100%**

Based on table 1, it is known that more than half of those who suffer from coronary heart disease who undergo cardiac catheterization aged 41-50 years are 17 people. Or 57%.

Table 2. Characteristics of Respondents Based on Gender Gender

No.	Gender	f	Percentage
1	Man	17	57%
2	Women	13	43%
	Total	**30**	**100%**

Based on table 2, it is known that more than half of the sexes are male, namely 57% or as many as 17 people.

3.2 Univariate Analysis

Table 3. Frequency Distribution of Anxiety Levels Before Emotional Freedom Techniques in Angiography Room Rs Awal Bros Batam Year 2021

Worry	f	Percentage
Mild anxiety	10	33%
Anxious	20	67%
Total	**30**	**100%**

Based on table 3 above, it is known that the results of the analysis show that most of the anxiety in patients who will be cardiac catheterized **before** doing **emotional freedom techniques** with an average level of severe anxiety is 20 people or 67%.

Table 4. Frequency Distribution of Anxiety Levels After Emotional Freedom Techniques
in The Angiography Room of Rs Awal Bros Batam Year 2021

Worry	f	Percentage
Moderate Anxious	10	33%
Mild anxiety	20	67%
Total	**30**	**100%**

Based on table 4 above, it is known that the results of the analysis show that most of the anxiety in patients who will be cardiac catheterized **after** doing **emotional freedom techniques** with an average level of mild anxiety is 20 people or 67%.

3.3 Bivariate Analysis

Table 5. Frequency Distribution Differences in the Frequency Distribution of Anxiety Levels before and After Emotional Freedom Techniques in the Angiography Room Rs Awal Bros Batam Year 2021

Variable	n	Median	Std. Dev	value
Before intervention	30	20	897	0.003
After the intervention	30	10	716	0.003

Based on the table 5 above, the results of the analysis of 30 respondents are as follows: (1) The minimum value of the 30 respondents above shows the value before the intervention / provision of Emotional Freedom Techniques is 20 and after intervention / therapy is 10. After testing the normality of 30 respondents, the Sig. <0.005, so it can be concluded that the data distribution is not normal. Furthermore, the researcher used an alternative test to see the average frequency distribution of anxiety levels before and after **Emotional Freedom Techniques,** namely inferential statistical analysis of *Non-Parametric - Bivariate* hypothesis testing by testing different mean ratings (ordinal data) of 2 measurement results in the same group (for example difference in mean pre-test and post-test ranks t). (Dharma, Nursing Research Methodology, 2015) Based on the output "Test Statistics" in table 4.4 above, it is known that the *p-value* is 0.003. Because the value of 0.003 is less than <0.05, it can be concluded that "H0 is rejected", or in other words, there is " The Effect of Emotional Freedom Techniques on the Anxiety Levels That Do Cardiac Catatization in the Angio Rs Awal Bros Batam Room 2020

4   Conclusion

Based on the results of the research conducted concluded as follows:
a.   Most of the known analysis results show that most of the anxiety in patients who will be cardiac catheterized before doing Emotional Freedom Techniques with an average level of severe anxiety as many as 20 people or 67%
b.   Seb agian Great Unknown analysis results indicate that the majority of Anxiety in Patients Who Will Perform cardiac catheterisation At Once Do Emotional Freedom Techniques With the average level of mild anxiety as many as 20 people or 67%
c.   dist ribusi frequency of average levels of anxiety before and after Do Emotional Freedom Techniques are inferential statistical analysis of hypothesis testing Non Parametric-Bivariate by testing different mean ratings (ordinal data) from the second measurement results to the same group (eg depending mean rank pre-test and post test). (Dharma, 2015) Based on the "Test Statistics" output in table 4.4 above, it is known that the p-value is 0.003. Because the value of 0.003 is less than <0.05, it can be concluded that "H0 is rejected", or in other words there is "The Influence of Emotional Freedom Techniques on the Anxiety Level of Heart Catatization in the Angiography Room of Rs Awal Bros Batam Year 2021

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Relationship of Family Support with Quality of Life (QOL) Heart Failure

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Abstract. Heart failure is a condition in which the heart organ is unable to pump blood throughout the body. This condition can cause shortness of breath, cough and fatigue, resulting in intolerance of activities that have an impact on quality of life. Family support is needed to help patients achieve a better condition. The phenomenon found in the BP Batam Hospital is that there is a shortness of breath and chest pain in the patient which disturbs the quality of life of the patient with heart failure. This research was conducted to determine the relationship Family Support with Quality of Life for Patients with Heart Failure at the BP Batam Hospital. Research methods with quantitative methods. The sample consisted of 37 respondents with a sampling technique, namely total sampling. The data were processed using the Spearman's rank test. Univariate analysis of family support in heart failure patients at the Hospital of the majority of BP Batam bad categorized by the number of 19 people (51.4%). Quality of life in patients failing heart in Rumah Sakit BP Batam majority categorized as poor by the number of 19 people (51.4%). Results Bivariate showed no relationship between support for families with a quality of heart failure patients at the Hospital of BP Batam (p value 0,000 <0,05) and has an attachment that is significant with a coefficient of correlation of 0.784. The results of this study are expected to be able to provide health education during visits to the hospital, provide a motivational boost given by medical personnel to families, will encourage families to be actively involved in caring for patients while at home, exchange information and share experiences obtained from other sufferers. can assist patients in maintaining the conditions are optimal.

Keywords: Support Family, Quality of Life, Heart Failure

1 Introduction

Heart failure is a collection of clinical symptoms caused by abnormalities of functional or structural cardiac causes impotence filling the ventricle and the ejection of blood to the entire body. The inability of the heart to pump blood around the body was marked with swollen limbs, during activity and sleep without a pillow occur shortness of breath. (Association of Physician Specialists Cardiovascular Indonesia, 2015)

Approximately 23 million the entire population of the world experienced a failure of heart and an estimated prevalence will continue to rise to 46% in 2030. In the studies that have been conducted for a period of 30 days, 1 year, and 5 years, cases of deaths after hospitalization for heart failure is equal to 10.4%, 22%, and 42.3%. In Indonesia death due to disease failed to heart based System Information Rumah Sakit (SIRS). Of the 10 major death disease is not infectious

in -patient stays home sick throughout Indonesia makes the disease failed to heart as a priority first control program in Control of Communicable Diseases Directorate of the Ministry of Health (MoH Pusdatin, 2013).

Results of data from medical records at the Hospital of BP Batam number of patients failing heart of the month January 2020 to September 2020 amounted to 486 patients with amount per month 35-50 patients. (RSBP, 2019)

The results of interviews on January 20, 2021 with 4 heart failure patients at the BP Batam Hospital, all patients (100%) said they had difficulty sleeping at night, tired quickly during activities, shortness of breath, 2 patients felt worried about their disease and needed help the others when doing activities by weight, further results from interviews with patients failing heart that 3 (75%) patients have a poor quality of life, then all patients (100%) of patients say is always accompanied by a family every time go see your doctor and patient hospitalization, receive financial support, transportation, and assistance in daily activities. Based on this phenomenon, researchers are interested in conducting research on the relationship between family support and quality of life in patients failing heart in Rumah Sakit BP Batam. This study aims to determine the relationship between family support and quality of life in patients with heart failure.

2 Methods

This study used a quantitative design with a *cross-sectional* approach with the *independent variable* in the study, namely family support. while *the dependent variable* is quality of life. Research is carried out in the month 10 Feberuari- 21 February in 2021. The research is the area Home Hospital BP Batam. The population and sample in this study were 37 patients who had been identified as heart failure at RSBP Batam. Instruments are used to study this is using the *Minnesota Living with Heart Failure Questionnaire* (MLHFQ) which is used to measure the level of quality of life in patients failing heart and questionnaires dukunga family were modified by the method of interview.

3 Results and Discussion

3.1 Univariate Analysis
a. Characteristics of Respondents by Age

Table 1. Distribution of Age Characteristics of Respondents

Age	Amount	Percentage (%)
26-35 years	1	2.7
36-44 years	3	8.1
45-59 years	21	56.8
60-74 years	8	21.6
75-90 years	4	10.8

b. Characteristics of Respondents by Type Sex

Table 2. Distribution Characteristics Type Sex

Type Sex	Amount	Percentage (%)
Man	23	62.2
Women	14	37.8
Total	**37**	**100.0**

c. Characteristics of Respondents Based on Education

Table 3. Distribution of Educational Characteristics

Education	Amount	Percentage (%)
Not going to school	5	13.5
SD	8	21.6
Junior High School	3	8.2
High school	15	40.5
University High	6	16.2
Total	**37**	**100.0**

d. Characteristics of Respondents by Occupation

Table 4. Distribution of Job Characteristics

Profession	Amount	Percentage (%)
Work	19	51.4
Not working	18	48.6
Total	**37**	**100.0**

e. Family Support Category for Heart Failure Patients

Table 5. Distribution of Family Support for Heart Failure Patients

Category	Amount	Percentage (%)
Good	18	48.6
Bad	19	51.4
Total	**37**	**100.0**

f. Category of Quality of Life for Heart Failure Patients

Table 6. Quality of Life for Heart Failure Patients

Category	Amount	Percentage (%)
Good	18	48.6
Bad	19	51.4
Total	**37**	**100.0**

3.2 Bivariate Analysis

a. Relationship between Family Support and Quality of Life for Heart Failure Patients.

The bivariate analysis carried out in this study aims to determine the relationship between the independent variable (family support) and the dependent variable (quality of life for heart failure patients). The statistical test used in this analysis is adjusted to the type of variable data. Before the bivariate analysis was carried out, the normality and homogeneity tests were first carried out due to the variables ordinal scale. The researcher conducted a normality test with *Shapriro Wilk* because the sample was less than 50 and the results of the data distribution were not normally distributed, namely the sig a: $0.000 > 0.05$. In this study using *Spearman's Rank Correlation* analysis because the two variables are ordinal scale and the data distribution is not normal.

Table 7. The Relationship Between Family Support and Quality of Life for Heart Failure Patients at Bp Batam Hospital using the Spearman's Rank Correlation Test.

Work stress	Job Satisfaction		
	good N (%)	Poor N (%)	P *value*
good	16 (88.9%)	2 (10.5%)	0,000
bad	2 (11.1%)	17 (89.5%)	

Table 7 shows that there is a relationship between family support variables and the quality of life of heart failure patients who seek treatment at the BP Batam Hospital with a *p value of* 0.000 <0.05. The *spearman's rank* correlation coefficient is positive, namely 0.784, which means that when the X variable (family support) is higher, then the Y variable (quality of life) with the dependent variable Y (quality of life) has a value of r (correlation coefficient) of 0.784. This correlation value indicates that the relationship between the independent variable (family support) and the dependent variable (quality of life) has a strong correlation.

4   Discussion

4.1   Overview Support Families in patients Failing Heart at Home Hospital BP Batam.

The results of a study conducted on heart failure patients at the BP Batam Hospital showed that 19 patients (51.4%) had family support in the "bad" category and 18 patients (48.6%) were in the "good" category. Assumptions researchers obtained in heart failure patients at the Hospital of BP Batam is the support of the family were in the range of support that bad. Only the difference of one patient who is categorized as good supports the process of treating heart failure patients. Results obtained at the research that is done (the Goddess, 2018) were performed at Rumah Sakit Moewardi Solo that most have sufficient family support with 24 (50.1%) of patients with a failing heart.

This study found the dimensions of the award has a score that is the lowest compared to other dimensions, according to the assumptions of researchers that support the award of patients with heart failure is to give support and spirit of the patient give praise to the patient, involving patients in decision making and provide a positive response to the opinions or feelings of patients with pretty low score.

This is in line with the research conducted (Dewi, 2018), namely the support of appreciation functions to encourage patients, so that they are more enthusiastic in carrying out this support treatment which includes helping in solving problems faced by patients with congestive heart failure. Appreciative support where the family expresses a positive assessment of the patient. This support also means providing motivation. With the motivation of the desire within the patient to recover increases.

The researchers' assumptions and the findings of the researchers were that the instrumental dimension also had a low score. The majority of respondents give answers not ever in a statement that the family helped finance the treatment, providing facilities and find a shortage of facilities and equipment. Low income is associated with less family support. One of the functions of the family is the economy where the family is in charge of finding sources of income to meet the needs of family members. This research is in line with (Harmoko, 2012) in (Yani, 2019) explaining that good instrumental support can help patients with heart failure to get facilities, facilities and easy access to good health information so that they can help the treatment process.

4.2 Description of Quality of Life in patients Failing Heart at Home Hospital BP Batam.

The results of research conducted on heart failure patients at the BP Batam Hospital showed that 19 patients (51.4%) had a "bad" quality of life and 18 patients (48.6%) were categorized as "good", namely a picture of the quality of life including physical impacts. from heart failure (shortness of breath, swollen legs, difficulty exercising), psychological conditions such as anxiety, stress of heart failure, degree of discretion, social relationships and the relationship to their future desires.

The results were obtained together with the research that is carried out by (Hamzah, 2016), namely quality of life of patients failing heart at RS PKU Muhammadiyah Yogyakarta on this research is largely lacking (85%) and the rest is moderate (15%). Thus, there are no respondents who are known to have a good quality of life. Heart failure patients have a tendency to have a poor quality of life because the quality of life for heart failure patients will decrease along with an increase in heart attack recurrences. After the first heart attack, the patient's quality of life decreased by at least 33% and will continue to decline after the next heart attack.

Research previously by (Akhmad, 2018) showed that the quality of life of heart failure patients quality of life of respondents have less good as much as 63.2%. Peneitian This indicates that patients with a failing heart congestive will experience decreased the quality of life due in patients with congestive heart failure emerge feeling tired all the time and trouble to perform activities of daily. This is because the heart is unable to pump blood to meet the needs of the body's tissues. The body will divert blood from less important organs, especially the muscles in the legs and send it to the heart and brain. Congestive heart failure patients often find memory loss or feelings of disorientation. This is caused by changes the amount of certain substances in the blood, such as sodium, which can lead to a decrease in working impulses nerve (American Heart Association, 2012 in (Ikawati, 2015). It mentioned when the case is kept continuously will cause a decrease in quality of life.

The researchers' assumptions and the findings of the researchers showed that 19 people (51.4%) categorized poor quality of life with a high quality of life questionnaire score for heart failure patients, the worse the patient's quality of life. The results of the questionnaire patients with heart failure experienced the impact of physical symptoms of heart failure, such as shortness of breath, discomfort, swollen ankles, and difficulty sleeping. Assessment of mental and emotional functions of concentration and memory, worry, lose self-control and become a burden to others. This is in line with research (Haryati, 2020) with a low total score in this study, namely a score < 50 which indicates a poor quality of life, especially in the physical aspect and is related to the degree of the respondent's physical ability in carrying out daily activities.

4.3 Relationship between Family Support and Quality of Life for Heart Failure Patients.

To see the relationship between family support and quality of life of patients failing heart in Rumah Sakit Agency Concession Batam, used test nonparametric statistics that *Spearman's Rank Correlation,* since both variable ordinal scale, the distribution is not normal. Based on the analysis, it is known that the two variables have a relationship with a *p value of* 0.000 < 0.05 with a correlation coefficient of 0.784. This correlation value indicates that the correlation is a close relationship.

Assumptions researchers when family support is bad, it affects the quality of life of patients failing heart is also bad, and so also conversely means that there is a relationship between support for families with a quality of life for heart failure patients who seek treatment at Hospital BP Batam. This is in line with research (Zulmi, 2018) which concluded that support families

most substantial in the category of good, namely 56.4%. Quality The lives of good and bad heart failure patients were equal, namely 50.0%. The correlation results show that there is a significant relationship between family support and quality of life in CHF patients at the Elang Installation of Dr. Kariadi Semarang with an r value of 0.437 and a p value of 0.000 (p < 0.05).

This study is also consistent with the results of research conducted by (Sulistyo, 2018) which can be concluded that the respondents who received the support of family higher then have a quality of life that is high, while respondents who have low family support quality of life is low. The results of the statistical test analysis showed that there was a relationship between family support and the quality of life of patients with congestive heart failure in the Cardiac Polyclinic at RSUD Sukoharjo Regency. The family is the main support system for a patient where the support that is given very influential to the improvement of quality of life. Support family is a process that occurs throughout the period of life, where the type and nature of the different support in different stages of the life cycle. Family support can be in the form of internal social support such as support from siblings from husbands and wives, or it can also be in the form of external family support for the nuclear family. Family support in the form of an attitude or action in the reception families of the members of the family who are always ready to support and provide help. Providing assistance enables families to improve health (Friedman, 2010, in Takukude, 2016).

The next researcher's assumption is that the components of family support such as emotional, informational, instrumental and reward support for heart failure patients are closely related to the domain of quality of life such as the dimensions of physical, psychological, social and environmental health. This study is in line with Zulmi, 2018 that there is a relationship between family support and the quality of life for heart failure patients. It is caused because of the support that is given by active by the family in the form of informational, assessment, instrumental and emotional support. Family support will help the patient improve and maintain the patient's condition, this condition will reduce anxiety and prevent the emergence of patient stress (Zulmi, 2018).

5   Conclusion

The majority of family support for heart failure patients at the BP Batam Hospital was in the bad category with 19 people (51.4%) and the difference of one number in the good category with 18 people (48.6%). Quality of life in heart failure patients in Rumah Sakit BP Batam majority categorized as poor by the number of 19 people (51.4%) and just one point difference categorized either by the number of 18 people (48.6%). Based on the results of the analysis, Ha is accepted and H0 is rejected (p value 0.000 <0.05) means that there is a relationship between family support and the quality of life of heart failure patients at BP Batam Hospital, with a correlation coefficient of 0.784. This correlation value indicates that the correlation is a close relationship. If family support is high, then the quality of life for heart failure patients is also high, meaning that there is a relationship between family support and quality of life for heart failure patients who seek treatment at BP Batam Hospital.

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Relationship Between Response Time and Patient Satisfaction In Emergency Department

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Abstract. Hospitals, in particular ER Emergency, has the objective to be achieved ministry of health which is optimal to the patient as quickly precise and integrated into the handling of the level of emergency so able to prevent the risk of disability and death with responsive for 5 minutes. Response Time is the speed in handling patients' patients ≤5 minutes upon arrival patients in the health care unit. Satisfaction is a condition that consumers feel after they experience a performance (or result) that has met their various expectations. This study aims to determine the relationship of response time with the level of patient satisfaction in the emergency department of RS X Pekanbaru City. This research was conducted on 86 respondents using the Slovin method. The research method is quantitative koresional.. The validity test of the questionnaire was 0.451 - 0.770 (r table: 0.468) and the reliability test was (0.663). The results of this study indicate that the majority of patients' decision level 48 respondents (55.8%) were very satisfied and dissatisfied as many as eight respondents (9.3%). Based on the test chi-square obtained p-value is 0,000 less than α (0.05), thus Ha accepted which means there is a significant relationship between the response time to the satisfaction level of patients who seek treatment in emergency hospital X city of Pekanbaru.

Keywords: Response Time, Satisfaction Level, IGD

1 Introduction

The emergency department (IGD) is one of the service units in the hospital that provides first aid and is the main route for entry of patients with emergency conditions. An emergency is a clinical condition in which patients need prompt medical assistance to save lives and further disability (Depkes RI, 2012). One of the indicators of the success of mitigating medical patients with acute emergency is the speed of giving aid that is adequate to people with emergency well on everyday routine circumstances and when disaster.

Based on the decision of the Minister of Health of Indonesia number 129 / Menkes / SK / II / 2008 concerning the standard of service of at least homesick, stated response time is one indicator of the quality of hospital services, especially in the ER. In 2009, the Minister of health stipulated the general principle of handling patients (response time) in an emergency department that must be handled no later than five minutes after arriving at the emergency room.

The response time's success depends on the speed that is available and the quality of the relief to save lives or prevent disabilities since in place of events in the journey to help homesick, the first pain and phases of homesickness. The two components are equally important in emergency relief efforts (Muwardi, 2015).

Emergency services are less quick or response times which, according to the patient felt a long time can lead to dissatisfaction of patients to the emergency services. Patient satisfaction is determined by services, one of which is a fast response time and proper handling. The lack of fast response time or the response time that the patient thinks is long can lead to patient dissatisfaction with emergency services. Patient satisfaction is determined by services, one of which is a fast response time and proper handling.

Satisfaction is a condition that consumers feel after they experience a performance (or result) that has met their various expectations, according to Oliver (the Princess et al. 2014).

As a health service provider, the hospital operates 24 hours a day. Services are performed by workers health that exists in the hospital. Nursing personnel are one of the health workers who also take part in handling patients. The speed and accuracy of the help given to patients Emergency Installation must be following the competence and service standards. The handling of which is given by the fast response time and action that quickly. Punctuality in emergency services is an important concern in countries around the world. A study from the National Health Service in Britain, Australia, America, Canada shows that nursing services affect patient satisfaction (Widodo, 2015).

Many patients complain and feel they do not get service even though they have come first from other patients; the various types of diseases and conditions of the patients and the number of visits that come together to the ER cause the density of patients in the ER. Fast and precise the expected patient can be hampered if the conditions IGD very crowded, it can lead to errors and delays in the provision of therapy, lost control on the staff on duty, time of patient care over a long, long waiting times moved to hospitalization becomes longer the all of which will affect patient satisfaction (singer at al, 2011).

Research conducted in California, United States, by Benjamin Rewnce Robert et al. (2013) states that 995,379 patients in the ER have a 5% risk of dying during a busy ER. From this research, it can be concluded that the response time has decreased when the emergency room is crowded. When the state of patients crowded of the facility where the bed, chair wheel also be used by patients who other things this will affect the patient's responsiveness will receive at room patient triage, the patient will be a long wait to get service health by officers.

Patient visits to the emergency department continue to increase every year. The increase occurred around 30% in all emergency room hospitals globally (Bashkin et al., 2015). Data on admission visits to the Indonesian emergency room were 4,402,205 patients. The service department of emergency in the province of Riau experienced an increase in the years 2015-2016 of 98.80% into 100% with various complaints of patients who visit (Widyawati, 2016). In January- September 2020, patient visits to hospital emergency X per month ranges from 600-1300 patients/months, where the number of late patient assistance ranges from 35-100 per month. While the number of patients in the ER service satisfaction RS X per month ranges from 90-95% of the total visits, it means that there are approximately 5- 10% of patients who visit to IGD RS X was not satisfied with the service IGD RS X. Based on interviews conducted by the researchers to 5 patients who went to the ER in November found that 2 out of 5 people patient was not satisfied because it feels less get optimal service, the patient complained when he came to the emergency room is not welcomed by the clerk so that the patient should move itself from the vehicle to the wheelchair, not the clerk IGD triage so that families of patients must call the first officer into the room, and the lack of facilities such as chairs wheel or bed in the ER when IGD crowded so officers must seek to become that which will prolong the time patients get treatment by officers and miscommunication between patient and clerk of the service that obtained and that will be done to the patient. By because the researchers are interested in

examining whether there is "Response time Relationship With Patient Satisfaction Levels In Space Installation Intensive Care Emergency in Hospital X".

2   Methods

This research is quantitative. Sample as many as 86 people who come for treatment to a hospital emergency department X Pekanbaru city. The method of implementing this research is using a survey using a questionnaire tool.

3   Results

The research results can be seen in the table below.

Table 1. Distribution of Respondents by Age, Gender, Education level, Occupation, Health Insurance and ESI in IGD RS X Pekanbaru City in 2021

No	Characteristics	Frequency	Percentage
1	**Age**		
	Youth	4	4.7%
	Adult	72	83.7%
	Elderly	10	11.6%%
	Total	86	100%
2	**type sex**		
	Man	32	37.2%
	Women	54	62.8%
	Total	86	100%
3	Level of education		
	SD	1	1.2%
	Junior High	12	14.0%
	High school	36	41.9%
	DIPLOMA III	9	10.5%
	Bachelor	28	32.6%
	Total	86	100%
4	Profession		
	Does not work	4	4.7%
	Entrepreneur	15	17.4%
	Private employees	25	29.1%
	Civil servants	5	5.8%
	College student	2	2.3%
	IRT	32	37.2%
	Student	3	3.5%
	Total	86	100%
5	Health insurance		
	BPJS	69	80.2%
	GENERAL	14	16.3%

	BANK RIAU KEPRI	2	2.3%
	MANDIRI INHEALTH	1	1.2%
	Total	86	100%
6	ESI		
	ESI 3	38	44.2%
	ESI 4	29	33.7%
	ESI 5	19	22.1%
	Total	86	100%

Source: Primary Data Analysis, 2021

Based on table 1 shows that the age of most respondents is adult, with a total of 72 respondents (83.7%), and the minimum age of respondents in four respondents (4.7%) age data is grouped according to WHO 2020. Most of the respondents were female, with 54 respondents (62.8%) and men amounted to 32 respondents (3.2%). Education respondents are a high school with the highest number of 36 respondents (41.9%), and education of the lowest- Adala 000 000 000 000 000 h SD is one respondent (1.2%). Most of the respondents' occupation was IRT with 32 respondents (37.2%), and the least occupation was students, namely two respondents (2.3%). The most widely used health insurance is BPJS Kesehatan, namely 69 respondents (80.2%) at least one respondent (1.2%) independent in health. ESI levels most are ESI 3 as much as 38 respondents (44.2%) least bit that ESI 5 as many as 22 respondents (22.1%).

Table 2. Respondents Frequency Distribution Based on Response Time in IGD RS X Pekanbaru City in 2021

No.	Response time	Frequency	Percentage
1	Good	79	91.9%
2	Not good	7	8.1%
Total		**86**	**100%**

Source: Primary Data Analysis, 2021.

Based on table 2 time response either there are 79 respondents (91.9%) while time response is less well there are seven respondents (8.1%).

Table 3. Characteristics of Patient Satisfaction based on Answers to Patient Questionnaires at IGD Hospital X Pekanbaru City in 2021

No	Aspect	Ratio		Information
		A	**E**	
1	**Reliability**			
	1. The officer readily welcomes every patient who comes for treatment	3.6	3.4	
	2. The officer explains the patient's condition	3.6	3.3	Very Satisfied
	3. Officers provide fast and precise service. The service procedures provided are straightforward and easy to understand	3.6	3.4	
	Average aspect	**3.6**	**3.4**	

No	Aspect		
2	**Guarantee**		
	4. The officer explains each action	3.6	3.4	
	5. The officer is responsible for his actions	3.5	3.4	Very satisfied
	6. The clerk showed friendliness and courtesy	3.5	3.4	
	Average Aspect	**3.5**	**3.4**	
3	**Physical Evidence**			
	7. Officer demonstrates mastery in action	3.5	3.3	Very Satisfied
	8. Officers demonstrate self-integrity	3.5	3.3	
	Average Aspect	**3.5**	**3.3**	
4	**Empathy**			
	9. Pay special attention	3.4	3.4	
	10. Officers show concern	3.5	3.4	Very satisfied
	11. Officers provide services without discrimination	3.5	3.4	
	Average Aspect	**3.5**	**3.4**	
5	**Reliability**			
	12. provide services quickly and precisely	3.6	3.4	
	13. prompt and appropriate action on inspection	3.6	3.4	Very satisfied
	14. receipt of examination results promptly and accurately	3.6	3.4	
	Average Aspect	**3.6**	**3.4**	

Based on table 3, the aspects of patient satisfaction in the five aspects are very satisfied, on the reliability aspect the average respondent's expectation is 3, 4 the average reality is 3.6. In the aspect of guarantee, the average expectation of the respondents is an average of 3.4, while the reality is 3.5. In the aspect of physical evidence, the average respondent's expectation is 3.3 and the reality received by the respondent is 3.4. In the aspect of empathy, the average expectation of respondents is 3.4 and the average reality is 3.4. and in the aspect of reliability, the average expectation of the respondents is 3.4 and the average reality is 3.6.

Table 4. Respondents Frequency Distribution Based on Satisfaction Levels in IGD RS X Pekanbaru City in 2021

No.	Satisfaction	Frequency	P ersentase
1.	Not satisfied	8	9.3%
2.	Satisfied	30	34.9%
3.	Very satisfied	48	55.8%
Total		**86**	**100%**

Based on table 4, respondents were very satisfied with 48 respondents (55.8%) of respondents who were satisfied, there were 30 respondents (34.9%), and eight respondents (9.3%) were dissatisfied.

Table 5. Distribution of Respondents Based Response Time Relationship with Level of Patient Satisfaction are Treated in IGD RS X Kota Pekanbaru Year 2021

Response time	Satisfaction Level						Total	P value
	Not satisfied		Satisfied		Very satisfied			
	F	P	F	P	F	P		
Good	1	1.3%	30	38.0%	48	60.8%	79 (100.0%)	
Not good	7	100%	0	0.0%	0	100.0%	7 (100.0%)	0,000
amount	8	9.3%	30	34.9%	48	100.0%	86 (100.0%)	

From the results of the research by using the test statistic chi-square obtained p-value is 0,000 less than α (0, 05), there is a significant relationship between the response time to the level of satisfaction of patients who seek treatment in emergency hospital X city of Pekanbaru.

4   Discussion

Based on the research results conducted at the IGD RS X Pekanbaru City in 2020 in table 4.2, 79 respondents (91.9%) responded well, while seven respondents (8.1%) had poor response time.

Based on research conducted by Wayan et al. (2018) in ER Hospital Pasuruan largely categorized Bangil response time faster, namely: as many as 91 respondents (72, 2%), while 35 respondents (27.8%). Results research by Pisu (2015) with the results of as many as 37 respondents (61%) feel the fast response times and as much as 23 respondents (38.3%) felt satisfied with the service that is provided, there is a relationship of response time to patient satisfaction. Research findings other by Sam (2017) showed that the good respondent category as many as 39 respondents (61, 9%) and 24 respondents (38.1%) in the category of good.

Researchers assume that the better and faster the response time to handle the patient, the more satisfied the patient is. Conversely, the slower the response time of the officer, the more dissatisfied the patient is. On the 7th of respondents with a response time of less either because the number of human resources are lacking when on duty, when patients come IGD experienced crowded, so patients have to wait up first to get health care.

Based on the research results in table 4.3, the patient satisfaction aspect in the five aspects is very satisfactory. In the reliability aspect, the average respondent's expectation is 3, 4 the average reality is 3.6. In the aspect of guarantee, the average expectation of the respondents is an average of 3.4, while the reality is 3.5. In the aspect of physical evidence, the average respondent's expectation is 3.3, and the reality received by the respondent is 3.4. In the aspect of empathy, the average expectation of respondents is 3.4, and the average reality is 3.4. and in the aspect of reliability, the average expectation of the respondents is 3.4, and the average reality is 3.6.

Based on table 4.3, patient satisfaction obtained from the questionnaire is very satisfied on the five aspects, namely the aspects of direct evidence, assurance, physical evidence, empathy and reliability. Based on research conducted by Gusman Virgo (2018) in hospitals Bangkinang there showed that the majority of the response time nurse IGD is slow (> 5 minutes) that is 51 people (63, 8%), most large patients are not satisfied with the service IGD namely 47 (58.8%), which stated that there was a relationship between the Response Time for Emergency Installation Services (IGD) with the Patient Satisfaction Level at Bangkinang Hospital in 2018 with a p value of 0.002 based on the results of statistical tests.

Results Wayan et al. (2018) in the ER Hospital Bangil Pasuruan half of respondents categorized satisfied sebanyak65 respondents (51, 6%) and half are very satisfied as much as 61 respondents (48.4%). The results of the research other by Sam (2017) showed that ten respondents feel satisfied (15, 9%), 29 respondents (46%) feel very satisfied, and the respondents (38.1%) were dissatisfied. Researchers assume that patient satisfaction will be achieved if the health services obtained are good or very good or even exceed the patient's expectations before coming to the ER.

Based on research results using the statistical test of chi-square obtained p-value is 0,000 less than α (0,05), with said Ha accepted, which means that there is a relationship that significant between the response time to the level of satisfaction of patients seeking treatment in the ERRS X city of Pekanbaru.

The analysis results in this study are following Zulfa et al. (2010). Respondents with a good response time stated that they were very satisfied by 58.6%, while 17.6% of respondents said they were satisfied with emergency services at the hospital. For respondents who stated that they were not satisfied, it was 23, 8%. It is influenced by several aspects by the IGD saki home on emergency response personnel responsiveness homesick when serving patients who come.

According to Parasunaman in Anang (2017), in providing health services, we must pay attention to aspects of the quality of service provided, including responsiveness, assurance, physical evidence, empathy, and reliability. Assumptions of researchers of this study are when the response time and is done with a quick right then, the patients' satisfaction also increased. So that the quality of service increases. The research found that the response time was done well, so that 60 patients were satisfied.

5   Conclusion

Based on the results of the study using the chi-square statistical test, it was found that the p-value was 0.000 smaller than α (0,05). Thus Ho was rejected, which means a significant relationship between the response time and the level of patient satisfaction seeking treatment at the IGD Hospital X Pekanbaru City.

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Factors Relating to Nurses' Knowledge and Attitudes Regarding Cpot Assessment

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Abstract. A better understanding of the process can contribute to improving pain assessment and management. Nurses' compliance with the implementation of nursing service standards and standard operating nursing service procedures as a measure of the success of nursing services and is an important goal in human resource management. Know the factors related to nurse compliance in implementing CPOT in the ICU and NICU Room at RS X Pekanbaru. Quantitative research methods with correlation design. The sample consisted of 31 respondents with a sampling technique, namely total sampling. The data were processed using the Chi-Square test. Based on the results of the study, it was found that the majority of respondents were 25 years old, namely nine people (29%), 25 people (81%) female sex, the majority of S1 Nursing, namely 27 people (87%)). The bivariate results showed that there was a relationship between the knowledge factor (p-value 0.006) and attitude (p-value 0.011), and there was no relationship between the length of work factor (p-value 0.107) and training (p-value 0.095). It can be concluded that there is a relationship between knowledge and attitude factors towards compliance with the implementation of CPOT. It is expected that the hospital will provide supervision, guidance, and supervision to nurses.

Keywords: Compliance, CPOT

1 Introduction

The Intensive Care Unit (ICU) is a part of a hospital with exceptional staff and equipment is dedicated to treating and closely monitoring patients suffering from life-threatening or potentially life-threatening injuries, diseases or complications (Dewanti, 2014). The intensive care unit is a special area in a hospital where patients who are critically ill or injured receive special medical and nursing services (Pande, S., Kolekar, BD, & Vidyapeeth, 2013)

The American Association of Critical-Care Nurses (2013) states that many critically ill adult patients experience significant pain during hospitalization. For example, in the ICU, more than 30% of patients have significant pain while resting, and more than 50% of patients experience significant pain during routine care processes, such as during the process of changing positions, endotracheal suction, and wound care (Puntillo et al., 2014). Pain is a sensitive indicator in nursing. Pain assessment and management are key to determining the quality of care and patient satisfaction (Brant Heather, Helen Atherton, Sue Ziebland, Brian McKinstry, 2016).

The International Association for the Study of Pain (IASP) defines pain as a subjective sensory and unpleasant emotional experience related to actual and potential tissue damage or perceived events where damage occurs. Assessment/management of pain in mechanically

ventilated patients is a challenge for nurses because nurses need to recognize pain behaviour, interpret pain scores, and make appropriate decisions. This clinical reasoning is a process inherent in advanced nursing practice but poorly understood. A better understanding of these processes can pain assessment and management (Gerber et al., 2014).

Pain relief requires a systematic and accurate assessment to determine the appropriate treatment. Several pain assessment instruments based on behavioural and physiological indicators have been developed, including the adult nonverbal pain scale (NVPS), the nonverbal pain assessment tool (NPAT), behavioural pain scale (BPS), critical care pain observation tool (CPOT), pain assessment and intervention notation (PAIN). According to clinical practice guidelines for managing pain, agitation, and delirium in adult patients in the Intensive Care Unit, the most valid and reliable pain assessment instrument is CPOT. The assessment instrument is currently the reference standard. (Stites, 2013).

The critical care pain observation tool (CPOT) has four behavioural indicators, namely facial expressions, body movements, muscle tension, and synchronization with mechanical ventilation for intubated patients or vocalizations for non-intubated patients. The parameter for each indicator is 0–2, with a total value ranging from 0 to 8. This assessment instrument is used in the adult patient population (Gélinas et al., 201 6). A study conducted by Gélinas et al. (201 6) on 105 cardiac surgery patients at a cardiology medical centre in Quebec, Canada, illustrated that the reliability of the rater using CPOT to assess pain was quite high in almost every assessment. The critical-care pain observation tool (CPOT) has been validated in various groups of adult patients in Intensive Care Installation, including patients after surgery, medical illness, and trauma. CPOT has also been positively evaluated for feasibility and clinical utility.

There is still a lack of assessment of pain in critical patients, even though the pain in critical patients with decreased awareness can lead to stress, unpleasant feelings, and the potential to experience bad experiences during treatment. (Rose, L., 2012), from several studies, most of the ICU treatments did not assess pain in patients with decreased consciousness and in patients who were unable to communicate verbally.

The use of a systematic and standardized pain assessment measurement tool in critically ill patients who are unable to report pain is a matter of concern. Critical pain observation tools (CPOT) developed using an unsure sense of pain on several instruments measuring pain assessment (Priambodo, 2016).

Nursing is a form of humanistic professional service, using a holistic approach, based on nursing knowledge and tips, oriented to the client's objective needs. Practice

services carried out for 24 hours and continuously are a distinct advantage compared to other services. The nurse is one of the medical personnel in the hospital which provides services to support the patient's recovery. Therefore the role of nurses in the hospital is very much needed. One indicator of the role of nurses in the hospital is that nurses carry out an assessment and provide a sense of security and comfort to individuals who experience illness (Sarnita & Yasir Haskas, 2014).

Nursing roles refer to nursing professional standards and use nursing ethics as the main requirement. Nurses must always carry out correct or rational nursing care (Wulandini et al., 2016).

Nurses are " the caring profession " who has an important position in producing quality health services in hospitals because the services they provide are based on a bio-psycho-socio-spiritual approach. Nurses are very important in assessing critical patients, and this is a challenge for ICU nurses because of their weight. The pain intensity of patients is often underestimated (Suwardianto, 2019). Critical patients are expressing their pain response which cannot communicate effectively, need another technique (Hoppkins, R. et al., 2012). In the critical area

of nursing, many patients with sedation and intubation are unable to communicate to indicate their level of pain, either verbally or by indicating their level of pain using pain scaling aids; this makes pain assessment difficult to perform in this patient group. (Rimawati & Suwardianto, 2018).

The Nursing Care Process is the duty and obligation of a nurse from the patient to arrive until the patient comes home, starting with a comprehensive assessment, then enforcing nursing diagnoses from the assessment data, and carrying out the intervention, implementation and evaluation of the effectiveness of the initial diagnoses that have been enforced (Nursalam, 2017). Carrying out a bad assessment can lead to unprofessional nursing care so that nurses' awareness and compliance greatly affect the success of nursing care (Wulandini et al., 2016).

Compliance is one of the most important components in implementing the holistic nursing care process, one of which is the implementation of nursing assessments. Nurses' compliance in implementing nursing service standards and standard operating procedures for nursing services is a measure of the success of nursing services and is an important goal in human resource management. (Ulum, 2013)

According to Ulum, 2013 the factors that affect nurse compliance in the implementation of the nursing care process are Knowledge, attitudes, experiences in the form of work tenure and training.

Research conducted by Wulandini et al., 2016, found that the knowledge factor statistically has a relationship with the compliance with the implementation of nursing care assessments (p-value 0.034), and the attitude factor statistically has a relationship with compliance with the implementation of nursing care assessments (p-value 0.019). Obedience itself is part of behaviour. Where is the activity of humans that can be directly observed and not directly observed by outsiders?

Research conducted by Faizan, 2011 at the Pandan Arang regional public hospital obtained a p-value of 0.0000, so statistically, the length of work of nurses is related to the compliance of nurses in providing professional nursing care. According to Faizin, senior nurses, apart from being experienced, are always prioritized in providing training.

From the results of Sari SD's 2016 research in inpatient installations using qualitative methods, it was found that the training factor was a factor that increased nurses' compliance in carrying out nursing care assessments.

Based on data from hospital management, it was found that most of the operations and surgeries were performed with general anaesthesia. Where the number of patients who were intubated was 253 (68.18%) in 2020. Based on the results of observations on 15 Medical Records at Hospital X, it was found that nurses who were not compliant in carrying out a complete CPOT nursing assessment were 8 out of 15 medical records, and 7 of 15 nurses are obedient in carrying out the complete CPOT nursing assessment. The CPOT facial expression criteria 10 of 15 were incomplete, 11 out of 15 vocalizations were incomplete, and 11 of 15 muscle tensions were incomplete. This is strengthened based on the auditor's report, conducted in the September audit for July to September. It was found that the implementation of CPOT in the ICU and NICU rooms was 65%. (X Hospital Management 2020).

From the results of the preliminary study related to the CPOT assessment, it was found that 8 out of 10 nurses answered that they did not know how to assess scoring when using the CPOT assessment. The nurse's interview said that using the CPOT assessment was time-consuming to assess, whereas the work in the ICU and NICU rooms was overwhelming. The nurse also expects to be provided with CPOT training.

Based on the phenomena and preliminary observations, the authors are very interested in seeing the factors related to nurse compliance in carrying out a CPOT assessment in the ICU and NICU Room at X Hospital Pekanbaru.

The purpose of this study was to determine the factors associated with nurse compliance in assessing CPOT in the ICU and NICU Room at X Hospital Pekanbaru.

This study can be used as a reference for further research and provide scientific information regarding the assessment of CPOT in the ICU and NICU Rooms. As input for improving the quality of health services and nursing care for patients and increasing Knowledge for nurses at X Hospital Pekanbaru

2   Methods

This research uses quantitative research with a correlation method and cross-sectional research design. This study assessed the independent and dependent variables only once at a time, with no follow-up. The design of this study will obtain the prevalence or effect of the phenomenon associated with the cause (Nursalam, 2011). This research was conducted to know the factors related to nurse compliance in assessing CPOT in the ICU and NICU Room at X Hospital Pekanbaru.

The population is the entire research object or object under study (Notoatmojo, 2012). The population in this study were all nurses in the ICU and NICU Rooms at X Hospital Pekanbaru, as many as 3 1 people. This research was conducted from September 2020 to March 2021.

In this study, the data collection tool used a questionnaire on independent variables, namely Knowledge, attitudes, experience/length of work and training, where the researcher adapted the research instruments directly from Wulandini et al., 2016 regarding Knowledge and attitudes, and the length of service and training the researchers put in. question of respondent characteristics. The researcher used the CPOT assessment from RS X to pour it into the observation sheet. Implementation of data collection in this study using questionnaires and observation sheets. Questionnaires were distributed to respondents after the licensing process from related parties was obtained. Retrieval of data using google form where the questionnaire is entered into a google form. Then it will be informed to the nurses one by one in order to improve the accuracy of filling.

In the compliance variable, the researcher used the observation sheet as an instrument. CPOT, which becomes the researcher's assessment, namely the patient at least two days of treatment, and the implementation of checking based on shift. CPOT is assessed, namely after the morning service, evening service and night service.

This study uses univariate analysis. Performed on each variable, presented in the form of a percentage. The measurement results and the overall data collected were tabulated and analyzed descriptively using the Frequency distribution. Data analysis was carried out using the Statistical Product Service Solutions (SPSS) for Windows program (Dahlan, 2014). Bivariate analysis is used to see the relationship between the independent variables and the dependent variable. The bivariate analysis used is the correlation test, where if $p < 0.05$, there is a significant relationship between the two variables being tested. (Dahlan, 2014).

3   Results

Data collection was conducted in February 2021 in room ICU and NICU with 31 nurses. The characteristics of the respondents are as shown in the following table:

Table 1. Description of Nurse Characteristics at RS X Pekanbaru 20 21

Characteristics of Respondents	Amount	Percentage
Age		
24 -27 years	27	87
28 -36 years	4	13
Gender		
Man	6	19
Women	25	81
Education		
DIII Nursing	4	13
S1 Nursing	27	87
Total	**31**	**100**

The study results were obtained where most respondents in the age range of 24 - 27 years were 27 people (87%), and four people aged 28-36 years (13%). The results showed that most respondents female, 2 5 people (81%) and respondents gender male many as six people (19%). Moreover, the research results for education obtained the majority of S1 Nursing, namely 27 people (87%), DIII Nursing as many as four people (13%).

3.1 Univariate Analysis

Analysis univariate analysis to get an overview of the distribution of frequencies of variable-miscellany bell studied, both variable dependent or independent.

a. Dependent Variable

CPOT Implementation Compliance

Table 2. Compliance with CPOT Implementation in RS X Pekanbaru 20 21

CPOT Implementation Compliance	Amount	Percentage
Not obey	14	45
Good	17	55
Total	**31**	**100**

From the results of research at X Hospital, it is known that most of the nurses 17 (55%) obeyed in implementing CPOT, and 14 nurses (45%) did not comply with implementing CPOT at X Hospital Pekanbaru.

b. Independent Variable

1) The Knowledge Factor

Table 3. Knowledge Factor Frequency Distribution

Knowledge	amount	Percentage
Not good	16	51.6
Good	15	48.4
Total	**31**	**100**

From the research result at RS X nurses knowledge, 16 (51, 6%) is not good, and 15 (48.4%) nurses have good Knowledge.

2) Attitude Factor

Table 4. Attitude Factor Frequency Distribution

Attitude	amount	Percentage
Negative	19	61.3
Positive	12	38.7
Total	**31**	**100**

From the results of research at RS X, it is known that most of the attitudes of nurses 19 people (61.3%) were negative, and 12 people (28.7%) had positive attitudes.

3) Length of Work Factor

Table 5. Frequency Distribution of Length of Work

Length of working	Amount	Percentage
≥ five years	4	13
<five years	27	87
Total	**31**	**100**

The results of the study are obtained. From the table, it can be seen that the majority of respondents' length of work is under five years, namely 27 people (87%) and nurses with a working duration of ≥ 5 years as many as four people (13%).

4) Training Factor

Table 6. Frequency Distribution of Training Factors

Training	Amount	Percentage
There is	7	22.6
Nothing	24	77.4
Total	**31**	**100**

The study results found that there were no training factors for 24 people (77.4%). Moreover, nurses who received training were seven people (22.6%).

3.2 Bivariate Analysis

a. The relationship between knowledge factors and nurses' compliance in implementing CPOT

Table 7. The Relationship between Knowledge Factors and Nurses' Compliance in Implementing CPOT

Independent	CPOT Compliance				Total		P value
	Not obey		Obey				
	n	%	n	%	n	%	
Knowledge Factor							
• Not good	11	68.8	5	31.3	16	100	0.006
• Good	3	20	12	80	15	100	
Total	**14**		**17**		**31**	**100**	

The analysis of the relationship between the knowledge factor and the compliance with CPOT was obtained by less knowledgeable nurses who were not obedient, namely 11 (68.8%), while nurses with good Knowledge who obeyed implementing CPOT were 12 (80%). The statistical test results obtained a p-value = 0.006, so there is a relationship between knowledge and compliance with the implementation of CPOT.

b. The relationship between attitude factors and nurses' compliance in implementing CPOT

Table 8. The Relationship between Attitude Factors and Nurses' Compliance in Implementing CPOT

Independent	CPOT compliance				Total		P value
	Not obey		Obey				
	n	%	n	%	n	%	
Attitude Factor							
• Negative	12	63.2	7	36.8	19	100	0.011
• Positive	2	16.7	10	83.3	12	100	
Total	**14**		**17**		**31**	**100**	

The analysis of the relationship between the attitude factor and CPOT compliance obtained a negative attitude of nurses who were not obedient, namely 12 (63.2%). In

contrast, nurses who had a positive attitude were obedient to implement CPOT, namely 10 (83.3%). The statistical test results obtained p-value = 0.011, so there is a relationship between the attitude factor and the compliance with the implementation of CPOT.

c. **The relationship between the length of work factor and the compliance of nurses in implementing CPOT**

Table 9. The Relationship between The Length of Work Factor and The Compliance of Nurses in Implementing CPOT

Independent	CPOT Compliance				Total		P value
	Not obey		Obey				
	n	%	n	%	n	%	
Factor of Length of Employment							0.107
• <5 years	14	51.9	13	48.1	27	100	
• ≥ 5 years	0	0	4	100	4	100	
Total	14		17		31	100	

The results of the analysis of the relationship between the factor of the length of work and compliance with CPOT were obtained, nurses with a service period of <5 years who were not obedient were 14 (51.9%), while nurses with a work period of ≥ 5 years who were obedient to implement CPOT were 4 (100%). The statistical test results obtained p-value = 0.107, so there is no relationship between the length of work with CPOT compliance.

d. **The relationship between training factors and nurses' compliance in implementing CPOT**

Table 10. The Relationship between Training Factors and Nurses' Compliance in Implementing CPOT

Independent	CPOT compliance				Total		P value
	Not obey		Obey				
	n	%	n	%	n	%	
Training Factor							0.095
• Nothing	13	54.2	11	45.8	24	100	
• There is	1	14.3	6	85.7	7	100	
Total	14		17		31	100	

The analysis of the relationship between job training factors and CPOT compliance was obtained by nurses who had no training who did not comply with CPOT, namely 13 (54.2%). In comparison, nurses who had training and were compliant with CPOT were 6 (85.7%). The statistical test results obtained a p-value = 0.095, so there is no relationship between the training factor and the compliance with the implementation of CPOT.

4 Discussion

4.1 The Knowledge Factor

From the research results at RS X, most nurses' Knowledge of 16 (51, 6%) is not good, and 15 (48.4%) of nurses have good Knowledge. Researchers' assumptions, respondents tend to judge only beginning and at the end of the shift. Notoatmojo, 2010 said that Knowledge is influenced by a person's education, with high education will lead to the encouragement, intention to act and eventually become a behaviour. Behaviour based on Knowledge will be more lasting than behaviour that is not based on Knowledge.

According to (Mubarak, 2011) The work environment can also make a person gain experience and Knowledge either directly or indirectly. The environment affects the process of entering Knowledge into individuals. The factors that influence Knowledge include education, information exposure, experience and the environment. According to Swastikarini's research, 2018, Knowledge is inseparable from education, according to the study results, namely 27 respondents (87%) of Bachelor of Nursing education. Higher levels of formal education have increased expectations in terms of career and job, and income. (Swastikarini, 2018). Mastini's research (2013) at Sanglah General Hospital Denpasar also obtained that nurses' knowledge about documenting nursing care can improve the implementation of nursing care documentation properly. According to researchers' assumptions, the Knowledge of nurses about documenting nursing care is influenced by the level of nursing education according to standards in Indonesia, namely S1 Nursing.

4.2 Attitude Factor

From the results of research at RS X, it is known that most of the attitudes of nurses 19 people (61.3%) were negative, and 12 people (28.7%) had positive attitudes.

Assumptions research is the workload in the intensive room so that the tendency of respondents to make a benchmark in the CPOT assessment is based on previous data.

Attitude is readiness or willingness to act and not the implementation of certain motifs. In other words, the function of attitude is not yet an action (open reaction) or activity, but rather a predisposition of behaviour (action) or closed reaction, where one's education accompanies a positive (Notoatmojo, 2010). The formation of a person's attitude is largely determined by personality, intelligence, and interests. Attitudes can change or always change the result of experience (the result of education). Someone in his attitude cannot always adjust, so he needs an expectation that the other party want (Wulandini 2016). Mastini's research, (2013) where attitudes are related to documenting nursing care. It is hoped that a positive attitude will be a strong impetus to document nursing care. Nurses to tradition, to be associated with the system of values adopted by nurses in nursing care documentation considers it important. Wulandini., 201 0, RS HB Saanin Padang where found there is a relationship between the attitude of the nurse education of nurses in nursing care documentation in RSJ Handsome pekanbaru. According to the researchers' assumptions, the positive attitude of nurses is by the results of the study, namely the majority of Bachelor of Nursing education with 27 respondents (87%), compliant implementation of CPOT is inseparable from the education of nurses.

4.3 Factor of Length of Employment

The results of the study are obtained. From the table, it can be seen that the majority of respondents' length of work is under five years, namely 27 people (87%) and nurses with a working duration of ≥ 5 years as many as four people (13%). Experience that many things faced is a strong stimulus for humans to overcome them. The length of time a person works or has experience in the field of work that affects work behaviour (Swastikarini, 2018). According to Moekijat, Mastini (2013) from Subjective length of work is a measure used by a person to measure job pressure and job satisfaction. work results or records of work results can show the volume produced by several employees in a particular section. According to Sarwono. SW, (2016) the tendency of implementing nurses with a service period of> 5 years is not good at making patient identification accuracy because they identify patients with old habits. According to the researchers' assumptions, work experience or opportunities for advancement can be a strong stimulus for nurses to work more actively or be more enthusiastic, a work period of ≥ 5

years is obedient to implementing CPOT, namely 4 (100%), so that all nurses who have work experience or have experience in implementing CPOT.

4.4 Training Factor

The study results found that there were no training factors for 24 people (77.4%). Moreover, nurses who received training were seven people (22.6%). Sari Elementary School, 2016 says that important training in the documentation for nurses has positive impacts on the performance of nurses, especially in the conduct of documenting care nursing. Coaching or training that is carried out continuously can increase workers' awareness and insight regarding the importance of carrying out work by existing work procedures to increase worker compliance with work procedures. (Wulandini, 2010) In the research at Pariaman Regional Hospital, it was found that the provision of training to nurses increased the completeness of the nursing care documentation process. (Amril 2004). The results of Wulandini's research, 2010 state that training is one way to encourage and direct the activities of subordinates in the desired direction. Training is strongly influenced by the suitability of an employee's experience, education and work mass. The training was given to push the nurses so that high productivity is not just an incentive. According to the researchers' assumptions, the opportunity for nurses to receive CPOT training continuously can increase their knowledge, attitudes and awareness to implement CPOT.

4.5 The relationship between knowledge factors and nurses' compliance in implementing CPOT

The relationship between knowledge factors and nurses' compliance in implementing CPOT. The relationship between the knowledge factor and the compliance with CPOT was obtained by less knowledgeable nurses who were not obedient, namely 11 (68.8%). The nurses with good knowledge who obeyed implementing CPOT were 12 (80%). The statistical test results obtained a p-value = 0.006, so there is a relationship between knowledge and compliance with the implementation of CPOT. WHO explains that following Purnama, 2010, it is explained that a person's experience influenced knowledge, factors outside the person (environment), both physical and non-physical and socio-cultural, which are then known, perceived, believed to cause impulse, intention to act. Moreover, finally, it becomes behaviour. Behaviour-based on knowledge will be more lasting than behaviour that is not based on knowledge. (Notoatmojo, 2010).

The results of this study are consistent with the research (Mastini, 2013), that there is a significant relationship between knowledge and documentation of nursing care. In line with Swastikarini's research, 2018, where there is a relationship between knowledge and the accuracy of carrying out patient identification. Knowledge can not be separated from education, namely education, the majority of Bachelor of Nursing 27 respondents (87%). Higher levels of formal education have increased expectations in terms of career and job, and income. (Swastikarini, 2018). According to research by Wulandini et al., 2016, it was found that the knowledge factor had a relationship with nurses' compliance in documenting nursing care at Tampan Hospital, Pekanbaru. Where the p-value obtained is 0.034. The results of this study are in line with what was done by Faizan, 2011 at the Pandan Arang regional public hospital; the p-value was 0.002 so that statistically, nurse education was related to the compliance of nurses in providing professional nursing care.

According to the researchers' assumptions, the knowledge of nurses regarding nursing care documentation is influenced by the level of nursing education that is according to standards in Indonesia, namely S1 Nursing.

4.6 The relationship between attitude factors and nurses' compliance in implementing CPOT.

The analysis of the relationship between the attitude factor and CPOT compliance obtained a negative attitude of nurses who were not obedient, namely 12 (63.2%). In contrast, nurses who had a positive attitude were obedient to implement CPOT, namely 10 (83.3%). The statistical test results obtained a p-value = 0.011, so there is a relationship between the attitude factor and the compliance with the implementation of CPOT. According to Notoatmojo (2010), attitude is the readiness or willingness to act and not implement certain motives. In other words, the function of attitude is not yet an action (open reaction) or activity, but rather a predisposition to behaviour (action) or a closed reaction. According to Green in Notoatmojo (2010), determines a person's behaviour which is inseparable from knowledge, incentives and workload as factors that influence a person's behaviour. A positive attitude of nurses is expected to be a strong boost to make documentation of care nursing that either can not be separated from good knowledge possessed nurses, incentives are considered by nurses and workloads accordingly so that all the main tasks of nurses included documentation in good undone. This is also proven by Mastini, 2013 at Sanglah General Hospital Denpasar and Dewi, 2004 at the Achmad Muchtar Bukit Tinggi Regional Hospital, where attitudes are related to documenting good nursing care. In line with the research of Wulandini et al., 2016, where the p-value was 0.019, it was concluded that there was a relationship between attitudes and nurses' compliance in documenting nursing care at Tampan Hospital Pekanbaru. According to the researchers' assumptions, a positive attitude is expected to be a strong impetus for conducting CPOT. The positive attitude that nurses have is readiness or readiness to implement CPOT properly; this can be seen from the average age of nurses, namely 27 years and the level of education according to the education standards of Indonesian nurses, namely S1 Nursing.

4.7 The relationship between the length of work factor and the compliance of nurses in implementing CPOT

The results of the analysis of the relationship between the factor of the length of work and compliance with CPOT were obtained, nurses with a service period of <5 years who were not obedient were 14 (51.9%), while nurses with a work period of ≥ 5 years who were obedient to implement CPOT were 4 (100%). The statistical test results obtained p-value = 0.107, so there is no relationship between the length of work factor with CPOT compliance. According to Swastikarini, 2018 work experiences or opportunities for advancement can be a strong stimulus for nurses to work harder or be more enthusiastic. Experience that many things faced is a strong stimulus for humans to overcome them. The length of time a person has worked or has experience in work that affects work behaviour. This research is in line with Sarwono. SW, 2016 which states that there is no relationship between the length of work and the application of patient safety, someone who has more years of work and work experience will be accustomed to applying safety standards than new workers. According to Sarwono. SW (2016), the tendency of implementing nurses with a service period of> 5 years is not good at making patient identification accuracy because they are used to identifying patients with old habits. The results of this study contradict what was done by Faizan, 2011 at the Pandan Arang Regional Public Hospital, the p-value was 0.0000, so statistically, the length of work of nurses was related to the compliance of nurses in providing professional nursing care. According to Faizan, senior nurses, apart from being experienced, are always prioritized in providing training. According to the researcher's assumptions, work experience or opportunities for advancement can be a strong stimulant for nurses to work harder or be more enthusiastic, a work period of ≥ 5 years is

obedient to implementing CPOT, namely 4 (100%) so that all nurses who have work experience or have experience in implementing CPOT.

4.8 The relationship between training factors and nurses' compliance in implementing CPOT

The results of the analysis of the relationship between job training factors and CPOT compliance were obtained by nurses who had no training who did not comply with CPOT, namely 13 (54.2%). In comparison, nurses who had training and were compliant with CPOT were 6 (85.7%). The statistical test results obtained a p-value = 0.095, so there is no relationship between the training factor and the compliance with CPOT implementation. The study results contradict the results of Sari SD's 2016 research in inpatient installations, where it was found that the training factor was a factor that increased nurses' compliance in carrying out nursing care assessments. The research result Sari SD, in 2016 found no relationship between the quality of care documentation of nursing training, Importance p Training in the documentation for nurses have positive impacts on the performance of nurses, especially in the conduct of documenting care nursing. Coaching or training that is carried out continuously can increase workers' awareness and insight regarding the importance of carrying out work by existing work procedures to increase worker compliance with work procedures. (Wulandini, 2010). The results of Wulandini's research, 2010 state that training is one way to encourage and direct the activities of subordinates in the desired direction. Training is strongly influenced by the suitability of an employee's experience, education and work mass. The training was given to push the nurses so that high productivity is not just an incentive. According to the assumptions of researchers, the opportunity for nurses get training CPOT continuously to improve knowledge, attitude and awareness to implement CPOT.

5   Conclusion

The knowledge factor and the attitude factor have a statistically significant relationship to compliance with the implementation of CPOT. Factor Length of work and training did not have a statistically significant relationship to compliance with CPOT implementation.

It is hoped that the hospital will conduct periodic nursing refreshes regarding CPOT, especially the assessment of CPOT and guide through in House Training to increase knowledge, especially CPOT.

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Leadership of Management School Principal in Teacher Competency Development

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Abstract. The leadership of the principal has a role in leading and regulating the educational process in schools. The research objective wants to know (1). Principal Leadership Management in teacher competency development (2). Role of the Principal (3). Evaluation Stages (4). Success in principal leadership. The method uses a qualitative approach with valid data collection, namely: (a). Conduct in-depth interviews (b). Participatory observation (c). Document study (d). Data reduction, data reflection. (e) Verification of data dependability, credibility, and convermblity. Research instrument through primary data and secondary data. Conclusion in principal management in developing teacher competence (1). Role of the Principal (2). Effective principal evaluation stages (3). The Success of Principal Leadership Implementation

Keywords: Leadership; Educational; Evaluation

1 Introduction

1.1 Background

Management has occupied a central position in educational institutions in the effort of fostering and developing human group cooperation activities with a view to achieving certain goals. Then school is a formal educational institution as a form of grouping of people who cannot separate themselves from management activities. Because, education in which focuses on certain goals as the end of the process. And management as a social process that is planned to ensure cooperation, participation and involvement of a person in achieving certain goals and objectives that are implemented effectively. Management contains elements of guidance, direction and direction of a group of people towards general achievements. As a social process, management places its function on the interaction of people both below and above who are above someone's operational position in an organization.

1.2 Principal Management

The leadership management of the principal has a role as a leader in his school who is responsible for leading the education process in schools, relating to the development of the quality of human resources, the professional development of teachers, employees and all related to the leadership of the principal. The role of the principal as a leader reflects the principal's responsibility to mobilize all resources in the school, so that a work ethic and high work productivity are born in achieving goals. This leadership function is very important because

besides being a driving force it also plays a role in controlling all activities of teachers (in order to develop teaching professionals), staff and students and at the same time to research problems that arise in the school environment.

Therefore, the efforts of the principal in developing teacher competence in teaching and learning activities in schools through the development of human resource management, are urgent to be implemented, because if the competence of teachers in teaching can be managed properly, all their potential can be utilized to the maximum extent possible so that it will be born out put quality school education.

1.3 SMA Islam Assa'adah

SMA Islam Assa'adah Setu, South Tangerang, which has a vision to be the best school that is oriented towards excellence and respect for various potentials and intelligence in order to form strong, intelligent, creative, and noble Muslim intellectuals. In accordance with the example of Rosulullah SAW as contained in the Al-Qur'an. (Surah Al-Ahzab: 21) which means: Verily, the Messenger of Allah is a good example for you (namely) for those who hope for (mercy) Allah and (the coming) of the Day of Judgment and he chants Allah a lot.

The problems that arise at Assa'adah Islamic High School in schools are as follows:
a. The principal's leadership management has not yet focused on competency development.
b. The principal still lacks attention to teacher activities, especially extra-curricular activities.
c. Activities that have been programmed have not run optimally and have not been implemented.
d. There is still a lack of good cooperation between principals, deputy principals, teachers and education personnel.

2 Methods

This study used a descriptive qualitative approach, an approach with valid data collection results, namely: (1). Conduct in-depth interviews (2). Participatory observation (3). Document study (4). Data reduction, data reflection. (5) Verification of data dependability, credibility, and convermblity

2.1 Data Collection Techniques
The steps used in data collection are as follows
a. Observation
   The ability of a person to use their observations through the physical senses that are used in order to collect data in an active and attentive manner as certain stimuli as needed, regarding conditions or social phenomena and recorded symptoms.
b. Interviewing
   As a data collection technique is used to obtain oral information through face to face with respondents who can provide good and true information.

2.2 Research Instrument
a. Primary data
   Primary data is data obtained from the source without any prompts. As needed and can get it with instruments and make direct observations of the subject under study.
b. Secondary Data
   Secondary data is obtained directly as for data such as general descriptions of the public, newspapers, magazines, information and other publications.

3 Results and Discussion

The objective conditions of SMA Islam Assa'adah Setu Tangerang Selatan are as follows:

a. Vision: To be a Professional and Accountable School in Forming Students with Achievement, Morals, and Knowledge of Technology and the Environment.

b. Mission: (1). Developing professional and accountable schools through education and training to develop the quality of teaching and education personnel from school to national level. (2). Conducting innovative and creative learning to foster a spirit of achievement, both academically and non-academically (3). Developing a culture of politeness in speaking and being polite in behaving according to the teachings of ahlussunnah waljama`ah. (4). Develop technology-based special skills for school residents through intracurricular and extracurricular activities. (2). Fostering the importance of the environment for school members through the Adiwiyata education program.

3.1 Management of the Principal in Developing the Competence of SMA Islam Assa'adah Teachers

Based on the research results of SMA Islam Assa'adah related to its competence, it is: (1). Have a commitment to students and the learning process (2). Mastering in depth learning material for students (3). Observing student learning outcomes through evaluation (4). Able to think systematically in learning and experiences (5). As part of learning in their professional environment.

These five things are evidenced by the quality and quantity of teacher attendance in the teaching and learning process, having appropriate educational qualifications, filling in student assessment lists and being able to socialize and adapt to all school components.

Role of the Head in Competency Development for SMA Islam Assa'adah Teachers

The role of the principal of SMA Islam Assa'adah, namely, as: (1). Educators (2). Manager (3). Administrator (4). Supervisor (5). Leader (6). Innovator (g). Motivator. The role of the principal with the development of teacher competence. There are as follows:

1) Principals as Educators Teaching and learning activities are at the core of the education process at Assa'adah Islamic High School, the teacher acts as the main implementer and developer of the curriculum in the school. Principals who show high commitment and focus on curriculum development and teaching and learning activities in their schools will of course really pay attention to the level of competence of their teachers, as well as will always try to facilitate and encourage teachers to continuously develop their competences, so that teaching and learning activities can run effectively and efficiently. The school principal as an educator, always strives to improve the quality of learning carried out by the teacher. In this case, the experience factor will greatly affect the competence of school principals, especially in supporting the formation of understanding of educational staff on the implementation of their duties.

2) Principals as Managers In managing educational personnel, one of the duties that the principal of SMA Islam Assa'adah must perform is to carry out maintenance and professional development activities for teachers. In this case, the principal facilitates and provides broad opportunities for teachers to be able to carry out professional development activities through various education and training activities, both implemented in schools, such as: MGMP / MGP at school level, in house training, professional discussions and so on., or through educational and training activities

outside of school, such as: opportunities to continue education or participate in various training activities organized by other parties.

3) Principal as Administrator Specifically, the principal of SMA Islam Assa'adah has the ability to manage curriculum, manage student administration, manage personnel administration, manage administration of facilities and infrastructure, manage archival administration, and manage financial administration. These activities are carried out effectively and efficiently in order to support school productivity. The role of the head as administrator is assisted by program implementers under him, including the deputy principal of the school, teachers and other administrative personnel. The principal managerial ability is manifested in the form of administering all the affairs of the school, this manifestation is an indication of the principal's mastery of the ability.

4) The principal as a supervisor to find out the extent to which the teacher is able to carry out learning, the principal periodically carries out supervision activities, this is done through class visits to observe the learning process directly, especially in the selection and use of methods, the media used and student involvement in the process. learning. From the results of this supervision, it can be seen that the weaknesses and strengths of the teacher in implementing learning, the level of mastery of the competence of the teacher concerned, then strived for solutions, guidance and certain follow-ups so that the teacher can correct existing deficiencies while maintaining their excellence in learning The principal of SMA Islam Assa'adah as manager is a reflection of leadership.

3.2 Evaluation in the Competency Development of Assa'adah Islamic High School Teachers

Evaluation is a process that determines the conditions, where a goal has been achieved which has an impact on a decision making by the principal. The evaluation was carried out continuously which was directly led by the principal along with the teachers to discuss the school programs both implemented and not implemented. By holding routine evaluation meetings every Thursday afternoon after the learning activities are finished to solve problems that must be discussed.

Decision making in the handling of a problem which is an obstacle or obstacle, so it is necessary to take a step. Therefore, by conducting an evaluation the principal will find out how much the results have been achieved. Of course, the evaluation principle itself goes through the evaluation planning stage, data collection, data verification, data processing, data interpretation, which is assisted by teachers. Because evaluation in accordance with the provisions will produce concrete and accountable data. Therefore, the procedure in the evaluation must be carried out by a school leader or principal in order to create a productive performance by promoting a high sense of responsibility to the school community itself.

a. Decision Making Steps

Evaluation is a process that determines the conditions, where the goal has been achieved as well as in the evaluation of the existence of a stage or the first step, namely the planning step which is for who does the evaluation itself, of course, as the principal, I usually do it with the teachers. usually in conducting this evaluation, we hold monthly evaluations, end of semester evaluations and early semester of what an analyzer is lacking.

The weekly evaluation itself, in my opinion, is why it should be implemented because it is very effective through, the evaluation meeting that month since I became the principal has been carried out, there is actually a morning briefing because I was inspired during the

Boy Scouts first, because at the beginning of elementary school, teachers The teacher has not been well consolidated, which I feel for the evaluation itself is very effective because imagine if there is no debriefing or evaluation meeting we only hear from teacher and student conversations but there is no concrete evidence, but by holding this monthly evaluation, what obstacles can be resolved., what is the solution, because with enough students and teachers that we have different problems for each child, if there is no intense communication it will be a big problem, but if there is communication according to the needs and events on that day or week we have to quickly finish it lest there is a word delay.

b. **Program Implementation Steps**

With regards to the data collection steps I have to evaluate myself as the principal in planning the school program evaluation because we enter daily information, for example when I go to school but for example in the morning I am at school but in the afternoon I have a meeting but after I go I usually go to school again, to control how the day's activities go, and I asked the vice principal that the results became notes to be discussed in the evaluation itself. For the evaluation meeting itself, I often do it at school because usually the time it is held is after teaching and learning activities but it has also been outside of school but usually it is fun and that's because the meeting is at the end.

In collecting data for evaluation that will begin to be discussed during the evaluation meeting, but I also ask the teachers to prepare what data will be reported, both those that have been completed and those that have not been implemented. Regarding the management of collecting evaluation data, each teacher has what they want to report, even though I have data or information in the form of a good report from the teacher concerned himself.

c. **Verification Steps**

In verifying the evaluation data itself is an examination about the correctness of reports, statements, calculations, where there is an attachment of data given to the principal so that it is followed up by the principal himself and of course there are stages when I verify the evaluation data, which is the verification of the evaluation data itself, namely an examination of the correctness of the report, the statement, calculation, where there is an application of data given to the principal in order followed up by myself as principal.

In checking the data I immediately talked to the teacher who was concerned and directly monitors what the teacher does, for example when I assign Mr. Syukron to distribute the invitation letter, I even help readiness to distribute the letter and while chatting to what extent are the successes and what obstacles are faced so that whoever the teacher is given the task feels the responsibility and It turned out that I myself as the principal supported the activities to help at the technical level, one of which was my approach to the teacher, where if it was related to data verification for evaluation there was clarity.

d. **Data Processing Steps**

In the discussion of data processing itself, there is a implementation of an evaluation conducted by the principal and in fact there is an implementation of a monthly evaluation, the beginning of the semester and the end of the semester itself, where every evaluation is carried out there is a reporting, recording, to the follow-up stage both the principal and the teachers.

e. **Data Interpretation Steps**

In interpreting the data myself I will not conclude immediately data spontaneously without any analysis or similarity of opinion with the teachers or with the program concerned with each person in charge of the school program itself, therefore in relation to the interpretation

of the data I did it by asking the directly concerned party and I matched it with the data that had been reported. For basic data that is worthy of evaluation, it is in accordance with the needs of the program that must be evaluated because by prioritizing programs that already have targets, we will measure our priority scale to work so that our goals are achieved according to the predetermined time.

For the interpretation of the data itself, the teacher is a must component Involved because in order to interpret the data that must be evaluated, the teacher must be involved because the data that is processed in the evaluation meeting is a report from the teacher concerned. In directing the data analysis that must be evaluated, it reminds the targets that must be achieved both teachers and students, and in the direction of the mother, communicate what must be improved in running the program in accordance with their respective jobdes because communication is very important, to interpret the data itself, there is conformity. between words and results in accordance with learning activities and other school programs.

3.3 The Principal's Success in Developing Teacher Competence

In connection with the results of effective leadership, it is seen in a program management both in terms of arrangement, direction of program implementation, results and program evaluation in accordance with the vision, mission and objectives set. Then every statement given to teachers in schools is to provide an assessment of the principal so that the perception of the principal's leadership is effective by achieving the stated goals.

The success of this principal is not only seen from the results, but seen from the implementation process in achieving this success starting from a democratic, straightforward and open leadership style such as when making decisions with deliberations not to decide on some parties, Organizing meetings actively, periodically and continuous with the teacher, it can be seen from the evaluation meeting every 1 month with the teacher on topics that require attention in the sense of school programs that need discussion.

3.4 Commitment to the vision in Teacher Competency Development

With regard to leadership, of course it cannot be separated from a vision which in essence is a very strong reference, because without a vision in moving we will be difficult, therefore the essence of that vision is what we want to be like in the future and in the hadiths when we already had the intention from the beginning to get what was intended.

Commitment because from the start we have the same commitment, from the beginning we have the same personal vision outside of the school vision we have confidence, we must make better learning, especially accommodating children with diverse potential, our commitment what is the vision of the school fostering students who are ready to become the Robani generation where we must be safe in this world and in the hereafter, because if the spiritual child is good then surely the others will follow. Motivation in developing the vision of the school is in addition to motivation by reminding the teacher with things that are good spirit, unity, and orientation to be an example, let alone a teacher, not just talking, with me being good or giving role models to teachers and school members.

a. **Making the vision as a guide in leading**

For the vision itself, it should be an inner guide running the school program Alhmdulillah the program is carried out in accordance with the vision developed by the principal because it can be seen from the school program which always optimizes the potential of Human Resources itself, both teachers and students. Regarding the principal having a clear vision of the future of the school, of course the principal has a clear vision of the future of the

school because a vision is the essence of why the Assa'adah Islamic High School was founded.

For the principal's strategy in developing the school's vision for teachers, usually the father instructs the teacher about the school program held in the next year, how its stages, guidance, implementation, teachers are also given the opportunity to take part in teaching training held outside of school or held by the foundation, besides that, the principal's strategy of holding a teacher competition with the aim of developing the quality of Assa'adah Islamic High School teachers, and providing rewaords to outstanding teachers, therefore you really optimize the potential of the teachers in order to develop that vision yourself because you are very give direction what the essence of the vision to be achieved. For the leadership style, you have a democratic attitude when making decisions, and are also open to teachers, so you also order to be open to the teacher councils so that communication is maintained without miscommunication, you also have a gentle attitude but do not eliminate assertiveness and authority.

b. Focusing on teacher learning and performance

In controlling or monitoring learning activities in class, it is always held both in class and in other components, for example looking at the conditions of the facilities and infrastructure, both learning media and others. There are two programs that are directly involved in which there are 2 parts, the first is scheduled supervision, and there is surveillance supervision where if the supervision is scheduled the teacher must prepare both teaching aids, and classroom management, but if the supervision of the inspection is direct supervision without giving know to the teachers and it looks more natural because it's my own wish.

The principal emphasizes the teachers and all school members to meet the norms of learning with high discipline or not. Alhamdulillah, you always remind us teachers to be disciplined, not only reminding teachers but discipline is also applied to fathers, so behavior father is also appropriate. For example, not to be late in coming to school, especially every day, there are teacher absences, there are hours of arrival, so it is visible and controlled. Not only that, at the monthly meeting, it often reminds discipline for meeting attendance. And the principal monitors the learning progress of students through the teacher as often as possible based on the learning achievement data, yes, you can always directly monitor the examples of the UTS results, or UAS is all discussed and shearkan as bad or as good as we discuss and you are very guiding and directing in solve the problems faced by the teachers, therefore the father keeps on warning that communication must be maintained in a stable manner.

4   Conclusion and Suggestions

4.1   Conclusion

Based on the results of the discussion above, the following conclusions are produced:

a. Principal Management in Developing Teacher Competence at SMA Islam Assa'adah, implemented through four teacher competencies, (1). Personal competence, pedagogical competence, social competence and professional competence. The four components are implemented in synergy, and mutually enhance. The competence of SMA Islam Assa'adah teachers is not optimal and still needs competency development.

b. The Role of the Principal in Developing the Competence of Teachers at SMA Islam Assa'adah, it needs the support of the principal and the leadership policy of the principal.

Competency development related to curriculum, personnel, students, finance and infrastructure.

c. The evaluation stage of the principal is effective in making decisions continuously and programmed in monthly evaluation meetings, end of semester evaluation and beginning of semester because the evaluation process will determine the goals that will be.

d. The Success of Principal Leadership Implementation, namely commitment to the vision of the school in carrying out its duties and functions, the vision of the school as a guide in managing and leading the school. Learning activities, teacher performance, complete facilities and infrastructure, discipline, fostering noble morals.

4.2 Suggestions

Based on the results, it can provide suggestions in developing teacher competence, namely as follows:

a. The leadership of the principal is the most important factor in the process of developing a school, because the leader is the primary component in the inclusive school education system where the principal is the bloodstream of inclusive education which must have extra strength because it is not easy, related to the perspective., attitudes and behavior of society. then leadership is not only task-oriented but the emotional approach must be further improved, because it will have an impact on the achievement of educational goals itself.

b. The principal is always open, both providing motivation and direction of the ingredients, then building a good communication culture with all school stakeholders as well as recognition and appreciation for teachers is very much needed from the school principal.

c. The principal as a Top Lider who focuses on different levels so that academic quality can be optimized and a leader, namely the principal, must match the qualifications and competencies and skills that are in accordance with the duties of the principal in terms of personality, managerial, entrepreneurial, supervisory and social competencies.

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A Bibliometric: e-CRM Business Review

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Abstract. Creating value for the customer is the model and soul purpose for a business. Business companies need to understand how to please customers by meeting their needs. The ability of e-CRM enable companies to help manage their relationship with their customers through electronic media and or the internet. This research aims to review the main contributions in the e-CRM field using the bibliometric approach. VOSviewer software is used to map the research trend. Research related to banking, tourism, and SMEs becomes the dominant research area. Exploration related to e-CRM has the potential for future research development as internet customers are increasingly growing.

Keyword: Bibliometric, VOSviewer, e-CRM NYUSIM

1   Introduction

A study of e-CRM (Electronic Customer Relationship Management) in 2002 by Feinberg and Kadam concluded that the relationship between e-CRM and satisfaction was shallow, why only a few relatively insignificant e-CRM features were related to customer satisfaction and why e-CRM was not related to sales and profit [1]. Maybe because e-CRM is not the first choice for consumers, this is influenced by technological developments that are still limited. At this time, the electronic customer relationship system has experienced development and shows the quality of service, trust, and privacy that leads to customer satisfaction [2].

The theoretical implications obtained from previous research studies have contributed to marketing, e- business, and SMEs (Small and Medium Enterprises). SMEs reap the benefits of marketing in facing business challenges dominated by large-scale business people [3]. The integration of marketing and technology innovationthrough e-CRM contributed significantly to the development of theory. The view of the difficulty of changing face-to-face relationships in operations requires the integration of marketing strategic planning for SMEs [4][5].

The emergence of sophisticated technologies such as the internet and platform applications has allowed large or small companies to compete cost-effectively from the previous way. Effective customer relationships development through technology platforms can help improve customer satisfaction, loyalty, and retention [6].

Jacob Joju, Vasantha, and Sony Joseph using five dimensions of e-CRM program, namely: tangibility, Assurance, Reliability, Responsiveness, Empathy in selected banks that measured using the Delivery Gap Score [7]. Ab Hamid and McGrath describe 12 dimensions of E-CRM program namely: information quality, ease of navigation, consumer service quality, fulfillment, integrated marketing channels, online community, rewards, personalization level, site security, value-added services, perceived trust and price attractiveness [8]. Tsikriktsis, Lanzolla, and Frohlich using the anticipated benefit, access to market, external pressure, internal barriers, and

customer barriers[9].

2 Methods

Alan Pritchard introduced bibliometrics term as a "statistical bibliography" in "the journal of documentation" December 1969 [10]. Next three years, Pritchard explained the definition of bibliometrics as "quantitative analysis of gross bibliographical units such as books, journal articles, and the like." During its development, Alan Prichard redefined the process as bibliometric then conceived as "Bibliometrics is the quantitative study of physical published units, or bibliographic units, or the surrogates for either."[10].

A software tool for constructing and visualizing bibliometric networks used to include individual publications orjournals, researchers, and they can be constructed based on citation, bibliographic coupling, co-citation, or co- authorship relations in an instant[11]. We used the VOSviewer software tool that can be used text mining functionality that also offers to construct and visualize co-occurrence networks of important terms extracted froma body of scientific literature.

2.1 Data source

In July 2020, a search was carried out with the Scopus online literature database to identify publications with thefollowing search strategy: TOPIC "e-CRM" in the business context. This strategy looks for related papers that contain the word in the title, abstract, or keywords.

2.2 Data extraction

This publication resulted from literature research that evaluated and recorded: (1) affiliation, (2) Country, (3) themost cited author (4) year of publication, (5) article by source. Full notes and cited manuscript references are imported into the VOSviewer software for bibliometric analysis[12], such as showing excerpts from specific topics, institutions, countries/regions, and journals. It allows us to examine further how the most productive writersin the field of e-CRM cite each other work. Bubble size indicates the number of publications[13]. The bubble color shows the average year of publication. Two bubbles are closer if the two writers quote each other more often.

3 Result and Discussion

3.1 Result

Scopus has published 155 documents until July 2020, taking into account 103 articles, 31 conference papers, 12 book chapters, four reviews, three conference reviews, one erratum, one retracted. This theme has 155 patents, among them 90 United States Patent & Trademark Office, 11 World Intellectual Property Organization, Japan Patent Office 42, and 12 from others. Figure 1 shows the source by affiliation, documents that have been issued by Scopus regarding e-CRM, with Ulster University, who has contributed most published by 14 articles.

Source by Affiliation	Total Document	Business Theme
Ulster University	14	4,3%
University of Southampton	4	1.9%
Bina Nusantara University	4	20.7%

Jesuit Historical Institute in Africa	3	42.9%
Purdue University	3	2.5%
Asian Institute of Technology Thailand	3	4.8%
University of KwaZulu-Natal	3	1.8%
Middle Tennessee State University	3	8.5%
Athens University of Economics and Business	3	13.8%

Figure 1. Source by Affiliation

Figure 2 on the left-hand side is documented by type table that shows the article is the most published with 103 published followed by 31 conference papers. Figure 2 on the right-hand side is documented by the country table, which shows America is the most publisher to contribute to e-CRM document with 24 published followed by UK18 and Iran 13 published.

Document by Type	Total	Document by Country	Total
Article	103	United State	24
Conference Paper	31	United Kingdom	18
Book Chapter	12	Iran	13
Review	4	China	12
Conference Review	3	India	11
Erratum	1	Indonesia	9
Retracted	1	Greece	8

Figure 2. Document by Type and Document by Country

Figure 3 presents the most cited documents in the e-CRM. Feinberg, R., Kadam, R. has been quoted as many as 112, Adebanjo, D. has been quoted as many as 86, Lee-Kelley, L., Gilbert, D., Mannicom, R. has been quoted as many as 83. Some large documents cited are documents written in the range of 2001-2020. The documents cited are largely based on the theory of relationship marketing.

Author	Year	Total Citation	Field Weight Citation Impact	Citation Indexes
Feinberg, R., Kadam, R.	2002	112	4.31	83
Adebanjo, D.	2003	86	4.09	58
Lee-Kelley, L., Gilbert, D., Mannicom, R.	2003	83	1.10	56
Wu, I.-L., Wu, K.-W.	2005	76	2.14	61
Kim, C., Zhao, W., Yang, K.H.	2008	75	1.13	38
Feinberg, R.A., Kadam, R., Hokama, L., Kim, I.	2002	73	4.71	51
Tsikriktsis, N., Lanzolla, G., Frohlich, M.	2004	72	6.08	51

Figure 3. Most Cited by Author

Figure 4 shows a number of articles published each year. The year 2007 is the start of e-CRM article trend amid the growth of e-commerce, since then there are more e-CRM published

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to almost twice yearly.
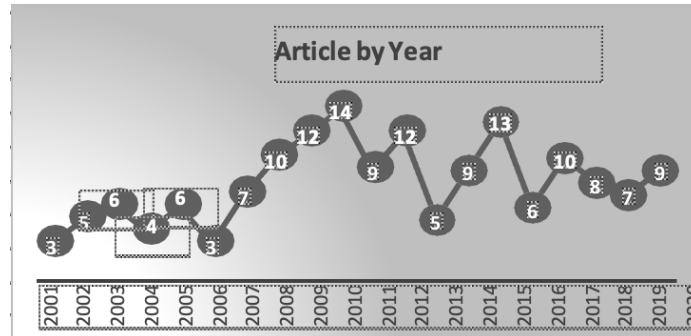
Figure 4. Article by year

Figure 5 shows the most widely released journals of e-CRM themes between 2001 and 2020. International JournalOf Electronic Customer Relationship Management was the most widely released journal, with 14 published. H index is SCImago Journal Rank indexes the number of publications for which an author has been cited by anotherauthor at least that same number of times. Cite Score 2019 measures average citation received per document published in the serial, score referend from Scopus. SJR 2019 measures weighted citations received by the serial; citation weighting depends on subject field and prestige (SJR) of the citing serial. SNIP 2019 is a source normalized impact per paper measures actual citations received relative to citations expected for the serial's subject field.

Source Detail	Total Article	H Index	Cite Score 2019	SJR 2019	SNIP 2019
International Journal Of Electronic Customer Relationship Management	14	11	1.7	0.247	0.584
International Journal Of E Business Research Ijebr	4	20	1.8	0.215	0.604
Marketing Intelligence And Planning	3	64	3.5	0.616	1.172
Ekonomska Istrazivanja	2	21	2.3	0.490	1.226
Industrial Management And Data Systems	2	96	7.9	1.390	2.502
Information Resources Management Journal	2	40	1.2	0.227	0.418
International Journal Of E Business Research	2	20	1.8	0.215	0.604
International Journal Of Information Science And Management	2	10	0.6	0.166	0.235

Figure 5. Article by Source

Figure 6 shows the VOSviewer output associated with Co-occurrence analysis involving the author's keyword entry. The joint analysis shows the frequency of occurrence of general keywords in many documents. After recording data sourced from Scopus, VOSviewer found that there were 44 items and 3 clusters. The explanation of the picture can be seen from 3 color categories. The red cluster represents Customer Satisfaction (Total Link Strength 152) with the highest relation to customer satisfaction, loyalty, and effect. Blue clusters represent the Company with the highest relation to implementation and product. The green cluster represents

Marketing with the highest relation to area and level. The relationship is a scientific study related to research in theory and practice suggested for researchers in the future for better understanding in the conceptualization of e-CRM.
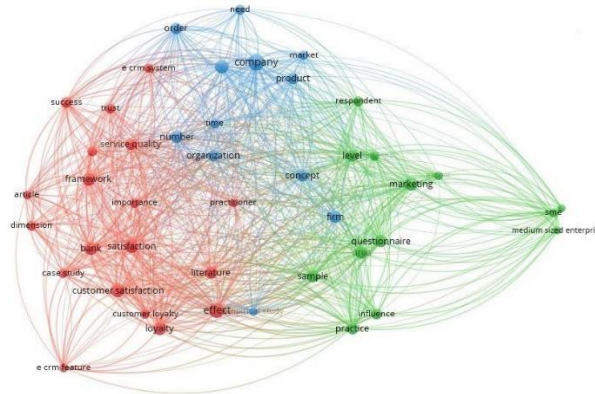
Figure 6. e-CRM VOSviewer Visualisation

3.2 Discussion

RM CRM And e-CRM

Professor Leonard Berry in 1983 introduced the term of Relationship Marketing (RM). He assumed it as attracting, maintaining, and – in multiservice organizations – enhancing customer relationships [14]. In development to facilitate improved retention and lifetime profitability, companies need to use the appropriate technology tools and are adopting the CRM concept approach. Wherein relationship marketing lack of technology utilization in the management of customers, CRM uses information technology (IT).

Relationship marketing is a concept that underlies e-CRM. According to Gilbert, 1996, are five incremental steps to maximize customer retention as follows identity, improve, inform, tempt, and maintain [15]. Identity can be interpreted as measuring the reaction of account holders when they receive an offer so that information can be compiled about the interests and desires of buying as well as profile data from consumers. Improve can be interpreted to collect behavioral data needed for better service in the future and call back consumers who have not purchased in a period. Information is described through the publication of bulletins about the appearance of new products, services, offers, and benefits, e.g., a list of addresses and locations of new agents. This information was done to increase the knowledge of customers and enhance loyalty [15].

Persuade customers to tempt to try new services, products, or more by personalizing contact through special offers, voucher distribution, upsell, and cross-sell. Retain is the last thing, according to Gilbert, who is a pillar of customer retention and can be interpreted as a loyalty development scheme that aims to maintain and strengthen relationships with customers. For example, through making a magazine and its membership, making events and invitations to these events, and so forth [15]. The next person to lay the foundation for e-CRM is Sarah Cobb. In 1996 Cobb and her management team decided on the need for a new ERP (Enterprise Resourcing Planning) model at Moss Products (Plastics), Ltd. Although large capital is needed to invest in making the system, Cobb believes the transaction volume to be generated will cut costs. This requires integrating shop floor data collection (by SSA, Inc.), advance planning and scheduling (ePBCS by oracle, Corp), and e-Commerce and CRM. At the end of 1997, the Company implemented SOP (Sales Order Processing), stock replenishment, etc at its two largest

distribution sites. With modules (SOP, purchasing, billing, account, picking, shipping, production planning, and scheduling).Finally, Moss completed the system upgrade all in May 2000 with eBPCS v6.1-SSA. Later in the year, the firm expects to go live with the intelligent version of its web catalog with 'search and select' and decision tree-based product matching [16].

Kim et al. 2008, propose the Theory of Reasoned Action (TRA) as the theoretical foundation of e-CRM [17]. Refer to Kim in the 2008 development model discusses Oliver's four stages of the cognitive-affective-conative- action model [18], the theory is implemented in the Expectation Confirmation Theory (ECT), and the Commitment Trust Theory (CTT) [17]. The first stage in this model is cognitive loyalty. At this stage, for reasons of compelling, a consumer can continue to patronize a store [19]. However, loyalty at this stage is solely driven by functional characteristics, and consumer commitment to the store may not be too strong [18]. The next step is affective loyalty, which is stronger than cognitive loyalty because affective customer loyalty is a function of the two previous attitudes about the store, followed by satisfaction. The third stage is conative loyalty. In this phase, the consumer commits to buy. This stage is exemplified by repurchase intentions and actions, such as recommendinga store to others. The final stage is action loyalty, where customers buy goods from the store on an ongoing basis[18]. Cognition can also be described as awareness, knowledge, or trust that may or may not originate from previous shopping experiences [20].

According to TRA [20] [21], a person's performance determined by their behavioral intention. Behavioral intention influenced by both cognitive factors, which are attitudes and subjective norms. As an expanded model of TRA, Theory Planned Behavior (TPB) is derived by adding perceived behavioral control as determinants of behavior [21]. Davis (1986) proposed a Technology Acceptance Model (TAM) [22], based on TRA and TPB, toexplain and predict user acceptance of information systems or Information Communication Technology (ICT). In TAM, cognitive beliefs such as perceived usefulness and perceived ease of use are counted as key factors for technology acceptance. TRA, TPB, and TAM have been widely validated and widely used to predict or explain cognitive behavior is social psychology. ECT has suggested that satisfaction is the primary motivation for the ongoing purchase of a product or service [18]. Satisfaction depends on the extent to which customers perceive their previous expectations of a product or service to be confirmed during actual use [23].

The majority of previous research regards satisfaction as an affective response to confirmation of expectations involving cognitive processes [24] [25] [19] [26]. Anderson and Srinivasan (2003) [27] suggested that customer satisfaction must be evaluated as positive, indifferent, or negative feelings after the customer's initial experience with the service [28]. This affective evaluation is identical to the notion of attitude in the IS-use literature (Melone,1990), and the association-intentioned relationship validated in IS-use research provides additional support for therelationship between satisfaction and choice or sustainable use [29] [30] [31]. Geyskens, Steenkamp, Steenkamp, Scheer, and Kumar (1996) describe commitment as a long-term customer orientation towards business relationships. Morgan and Hunt (1994), Kalafatis and Miller (1997), and Wu and Cavusgil (2006) consider commitment as an essential factor in determining long-term customer retention. Morganand Hunt's (1994) empirically endorsed and widely accepted the CTT, claiming that long-term relationships are built based on mutual trusts, which is similar to the process of creating long-term traditional buyer-seller relationships [32] [33]. Because of the relationship between customer commitment and buyer-seller relations, encouraging customer commitment is an important issue that is crucial for the development and implementation of e-CRM strategies.

Based on CTT, several researchers have analyzed the importance of trust in online relationships as a conative response to cognitive beliefs and affective experiences (Lee & Turban, 2001; McKnight & Chervany, 2002). Lackof trust has been considered as one of the biggest factors hampering online business [34]. On the other hand, Business Week (2001) reports that customers are willing to buy repeatedly from the most trusted sites. As such, online retailers rely on strong trust to build committed and conative customer behavior.

Researchers from the east have dominated research on e-CRM in the last decade. The banking research field is still a favorite ([35],[36],[37],[38],[39],[40],[41],[42],[43],[44], 45],[46],[47],[48],[49],[50]. Areas of research related to SMEs ([51],[52],[3],[4],[53],[5]) and tourism ([54],[55],[56],[57],[58],[59],[60]) has the second and third highest number of published documents. The willingness and openness of the Company to provide research data related to e-CRM may be one-off the reason. On the other hand, the confidentiality of consumer data owned by the Company may be an obstacle to researchers for the Company providing data. The level of competition and sustainability makes the Company hide the formulation of marketing strategy. Transportation and education are fields that have the potential to be further developed. With the new trend of studying and working remotely (Working From Home) due to the pandemic (COVID 19), it causes consumers tostay at home and receive goods using delivery services. Likewise, the education field studied using online applications is a suitable research theme.

4   Conclusions

To examine e-CRM themes is an opportunity for future research and expected to be an advantage. The lack of research on the issue of e-transactions, shopping websites, sports, agriculture, retail, medical, food industry, paved the way for researchers, making this writing the basis for supporting the material for his writing in the future. The theoretical perspective that is still limited regarding the theme of e-CRM research can also continue to be developed from various perspectives. For example, UTAUT Theory or Theory of UX Design can provide anew perspective that will later enrich the repertoire of e-CRM research.

5   Acknowledgement

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Enhancement Online Education in Pandemic Era about Cloud Computing with AWS

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Abstract. During the COVID-19 pandemic, all participants in the education sector from Kindergarten - to Higher Education levels were forced to do things that were rarely done before, namely online or distance learning. This has led to the emergence of new problems, such as the unpreparedness of lecturers and students in carrying out Teaching and Learning Activities online, the absence of an online platform that can support learning, especially in the Faculty of Engineering, Electrical Engineering Study Program, and very different from ordinary teaching and learning activities. These things cause inconvenience for both the lecturers / teachers, as well as students. In addition, the emergence of websites that offer online simulator services, programming, and other things will help lecturers in carrying out the teaching and learning process. The constraints faced are the amount of memory that needs to be provided, and the problem of device memory that is not owned. With online education, basic knowledge about cloud computing with AWS can be provided to the academic community.

Keyword: Cloud Computing, AWS, Online Education

1   Introduction

Cloud Computing is a technology and program for storing information without the participation of physical media, whereas according to AWS (Amazon Web Services), cloud computing is defined as a computing service over the Internet that provides services on demand with pay as you go [1].

This is an advantage for companies because data and services do not have to be physically stored, but data is stored in a "cloud" that can be accessed anytime and anywhere. That way, companies do not need to consider financially procuring hardware to meet data storage needs, as well as providing services to customers [2] Cloud computing is not only related to database storage, but as a whole provides information technology resources through "cloud" services that can be accessed via the Internet [3]. CSP is a cloud service provider that offers network services, infrastructure and business applications [4].

Amazon Web Services (AWS) has experienced very rapid development compared to its competitors, and was once ranked first as a cloud infrastructure provider, judging by its high value shares [1]], and is also tagged by multinational companies that use cloud services provided by AWS, among others, Netflix, Kellogg's and Unilever [5].

2 Cloud Computing

2.1 Types of Cloud Computing

There are three types of cloud computing, including: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).

a. Infrastructure as a Service (IaaS), includes the basic components for building an information technology infrastructure in the cloud and generally provides access to network functions, computers (certain virtual or physical hardware), and data storage media. IaaS provides great flexibility and control over existing information technology resources.

b. Platform as a Service (PaaS), eliminates the need to manage infrastructure (usually hardware and operating systems), and provides space for companies to focus on implementing and managing business applications, namely: component procurement processes, hardware capacity management plans, maintenance software, and other heavy lifting jobs affecting the application.

c. Software as a Service (SaaS), by providing ready-to-use products that are run and managed by service providers, SaaS is also widely known as an end-user application. With SaaS, users no longer have to think about how to maintain or build the infrastructure, but about how the software is used. Examples of SaaS applications include web-based email.

2.2 Cloud Computing Implementation Model

There are three models for implementing cloud computing, namely: cloud-based, on-premise, and hybrid.

a. Cloud-based Deployment, with a cloud-based implementation model, users can design, build, run applications, and migrate applications to the cloud without the need for information technology staff to manage them so as to reduce the cost of procuring information technology infrastructure.

b. On-Premise Deployment, also known as private cloud, namely the application of resources using application management and virtualization technology in the data center.

c. Hybrid Deployment, namely cloud-based resources connected to the on-premise data center but the application is run through cloud services on the internet, this implementation model is generally applied if it does not allow database migration from the on-premise data center.

2.3 Benefits of Cloud Computing

There are several things that are the advantages and benefits of using cloud computing technology: 1) Reducing Upfront Expenses which refers to upfront expenses such as procuring hardware and software components at the data center which are part of heavy-lifting jobs, by converting them to variable-expenses and the costs can change according to the computing service used; 2) Save on data center management and maintenance costs, namely by using cloud services, companies do not need to pay more for the management and maintenance of physical data centers such as electricity and security costs; 3) Increasing the scaling capability, namely the various resources offered so that there is no need to predict the capacity of information technology resources needed to support the company's operations and the scaling capability that can be changed at any time if additional or reduced resources are needed; 4) Reaching more customers in various parts of the world, namely the services provided can be accessed using the Internet, so companies do not need to build on-premise data centers to reach customers in other countries.

2.4 Amazon Web Services (AWS)

Amazon Web Services (AWS) is one of Amazon's Cloud Service Providers (CSP) that has provided cloud computing services since 2006. AWS serves users around the world in more than 190 countries by continuing to develop global infrastructure to ensure that data is stored in an AWS Region specific. AWS provides many cloud computing services that can be selected by users, based on the type of cloud computing, including: 1) Infrastructure as a Service (IaaS): Amazon Virtual Private Cloud (Amazon VPC), Amazon Elastic Compute Cloud (Amazon EC2), and Amazon Simple Storage Service (Amazon S3); 2) Platform as a Service (PaaS): Amazon Relational Database Service (Amazon RDS); 3) Software as a Service (SaaS): Amazon Cloud9.

3   Methods

The method used here is descriptive qualitative and quantitative descriptive. Participants were given material in theory and practice using cloud computing with AWS. With the availability of AWS cloud computing for academics, it provides opportunities for academic activities to increase capabilities without limits. The facilities provided with comprehensive features provide opportunities for students, lecturers, teachers, to get services and applications provided by AWS. Of course this will increase the abilities and skills significantly for academics.

The objectives of this activity are: 1) conduct a basic introduction to AWS Cloud Computing online to students, lecturers, teachers in Indonesia, and even abroad; 2) give a demonstration of the use of AWS Cloud Computing, the installation of an operating system in the cloud; 3) as a form of concern for education in Indonesia; 4) as a form of concern for the state so that the next generation of the nation becomes a formidable human resource that can advance the Indonesian nation and continue the nation's continuity.

Online webinar about cloud computing with AWS held on May 8, 2021. Starting from providing materials on introducing AWS cloud computing, its service features, demonstrations of its use, and links to material and its use.

4   Results and Discussion

The online education speaker is Mr. Setia Budi, Ph. D (Figure 1) who coordinates with Mr. Agus Prijono and together with Dr. Ratnadewi, S.T., M.T. forming a committee for its implementation.
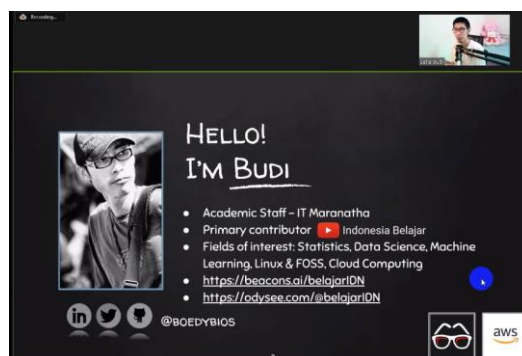
Figure 1. Cloud computing with AWS online education speaker

The result of this education exposure is by using cloud computing, the educational process can still take place (even though there is a pandemic). It is as if the lecture participants have a computer like a computer in a lab. by leveraging the cloud. Economically: college participants do not need to provide hardware or software with high specifications such as computers in the lab.comp (just standard specification computers and internet networks). in health (due to the pandemic), lecture participants can reduce the risk of being exposed to the Covid-19 virus.

The 146 participants were sign up, and those who attended were 59 participants from all over Indonesia and even from abroad. This is because cloud computing with AWS has just been launched, and still needs socialization among academics. Screen shots of participants who attend can be seen in Figure 2.
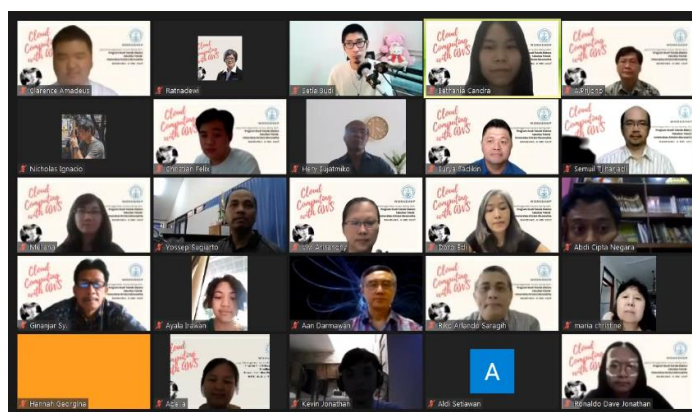
Figure 2. Most of the participants in online education on cloud computing with AWS

Participants are given a questionnaire about their knowledge of cloud computing, and there are also questions that are scored so that the participants' abilities can be measured after participating in this online education. The results of the assessment of the answers can be seen in Figure 3. It can be seen that this short online education still needs to be improved, because the average understanding is still at a value of 62.71 of the total maximum value of 100.This means that there has been an increase from the previous 0 to 62.71 and there are 20% of participants scored 100, which means that online education is very useful so that participants can answer all questions correctly.
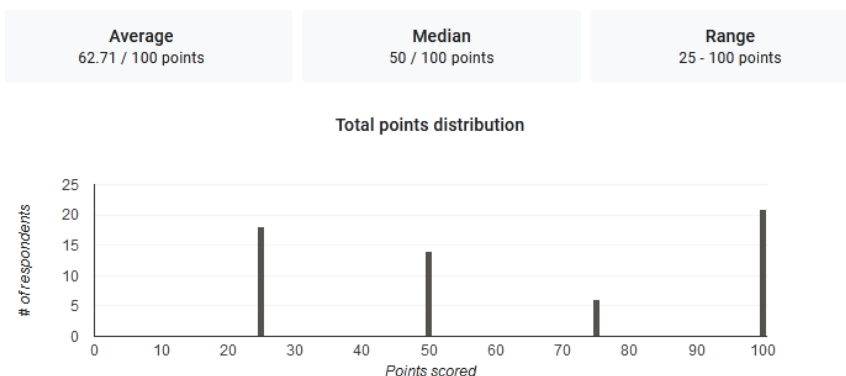
Figure 3. The value of the questionnaire results from the participants' answers

In online education activities, we also measure the visual quality that participants receive. Is the visual quality seen by the participants very clear? The results of the participants' input were 54.2% answered very well by giving a score of 5, 33.9% answered well by giving a score of 4, while the remaining 11.9% received visuals simply by giving a score of 3. This really depends on the internet signal used by the participants, committee, and speakers. This can be seen in Figure 4.
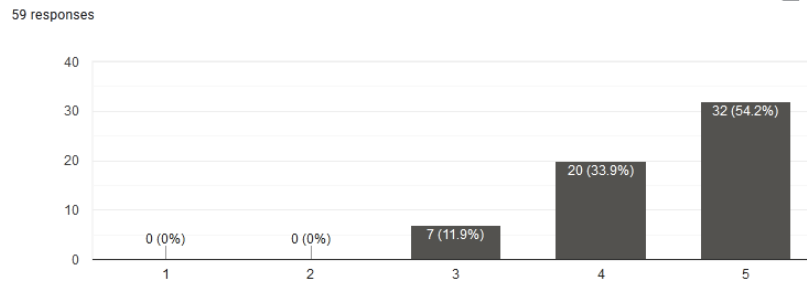
Figure 4. The value of the questionnaire results from the participants' answers

This online education activity was felt to be very useful and useful by the participants with 93.2% answers and no one felt that it was not useful. This is shown in the participants' answers in Figure 5.
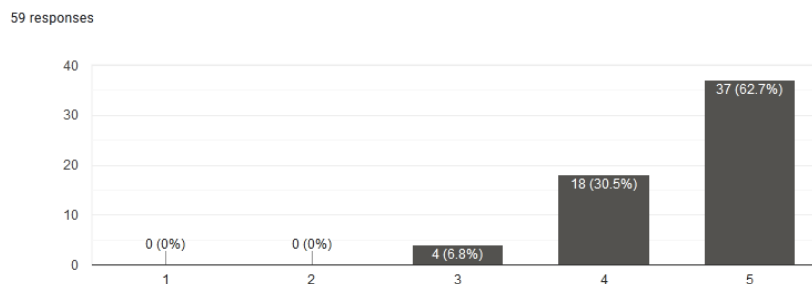
Figure 5. The answers to the material questions presented were very interesting and useful

The assessment of the delivery of material and ease of understanding was measured in a questionnaire and the participants answered very well and well with a percentage of 89.8%, this can be seen in Figure 6.
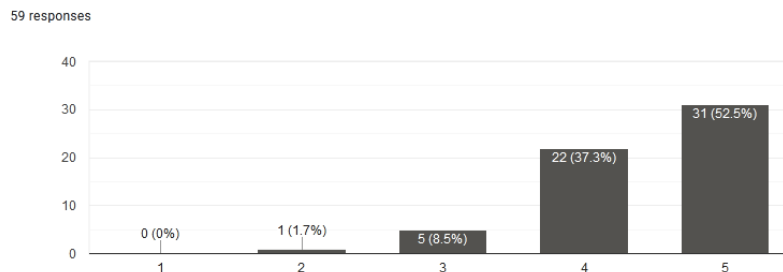
Figure 6. Participants' answers regarding the delivery of the material and its ease of understanding

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At this online educational event, participants were given the opportunity to ask questions in the chat column or activate the microphone. The results of the participants' answers, the question and answer session was very effective and effective at 94.9% (Figure 7), this indicates that if the material is not clear, the participants can ask for answers from the presenters.
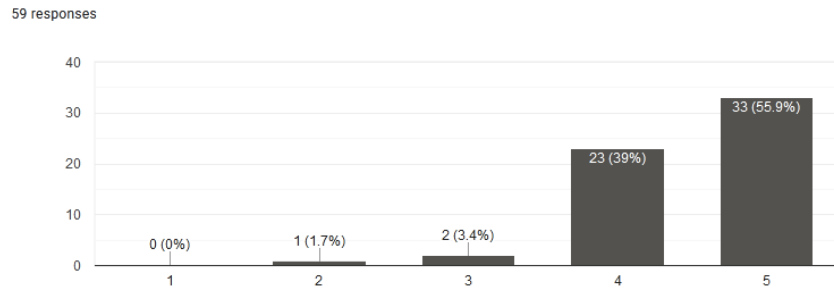
Figure 7. what participants think about the question and answer session

5   Conclusion

The results of online education during the Covid-19 pandemic regarding cloud computing with AWS have been felt by the benefits for participants from the answers to the opinions given by participants. And the participants' knowledge about cloud computing is expected to help with hardware and software limitations, because AWS cloud computing has provided applications that participants can easily install. The use of cloud computing is as if the participants have their own computers only by registering themselves in a cloud computing application with AWS. The application provided also makes it very easy for users to improve their academic abilities. Participants gave suggestions so that this activity could be continued for other materials.

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Logistics 4.0 and The Implication to Society 5.0

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Abstract. Logistics 4.0 is a representation of the Industry 4.0 paradigm of supply chain systems. Society 5.0 is a philosophy that complements Industry 4.0 and has the potential to revolutionize society for the common benefit of humanity. This new culture catalyzes social change, intending to have a significant effect on society at all levels, including quality of life and sustainability. The primary objective of this study to comprehend the relationship and the relevance of how emerging technology from Logistics 4.0 might lead to the organization of a new society termed 5.0. It is an argumentative study with a potential aspect that's focused on some recent literature. Logistics is a natural choice for some of the emerging approaches advocated by the Society 5.0 vision, and that is one of the sectors most likely to accomplish advances by data use. To pave the way for Society 5.0, the logistics sector, as a critical component of social infrastructure, must take a pragmatic approach to the implementation of cutting-edge technology that results in significant improvements in supply chain quality and complexity.

Keyword: Logistics 4.0; Society 5.0; Cyber-Physical Systems

1   Introduction

The lack of specific knowledge about what "thinking in category 4.0" can mean for the firm about real gains is at the root cause of the problem with implementing the logistics 4.0 principle in many businesses [1]. Therefore many firms face multiple sustainability to related threats in global logistics activities in today's diverse business world, and new technology solutions may help solve these problems [2]. Smart logistics, also defined as Logistics 4.0, emerged in 2011 intending to address evolving consumer demands and offering long-term logistics solutions [3].

Logistics 4.0 is a representation of the Industry 4.0 paradigm of supply chain systems, which also are increasingly linked into a channel and subjected to continuous control, and according to the theory of revolution 4.0. On the other hand, Society 5.0 is a philosophy that complements Industry 4.0 and has the potential to revolutionize society for the common benefit of humanity. This new culture catalyzes social change, intending to have a significant effect on society at all levels, including quality of life and sustainability. According to Society 5.0 "Recommending to expand the capacity of the individual-technology relationship in promoting the enhancement of the standard of life of all people through a highly intelligent society."[4]. Society 5.0 blends technology change with the ingenuity of various individuals to achieve sustainable growth by problem-solving and value creation, allowing it to fulfill the United Nations' current sustainable development goals [5].

This paper's primary objective is to comprehend the relationship and the relevance of how emerging technology from Logistics 4.0 might lead to the organization of a new society termed

5.0, as well as the collaboration between Logistics 4.0 and Society 5.0. It is an argumentative study with a potential aspect that's focused on some recent literature. As a result, it is a suggestion that aims to cooperate above all else to start this discussion.

2   Logistics 4.0

The key goal of Industry 4.0 is the rise of modern manufacturing, also known as the "smart" factory, which entails smart networking, automation, the versatility of industrial processes and interoperability, collaboration with consumers and suppliers, and the introduction of new business models [6]. The modern approach to manufacturing operations necessitates new logistical requirements. In this sense, a plan for a new Logistics 4.0 model is being presented more and more often in the face of the notion of Industry 4.0. Both words are inextricably linked. The operation and technological aspects of logistics 4.0 are also included (supporting the logistics using the latest IT solutions). To expand the philosophy of Industry 4.0, the latest strategy aims to improve the reliability and quality of logistics activities [7].

Researchers coined the term "Logistics 4.0" to describe the convergence of logistics with Cyber-Physical Systems (CPS) technical advancements. Logistics 4.0 falls together under the umbrella of Smart Services and Smart Products. The technology-driven methodology that was used to describe "Smart Products" and "Smart Services" is now being used to define "Smart Logistics." [8]. "Smart Logistics" is a logistics system that can improve reliability, adapt to industry trends, and get the enterprise closer to the needs of its customers. This would allow for better customer experience, performance improvement, potentially reduced inventory, and cost of production. Since "Smart Logistics" can evolve following real technological advancements, it is necessary to identify the current state of the technology [9].

The new system is the result of excessive usage of the internet, which allows real-time contact between humans and computers, as well as the use of modern digital technology. In our opinion the five major categories, an effective and powerful Logistics 4.0 would focus on and use the preceding technological applications are 1) Resource Management, 2) Warehouse Management Systems, 3) Transportation Management Systems, 4) Intelligent Transportation Systems, and 5) Information Security. To reach a high level of automation, the Logistics 4.0 model can be defined as the convergence of inbound and outbound logistics, which should be assisted by intelligent networks, integrated with applications and databases, from which specific knowledge is generated and exchanged by the Internet of Things (IoT) systems [8].

The principles and strategies for logistics are changing with Logistics 4.0. The Internet of Things (IoT) enables real-time data visualization and logistics flow automation through the integrated connectivity of physical things. The most pressing concerns around Logistics 4.0 revolve around investments (return on investment), the difficulty of information system connectivity, and a lack of sufficient skills [1].

3   Society 5.0

Japan expects to be the oldest society in the world by 2050, with over 40% of the population being over 65 years old [5]. As a result, Japan takes a bold step forward in advocating for future growth as a Civilization 5.0, with reforms affecting all facets of society as well as industrial activity. The Society 5.0 proposal is a strategic concept in Japan for human and social growth with an emphasis on sustainability. "A human-centered society that combines economic development with the resolution of social issues through a structure that strongly incorporates

cyberspace and physical space," Keidanren characterized Society 5.0. Taking a long view of history, the characterize Society 1.0 as groups of people hunting and gathering in peace and harmony with nature, Society 2.0 as forming a group based on agricultural farming, growing organization, and nation-building, Society 3.0 is a society that encourages industrialization and mass manufacturing through the Industrial Revolution, and, Society 4.0 creates more meaning by linking intangible properties across information networks. Society 5.0 is a knowledge society founded on the foundation of Society 4.0, intending to achieve a stable human-centered society [10].

The aim of Society 5.0 is to build a human-centric society in which people can experience a high standard of life that is completely engaged and happy, while still achieving economic growth and resolving social challenges [11]. Employment opportunities, government bureaucracy, people's security, and the industrial structure are all changing rapidly, and new information must adapt to meet these requirements [5]. The implementation of Society 5.0 must take into account the convergence of several aspects such as entrepreneurial skills, entrepreneurship, and development plan [4].

To address today's societal dilemmas, emerging technologies such as big data, robots, artificial intelligence, drone deliveries, and autonomous trucks can be used. Parallel intelligence is the defining characteristic of Society 5.0, in which existing artificial intelligence theories are applied to new cyber-physical-social systems (CPSS). Parallel intelligence allows for efficient handling of socially and engineeringly complicated problems, intending to identify agile, oriented, and convergent solutions to comprehend unpredictable, varied, and complex issues [12]. Even though this new perspective revealed policies and practices on a societal basis, such an effort is built on and heavily reliant on organizations as the most powerful institutions in modern society [13].

Society 5.0, which addresses numerous societal problems by integrating the technologies of the 4th Industrial Revolution (e.g., IoT, big data, AI, robotics, shared economy, and so on) into both business and social life, is the secret to achieving mid-and long-term development. "Extension of healthy lifespan," "Realization of connectivity revolution," "Creation of next-generation supply chains," "Building and growth of friendly infrastructure and towns," and "FinTech" were chosen as five strategic fields that can harness Japan's strengths and appeal to the rest of the world [11].

4   Results and Discussion

4.1   Logistics Transformations

Digital transformation is one of the most important prerequisites for Industry 4.0. Firms must lead the digital transition of their businesses to compete in the modern world, as digitalization has become a significant cause of improvements in the value chain. The "logistics transformation" or development of "smart logistics" solutions is facilitated by the digitization of logistics processes. As an outcome (product) of a logistics system, the impact and interaction between digitalization and logistics processes is a logistics service. Traditional logistics schemes use time and price (costs) as specific metrics for selecting logistics services (from the perspective of end-users) [14].

Logistics 4.0 is described in two directions: processual (supply chain operations are a focus of Logistics 4.0 activities) and technological (tools and technologies that support internal processes in the supply chains) [15]. To arrive at a consistent and broad interpretation of Logistics 4.0 by combining current concepts of logistics, Industry 4.0, and Logistics 4.0, three elements must be identified [3]: 1) The impact of a shift in manufacturing model to mass

production on logistics. 2) The use of emerging modern technology, such as IoT and CPS, to transform logistics procedures. 3) Environmental shifts are followed by the importance of people in their positions as employers, consumers, and other stakeholders.

The benefits of implementing the Logistics 4.0 model are labor savings, high standardization of connecting logistic functions to knowledge pieces, and the use of cutting-edge technology to equip logistic businesses. The drawbacks include high investment costs and the need to own an IT supply network [16].

4.2 Logistics 4.0 in the age of Society 5.0

Human capabilities are assisted to suit the environment rather than adapting structures to fit humans, including the fact that certain technical possibilities are useful in easing human work. From a human-centric viewpoint, a device architecture perspective on human skills could reveal insights into how Logistics 4.0 could be constructed. This is in line with the labor shortage, as well as population shifts and their implications for logistics networks.

Digital transformation has had a significant effect on traditional businesses, as well as heightened societal uncertainty, and certain detrimental effects of a digital environment, such as security challenges and privacy concerns, are now becoming evident. The Japanese society anticipates the forming of a Super Smart Society, with the development of a sustainable society in which different types of principles are linked through CPS and people, can live in safety, protection, and convenience. An intelligent society is a community that makes use of the ability to emerging technologies, digital instruments, and networks to change people's lives. [11]. The core strategies of Society 5.0 are based on the concept of automation, which is the next step in the evolution of artificial intelligence technologies as well as the overall framework for managing and controlling Cyber-physical social systems (CPSS). [12].

Fig-1 describes the relationships and relevance of Logistics 4.0 and Society 5.0 to explaining the human-centric construction. According to the application of the Industry 4.0 model and the application of CPS, resource planning management practices would improve total efficiency, resilience, and agility through supply chain shifts. Throughout the Internet of Things, the level of complexity expected would rise dramatically, as will the degree of specialization of human capital. The implementation of "smart" management through the effective adoption and application of Warehouse Management Systems (WMS), which will turn warehouse practices into future inbound logistics needs following the Industry 4.0 framework. The implementation of the Industry 4.0 model would result in significant improvements in how warehouses operate today. A Transportation Management System (TMS) is a component of transportation logistics supply chain management (SCM, which allows an Order Management System (OMS) to communicate with a fulfillment center (DC) or a warehouse. A TMS system allows an organization to use GPS technologies to reliably identify its vehicles when on the track, control freight traffic, communicate with carriers, consolidate shipments, and engage with Intelligent Transportation Systems (ITS). Transportation administration, regulation, facilities, processes, regulations, and control mechanisms are all interconnected in the Intelligent Transportation System which is new technology such as computing hardware, positioning systems, sensor technologies, networking, data analysis, simulated operation, and preparation techniques are adopted. The advent of cloud-based technologies, the Internet of Things (IoT), Big Data, Industry 4.0, BYOD (Bring Your Own Device) and CYOD (Choose Your Own Device) developments and the explosion of internet-based apps all transformed the way companies operate. Users, on the whole, are willing to embrace emerging technology regardless of their intrinsic security flaws if the advantages outweigh the risks[8].
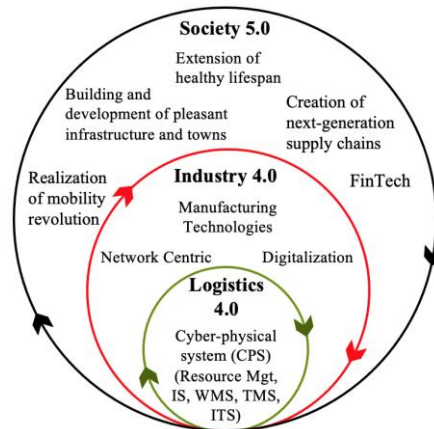
Figure 1. Logistics 4.0 and Society 5.0 relationship and relevance
(Source: author own elaboration)

The relationship to Society 5.0 will be led by logistics innovations driven by Business Process re-engineering (BPR) and cutting-edge technology. RFID and other IoT systems have improved logistics awareness, and real-time knowledge exchange has improved supply chain coordination and optimization. Sharing and mutual use of containers, bins, and recycled delivery boxes; balancing logistics company tools with shipment needs. Logistics processes that save time and resources using autonomous vehicles, cargo ships, robotics, and other technologies. Discovery of future consumer demands and collaboration with manufacturing and distribution to create new value. Reduction damage to the environment with next-generation vehicles (EVs, FCVs, and LNG-fueled ships); accelerated catastrophe intelligence processing with IoT, drones, and other technologies [17].

5 Conclusion

The Keidanren unveiled Society 5.0 in 2016 as a sustainable vision of a modern society that integrates many innovations in all sectors and social practices and achieves both economic growth and solutions to major social challenges in the current society, largely focused on sustainable development priorities developed by the United Nations [10].

Logistics is a natural choice for some of the emerging approaches advocated by the Society 5.0 vision, and that is one of the sectors most likely to accomplish advances by data use. To pave the way for Society 5.0, the logistics sector, as a critical component of social infrastructure, must take a pragmatic approach to the implementation of cutting-edge technology that results in significant improvements in supply chain quality and complexity.

The study focuses on Logistics 4.0 and Society 5.0, which is a relatively recent research subject, and we have looked at some key connections, such as the social impact of developing Logistics 4.0 technologies. The study did not take into account longitudinal evidence and analyzing the recent literature only. Future research should be conducted to clarify the degree of engagement and coordination needs for CPS and smart networks since human employees play such an important role in the preparation and control of Logistics 4.0.

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Relationship Between Burnout and Self Efficacy in Nurses

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Abstract. Burnout is a collection of symptoms due to fatigue, bothphysically and mentally, which can lead to a lack of concentration, negative self-concept development, and negative work behavior. (Maslach, 2004 in Andriani, 2018). The purpose of this study was to determine the relationship between Burnout and the self-efficacy of nurses at the Batam Graha Hermin Hospital in 2021. The research design used was descriptive analytic with a cross sectional study approach. A sample of 84 respondents obtained using non-random sampling technique. The results of the study of 84 respondents that the majority had a moderate burn out rate, namely 57 respondents (67.9%),a low level of 15 respondents (17.9%) and a high level of burn out 12 0rang (14.3%) while thelevel of self-efficacy of nurses was classified as moderate, namely 59 respondents (70.2%) andlow 25 respondents (29.8%) and none of the respondents had high self-efficacy. The research statistical test used the Chi-square test at a significance level of 95%, obtained a significant value of ρ Value = $0.02 < \alpha$ (0.05). It can be concluded that there is a relationship between burnout and self-efficacy in nurses at Graha Hermin Hospital, Batam. This research can be used as information for nurses and provide an overview of the burnout conditions experiencedby nurses.

Keywords: Burnout, Self Efiicacy, Nurse

1   Introduction

Home sick as one of the facilities of service health is part of the source of power of health that is indispensable in supporting the efforts of the organizers of health. Implementation of health were good too must be supported by the power of health were good and competent. One of the components of health services in a hospital is a nurse. Nurses as service personnel health interact directly with patients with the highest intensity in comparison with the components of the other. Responsibility responsibilities and demands of the job that much can potentially become a stressor (burnout) for nurses. Burnout is a collection of symptoms of fatigue, both physically and mentally so that can cause lack of concentration, developing a negative self concept, and work behavior that is negative. (Maslach, 2004 in Andriani, 2018). Burnout Syndrome is a collection of symptoms due to fatigue, both physically and mentally so that can cause lack of concentration, the development of the concept of self that is negative, and the behavior of the work that is negative. (Maslach,2004 in Andriani, 2018). Burnout by Maslach and Jakson has three components, namely emotional exhaustion (involvement ofemotions that cause energy and source source itself depleted by the job), depersonalization (attitude and feeling negative towards the client or patient), and Reduced personal accomplishment (decreased desire achievement self).

The World Health Organization (WHO) calls burnout a phenomenon of work fatigue. Institutions have also classified them in Disease International Hot, in which he was described as a syndrome of stress chronic result of a job that has not been able ldikelola.

According to Kleiber & Ensman (Uus, 2010), bibliographic latest which contains 2496 publications about burnout in Europe showed 43% of burnout experienced by workers health and social care (nurses), 32% experienced teachers (educators), 9% experienced workers administration and management, 4% workers in the legal and police fields, and 2% experienced by other workers. From the percentages above can be seen that the profession of nurses were the highest as a profession that most lots of experienced burnout. Nearly half of the total number of workers who experience burnout is nurse. It is showing a lack of attention from various parties to the profession of nursing. In fact, if more and many nurses are experiencing burnout then increasingly lower quality of service that was provided. It is certainly impacting bad for the community because it will obtain the quality of service that is less optimal. In Riau a nurse lost their lives allegedly due to fatigue, the home sick explained that before the nurses are falling ill due to exhaustion (Aha, 2017). Case fatigue occurred in Jambi, when the inspection were carried out by the Governor of Jambi found doctors and nurses were asleep. The nurse and the doctor disidak for not doing its job with good (Yuliawati, 2017). The research that is done in RSU GMIM Arc of Love Manado results showed that of 61 Nurse majority as 51 people (83.6%) who had a level of burnout are high, and 10 (16.4%) had levels of burnout is low.

Nurses are required to have certain behavioral dispositions in order to solve them. One of the disposition of behavior that is the efficacy of self (self -efficacy). According to King (in Sulistyowati, 2016) self efficacy is a person's belief that someone can control a situation and produce various positive results. Merideth (in Triana, 2017) states that self -efficacy is a vote someone will be in their personal capacities to initiate and successfully perform a task which is set at the level that is designated, in an effort that is more substantial, and persist in the face of adversity. (University psychology, 2020). A nurse who has self -efficacy high will have a level of burnout were low. (University psychology, 2020).

Based on the facts that have been described above, it can be concluded that nurses are prone to burnout, due to high job demands because they have to be responsible for the patient's recovery. Would however, if the individual has a high self-efficacy then the individual is likely to have levels of burnout were low. Conversely, if an individual has self-efficacy are low, then getting a big chance someone experiencing burnout. Some studies previously showed that an increase in self -efficacy helps individuals control the situation to press the faces are more effective so that performasinya increases. Self- efficacyhas a negative correlation with job stress where self efficacy can reduce stress (Eden and Aviram, 1993).

According to the results of research studies of cross sectional are held in RSU GMIM Arc of Love Manado in the month June 2019 The results of the study showed that of 61 Nurses majority of as many as 53 people (86.9%) who had a level of self- efficacy are high and 8 people (13.1%) has a low level of self- efficacy. It is proved that the level of self- efficacy in nursing that exist in space -patient hospitalization RSU GMIM Arc of Love Manado very high. Penelitian this in get respondents who have burnout low but self efficacynya high as 6 people (60.0%), things have to be said in general the level of burnout are experienced by the subject tends to be low. This condition is related to the subject 's high self- efficacy. Results of the study is also in get some respondents have burnout are high, but self efficacynya low as 4 people (7.8%). Based on the results of observations researchers in the current study preliminary in Rumah Sakit Graha Hermine ie of the results of interviews with one of the nurses in the room that, saying that the nurses often feel tired and saturated to the work thatis devoted to him.

Excessive workloads like, every action that is done must be written, bear responsibility that must be shouldered, complain about the demands of work Yag addressed to himself that affect the spirit of the work. If the case is not anticipated could potentially lead to the tendency of burnout nurses in their activities and lead to reduced quality of service and could lead to saturation of the nurses that have an impact on the lack of fulfillment of care nursing patients. Based on the description above, the authors are interested in conducting research on the relationship between burn out and self-efficacy of nurses at Graha Hermin Hospital.

2   Methods

Design studies were conducted by researchers is the study of quantitative with cross sectional approach. Research is conducted at Rumah Sakit Graha Hermine Batam. The number of samples in this study were 84 nurses in accordance with the criteria of inclusion and exclusion are on duty at Rumah Sakit Graha Hermine Batam. Researchers used a questionnaire sheet containing the initials of the name, age, gender and education as well as a questionnaire sheet with questions about burn out and nurses' self-efficacy. The data analysis of this research is univariate and bivariate. Analysis of bivariate data using the chi square test with a degree of confidence 95%.

3   Results and Discussion

3.1   Results

Table 1. Characteristics of Respondentshave a level of burnout that was and 15 people (17.9%) had levels of burnout is low and which has a burn-out levels high as 12 people (14.3%).

Distribution of self-efficacy Nurse of the Home Hospital Graha Hermine Batam 2021

elf Efficacy	Frequency	Percentage (%)
Low Medium High	25	29.8
	59	70.2
	0	0
Total	84	100%

Based on table 1, it can be described that the frequency of sex is dominated by women, namely 74 respondents (88.1%), the frequency of age is dominated by the age of 21-30 years 54 respondents (64.3%), the frequency of work tenure is dominated by <3 in 75 respondents (89.3%), the frequency Education Nursing dominated D3 72 respondents or (85.7%).

a.   **Univariate Analysis**
     Burn Out

Table 2. Frequency Distribution of Nurse Burn Out Rate at Graha Hermine Hospital, Batam, in 2021.

Burn Out	frequency	Percentage%
Low Medium High	15	17.9
	57	85.7
	12	14.3
Total	84	100%

Based   on   Table   2   in   the   above
Based on table 3 above, it is known that the level of self- efficacy in the majority of nurses

is moderate with the number of 59 respondents (70.2%), the low category of 25 respondents (29.9%), the high category does not exist.

b. Bivariate Analysis

Table 4. Relationship between Burn Out and Self Efficacy of Nurses at Graha Hermine Hospital, Batam 2021

Burn Out	Self Efficacy				Total		p
	Low		Moderate				
	n	%	n	%	n	%	
Low	2	2,4	13	15.5	15	17.9	0.0000
Moderate	15	17.9	42	50	57	67.9	
High	8	9.5	4	4,8	12	14.3	
	25	29.8	59	70.2	84	84	

Results Test statistic chi square at the top obtained 0.00 ρ (ρ <0.05), which means that there is a relationship that significant between burn out with the self -efficacy of nurses in Rumah Sakit Graha Hermin Batam. shows that from 84 nurses the majority of 57 people (85.7%) are

3.2 Discussion

a. Univariate Analysis

1) Tingkat Burn Out Nurses

The results of the study note that the level of Burn out in the research of this majority are category was that as many as 57 people (67.9%) having levels of burnout were lower, namely 15 respondents (17.9%) and the category high 12 respondents (14.3%). It is not in line with the research that is carried out by (trivena larengkeng, 2019) in RSU GMIM Arc of Love Manado are entitled relationships burn out with self -efficacy with the results of the study showed that of 61 Nurses majority of as many as 51 people (83.6%) who have high levels of burnout was high and 10 people (16.4%) had low burnout rates. Supported also by studies conducted by the (Sri Ummi Wahyuni 2015 are entitled Relationship Between Burn out Burn out with self -efficacy to nurses in health centers Parks krocok obtained results of 40% of nurses experienced burnout is high. And the research that is carried out by the (Juniartha & Candra, 2016) in hospitals Badung Mangusada called the correlation between self-efficacy to burn out at nurse at the Hospital of Badung Mangusada in the study obtained results that most large respondents have a mild burnout level that is as many as 20 people (64.5%).

There are several factors that can influence the occurrence of burn out, namely individual factors including demographic factors. Demographic factors consist of gender, ethnicity, age, marital status, educational background ; personality factors such as *introvert* or *extrovert* personality type, self- concept, needs, motivation, ability to control emotions, *locus of control* (Leiter & Maslach, 2001; Leiter & Maslach, 2005). In this study, the majority of respondents bejenis sex women. Women are more vulnerable experiencing emotional exhaustion.

According to Baron and Byrne (2003) defining gender as a biological term based on anatomical and physical differences between men and women. The role of gender is generally a determining factor in job burnout. When both men and women work in professions that are considered feminine or masculine, workers can experience pressure to conform (Fatmawati, 2012). According to the analysis assuming Researchers argue that the case led to the level of burn -out to nurses in hospital housekeeping hermin be at the level of being is the respondents who experienced burnout was most large diversified sex women over many involved in emotionally with the others that tend to be susceptible to emotional exhaustion. Sedangngkan are experiencing burn -out low to address the jobs that need them to do, when giving care to patients with conditions that differ- difference they can create an atmosphere that is relaxed and comfortable in the environment where they work and were able to control their emotions when I started to feel tired due to work.

2) **Tingkat Self Efficacy nurse**

The results showed that the level of self- efficacy in this study was the majority in the moderate category, namely as many as 59 respondents (70.2,%), and low category 25 respondents (29.8%) and no no respondents who had self -efficacy is high. It is not in line with the research that is carried out by Trivena Larengkeng in the year 2019 in the RSU GMIM Arc of Love Manado that of 61 The majority of nurses were 53 people (86.9%) who had a high level of self-efficacy and 8 people (13.1%) had a low level of self- efficacy.

Research conducted by the by I Gusti Ngurah Juniartha (2016) in hospitals Badung Mangusada the research is obtained the result that the level of Self Efficacy majority of respondents have high levels of self -efficacy high that as many as 17 people (54.8%) and as many as 14 people (45, 2%) have a very high level of self-efficacy. This shows that respondents have high and very high confidence in their ability to carry out a task according to the existing jobdesk. Several factors play a role in the development of self-efficacy, including age. semakinbertambah age of a person, tend to have self- efficacy are high in (Victoriana, 2012).

Self-efficacy is defined as the perception of oneself alone about how good self can function in situations particular, the efficacy of self- dealing with that themselves have the ability perform actions that are expected (Mary, 2019) Self -efficacy of nurses are formed through a process of social learning that may occur at home sick. Self-efficacy is formed as a process of adaptation and learning that there is in place the (Ferianto, et al, 2016). The longer a person works, the higher the self- efficacy they have in a particular job field. Self -efficacy are high to help individuals to complete tasks and reduce the burden of work in psychological as well as physical.

According to the researchers' assumptions, strong self efficacy will influence a person's personal goals in acting. The stronger the self -efficacy is getting higher objectives which are set by the individual to himself sandiri and the strengthening is the commitment of individuals to tujun it in his life. level of self -efficacy of nurses in Rumah Sakit Graha Hermin classified as being it is influenced by factors kind of sex, age and level of education

The dominant female respondents as many as 74 respondents (88.1%) of women have self -efficacy that is higher than men. Kurniasari (2013). Most of the respondents aged 21-31 years old individuals are able to overcome obstacles in life than younger individuals. And the level of education can also affect a person's level of self- efficacy. Indvidu who has a level of education that is higher usually have

efficacy that is higher because basically they are more learned and more many receive education formal other than that with education the higher will be more mendpatkan the opportunity to learn in overcoming the problems that occur in the process of life. This is in accordance with the bandura theory (Maryam, 2015).

b. Bivariate Analysis

Burn out relationship with Self Efficacy

Based on the results of the chi statistical test, get ρ 0.00 (ρ < 0.05), which means that there is a significant relationship between burn out and the self-efficacy of nurses at Graha Hermin Hospital, Batam. This is in line with the research of I Gusti Ngurah Juniartha (2016) at Badung Mangusada Regional Hospital through data analysis with the Spearman Rank test, the value of r = 0.660 with p = 0.000 (p < 0.05) was obtained. The results of these showed no significant relationship that between self -efficacy with burnout and research are conducted by Trivena Larengkeng (2019) entitled relationships burn out with the self -efficacy of nurses using Fisher's Exact test test obtained coefficient of correlation is worth negative with a significant level of 0,020. This means that there is a relationship that significant between burnout with self-efficacy to nurses in the room inpatient hospitalization RSU GMIM Arc of Love Manado. This is evidenced by the results of the majority of respondents have a value of burnout and self -efficacy are high.

According to the results of the research have respondents with burnout who were having self- efficacy, which was also the opposite of respondents who have a burn -out lower then self efficacynya low. It is means of self -efficacy has a role on the level of burnout. Increasingly higher self- efficacy, then increasingly lower burnout which in its natural (Pamungkas, 2018).

As you may know that the burden of nursing work is physically not too heavy, but psychically nurse has a load that is quite heavy, keitka burden of work that there is too heavy is not offset by the belief (Self Effycacy) that is sufficient to carry out the task, then that appears is feeling helpless because the burden is too heavy It is also going to spur the emergence of burnout in nurses (Harnida, 2015).

Self-efficacy with burnout in nurses showed that self -efficacy become one of the factors that led to the occurrence of burnout. Factors other which can lead to burnout is a factor of the environment such as the conditions of employment. Support social from the environmental point of work, a friend of work, bosses and family proved to be a factor that affects the high- low burnout (Natsir, et al, 2015).

Based on the aspects of self- efficacy were noted by Bandura (1997), namely the aspect Level (Level) showed confidence in completing a task, be sure to finish the job that is difficult to know the level of capability that is owned, suitability capabilities with tasks that are owned, a task that complicated, and enthusiasm in doing assignments. The generality aspect (the area of the task) shows doing many tasks, the success of the task that is repetitive, task completion.

According to the analysis and assumptions of researchers, nurses who work at the Graha Hermin Hospital have moderate self-efficacy and the level of burnout experienced is moderate, this is because the individual's ability to deal with work stress or burnout is related to the belief in his ability to be able to control himself in problem solving strategies. facing the workplace in order to reduce the level of burnout are experienced and improve performance in giving service of health to the patient. When they are faced with the situation and the condition of the environment of work and level of difficulty tasks that vary they will remain confident with his

abilities. When a nurse feels confident with his ability he will finish the job with good, so do not will experience fatigue both physically, emotionally, mentally and decrease the achievement of personal. However, if the nurse is not sure of her ability to do her job, with different levels of difficulty, various situations and conditions of the room and patients, it will be easy for her to experience fatigue physically, emotionally, and mentally and will have an effect on decreasing personal achievement.

4   Conclusions

Based on the research results, several conclusions can be made as follows:
a.   More than some respondents experienced moderate burn out (67.9%)
b.   More than some respondents have moderate self efficacy (67.9%).
c.   The results of the analysis using the statistical tests chi square in get results ρ 0,000 (ρ <0.05), which means that there is a relationship which There is a significant difference between burn out and the self- efficacy of nurses at the Graha Hermin Hospital, Batam.

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Fall Risk and Related Factors in Hemodialysis Patients

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Abstract. The risk of falling is a common risk of resulting in injury. It is caused by environmental and psychological factors that can cause injury. The IKP report found that there were cases of adverse events due to patients falling 14.1%, NPC due to falls 18.53%, and falling patients resulting in 5.15% injury. The phenomenon that was found in the work area in the Batam RSPB room, it was found that 0.003% of patients fell. This study was conducted to determine the factors associated with the risk of falling in hemodialysis patients at the Batam Management Agency Hospital 2020. Research methods with quantitative methods. The sample consisted of 40 HD patients at Bp Batam Hospital in 2020 with the sampling technique, namely total sampling. The data were processed using the chi-square test. Univariate analysis of the results of the characteristics of nurses. Bivariate results showed that there was a relationship between walking aids (p value 0.027) and cognitive function (p value 0.006) with the risk of falling and there was no significant relationship between the environment and the risk of falling. Therefore, it is hoped that HD patients can know the importance of preventing the risk of falling so that complications due to the risk of falling can be prevented early

Keywords: Risk of Fall, Hemodial, patient

1   Introduction

The hospital as a health service provider must pay attention to and ensure patient safety. Hospitals are organizations that are at high risk for patient safety incidents caused by human error. Mistakes against safety are most often caused by human error related to risks in terms of safety, and this is caused by failure of the system in which the individual is working. (Ashar 2016)

Fall risk is a patient who is at risk for falling which is generally caused by environmental and physiological factors that can result in injury. The fall risk category is divided into three, namely the risk of falling is low, the risk of falling is medium, and the risk of falling is high. The cause of the risk of falling can be caused by intrinsic factors in the form of a previous history of falls, decreased visual acuity, walking behavior and attitude, musculoskeletal system, mental status, acute illness, and chronic disease. In terms of extrinsic factors, it can be in the form of medication, bathroom, building design, floor surface conditions, lack of lighting. In patients undergoing hemodialysis, factors that have a potential risk of falling are age, history of disease, and use of blood thinners. (Joint Commission International (JCI) 2019)

The impact of the incident falls can lead to events that are not expected as lacerations, fractures, head injury, bleeding, until death, and traumatic psychological, extend the treatment time and increase the cost of patient care as a result of using diagnostic tools that really do not need to do such as CT Scan, X-ray etc. The impact on the hospital itself is that it creates the risk of lawsuits because they are considered negligent in patient care (Miake-Lye 2015)

Reporting to WHO in the United States in the " *To Err Is Human, buliding a Safer Health System* " reported IKP (Incident safety of patients) in the form of patient falls in inpatient care in hospitals, the events that occurred that is the KTD (Genesis Not Expected) about 3 -16% that occurs in American hospitals. WHO (World Health Organization) found cases of KTD (Unexpected Incidence) with patients falling in the range of 3.2-16.6% of hospitals in various countries, namely America, England, Australia, and D e n m a r k . (M o r s e 2 0 1 5)

I K P r e p o r t by KKP-RS (Patient Safety Committee-Hospital) in Indonesia in January-April 2018, found that the reporting of cases of KTD (Genesis Unexpected) patient falls (14.41%) and KNC (Genesis Almost Injury) due falls (18.53%), and the patient fell which resulted in an unexpected event (5.15%). The XXI Persi Congress in Jakarta on November 8 2018 also reported that the incidence of falling patients in Indonesia from January to September 2017 was 14%. (M i n i s t r y o f H e a l t h o f t h e R e p u b l i c o f I n d o n e s i a 2 0 1 7)

Hemodialysis (HD) is a process used in patients who are acutely ill and require short-term dialysis therapy (several days to several weeks) or patients with end-stage renal *disease* (ESRD) who require long - term or permanent therapy.. The purpose of hemodialysis is to remove toxic nitrogen substances from the blood and remove excess water. (Suharyanto 2019)

According to research conducted by (Fristantia, Agnes 2016) states that the factors associated with the risk of falling in the elderly who live at home are heart problems (*p value* = 0.006), limb disorders *(p value* = 0.002), nervous disorders *(p value* = 0.024), visual impairment *(p value* = 0.004), hearing loss *(p value = 0.007),* walking aids *p value = 0.000),* environment (*p value = 0.003.* So it can be concluded that intrinsic factors and extrinsic factors are very significant factors. associated with the occurrence of falls in the elderly.

Based on a preliminary study conducted by researchers through observations and interviews with the Head of Nursing Management for the Hemodialysis Room RSBP on October 3, 2020, data was obtained that the HD Room already had reports of patient falls. During the year 2019 there were 18 incident report data, and 2 patients fell fall events causing patient injury caused by non-optimal nurses in providing services. The hemodialysis room has 11 machines and the total number of nurses who carry it out is 7 people.

Based on data on October 3, 2020, to the head of the room in the Hemodialysis room, the fall rate during 2019 was 0.003%. Regarding the number of patients in the hemodialysis room, a total of 1,127 patients with 5,395 actions underwent hemodialysis during 2019. Based on the results of observations in the room on October 3, 2020, it was seen that each treatment room already had a Morse fall risk assessment scale attached to each the nurse's room, the patient's fall risk assessment format is available in the form of a photocopy sheet, but it has not been integrated with the patient's status. Patients who are at high risk of falling are given a yellow pin on the identification bracelet to indicate that the patient is a high risk patient who is undergoing hemodialysis. (Batam Control Agency Hospital 2019)

Most cases of falls in patients were found and studied in the elderly, but from the results of observations and preliminary studies conducted in the Hemodial Room at RSBP Batam, it was found that 0.003% risk of falling was not only the elderly. Therefore, researchers are very interested in conducting research on factors related to the risk of falling in HD patients at RSBP Batam.

2   Methods

This research design is *descriptive correlative,* which aims to determine the relationship of the two variables and explain the relationship of the two variables. The variables studied were cognitive function, walking aids, environment and risk of falling. Research methods that can be

done by researchers using *cross sectional.* The population was HD patients at BP Batam Hospital with a total sample size of 40 respondents, the criteria for patients who were more than 18 years old and all patients who underwent routine HD with *total sampling technique.* The measuring instruments used were MoCA *(Montreal Cognitive Assessment)* and Morse Fall Scale (MFS). Data analysis was done by using *chi square* test.

3   Results and Discussion

From the research that has been done, the following results are obtained:

3.1   Characteristics of Respondents

a.   Characteristics of HD Patient Respondents based on Gender and Occupation.

Table 1. Frequency Distribution of Respondents, Sex and Occupation in the Hemodial Room in February 2021

No.	Characteristics	Frequency	Percentage (%)
1	**Gender**		
	Man	20	50
	Women	20	50
2	**Profession**		
	Does not work	19	47.5
	Civil servants	05	12.5
	Pension	04	10
	entrepreneur	12	30

Based on the gender of the respondents in this study, women and men were the same, the number of female respondents was 20 respondents (50%), while men were 20 respondents (50%). Based on the job characteristics of the respondents, 19 respondents (47.5%) did not work, 4 respondents retired (10%), civil servants had a number of responses (12.5%) and retired 4 respondents (10%).

b.   Characteristics of HD Patient Respondents based on Gender and Occupation.

Table 2. Distribution of education frequency, age and history of disease in the Hemodial Room in February 2021

No.	Characteristics	Frequency	Percentage (%)
3.	**Education**		
	No school	8	20
	SD	6	15
	Junior High	6	15
	High school	15	37.5
	College	5	12.5
4.	**Age**		
	Adult	36	90
	Elderly	4	10
5.	**History of disease**		
	Hypertension	22	55
	Diabetes mellitus	18	45

Based karakteristik education respondents have a wide range pendidika n which includes not school number 8 respondents (20%), SD 6 respondents (15%), junior 6 respondents (15%), SMA 15 respondents (37, 5%) and peguruan Ting gi a number of 5 respondents (12.5%).

3.2 Univariate Analysis

Table 3. Distribution of Respondents Frequency Based on Cognitive Function in the Hemodial Room in February 2021

Characteristics	Frequency	Percentage (%)
Normal	19	47.5
Annoyed	21	52.5
Total	**40**	**100**

Table 3 shows that cognitive function in this study has several characteristics consisting of a normal number of 19 respondents (47.5%), disturbed by 21 respondents (52.5%).

Table 4. Distribution of Respondents' Fresquency of Using Walking Aid in the Hemodialysis Room in February 2021

Characteristics	Frequency	Percentage (%)
Nothing	24	60
There is	16	40
Total	**40**	**100**

Table 4 shows that the number of respondents who use assistive devices is 24 respondents (60%) and 16 respondents (40%) who do not use walking aids.

Table 5. Frequency Distribution of Respondents About a Good Environment in the Hemodialysis Room in February 2021

Characteristics	Frequency	Percentage (%)
No risk	32	80
It's risky	8	20
Total	**40**	**100**

Table 5 shows that there are 32 respondents who have a Non-risk environment (80%) and 8 respondents (20%) who are at risk.

Table 6. Frequency Distribution of Respondents Based on the Morse Fall Scale of the Hemodialysis Room in February 2021

Characteristics	Frequency	Percentage (%)
Don't be a risk	10	25
Be Low risk	5	12.5
Be risks High	25	62.5
Total	**40**	**100**

Table 6 Addressing that the response is not be the risk of a number of 10 respondents (25%), be risk low 5 respondents (12.5%) and be the risk of a high number of 25 respondents (62.5%).

3.3 Bivariate Analysis

a. Analysis of Cognitive Function Relationships with Fall Risk In Patients HD in RSBP Batam.

Table 7. Spearman statistical test results with cognitive function and risk of falling in HD patients at RSBP Batam

Function Cognitive	Risk of Fall						Total		r	p value
	Not Be a risk		Low		High		N	%		
	N	%	N	%	N	%				
Normal	8	42.1	4	21.1	7	36.8	19	100	10,165	0.006
Annoyed	2	9.5	1	4.8	18	85.7	21	100		
	10	25	5	12.5	25	62.5	40	100		

The results of the chi-square statistical test in table 7 show that the disruption of cognitive function is the higher the risk of falling. The results of the statistical test showed that there was a significant relationship between cognitive function and the risk of falling with a weak correlation strength with a value of r = 10,165 and the direction of the positive correlation was obtained by the analysis of p = 0.006 (<0,05) which showed that there was a significant relationship between cognitive function and the risk of falling..

b. Analysis of the relationship between walking aids and the risk of falling in HD patients at RSBP Batam.

Table 8. The results of the Spearman statistical test for walking aids with the risk of falling in HD patients at RSBP Batam

Device Street	Risk of Fall						Total		r	p value
	Not Be a risk		Low		High		N	%		
	N	%	N	%	N	%				
Nothing	3	12.5	2	8.3	19	79.2	33	100	7,250	0.027
There is	7	43.8	3	18.8	6	37.5	23	100		
Total	10	25	5	12.5	25	62.5	40	100		

Table 8 shows that using a walker has a risk of falling with the results of statistical tests, the results of the analysis are p = 0.027 (> 0,05) which shows that there is a relationship between the use of a walker and the risk of falling with a strong correlation with a value of r = 7,250 and the direction of correlation. positive.

c. Analysis of Environmental Relationship with the Risk of Falling in HD Patients at RSBP Batam.

Table 9. Results of Environmental Spearman Statistical Test with Risk of Falling in HD Patients at RSBP Batam

Environment	Risk of Fall						Total		R	p value
	Not Be a risk		Low		High		N	%		
	N	%	N	%	N	%				
No risk	6	18.8	4	12.5	22	68	32	100	3,500	0.174
It's risky	4	50	1	12.5	3	37.5	8	100		
	10	25	14	12.5	25	62.5	40	100		

Table 9 shows that a good environment does not have a risk of falling with the statistical test results obtained by the analysis result of 0.174 (> 0,05) which shows that

there is no environmental relationship with the risk of falling with very weak correlation strength with a value of r = 3,500 and a positive correlation direction.

4   Discussion

4.1   Walking aids

Based on the results of the research, there were 16 HD patients who did not wear walking aids. In line with Ashar's research (2016) where there are 16 respondents who use walking aids from 38 respondents, walking aids can help balance the body. Selection of a walker must be in accordance with individual needs, body anatomy shape and angle of the elbow must be considered when selecting a walker in order to get professional assistance and help with a balanced gait. Independence in HD patients can be assessed from their daily abilities independently such as eating, bathing, moving, going to the bathroom and getting dressed. The emergence of dependence. HD patients can be caused by several causes, namely age, physiological health, cognitive function, psychology, and health services. Dependence of someone on other people or a device will make HD patients feel useless and limited all their activities (Safitri, Zulfitri, and Utami 2019).

4.2   Environment

Based on the results of the study, 32 respondents who have a risky environment have HD patients and 8 respondents who have a risky environment. This statement is inversely proportional to the results of a study by Jamebozorgi et al (2017) in Azhar (2016) which explains that poor environment is one of the causes for HD patients to fall in Tehran *Hospital,* where 72.3% of HD patients have a high risk of falling from 125 respondents.. A bad environment can be seen from the environment of the house, bedroom, stairs, hallway, bathroom (Mauk, 2016). Awareness of the family in an effort to reduce the risk of falls is very important, by the way provide a safe environment for patients with HD as the floors are not slippery, arrangement of items tidy, well lit and provide on this ladder can reduce the risk of the causes of falls in patients with HD (Agustina, 2014).

4.3   Cognitive Function

Based on the results of research with the criteria of being disturbed as many as 21 respondents. The factors that influence the number of cognitive disorders in HD patients are because many respondents in this study did not go to school so that it affected the results of high cognitive function scores, in line with the research of Wildan, Ma'ruf and Djauhari, 2017 which stated that the lower the education, the effect on cognitive function., this is because the use of different brain functions in educated and uneducated people. In addition, the age factor will affect the mindset, concentration and intellectual of HD patients. Some respondents experienced severe cognitive impairment because HD patients did not train their cognitive functions such as singing, discussing and reading. In line with Rahayu's (2020) research with the results of 26.7% of respondents who experience high cognitive impairment and a high risk of falling from the number of 50 respondents, as a person ages, a person will experience a decrease in the number of neurochemicals which will affect the amount of neirotransmitter choline which results in decreased cognitive function of the brain, where HD patients can not remember the past, the mental nervous center and intelligence are disturbed.

The decrease in this amount causes disturbances in the central nervous system, resulting in a decrease in brain mass and cerebral blood flow, which causes aritrocytes to proliferate which results in changes in serotonin and dopamine coupled with an increase in the value of

urea creatinine in the brain which affects cognitive function, thereby increasing the activity of monoaminoxidation enzymes. which increases the disruption of *activity of dail living* which causes HD patients to have a high risk of falling (Murtiyani, Hartono, Suidah & Pangertika, 2017).

4.4 Risk of Fall

Research results The risk of falling on HD patients at RSBP Batam is HD patients with high risk with a total of 25 respondents and respondents who are over 65 years of age who will experience a decrease in balance, in line with the research of Dharvage (2016) with the results of p = 0.001 and OR = 5,661 which means HD patients tend to experience repeated falls 5,661 times at the age of more than 65 years. The physical activity of HD patients is one of the factors in HD patients who are at risk of falling, HD patients who are not active in physical activity will have a higher risk than active HD patients because the activities of HD patients will affect their balance and body flexibility (Gunawan, 2016). Flexibility is the ability of a joint and muscle to move easily and comfortably, flexibility is influenced by many factors such as muscles, tendons, ligaments, age, gender, body temperature and joint structure. Lack of flexibility can cause body movements to be sluggish and prone to muscle injury. (Yanti and Armayanti 2016)

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Based on the results of research, HD patients who did not wear walking aids were 16 respondents. In line with Ashar's research (2016) where there are 16 respondents who use walking aids from 38 respondents, walking aids can help balance the body. The selection of a walker must be in accordance with individual needs, the anatomy of the body and the angle of the elbow must be considered when selecting a walker in order to get professional assistance and help with a balanced gait. Independence in HD patients can be assessed from their daily abilities independently such as eating, bathing, moving, going to the bathroom and getting dressed. The dependence on HD patients can be caused by several causes, namely age, physiological health, cognitive function, psychology, and health services. Dependence of

someone on other people or a device will make HD patients feel useless and limited all their activities (Idris and Kurnia 2017).

4.5 The Relationship between Cognitive Function and the Risk of Falling in HD Patients at RSBP Batam.

The results of the Spearman test on the relationship between cognitive function and the risk of falling in HD patients at RSBP Batam obtained a value of p = 0.006, which means that there is a relationship between cognitive function and the risk of falling in HD patients at RSBP Batam. With age there will be a decrease in brain function, which causes HD patients to experience a decrease in brain weight of about 10-20% at the age of more than 30 years, several studies say that even without neurodegenerative disease, HD patients experience changes in brain structure. Cerebrovascular changes are associated with cognitive deterioration that results in the risk of falling (Sagala 2020).

HD patients who experience cognitive impairment but the risk of falling is low because of their undisturbed motor skills and a supportive environment for HD patients, besides HD patients who do not have a high risk of falling because of their motor skills in moving well even though the ability to think and remember is decreased (Alvita and Huda 2018) Signs and symptoms of a HD patient experiencing cognitive impairment are a language disorder where the HD patient mentions objects or images that are pointed to him, memory disorders, namely HD patients quickly forget what they have done, emotional disturbances, visuospatial disorders, namely HD patients often forgetting time, forgetting the faces of friends and often not knowing the place so it's easier to get lost (Murtiyanti, Hartono, Suidah & Pangertika, 2017).

4.6 Relationship between walking aids and the risk of falling in HD patients at RSBP Batam.

The results of the *chi square* test of the relationship between walking aids and the risk of falling in HD patients at RSBP Batam obtained a value of 0.027 or < 0.05, which means that there is a relationship between walking aids and the risk of falling in HD patients at RSBP Batam. The results of the spearmen can be seen that the use of a walker has no effect on the risk of falling. This study contradicts the results of research by Idris & Kurnia (2017) which states that there is a relationship between the use of walking aids and the risk of falling in HD patients, there is a relationship because HD patients who use walkers have movement disorders or difficulty in walking so that walking aids are needed. to help with daily activities and to support body weights that are not strong because the balance of the body begins to decrease which results in an increased risk of falling.

This study itself, there is no relationship between the use of a walker with the risk of falling because there are other factors that cause no relationship between the two variables, namely because HD patients who are in HD are active in participating in exercise which causes the body balance in HD patients is good so that the risk of falling is decreased.. It is in line with Yanti & Armayanti's research (2018) which states that there is a relationship between HD patient exercise activeness and body balance in HD patients because exercise in HD patients is shown to strengthen, endurance and flexibility of bones and joints, so that the decreased musculoskeletal system can be improved, exercise for HD patients also useful for maintaining heart fitness and decreased balance in HD patients.

In tune with the research Alvita da Dita (2018) which states there is a relationship gymnastics balance with the risk of falls in patients with HD in the Unit of Social Rehabilitation Margomukti Semarang with impairment of the level of risk of falling of the risks being to the risk is low, because the balance is the ability to maintain body balance when changing position,

if the body balance in HD patients is not trained it will cause major problems to the quality of life in HD patients such as falls and results in injury.

4.7 Environmental Relationship with Risk of Fall in HD Patients at RSBP Batam.

The results of the Spearman test on the relationship between the environment and the risk of falling in HD patients at RSBP Batam obtained a significance value of 0.174 or> 0.05, which means that there is no relationship between the environment and the risk of falling in HD patients. In general, the environment has a very close influence on the risk of falling because one of the factors that affect falling HD patients is an unsafe environment (Achmanagara, 2012). The fall factor relates to the environment, especially the home environment, where the house is a place of daily activities. Poor housing arrangement becomes a threat of accidents or falls on family members, especially HD patients (Shoba 2005 in (Hutomo 2015)).

This is in line with the research conducted by Hutomo (2015) entitled "The Relationship between Home Environment Arrangement and the Risk of Fall. For HD patients in the village of Karangwuni Wates Kulonprogo, who got p = 0.035, which means there is a relationship between house arrangement and the risk of falling. The results of the analysis of this study did not have a relationship between the environment and the risk of falling in HD patients because from the observations of the researchers, most respondents still received support from their families and because of the conditions of respondents who lived in rural areas, whose people still uphold the custom of respecting older people. Where people believe that if they do not respect their elders, they will get sin. Family support is very influential with the daily activities of HD patients, in line with the research conducted (Setyabudi 2016) which obtained a value of p = 0.000 which means there is a relationship between family support and the risk of falling at Notoyudan RW 24 Pringgokusuman Yogyakarta.

5 Conclusion

Based on research and data processing carried out by researchers, there was a significant relationship between the use of assistive devices and cognitive functions on the risk of falling in the HD room of RSBP Batam, and there was no significant relationship between the environment and the risk of falling in the HD room of RSBP Batam.

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Visual Literacy of Folklore:
Indonesian Batik Style in Gallery Virtual

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Abstract. Indonesia as a melting pot for various cultures, has many folk tales that have the potential to become an inspiration for an artist. Through this premise, this research aims to raise the potential of folklore in Indonesia, as a source of inspiration in working on batik techniques. Feldman's art criticism method and Primadi Tabrani Visual Language theory are used in the process of analysis and creation of works. Through this research, folklore has a great potential to be used in the development of batik telling stories in Indonesia, especially if it is related to the development of the creative industry and the theme of batik storytelling which is currently popular. In addition, through the use of visual language, innovation can be achieved without losing the characteristics of batik. Folklore visualization, presenting the subject matter of a female figure who dominates the field, and the environment around her is visualized with various looks. Many colors use strong and characteristic colors such as dark red or dark blue.

Keyword: Batik; Folklore; Indonesia; Innovation, Visualization

1   Introduction

Indonesia, with its natural wealth and the richest spice producer in the world, has succeeded in attracting foreign arrivals and has long been the main destination for migrants from all over the world. Ports in various places have become stopovers for various ethnicities and cultures. So it is appropriate that many humanists state that Indonesia is a cultural melting point[1]. Indonesia's natural wealth in the form of flora and fauna has inspired many artists[2].

The legend that is carried into batik tells the story and is filled with the object of the character and the natural wealth of Indonesia in the form of plants found in Hartono Sumarsono's batik collection and also the batik museum in Solo [3]. The batik tells about cinderella, a story carried from Europe [4], [5]. Batik which was produced in Pekalongan during the colonial period was known as Dutch batik which was produced in the 1840s to 1940s, intended for mixed Indo Dutch residents living in coastal areas, and the form was a sarong[6].

Folk stories are stories that are passed down from generation to generation by way of telling [7]. The figures displayed can be in the form of gods or animals [8]. Folklore carried in this research will focus on folklore originating from West Java, namely as samples will be taken folklore from Bandung and Cirebon, the reason for choosing these two locations is because historically these two areas have stories of events in a place such as stories about the origin. area, and has many arts that can be inspired in the creation of batik motifs, the most important reason is that there has been no creation of batik motifs about *Tangkuban Perahu* and also about

the Cirebon area, folklore needs to be preserved not only for speakers but also well documented in book form, digital, or in any other form.

Folklore also has the moral depth needed for the younger generation, the cultivation of character can also be used in the transfer of knowledge, so it seems important to do research related to this matter.

1.1 Batik Material

Based on the Indonesian national standard on batik, it has been determined that hot wax becomes the medium for batik and uses canting or the term batik is written[9]. Technological advances in computer processing have resulted in many new innovations in the creation of motifs using various programs, so that these motifs are called fractal batik[10]. For this research, hot wax will be used according to the batik tradition of Indonesian ancestors.

1.2 Display Artworks & Benefits

After the product of the creation research work is completed, it takes a work presentation in the form of an exhibition. The finished work will be displayed in a virtual room. The choice of virtual space is considered appropriate because of the increase in covid during this pandemic, even the Bandung area was declared the Red Zone. So that many public spaces have again been declared very limited to be accessible by the wider community, including one of which is a virtual gallery.

Local studies (traditional arts) have been developed by art creators in the form of work that is processed through cutting techniques and then combined with animation space, making the appearance of batik artworks much more interesting, without losing the essence of the folklore conveyed to the appreciators. This is an alternative work of art that is created involving technology and creativity. Batik art has moved towards a global ideology, so that in the development of modern art with a touch of traditional art from the archipelago, it can be utilized in the paradigm of fine arts in Indonesia. The virtual gallery is a content that can be easily introduced to the millennial generation.

2   Results and Discussion

This folklore is a story reconstructed by the local community who digs a lot about education in moral education as well as character building for the younger generation that can be used as an example. This explanation is the initial basis of this research, because it requires a review of several studies and similar activities or projects that will be initiated. However, in the review process, it can be said that similar activities have never been carried out, generally research on folklore refers more to literature, this time focused on visual forms that are implemented onto cloth using local wisdom materials and displayed in video form in virtual galleries. Of course, batik painting is more focused on the visual development process, and Feldman's study of visual language and theory.

The Feldman method is divided into 4 main stages, namely [11]:
a. Description: the inventory stage in presenting what is presented directly in front of the observer.
b. Formal Analysis: describes the technique, size, color, and various formal elements contained in the work, without any interpretation.
c. Interpretation: describing the meaning of the work.
d. Evaluation: Drawing conclusions by relating them to the characteristics of the views and values that developed at the time the work was created.

To communicate an artist's work through visuals, a tool that can describe it is needed, namely visual language [12]. According to Tabrani who stated that images and their elements have structure, including a special way of reading, and all of them are summarized in visual language. Various terms seem to have an environment with works of art to be discussed, one of which is a distinctive way, and a variety of looks [13].

The definition of folklore is a story that is told in a narrative and passed down from generation to generation, the story that is conveyed can be in the form of an incident of a place or a story about heavenly beings, stories of kings, stories of prophets, stories of embryos, stories of knights, human stories, funny stories, animal stories, plant stories, ghost stories, and so on [8] [14]. As for several studies that have been carried out by previous researchers are: Yanuar Ardy Prasetyo (2014) discusses fable storybook illustrations as a medium for children's character education. Prasetyo explores creativity related to the values of character education in the illustration work of fable books. The output produced from this study was in the form of 4 fable story books as a medium for character education in children. There are two techniques used, namely 1) drawing on paper in the form of a sketch using a pencil and an outline using black ink. 2) coloring by using computer software by means of scanned images then lay out and printed to be compiled into a story book [15].

Another study by A. Thohari (2018) seeks to exploit animals as a source of inspiration for the creation of painting works. The problem that is raised is how to translate ideas about the problem of animal exploitation into the media of painting. The method of creating painting works includes the process of finding ideas, creating a visual framework, and developing ideas and embodiments of the work until it's finished. The medium of expression used is canvas. The works that are created are a form of personal expression in response to the problem of animal exploitation. The output from the personal side is beneficial for the academic environment, society, and personal [16].

The research mentioned above seems to have similarities in being a source of ideas in the process of creating works of art. What distinguishes it from this research is that the material for the creation process comes from local wisdom and is made on cloth. The method used is an experimental method that can provide exploration results from various techniques of the creation process in painting works.

This research is a social-humanities research with the field of fine arts. This research uses a mixed method, namely a mixture of qualitative methods and experimental methods (practice / creation). The data collection technique used is library research. Collecting data in qualitative research, then the data is processed and reduced[17]. The stages are:
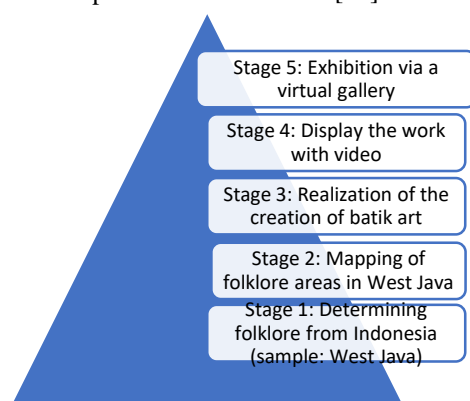
Figure 1. Research Stages

2.1 Folklore Visual Literacy

The legend of Sangkuriang is already familiar to the people of West Java, especially the city of Bandung. Mount Tangkuban Perahu which is the center / axis, when seen from Gedung Sate (Historical Building in Bandung City, now a government office) and is the final result of a legendary story.

Figure 2. Batik Sangkuriang, Belinda Sukapura Dewi. 110 x 210 cm. 2021.
Resource: Researcher.Team. 2021

The depiction of the story in batik is divided into two parts, namely the right and the left. The first part (right side) tells of the spirits who helped Sangkuriang to fulfill his desire to build a boat overnight. Here you can see a depiction of a cloud and a crescent moon depicted upside down (cloud and crescent parts are below). This is intended to differentiate between the events and the timing. Then moving upwards there are spirits making the boat (top view), as well as the two above creatures, while the hand and the ax are side view (various views), if they move upwards again, you can see the boat looks side view (looks typical). The upper right side of the boat, you can see the remaining pieces of wood (stump) in the side view and the cross section of the top view (various views). At the very top or bottom, when viewed from the opposite, there is a fallen tree with its branches (rangrang) which is now known as mount Burangrang and Tunggul hill.

The left side is depicted when Dayang Sumbi is spreading her scarf. Here, the female figure is depicted as small and side view (looks distinctive). This is because the female figure is not important, so the size is reduced. The scarf that spreads in an orange violet is the sign of the rising sun, the size is made bigger because this part is considered important. In addition, the rooster crows are made side view (distinctive looking) with the front legs (various appearances). Lake water is made a side view to show the distinctiveness of the water ripples, just like a cloud which is also drawn from the side (looks typical).

When viewed as a whole, the red, green, and white stripes that are scattered on the bottom left can be offset by the lower right and the middle, while the upper right can be offset by clouds on the left and the orange color on the chicken can be offset by color. orange on the moon. Then the flowers on the left, right, and center make the composition more harmonious in visualization.

2.2 Visualization in the Virtual Gallery

The pandemic period caused many artists to be more creative in displaying their works, one of which was through a virtual gallery [18]. To respond to this, there are also more gallery applications that offer convenience in displaying artworks[19]. The public's interest in the art world makes it possible to use powerful tools that provide multiple features to design virtual exhibits in many ways.

To start this work, it requires artworks made by the artists to convey information for knowledge transfer, acquisition and integration. The first study in the field mainly focused on static presentation of text and creating a gallery starting with the gallery layout. The artwork that is already available, subject matter that is considered important is cropped, then made into animation, and displayed in space (figure 3, 4). The virtual room is made full screen with batik artwork, so that it appears that the exhibition tends to be more dynamic and interactive than a virtual gallery that displays works of art that are lined up towards the left and right-side view. This gives a different effect, providing a new experience for the appreciator even if this virtual gallery is accessed through the smallest screen like a cellphone [19]–[21].

Usually, the structure of most virtual exhibits is determined by the structure of the exhibition space [22] which consists of two types of elements: Virtual Gallery and Subject matter. Exhibition is the primary means by which artists convey their mission objectives and can be static or interactive.
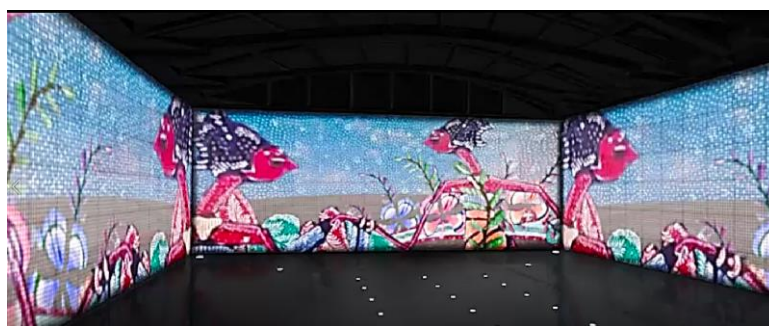
Figure 3. Subject matter that is considered important is cropped, then made into animation, and displayed in space.
Source: Researcher Team. 2021

Figure 4. The virtual room is made full screen with batik artwork that has been made into an animated space, so that it appears that the exhibition tends to be more dynamic and interactive than the virtual gallery which displays works of art lined up to the left and right.
Source: Researcher Team. 2021

During the pandemic, digital media seemed to erase the privileges of the offline exhibition space. Exhibition is no longer just a three-dimensional space that can be accessed by anyone [23], [24]. Now, through a virtual exhibition space, works of art can be enriched with various digital effects according to the artist's concept without having to leave the house, all accessed from home[25], [26]. What might be missing is that if the artist uses smells in his artwork, then

this may not be achieved in a virtual space. some of the things that can be manipulated in the use of this virtual space is also the size of the artwork. The original size of this artwork is 110 x 210 cm, but with digital capabilities, this artwork is processed and presented to fill a virtual space, which provides a new experience for appreciators.

3   Conclusion

Folklore is an interesting idea to continue to be explored and developed in a visual form. The rapid development of technology and coupled with the current situation that makes everyone around the world must keep their distance, there are more and more possibilities to present folk stories in visual galleries. The display of works becomes much more interesting when various techniques are added in presenting batik art in a virtual gallery, without eliminating the essence of the folklore itself. The virtual gallery is the right space to display batik art works of folklore using batik techniques which are then processed by combining cutting techniques, also combined with spatial animation. The virtual gallery is also a bridge to convey messages, especially to the millennial generation.

4   Acknowledgement

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Guidance Services for Students Learning Difficulities in Primary School

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Absract. This study aims to describe the factors that cause learning difficulties, the efforts of teachers in overcoming learning difficulties with the alleviation function of guidance services. The subjects of this study were students who had learning difficulties. Data were analyzed based on observations, interviews, and documentation using triangulation of sources and techniques. The results showed that there were types of learning difficulties, namely specific language difficulties (SLI), reading disorders (dyslexia), and math problems (dyscalculia). Factors that cause learning difficulties are internal factors made from oneself for example: readiness, habits, gaps, interests, and low motivation and external factors are done from outside oneself for example: teacher's relationship, school facilities, parent's relationships with students, student relations with the community environment is not good. Guidance services provided by teachers in overcoming student learning difficulties include: providing extra hours outside school hours, remedial programs, individual guidance, collaboration with parents, provide enthusiasm and motivation.

Keywords: guidance, learning difficulties, specific language difficulties, dyslexia, dyscalculia.

1 Introduction

Education is one thing that is highly required by every government in any country, including Indonesia. In Indonesia, some laws regulate the implementation of education, starting from the age of elementary school to high school, which falls into the 9-year compulsory education rules. With education, it can create a superior and progressive generation for the nation and state. In one of the educational processes by learning. Learning is a person's obligation that must be done to gain knowledge, understanding, and insight so that it can increase positive behavior and can limit themselves from negative impacts. In the learning process, the teacher plays an important role in it. The teacher has an important task in school that is educating, teaching, guiding, directing, training, evaluating, and evaluating. The purpose of this is so that teachers can know the extent of the subject matter that has been delivered and understood by students. However, in the learning process teaching and learning activities still have problems, one of which is learning difficulties. Bauer, Keefe, and Shea [1] explain that learning difficulties are terminology used by students who have difficulty unable to participate in teaching and learning activities due to lack of intelligence, sensory impairment, disadvantage or inadequacy or language. In line with Mulyadi (2016) [2], learning difficulties is a condition

where children are threatened, hampered, disrupted in learning. Therefore, if this is not immediately overcome, it will result in low learning achievement. In overcoming the learning difficulties through the alleviation function of guidance and counseling services.

Guidance services are the processes of providing assistance carried out by experts to find solutions to the problem of Syafriani (2019) [3]. Irham and Novan (2014) [4] also revealed that guidance and counseling are two different activities. The guidance refers to the process of mentoring students to achieve optimal development, both cognitive, affective, and psychomotor aspects. From this opinion, it can be concluded that guidance are something in helping self-development in overcoming the problems encountered. Through the process of guidance services therein is one of the alleviation functions. The function of alleviation is an effort to overcome various counselee problems so that these problems do not become obstacles to the development of Sukiman counselees [5]. This is in line with Suyadi (2009: 135) alleviation function is to address the problems faced by students who have problems. Therefore, through the alleviation function of guidance and counseling services for students learning difficulties can be overcome optimally. There are several forms of learning difficulties experienced by students including specific language difficulties (Specific Language Impairment (SLI)), reading disorders (dyslexia), and mathematics arithmetic problems (dyscalculia). Factors causing the learning difficulties are due to internal factors done from oneself for example readiness, habits, gaps, interests, and low motivation and external factors are done from outside oneself, for example, teacher relations with students, school facilities and infrastructure, relationships parents and students, student relations with the community environment that is not good. Several factors cause learning difficulties, namely internal factors, and external factors. [6] results of the study revealed that the factors that caused students to experience difficulties in learning were internal and external.

At SD Negeri 01 Sukosari Karanganyar some students have learning difficulties due to internal and external factors. Teachers must know and know students in-depth, know the developments that have been made through the ability of students and the obstacles faced by students. Based on the results of observations/observations and information obtained at SD Negeri 01 Sukosari Karanganyar, some students have difficulty learning with specific types of language difficulties (SLI), reading disorders (dyslexia), and mathematics arithmetic problems (dyscalculia). This can be seen when the teacher explains that some students do not pay attention to the teacher when teaching, do not do questions from the teacher, are slow in doing assignments, do not do homework, tend to get bored easily when learning in class. Because the teacher revealed that the learning process was less than optimal because of the limitations of facilities and infrastructure or teaching aids that exist in the school. Therefore, the efforts made by the teacher in overcoming learning difficulties.

2 Methods

This type of research is qualitative research. Qualitative research is based on efforts to build the views of those who are examined in detail, formed with words, holistic and complicated images [7]. This research takes qualitative research with a case study design. Case study research includes an in-depth study of one or more parts of the phenomenon that is in the context of real-life that reflects the perspectives of the participants involved or are in the phenomenon. In this study, the researchers describe the types of learning difficulties, factors that cause learning difficulties, teacher efforts in overcoming student learning difficulties. This research was conducted at SD Negeri 01 Sukosari Karanganyar.

Subjects in this study were students. This research data is primary data and secondary data are processed using data analysis techniques that are used through four main activities namely: data reduction, data display, data verification, and data conclusions. Data is collected by observation, interview, and documentation with the guidelines on the observation sheet, interview guidelines, and documentation. The validity of the data uses source triangulation and technique triangulation. Source triangulation is carried out in getting data from different sources using the same technique, whereas, triangulation of techniques is done through data displaying in different ways to obtain the same conclusions. The data analysis technique used uses the following stages: 1) Reduction, as the stage of centralizing the data where the data used is collected data that is centralized while those that are not so centralized are not used because the relevance value is less related. 2). Data display is carried out through exposure to selected data and then analyzed and linked to relevant theories, then performed 3). Verification and conclusion drawing.

3 Results

Research data shows that some students in class I (have specific language difficulties), grade IV (have problems with reading), and class V (have problems with arithmetic) in SD Negeri 01 Sukosari Karanganyar experience avariety of learning difficulties. Based on the results of observations, some students experience various types of learning difficulties, namely: 1) Language difficulty or often delayed speech. 2). Reading disorders (dyslexia) which include difficulty learning to read. 3) Mathematical learning disorders or difficulty learning to count (dyscalculia). These three cases are the findings and discussion in this article, starting from the factors that cause them and the actions of the teacher as the person responsible for learning who have taken any roles and actions. Based on the results of observations in class and some class teacher's information and parents of students conducted interviews that there are several factors causing students to experience learning difficulties, namely:

a. Internal factors, including 1) Readiness and habits of students during the teaching and learning process, 2) The gap of students when participating in teaching and learning activities, 3) Students' interest in teaching and learning activities, 4) Motivation of students during the activities learn how to teach

b. External factors, including 1) The relationship of teachers with students, 2) School facilities and infrastructure, 3) Relationships of parents with students, 4) Relationships of students with the community environment

Based on the results of observations in class shows problems related to the causes experienced by students, therefore the school and the teacher must coordinate and communicate with the family to take appropriate and decisive actions in eliminating some of the actions that cause the difficulties of students in the study. For example, parents must conduct children's tutoring at home, supervise the association of children with peers, the school, in this case, the teacher must create innovative and high-quality learning for students and prepare supporting facilities and infrastructure. Some interview excerpts related to some of the teacher's efforts in realizing good learning are:

"We as professional teachers must be able to realize learning that attracts students 'attention, namely learning by using innovative media and strategies that are oriented towards student involvement because learning" learning by doing "will further imprint on students' thinking". Based on observations in several classes and some interview passages that have been made to the teacher, it can be concluded that some of the efforts made by the teacher in overcoming student learning difficulties include:

Provide extra hours outside school hours: Extra hours outside school hours are especially given to students who have learning difficulties. This program is held every Tuesday and Wednesday after the teaching and learning activities at the school end. Additional hours outside school hours are especially given to students who have learning difficulties. This program is held every Tuesday and Wednesday after the teaching and learning activities at the school end. Based on this it aims to increase understanding of the subject matter of students taught by the teacher. The following is a form of extra hours program outside school hours that is done by teachers in overcoming student learning.

Through this guidance and counseling book, it is easy for teachers to find out the students' problems in carrying out learning material activities. Learning programs that are carried out outside the school intracellular, namely relating to additional learning activities carried out after the regular learning program at school has ended. These learning guides come from the homeroom teacher itself and the subject teacher concerned. Program additional hours of study outside the school aims to face the midterm, semester exams, school exams, and national exams. By joining these additional hours of learning activities students will better understand the subject matter and experience mastery learning.

Enrichment/remedialprogram:Enrichment/remedial program is in writing. The time given is biased during the morning before the teaching and learning activities begin, at the break time of recess, and time to go home from school. Through personal notebooks, students aim that students who have learning difficulties can achieve completeness of the KKM value that has been determined. Thus, it makes it easier for teachers to know the extent to which students can accept material that has been given to students. Thus through this student's notebook can be known students who have to get enrichment / remedial following the results of learning that if not yet reached the expected target. The purpose of giving enrichment or remedial is so that students can improve more optimal learning ways, overcome the learning constraints experienced by students, improve the process of learning outcomes.

Through individual/individual guidance: In individual/individual guidance is done by way of face-to-face teachers with students who experience problems, especially in students who have learning difficulties. The time given during breaks and when returning from school also the teacher as a counselor conducts a home visit. It aims to be able to help solve the problem of students, especially in overcoming problems of learning difficulties. The following is an individual/individual guidance notebook program carried out by the homeroom teacher in addressing student problems, especially in overcoming student learning.

Based on the student counseling book in Sukosari 01 Elementary School aims to find out the problems being faced by students. Through counseling, notebooks can make it easier for homeroom teachers to solve a problem faced by students. Through the guidance of individuals/individuals is done by way of face-to-face counselors with clients. By doing direct face to face because indirect communication makes a very important element in guidance and counseling.

Collaboration with parents/guardians of students: In the process of teaching and learning activities in schools the role of parents is very important for students in implementing counseling guidance services that can not be separated from the collaboration of parents/guardians of students. Parents have an important role in educating children by giving attention and care to children. If the child is less attentive than his parents, it will affect the development of the child will feel humble. Therefore, parents have an important role in educating children by giving attention and care to children. If the child is less attentive than his parents, it will affect the development of the child will feel humble.

Based on the activities of the implementation of guidance and counseling services can not be separated from the collaboration between the headmaster, homeroom teacher and parents/guardians of students. Based on the parent/guardian student contact book with this school can facilitate school interaction with parents/student guardians to find out the problems faced by students when at school and home. Through this book, the interaction of schools with parents/guardians of students can facilitate solving a problem faced by students so that the development of students can be realized as expected. Picture 3. Collaboration with parent

Encouraging and motivating: By providing input or suggestions to students by arousing students' interest in learning by giving encouragement and motivation to study seriously and the teacher tries to create an interesting atmosphere in the process of teaching and learning activities in class.

Based on the observations above can be strengthened by the results of interviews that have been conducted on teachers who read: "We as teachers are obliged to teach and also educate students with various kinds of problems such as those who have difficulty in learning we often do guide learning such as remedial and extra hours. We also do communication with family related to tutoring children at home". With this there is an effort made by the teacher in overcoming the learning difficulties of students is expected to be able to solve the problem optimally. Teachers' efforts in providing enthusiasm and motivation of students using verbal support and encouragement of teachers in providing enthusiasm and motivation with the aim that students have enthusiasm and motivation in learning to optimize their achievement.

4   Discussion

In the case of students who experience difficulties in undergoing this teaching and learning process, they have some level of conformity with some figures who are actively conducting research related to children's difficulties in learning both in cases of dyslexia, dyscalculia, and dysgraphia. In line with this Jamaris (2014) [8] learning difficulties or learning disability is a disorder that makes the individual concerned difficult to carry out learning activities effectively. These problems children who have learning difficulties will affect the basic psychological. Based on the results of observations made at SDN 01 Sukosari Karanganyar about the learning difficulties of students there are types of learning difficulties for example:

a.   **Specific Language Impairment (SLI)**
     Specific Language Impairment (SLI) is a language disorder or delayed speech. Language impairment or delays in speaking because in everyday understanding children are late in talking and difficult to communicate and interact directly. Tiel (2009) [9] believes that the most misdiagnosis occurs at the age of two to three years when detected children experience delays talk. Therefore, speech delays are not caused by autism, deafness, or low IQ and not because of a lack of language care. This means that he will also experience the maturity of speech and language.

b.   **Reading disorders (dyslexia)**
     Difficulty learning to read (dyslexia) is a learning disorder characterized by reading difficulties. Reading ability is not only the basis for mastering various academic fields but also for improving work skills and enabling people to excel. Reveal elementary school students whose students have many dyslexic disorders. Therefore, if the development of children's reading skills seems to be slow only to be left untreated, the child's difficulty in reading will last into adulthood [10].

c. **Mathematical numeracy disorders (dyscalculia)**

Difficulty learning to count (dyscalculia) is a learning disorder that affects mathematical abilities. Someone with this difficulty often has difficulty in solving mathematical problems. Van Aster, M. G and Shalev, R. S (2007) Dyscalculia are genetically determined abnormalities of the senses of numbers and make children less active in learning mathematics [11]. This is in line with Butterworth, Varma, and Laurillard (2011)[12], suggesting that learning difficulties mathematics (dyscalculia) is a coherent syndrome that refers to disabilities in learning arithmetic. Learning difficulties experienced by students will affect the development and learning outcomes.

Several factors cause learning difficulties, namely internal factors, and external factors. Khafid (2007) [13] states that there is an influence between internal and external factors on learning difficulties. This is consistent with Ismail (2016) [14] that the factors underlying the causes of problems arising from students are sourced on internal factors and external factors. Based on this opinion, that the factors that cause the emergence of learning difficulties arise from students themselves and from outside themselves such as teachers, school facilities and infrastructure, family environment and social environment. These problems must be addressed immediately so that the development of student learning outcomes is optimal. This is in line with the results of Butterworth, B. S. V., & Diana L. (2011) [15] which states that children with mathematical learning disorders will disrupt their learning system.

In the application of guidance services in elementary schools has several functions, including alleviation functions that have the aim to minimize all the disturbances and obstacles that occur in students when students learn. Following are the efforts made with the alleviation function in counseling guidance services at school for students who have learning difficulties both reading difficulties (dyslexia), difficulty counting (dyscalculia) and those who have verbal communication difficulties (Specific Language Impairment) including:

a. **Provide additional hours outside school hours**

Additional hours outside school hours are especially given to students who have learning difficulties. This program is held every Tuesday and Wednesday after the teaching and learning activities at the school end. Based on the results of research conducted by Normalitasari and Marsudi (2015) [16] that addressing students is to provide additional hours during direct learning activities or after school. Based on this it aims to increase understanding of student subject matter that has been taught by the teacher. Through this guidance and counseling book, it is easy for teachers to find out the students' problems in carrying out learning material activities. Learning programs that are carried out outside the school intracellular, namely relating to additional learning activities carried out after the regular learning program at school has ended. These learning guides come from the homeroom teacher itself and the subject teacher concerned. Program additional hours of study outside the school aims to face the midterm, semester exams, school exams, and national exams. By joining these additional hours of learning activities students will better understand the subject matter and experience mastery learning.

b. **Enrichment/remedial program**

The enrichment/remedial program is in writing. The time given is biased during the morning before teaching and learning activities begin, at intermission breaks, and time to go home from school. The results of research by Sari, Andreas, and Nur (2014) [17] suggest that remedial learning influences student learning outcomes. enrichment/ remedial programs can help students who experience learning difficulties. The following is a form of enrichment/ remedial program through the student's notebook done by the homeroom teacher in overcoming student learning. Through personal notebooks, students aim that

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students who have learning difficulties can achieve completeness of the KKM value that has been determined. Thus, it makes it easier for teachers to know the extent to which students can accept material that has been given to students. Thus through this student's notebook can be known students who have to get enrichment / remedial following the results of learning that if not yet reached the expected target. The purpose of giving enrichment or remedial is so that students can improve more optimal learning ways, overcome the learning constraints experienced by students, improve the process of learning outcomes. As stated by Minsih (2017) [18] that the BK program in schools can reduce the problems of children in school, including learning problems.

c. **Through individual/individual guidance**

Through individual/individual guidance is done by way of face-to-face teachers with students who experience problems, especially in students who have learning difficulties. The time given during breaks and when returning from school also the teacher as a counselor conducts a home visit. Maliki's (2015) [19] research results suggest that in the implementation of guidance and counseling services in overcoming student learning difficulties is carried out through individual counseling and guidance services. It aims to be able to help solve the problem of students, especially in overcoming problems of learning difficulties.

d. **Collaboration with parents/guardians of students**

In the process of teaching and learning activities in schools, the role of parents is very important for students in implementing counseling guidance services that can not be separated from the collaboration of parents/guardians of students. Utami, R. D and Anggun (2018) [20] result that the implementation of tutoring services in collaboration with parents and mentoring in supervision actions taken by the school and teachers also use the technique of a direct approach to students.

e. **Give enthusiasm and motivation.**

By providing input or suggestions to students by arousing students' interest in learning by giving encouragement and motivation to learn seriously and the teacher tries to create an interesting atmosphere in the process of teaching and learning activities in class.

Hamdu and Agustina (2011) [21] suggested that learning motivation with student achievement has a significant influence that the effect of learning motivation on learning achievement. This is in line with research conducted by Cleopatra (2015) [22] revealed that motivation has a significant effect and has a dominant contribution to student achievement. That Aritonang (2008) [23] also revealed that arousing interest and motivation to learn and teachers must try as much as possible to implement it so that students who are taught will be interested and motivated to learn and achieve good results. With this there is an effort made by the teacher in overcoming the learning difficulties of students is expected to be able to solve the problem optimally. Teachers' efforts in providing enthusiasm and motivation of students using verbal support and encouragement of teachers in providing enthusiasm and motivation.

5 Conclusion

Based on the results of the research and discussion above, the following conclusions can be drawn:

a. The types of learning difficulties of students in SD Negeri 01 Sukosari Karanganyar are specific language difficulties (Specific Language Impairment [SLI]), reading disorders (dyslexia), and numeracy problems in mathematics (dyscalculia).

b. Factors that cause learning difficulties: 1) internal factors of students, namely lack readiness, interests, and talents as well as motivation in student learning, in addition to

factors since birth and emotional students also affect the results study. 2) external factors, namely the situation and condition of the school environment and the community environment that is less supportive, and the lack of attention from parents.

c. Guidance services provided by teachers in overcoming student learning difficulties include: 1) Providing extra hours outside school hours, 2) remedial programs, 3) Through individual/individual guidance, 4) Collaboration with parents/guardians of students, 5) Providing enthusiasm and motivation.

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The Effect of Using "Gojek" to Improve Learning Outcomes Ratio and Scale for 5th Grade

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Abstract. This study discusses the use of the Gojek application as a medium learning of mathematics, learning materials of ratio and scale, during learning from home activities by online. Gojek is an application owned by 29.2 million users in Indonesia. This means that the Gojek application is owned by almost all students or their parents. Based on the observations result, during learning from home by online, teacher's rarely used learning media that involved students directly. This limitation can be overcome by using Gojek, whose presence is familiar to students. The research method used is quantitative-descriptive. Gojek can be used to improve student learning outcomes. In the research data in the paired sample test which shows the results that Sig $0.013 < 0.05$, then H0 is rejected and Ha is accepted, so there is a difference between the pre-test and post-test learning outcomes. It can be concluded that there is an influence of Gojek learning media on learning materials of ratio and scale at grade 5 elementary school students in Kediri.

Keyword: Gojek; mathematics; Ratio an Scale; 5th Grade

1 Introduction

The condition of education during the past year has experienced many changes after the Covid-19 pandemic. Learning activities that were originally carried out face-to-face, through the Circular of the Ministry of Education and Culture Number 4 of 2020 concerning Implementation of Education Policies in an Emergency for the Spread of Coronavirus Disease (Covid-19), were replaced by learning from home through online. Teachers as the determining pillars of learning activities must be able to innovate by utilizing various facilities such as television, video, voice messages, and YouTube as a medium to help achieve learning goals.

The success of learning can be supported by selecting the right media and according to the characteristics of the students. [1] states that media is the distribution of messages from the sender to the recipient in any form where the process is able to stimulate students' thoughts, feelings, attention and interests so that the learning process occurs. Online learning offers a change in learning media towards online media.

Indonesia is currently in the 4.0 industrial revolution where at this time many people use technology and the internet to help their activities in their daily activities, for example, namely gadgets and the internet. Almost all Indonesians today have gadgets, from small children to adults. [2] stated that internet users as a process of developing technology, both in the use of

gadgets, have reached 82 million people. By means of this statement, it is said that Indonesia is ranked 8th in the world. The Lokadata Team (beritagar.id, 2017) states that from the BPS micro data on the results of economic and social surveys (Susenas BPS, 2016) that elementary school children use the internet as an object that can be used as a place for games and education. As many as 66.9% of elementary school children use the internet in their daily lives, some of which are for entertainment needs such as games, watching television shows, looking for cartoon on Youtube. The internet can also be used to complete homework and can also be used for social media (Facebook, Twitter, Whatsapp) so that you can communicate easily and keep up with the times. Ministry of Education and Culture (Kemendikbud) say that that 27.3 children of basic age have accessed the internet [3].

The number of basic age children internet accesses can be used as a reference for using Gojek as a learning medium while learning from home. The following is a graph of Gojek users in Indonesia.
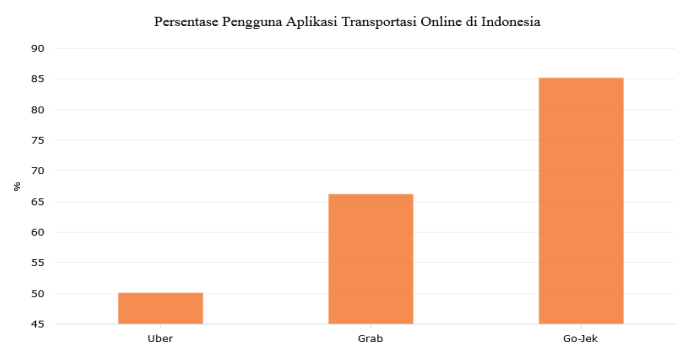
Figure 1. Percentage of Online Transportation Users in Indonesia (Source: dailysocial.id, 2018)

From the graph above, it can be seen that Gojek in Indonesia is widely used than other applications. Many adults and even elementary school children use the Gojek application in their daily lives. Using the Gojek application in learning media it is hoped that students can search for information, find problems, and be able to solve problems themselves. There are many features in the Gojek application that can be linked to elementary school materials for both low and high grade students. In this study, the Gojek application was used as a learning medium for 5th grade elementary schools. The reason we choose high-class students is because at that age they already have minds that can be taught to think abstractly compared to students in low grades. [4] states that Piaget divides children's cognitive development into 4 main periods, namely 1. sensorimotor period (ages 0–2 years); 2. pre-operational period (ages 2-7 years); 3. concrete operational period (ages 7-11 years); 4. formal operational period (ages 11 years to adulthood). From this data we know that high grade students, 5th grade, are included in the concrete operational period where in that age they have the characteristics of having adequate logic. They can use applications in technology, namely gadgets that can be linked to subject matter and require logic to solve a given problem. This application can later be used in any lesson that can link in thematic subjects as needed in the 2013 curriculum.
Gojek has several features that can be used as a learning medium for elementary school students. Here's a look at the Gojek features.
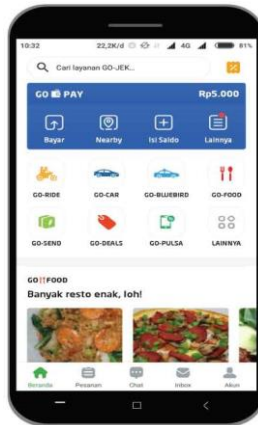
Figure 2. The Features of Gojek (Source: www.gojek.com)

There are several Gojek features including Go-Pay, Go-Ride, Go-Car, Go-Bluebird, Go-Food, Go-Shop, Go-Send, Go-Pulsa, Go-Box, Go-Clean, and many others. In addition, there is also a nearby feature that presents. Among the many Gojek features, Go-Ride or Go-Car features that will be used in this study as a learning medium to improve student learning outcomes in 5th grade theme 3 on Comparison and Scale material.
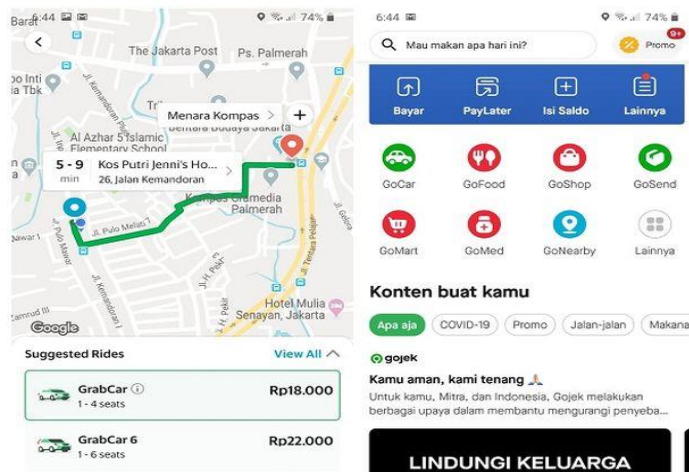
Figure 3. Feature Display of Go-Car (Source: www.gojek.com)

The use of the Gojek application, especially the Go-Car feature, can make it easier for students to compare two or more values of a similar quantity expressed in a simple way. As shown in Picture 3, the teacher can direct students to compare the distance on the map with the actual distance through the Google Maps displayed by the application. Apart from that, the Go-Car feature can also be used to determine the scale.

2 Methods

This research was conducted in two elementary schools in Kediri. The first school is SDN Mojoroto 2 Kediri City and the second is SD NU Plemahan Kediri Regency. This research was conducted in January 2021. The object of this research is learning media in the

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online learning process.

Table 1. Total Respondents

No.	Responden	Amount
1	5th Graders SDN Mojoroto 2	27
2	5th Graders SD NU Plemahan	14
	Total	41

The research method used is descriptive quantitative research methods. Quantitative research is a research method that is identical to the presence of numbers in research results obtained after conducting research that occurs. According to Winarno Surakhmad [5] is "a tool to measure something that will be examined by researchers conducting research".

Descriptive is to provide an explanation, describing how the results of the research that have been obtained are in the form of numbers. Mohamad Ali in [5] explains that "Descriptive research methods are used in answering problems that occur today". [6] states that the descriptive method is a method used to translate or analyze research results but in this case it is not used in general conclusions.

So this method is used to harmonize the results that have been obtained from the numbers then will be explained, described the results according to the actual events. As stated by Sudjana in [5] states "The descriptive research method with a quantitative approach is used when it aims to describe and explain the events that occur in the form of numeric or numeric meaning".

This study uses data collection techniques in the form of scores. Then there are questions that are given in it about questions related to using the Gojek application. From this technique, it is hoped that it can help to determine the increase in student learning outcomes with technology-based learning media.

The data analysis used questions that would later get a score and then processed it in a statistics application, namely SPSS to find out how much student learning outcomes improved in the learning process using Gojek technology-based learning media.

The data collection instrument is a medium that can be used as a tool to prepare materials to be tested later in the study. [6] states that "Measuring instruments in research are usually called research instruments. Researchers prepare materials in the form of questions or questions given then will produce a score which will later be processed using SPSS.

The data that has been obtained is processed using an application in the form of SPSS. The score from the results of the questions given is then processed to get the results.

This research uses a case study design that currently Indonesia is in the era of the 4.0 industrial revolution where the use of gadgets will be tested through online applications that are used as learning media. The appropriate basic competencies are comparison material and scale in class 5 theme 3. The following is the research design:
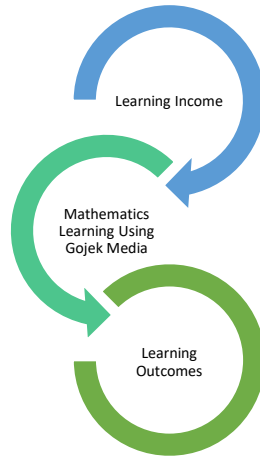
Figure 4. Research Design

This method section must be able to explain the research methods used, including how to implement them. Research tools, materials, media or instruments must be well described. If necessary and important, there is an appendix regarding the grid of the instrument or a piece of material which is used simply to provide an example for the reader.

If there are statistical formulas that are used as part of the research method, it is best if formulas that are commonly used are not written down. For example, there are specific provisions set by researchers in order to collect and analyze research data, which can be explained in this section of the method. The author is advised to provide a reference source for the method used.

3   Result and Discussion

The research data will be processed and analyzed through the SPSS application which uses the paired sample T-test. Before the T-test sample is tested, it is tested first using the validity, normality, and homogeneity test. In the validity test the data obtained is valid. Then in the normality test, the data obtained is normal, as well as homogeneity, namely the results obtained are homogeneous or the same. Tabulated data is the result of the scores on the questions given. The details will be explained in the following table.

Table 2. Paired Samples Statistic

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pre test	70.57	53	16.221	2.228
	post test	77.36	53	12.271	1.686

The average value of learning outcomes in the pre-test <post-test, it means that there is a difference in the average learning outcomes. Table 2 shows the descriptive value of each variable in the paired sample. Initial test has a mean value (mean) of 70.57 from 53 data. The data distribution (Std. Deviation) obtained was 16,221 with a standard error of 2,228. The

final test has a mean value (mean) of 77.36 from 53 data. The data distribution (Std. Deviation) obtained was 12,271 with a standard error of 1.686. This shows that the final test on the data is higher than the initial test. To see the truth of the difference, look at the paired sample test table.

Table 3. Paired Samples Correlations

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 pre test & post test	53	.114	.417

The output correlation value is 0.114 with a significant 0.417. If the SIG value > correlation with a probability value of 0.05, there is no relationship between the pre-test and post-test variables. To see the effect of learning media on learning outcomes, we look at the interpretation of numbers on the paired sample test.

Table 4. Paired Samples Test

Paired Samples Test

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 pre test - post test	-6.792	19.193	2.636	-12.083	-1.502	-2.576	52	.013

The Paired Samples Test table is the main table of output that shows the results of the tests performed. This can be seen from the significance value (2-tailed) in the table. The significance value (2-tailed) of this case example was 0.013 (p <0.05). So that the results of the initial test and the final test experience significant changes (meaning). Based on the descriptive statistics of the initial test and the final test, it is proven that the final test is higher.

4   Conclusion

In this study, the results show that using technology-based learning media and often found in daily activities can improve learning outcomes, for example, the Gojek application. We can use applications contained in gadgets because it needs to be remembered that Indonesia is currently in the Industrial Revolution 4.0 so that we can introduce this to elementary school students of course to improve learning outcomes of elementary school students in the learning process.

Based on the results of the data obtained when the research took place in elementary schools. So it can be concluded that to improve student learning outcomes in the learning process of eating, learning media is needed which, especially we often know, one of which is gojek. Gojek can be a technology-based learning media that can improve student learning outcomes by seeing the increase in the results obtained.

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Application Design of Gamikar (GAMIKAR) to Improve Understanding of Fire Mitigation Elementary School Students

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Abstract. This study was to determine the differences in the understanding students of fire mitigation, find out the students' responses in grade IV SDN 05 Ekok Tambai. The research method used experimental quasy experimental design. The data collection techniques used were measurement techniques using test questions, indirect communication techniques using questionnaires and documentation. The results showed that the students' understanding of fire mitigation in the experimental group is a significant difference. The results of the questionnaire on the pre-test were 24.62% for low criteria and for the post-test by 75% for high criteria. The control group students' understanding of fire mitigation in the pre-test and post-test obtained a Sig value (0.338>0.05), which means that there is no significant difference. The results of the questionnaire on the pre-test were 22.95%, with low criteria. and for the post-test of 23.95% low criteria. The results of the student response questionnaire to Gamikar were obtained 100% very good criteria. Based on the results of the analysis it can be concluded that fire mitigation games can improve students' understanding of fire mitigation.

Keywords: Gamikar, students' understanding of fire mitigation, Elementary Schools.

1   Introduction

According to the data explained, [1] it can be seen that more than 2,047 disasters in 2018 to 2019 more than 98% of disasters were hydrometeorological disasters and only about 2% were geological disasters. [11] explained that the most dominant natural disasters in the Kalimantan region are forest and land fires, floods, and drought. Fire disaster on December 10, 2017 in the long house of Siut Village, Putussibau, Kapuas Hulu Regency. When the fire broke out, the community's actions were limited to responding in a panic and witnessing how intense the flames were spreading to the long house. The cause of the fire was initially caused by an electrical short circuit, due to a lack of knowledge of fire disaster risk prevention in the siut community, so that the fire that occurred could not be dealt with quickly which resulted in 19 booths and 1 stall being burned [3].

The community's lack of understanding about dealing with fires above indicates that the community needs education in dealing with an impending fire disaster. In accordance with the mandate of the preamble to the 1945 Constitution that the Republic of Indonesia is responsible

for protecting the entire Indonesian nation and all Indonesian bloodshed. This statement requires that emergency preparedness and response must be developed at every level of community groups. One of the efforts to convey disaster information is by integrating disaster material in various subjects to reduce risks when prevention and mitigation have not worked well. suggest that students are expected to have knowledge, understanding, preparedness, skills to prevent, detect and anticipate various kinds of disasters early. Teachers need to facilitate efforts to empower students on issues of disaster-prone areas by conveying disaster mitigation insights to students.

The importance of implementing disaster mitigation education in schools needs to be done from an early age, in order to provide deepening of knowledge and readiness for actions that need to be taken before an unexpected natural disaster occurs to minimize all the impacts that will occur [4]. Schools are entrusted with having a direct influence on the younger generation, to implement fire disaster mitigation in thematic learning. The increase in teachers is also followed by an increase in students' understanding after the teacher applies it to the learning. Based on the results of pre-observations carried out by researchers at 05 Ekok Tambai state elementary school, Putussibau, Kapuas Hulu regency, it was found that the phenomenon of understanding the introduction, prevention, handling and recovery of fire disasters was still very low with 20% questionnaire results obtained, this happened because the school has never received assistance education on fire disaster preparedness in schools.

Based on the description of the problem, it is necessary to make efforts to improve students' understanding of fire mitigation by using learning media. Learning media has the use of clarifying the limitations of space, time, sensory power, such as objects that are too large can be replaced with images or models, then concepts that are too broad can be visualized in the form of films/pictures [17] Griffiths [16] explained that games can involve children interactively and offer adventures, challenges, and various problems that must be resolved without real consequences. This can provide positive stimulation for children so that they can be more involved and interested in the ongoing educational process. The application of Gamikar as a companion education for learning media using the learning and play approach will help children improve brain intelligence and acquire fire mitigation knowledge. The results of Wedyawati research [14] indicate that the design of Gamikar shows that the device being developed is feasible to be given to students and is able to increase the knowledge of fire mitigation of elementary school students.

2   Methods

The approach used is a quantitative approach. This type of experimental research is a quasi experimental design-nonequivalent control group design. The study population was all students of grade IV SD N totaling 60 students. Sampling in this study using a saturated sampling technique according to Sugiyono saturated sampling is a sampling technique when all members of the population are used as samples. Through previous considerations and studies, the sample in this study was class IV (A) students as the Experiment group and grade IV (B) students as the control group. In this study, there are two variables, namely the independent variable in this study is the fire mitigation game (Gamikar). and the dependent variable in this study was students' understanding of fire mitigation. Data collection techniques are measurement techniques using test questions, indirect communication techniques using questionnaires and documentation techniques using documentation. The test was analyzed using SPPS 26.0 software and the questionnaire was analyzed using the percentage formula.

3 Result

3.1 Differences in Students' Understanding of Fire Mitigation

The results of hypothesis testing using the Independent Sample Test using SPSS 26.0 Software. According to Priyatno [9] hypothesis testing criteria can be determined as follows: If Sig (2-tailed)> 0.05, then Ha is rejected, If Sig (2-tailed)> 0.05, then Ha is accepted.

Table 1. Difference in Understanding of Fire Mitigation by Ekok Tambai Elementary School Students

control							
Test	type of test	max	min	mean	t-count	sig (Tailed)	level of sig
	Pre-test	80	40	62,67	-967	0,338	0,05
	Post-test	80	40	66,67			
question naire	type of test	Respondents' Answers				%	criteria
		amount		Rata-Rata			
	Pre-test	358		11,93		22,95%	low
	Post-test	365		12,16		23,40%	low
experimen							
Test	type of test	max	min	mean	t-count	sig (Tailed)	level of sig
	Pre-test	81	49	62,70	-8,762	0,000	0,05
	Post-test	96	62	82,23			
question naire	type of test	respondents' Answers				%	criteria
		amount		average			
	Pre-test	384		12,8		24,62%	low
	Post-test	1174		39,13		75%	high

The control group in the pre-test shows that the Sig (2-tailed) value is 0.489> 0.05, then H0 is accepted and Ha is rejected, which means that in the pre-test there is no significant difference. This is confirmed by the acquisition of a questionnaire in the experimental group with higher results. with a percentage of 24.62% compared to the experimental group getting a percentage of 22.94%. the results of both groups are included in the low criteria. So it can be concluded that students in the experimental group and the control group have an understanding of fire mitigation that is not much different. The experimental group and the control group show that the Sig (2-tailed) value is 0.000<0.05, then Ho is rejected and Ha is accepted, which means that there is a significant difference. This is reinforced by the acquisition of a questionnaire in the experimental group with higher (75%) high criteria than the control group (23.40%) with low criteria.

3.2 Differences in Understanding Pre-test and Post-test Fire Mitigation.

The control group shows that the Sig (2-tailed) value is 0.338>0.05, then Ho is accepted and Ha is rejected, which means that there is no significant difference. This is indicated by the acquisition of the questionnaire results in the pre-test, the percentage of 22.95% was obtained with low criteria and the final measurement (post-test) was higher with a percentage of 23.40% with low criteria experiment group hypothesis test results show that the value of Sig (2-tailed) 0.000<0.05, then H_0 is rejected and Ha is accepted, which means that there is a significant difference. This is evidenced by the acquisition of the results of the questionnaire on the understanding of fire mitigation of experimental students at the initial measurement (pre-test), the results obtained were 24.62% low criteria and 75% higher in the final measurement (post-test).

Table 2. Differences in Understanding Pre-test and Post-test Fire Mitigation

Test	Pretest						
	group	Max	Min	Mean	T-count	Sig (Tailed)	Level Of Sig
	experiment	81	49	62,70	0,696	0,489	0,05
	control	80	40	62,67			
questionnaire	group	Respondents' Answers			%	criteria	
		amount		average			
	experiment	384		12,8	24,62%	low	
	control	358		11,93	22,95%	low	
	Postest						
Test	group	Max	Min	Mean	T-count	Sig(Tailed)	Level Of Sig
	experiment	96	62	82,23	7,365	0,000	0,05
	control	80	40	66,67			
questionnaire	group	Respondents' Answers			%	criteria	
		amount		average			
	experiment	1174		39,13	75%	high	
	control	365		12,16	23,40%	low	

3.3 Student Responses to Fire Mitigation Games (Gamikar)

The questionnaire was developed by paying attention to the indicators in the Gamikar design. From the results of the questionnaire analysis, it turns out that the application of Gamikar received a very good response. The acquisition score is 100% which is at very high criteria. For more details, see table 3.

Table 3. Score of student response questionnaire against gamikar

Number of question items	score	total	average	%
10	30	30	1	100%
amount	300	30	30	100%

The results of the student response questionnaire in the experimental group with the number of respondents as many as 30 students after applying Gamikar obtained an average of 30 with a percentage of 100% very good criteria. it means that all students respond positively to the application of the percentage of 100% of the criteria very well.

4 Discussion

4.1 Differences in Understanding of Fire Mitigation by Elementary School Students.
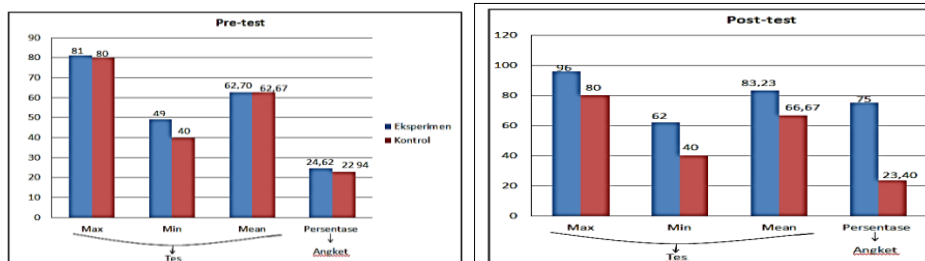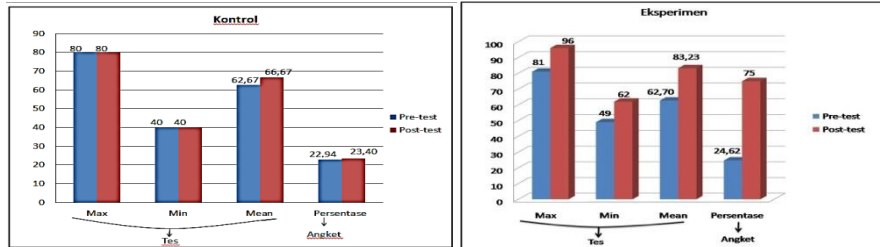
Figure 1. differences in students' understanding of fire mitigation in the pre-test of the experiment group and the control group.

Before the implementation of the Gamikar, the students' understanding of fire mitigation in the experimental group and the control group students did not have a significant difference. After the understanding of fire mitigation was applied, the experimental group students and the control group students had a significant difference. This increase was due to the use of disaster mitigation games (Gamikar). In this game students are directly involved in the fire mitigation educational game so that students have new knowledge about preparedness and preparedness.

Gamikar is a medium designed as an educational tool to increase students' understanding of fire disaster mitigation. The set of contents in a game box is a) cover b)game board, c) pawns, d) dice, e) water pin, f) fire pin, g) coins, h) question card and i) fire extinguisher card.

(a)   (b)   (c)   (d)

(e)   (f)   (g)   (h)   (i)   (j)
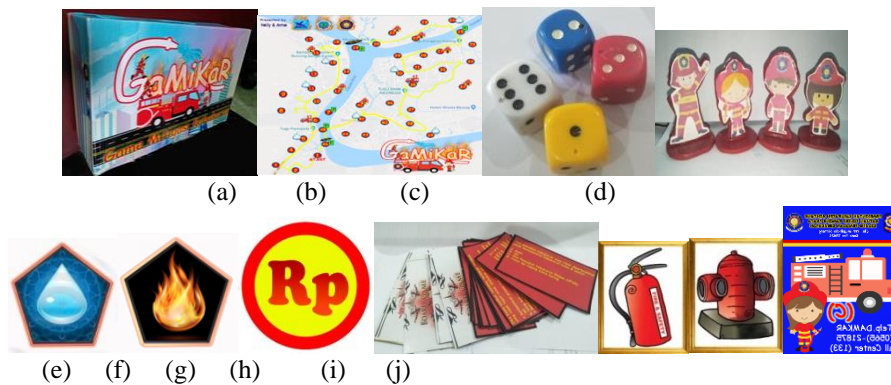
Figure 2. The set of contents in a game Gamikar

Broadly speaking, the Gamikar game is a maximum of 4 players. Each player is entitled to 2 water pins, 2 APARs, 2 Hydrants, and 2 Call Cards 113. The game starts from the START square. Each player has the opportunity to visit the water and fire routes. the player with the most fire pins is the winner. The results of the pre-test and post-test of the control class did not have a significant difference, while the experimental class, the class that received the salt treatment had a significant difference. The difference in increasing understanding of fire mitigation in the control group is in the low category while the experimental group is in the high category. [15] conducted the same research and concluded that there was a high difference between students' understanding of fire disaster mitigation before playing gamikar and after. Teacher professional ones do not appear instant but rather shaped through a series of educational processes long, both before and after becoming a teacher [7].

4.2 Student Responses to Fire Mitigation Games (Gamikar)

The results of the questionnaire scores after being analyzed showed that the students enjoyed playing the game, while participating in the game process they felt very enthusiastic. Learning that begins with games is able to stimulate learning for the participants [17]. Students respond positively to games because it is very useful for increasing understanding of fire mitigation. This is proven by the acquisition of a percentage of 100% of all students who stated that gamikar was very useful for understanding fire mitigation for students and 0% of students said it was not useful. Then the gamikar can be used to improve students' understanding of fire mitigation. [14] conducted the same research and concluded that the game of gamikar was in great demand by students with the acquisition of an interest questionnaire score on the indicators of attractiveness, material and language of 100. [12] argued that the disaster mitigation learning model had been responded positively by student elementary school, but it is necessary to develop more specific disaster education so that in this research fire disasters are caused by nature and humans. Gamikar game can be a fire mitigation educational game that gives a sensation, students seem to be a firefighter and are required to be able to understand and understand. [2] conducted the same research and concluded that board games are useful for gaining scientific knowledge of natural disasters.

5 Conclusion

There is no difference for the pre-test in the experimental group and the control group, this can be seen from the results of hypothesis testing for the experimental group and the control group, the results are Sig (2-tailed) 0.489, then H_0 is accepted and H_a is rejected. This is reinforced by the acquisition of the experimental group questionnaire results obtained by a percentage of 24.62% and 22.94% for the control group. There is a difference for the post-test in the experimental group and the control group, this can be seen from the results of the hypothesis test for the experimental group and the control group, the results are Sig (2-tailed) $0.000 < 0.05$, then H_0 is rejected and Ha is accepted. This is reinforced by the acquisition of the experimental group questionnaire results obtained by a percentage of 75% and 23.40% for the control group.

There is no difference for the pre-test and post-test in the control group, this can be seen from the results of hypothesis testing for and for the control group, the results are Sig Sig (2-tailed) $0.338 > 0.05$, then H_0 is accepted and Ha rejected. This is reinforced by the acquisition of questionnaire results of 22.94% for the pre-test and 23.40% for the post-test. There is a difference for the pre-test and post-test in the experimental group, this can be seen from the results of the hypothesis test for the experimental group and it is obtained that Sig (2-tailed) $0.000 < 0.05$, then H_0 is rejected and Ha is accepted. This is reinforced by the acquisition of questionnaire results of 24.62% for the pre-test and 75% for the post-test. All students respond positively and are very happy with the use of Gamikar, this can be seen from the analysis of the student response questionnaire regarding the application of Gamikar with the criteria "yes", "no", then the results of the analysis obtained the answer "yes" with a total percentage of 100% and 0% of students answered no.

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Problem Identification and Teacher Preventive Efforts in Managing Students in Low-Grade Learning in Surakarta

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Abstract. This study aims to examine the problems of students in the classroom and how the teacher's preventive action in managing low-grade students in Surakarta. The method used is qualitative research through interviews and observations by taking a sample of 10 public schools and 10 private schools in Surakarta to compare the results through reduction, data display and data interpretation. The validity of the data was tested by means of confirmability, dependability, and source triangulation tests. The results of the study are that there are differences in problems and preventive efforts in managing students in classrooms at public and private schools. The problem of students in class is more often found in public schools and teachers in private schools take more preventive action than teachers in public schools.

Keyword: Problems, Preventive, Students, Public-Private Schools

1 Introduction

In school learning, a teacher can not be separated regarding how to manage the class. Accordingly, class management is highly important in the learning process in a school. Without the management of students in the classrom, the learning process can not occur effectively and efficiently. Therefore, a teacher should be competent to do class management pleasantly with purpose to reach the objectives of learning.

Majority of problems in learning that experienced by teacher is related to the students (80.61%). Besides, there are other problems that are often encountered by teacher: outcomes of student learning do not suit with the target learning outcome, students tend to be silent and shy to ask question, students are less enthusiastic, students are indolent to do asssignments, students are sleepy, students are noisy and difficult to have focus concentration. Based on these situations, it can be concluded that if there are several negative conditions in students related to student involvement and achievement in the learning process, the teacher can realize that problems occur in the class [1].

Research results of Goss, Sonnemann, & Griffiths (2017) showed there are similar situations that general composition of students in the class consists of 60% of students potentially being actively involved in learning, whilst 40% are not actively involved [2]. Students who are not actively involved consist of students who are passive tent to be silent during learning process, noisy students who distrub their fellows, and students who are anti-social and can not socialize. The problems that exist in students can emerge either from themselves or the influence from external factors. This problem becomes an obstacle for teachers to design a learning that can lead students who are passively involved to be actively.

In the student management, it is necessary to take preventive action, which is the first step taken by the teacher in managing the class. It can be categorized as preventive if the efforts are established based on the initiative of teachers to construct new conditions that are favorable for the teaching and learning process. Measures are related to the establishment and maintenance of optimal learning conditions. Therefore, in optimizing the learning process, it is necessary to have knowledge related to problems in the classroom as well as how to prevent the repeatedly problems, so it does not interfere the learning process. Based on the description of backgroud, researchers are desire to examine the problems in the classroom related to students and how the enforcement efforts of teachers so that problems do not occur repeatedly.

2   Methods

This research used research method of qualitative with design of analytic description. Qualitative research is a research to describe and analyze phenomena, occurence, social activities, beliefs, perceptions, and individual consideration [3]. This research was conducted within the scope of the Surakarta residency with the aim of obtaining varied results. Researchers took a sample of 10 public schools and 10 private schools to compare the results. This research focuses on what problems students have during learning and how the teacher's preventive efforts in making prevention so that problems do not occur repeatedly.

Sources of research data are low grade students including grade 1, 2 and 3 as well as grade 1, 2 and 3 teachers. In the process of searching data, the researcher used direct interview techniques as primary data sources and learning documentation as secondary data. According to Ezmir (2017), data processing is conducted through a data reduction process so that data that has no correlation with this research is eliminated, then model data are displayed by designing columns and matrics that are included in data analysis, and the last is conclusion [4]. To examine the data validity, the researcher carried out a dependability which was carried out by auditing the entire research process [5]. The confirmability test is carried out with the depembility test which aims to test the results of the research. Triangulation of sources was also carried out with students, teachers, and school principals.

3   Results and Discussion

3.1   Problems of Students in the Classroom

The behavior of students who like to disturb their friends, occurs when learning is taking place, students who disturb their friends tend to have an ignorant attitude. Various conditions of student behavior that disturb classmates such as banging on his friend's table, forcibly picking up a friend's ruler, pinching friends, also throwing taunts at each other. A comparison of the problems of students in learning that occur in public shools, and private schools are showed in figure 1.
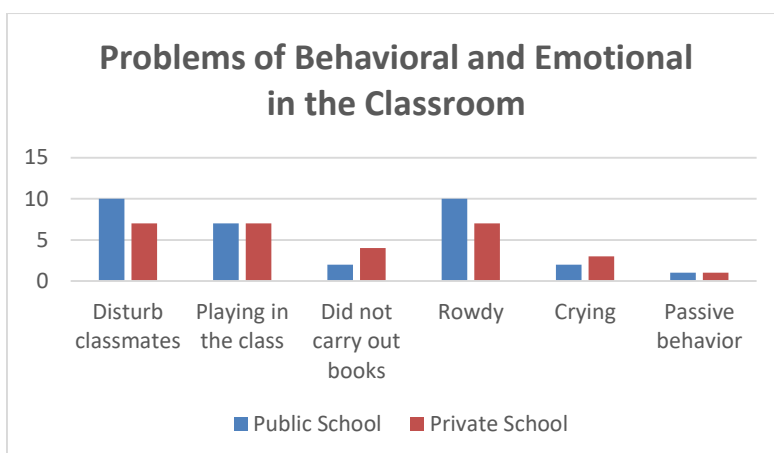
Figure 1. Bar Chart of Comparison of Behavioral and Emotional Problems of Students in Public and Private Schools

Based on figure 1, it can bee seen that public schools encounter more problems in terms of disturbing classmates and being noisy in the classroom. This is because of school environmental factors that in public schools, a deepening of the knowledge of akidah morality is not as deep as thatt learned in private schools, so that students of public shool are more difficult to control and encounter behavioral and emotinal problems. It can also be caused by the factor of public schools' location which are located on the suburban area or zone of transition. According to the concentric theory expressed by Ernest W. Burgess, zone of transition is an area with a less stable economy [6]. Most of students who inhabited in this area are receive less attentive from parents because parents are more prioritizing in earning living so students tend to have problems in class. In opposite, private schools encounter different situation due to the location which are in the city center, so that it affects the patterns of interaction within the school. This assumption would be better to prove by conducting further research regarding relationship between economies condition of family and the influence of schol location with patterns of student interaction in school.

In addition, collaboration between teachers and parents that carried out by private schools are more intensively in providing accompaniment to behavior of students who disrupt class. Parents in private schools are more involved in school assistance, such as monthly meetings, committee meetings, and build good relations by telephone. Teacher assistance can be done by considering the learning model, teacher attitudes and concerns, learning materials and contents, and giving appreciation to students. Meanwhile, assistance of parents at home can be adapted in the form of instilling disciplinary values, not spoiling children, prioritizing parenting that prioritizes children to be happy, and preventing restriction of childrens' freedom. That is because family is the first environment for children to go through the process of growth and development. Therefore, parenting style plays an important role in the formation of the childs' personality which can affect the character, personality, and patterns of childrens' interactions with other people [7].

Study of Purwati, et al. revealed that "The cultivation of character education and the parents' personality affects to students' disruptive behavior" [8]. Therefore, to overcome the disruptive behavior of students in the classroom, it is necessary to involve the role of parents in providing proper character education to their children so that there is no disturbing behavior of students in the classroom.

A students' behavior that does not bring books which according to learning is a form of discipline violation in the classroom against themselves. That is because the problem of discipline is highly means to the progress in the classroom. In addition, students who do not carry books are highly potential to obstruct the progress in the classroom. Discipline in carrying books is necessarily to be implemented to create a learning discipline in the classroom. According to Munawaroh (2016), "Discipline learning is a situation which determines the process of eachieving educational goals" [9].

In several schools, there are students in the classroom who be delighted to create noise or trouble condition when the learning process takes places. Noise in classroom can also be caused by boredom when learning. Students who are bored, are screaming in the classroom so that it will disturb the learning process. According to Rohmanumerta (2018), "Learning saturation is an emotional and mental condition that encounters fatigue while studying so that it feels sluggish and can not collect information from the teacher" [10].

Basically, children in the low grade of elementary school are likely be willing to play, so this behavior is also done in the classroom during learning. Students who play in the classroom show several activities, such as taking a walk in the classroom, chatting with classmates, and playing games. Those behaviors are greatly interfering the learning process.

Furthermore, the problem related to emotional disorders is crying. Low grade students, mainly in the first grade, are students who experience transitional situation from kindergarten to elementary school. Students in this category are highly prone to cry if their ego is disturbed, besides, they have low appreciation to the presence of the teacher.
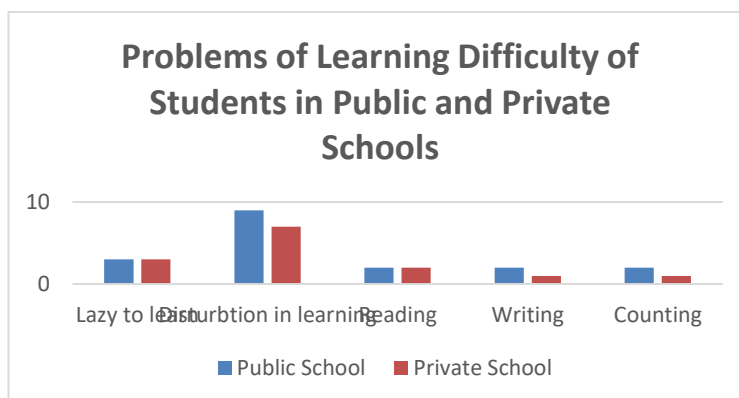
Figure 2. Comparison of Learning Difficulty Problems Students in Public and Private Schools

Based on figure 2, it can bee seen that student at elementary school, both public and private, often encounter concentration problems during learning. However, concentration disturbtion in public schools are more often encountered because of external factors from the classroom environment which is less conductive so that students find difficulties to properly concentrate. Students who are lazy to study, both at private and public schools, have the same inntensity bacuse students have an interest in certain learning. Besides, it can also be caused by fatigue, a condition of feeling that is not good. In the condition of difficulty in writing and reading, public schools are encounter more difficulties because the input of kindergarten schools is different than private schools.

Students who more likely to close themselves (passive students), are those who tend not to be involved in the learning process. These students are more likely to shy and have low brave

to ask regarding learning material, as well as do not participate in learning pleasantly and just stay quite during learning. In expressing their emotions, choldren often show it by crying expressions if their desires are not fulfilled, feel scorn and fear. Children also show shame if they are less able to adapt to their surroundings, feel awkward, and doubt their surroundings [11].

Lazy when learning in class is a learning difficulty that can prohibit learning from being accepted by the brain. First, second, and third grade experience laziness in learning because if they already have a feeling of laziness, students cannot participate in learning pleasantly. In addition, students show a different attitude towards learning, leaning their head on the table, and support their head with hands. Based on previous research, there are several factors that cause student laziness in class, including the lack of motivation that comes from within the student, the body feels weak due to irregular eating habits, irritable mood, interest only in certain subjects [12].

Furthermore, students do not concentrate properly when learning. When the teacher provides learning material in observation, students do not pay attention to the teacher by daydreaming, playing alone which can cause not focusing during learning. According to Hamiyah, et al. (2014), a person's learning power after 30 minutes has decreased. They suggested that the teacher can take a break for a few minutes [13].

Several students in the first grade still have difficulty in writing, reading and arithmetic. This can be seen when students are instructed by the teacher to read, there are students who have difficulty reading stories, also students who do not want to read when told by the teacher. In writing, students are not too fluent in distinguishing letters, it is often seen that they are mistakenly writing letters in words. For the difficulty of calculating, when asked the teacher's question about simple addition, the students did not answer the questions correctly.

3.2 Preventive Action

Before entering the classroom, students make 3 rows stretching backwards. This is intended so that students enter the classroom orderly. Based on previous research, there is a positive relationship between disciplinary adherence to marching. Marching before entering class can train students to develop discipline because in the 'Rule of Lining' there are cues, consistency, punishment, and rewards, which play an important role in shaping and fostering student discipline [14]. The form of classroom conditioning is that after entering the class the students sit in their respective places. Previously the teacher had arranged the seating for groups of 4-5 people by combining the tables. Or the seating arrangement in the form of the letter U.

Previous research showed that there is a positive relationship on learning motivation, so that variations in seating styles can improve learning outcomes. Classes that are managed with variations in seating styles will keep students busy with active and challenging tasks, do activities that make students hooked and motivated to learn, as well as establish clear rules that must be accepted by students [10].

Habituation is necessarily to be instilled in forming a person with character. For example, astudents sit down, there is a prayer activity in the class led by the class leader. Daily habit of praying is expected to form a religious personality. Based on the results of previous research, there is a significant relationship between the habituation method and discipline. Habituation since childhood will become a custom so that it becomes an inseparable part of a personality. [15].

To establish student discipline, the teacher can do several things, for example by providing motivation so that they always maintain their health, study diligently and do not litter. Another form of attention is the teacher also reminds students to place food and drink at

the back of the class so that they do not fulfill the table. The teacher also provides motivation for discipline in learning and following learning activites in an orderly manner. In addition, the teacher attempts to instill discipline in students by being firm with students where before learning begins, the teacher makes rules when leaving the class, students must ask permission from the teacher beforehand. The effort to form student discipline is in line with Fadilah research which reveals that motivation and behavior are one of the supports for the intellectual development of students in the learning process [16]. Then, it is strengthened by research that conducted by Sari (2014) which states that learning motivation and learning outcomes have a low relationship, meaning that the lower the value of learning motivation, the lower the student learning outcomes [17].

To establish student discipline, the teacher also makes an agreement with the student where if the student violates the agreement, the student will be sanctioned. The form of agreement can be in the form of an agreement, namely if someone makes a scene in class, plays alone, or does not pay attention to the learning process, then they will be punished by singing in front of the class and being moved or answering questions from the teacher. The teacher also gives a warning if the class is not calm, then learning has not started. Based on research of Sari, et al (2017), it showed that teachers can foster closer relationships with students by making class agreements that are agreed upon by students and teachers. Agreements should be made at the beginning of class meetings [18].

There are also activities for students to sing and do ice breaking before learning with the aim that students become enthusiastic and more focused on learning. A boring learning atmosphere due to the lack of variation will cause boredom or boring for students and will easily cause fatigue. If this condition occurs, students will encounter learning burnout. At this situation, students encounter a decline in memory and are no longer able to collect new information or experiences. According to Fanani (2010), there are several advantages of doing ice breaking activities, including eliminating boredom, boredom, anxiety, and fatigue [19]. Teachers' creativity in implementing ice breaking provides a positive contribution to student learning outcomes. In the process, the enthusiasm shown by the teacher when implementing ice breaking will indirectly transmit the enthusiasm and motivation to learn to students. The implication is, when the enthusiasm of students in learning increases, it will increase the duration of students to concentrate on participating in learning and completing assignments. [20]. Comparison of preventive actions taken by teachers to students at low level schools in elementary school in Surakarta are showed in figure 3.
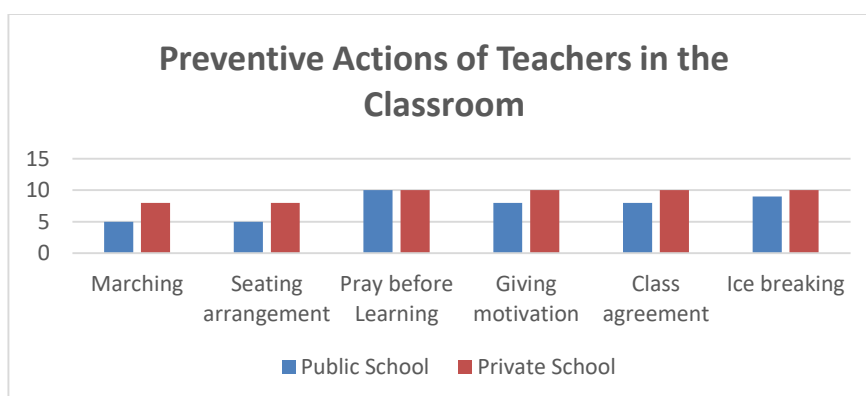
Figure 3. Comparison of Prevention Actions of Teachers to Students at the Public and Private Schools

Based on the figure 3, private schools take more preventive actions to prevent problems in the classroom. This is directly proportional to the finding of fewer class problems in private schools compared to public schools.

Besides, it can be seen from the aspect of marching before entering the classroom that public schools do less than private schools. This occurs because only a few public schools carry out activities shaking hands with teachers before entering class compared to private schools.

In seating arrangements, private schools are more varied in arranging seating, such as in groups, letter U, and face to face. Meanwhile, public schools mostly arrange seating in rows and rows. This could be because the facilities at private schools are more adequate and allow for more variations in seating.

In providing motivation activities, private schools also do more motivation. This activity is usually conveyed simultaneously during religious material in schools, where religious learning in private schools is taught more than in public schools. Class agreements and ice breaking are also more often conveyed to private schools because private schools often hold opening class activities. In the opening class, there were lots of memorization activities, ice breaking, conveying motivation and making class agreements.

5   Conclusion

The teacher's problems in managing students include problems in terms of behavior-emotions and problems with learning difficulties. In behavioral and emotional problems, student problems that arise are often disturbing friends, making noise, students often playing in class, crying, fighting with friends, and closing themselves (passive students). The problems of learning difficulties include learning concentration disorders, lazy learning, reading difficulties, writing and arithmetic difficulties. Public schools experience more problems in managing students than private schools. Preventive efforts for teachers in managing students in class are by carrying out marching activities, seating arrangements, praying before studying, ice breaking, providing motivation and making class agreements. Private schools were found to be implementing more preventive measures to prevent problems for students. This is in line with the lack of findings on problems that occur in private schools when compared to public schools

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Implementation of Learning Mediaby Using the Videoscribe Application: Sparkol in Developing Competency of Elementary School Teachers

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Abstract. This research was motivated by the anxiety of elementary school teachers in packaging multivisual information technology-based learning media during the Covid-19 pandemic, so that students were interested and enthusiastic about learning. The purpose of the research is to improve the professionalism of teachers in distance learning (on the network) which requires the skills to be creative and innovate with information technology. The method used: descriptive qualitative with content analysis techniques. The research subjects were 22 teachers in Cluster 3 Mandiri, Bogor City. The data is a description of the competence of teachers in the learning media product Videoscribe: Sparkol. The results of the study: 1) teachers can implement an understanding of the features in this application, 2) teachers master verbal features containing material in the form of words, phrases, sentences, which are made according to basic competencies,

Keywords: learning media, application, VideoScribe: Sparkol, industrial revolution

1   Introduction

Today the world has entered the era of the industrial revolution 5.0 which is marked by increased connectivity, interaction and development of digital systems, artificial intelligence, and virtual. The increasingly convergent boundaries between humans, machines, and other resources, information and communication technology certainly has an impact on various sectors of life, including education [1].

The concept of the 5.0 industrial revolution is a concept that was first introduced by Professor Klaus Schwab, a well-known economist from Germany and the initiator of the World Economic Forum (WEF) who through his book, The Fourth Industrial Revolution, stated that the 5.0 industrial revolution could fundamentally change the way we live, work, and relate to one another.

Education 5.0 is a general term used by educational theorists to describe the various ways to physically and non-physically integrate cyber technology into learning. This is a leap from education 4.0. Education 4.0 includes a meeting of neuroscience, cognitive psychology, and educational technology, using web-based digital and mobile, including applications, hardware and software. Education 5.0 is a phenomenon that arises in response to the needs of the 5.0 industrial revolution. Humans and machines are aligned to obtain solutions, solve various problems faced, and find new innovation possibilities that can be utilized for the improvement of modern human life.

There will be many changes in the future, and predict how the classroom trend (classroom) will look in the next 5-7 years, namely (a) major changes in classroom layout, (b) virtual and augmented reality will change the educational landscape, (c)) Flexible assignments that accommodate many learning styles (preferences), and (d) MOOC and other online learning options will have an impact on secondary education.

One of the changes in this era is the need for the preparation of adequate human resources to be ready to adapt and be able to compete on a global scale. This quality improvement also has an impact on increasing the competence of teachers as agents of change in education. The success of a country in facing the 5.0 industrial revolution is also determined by the quality of educators such as teachers. Teachers are required to master the skills, the ability to adapt to new technologies and global challenges [1]. Of course, this increase in resources needs to be prepared in order to create good learning management.

2   Learning Media

Learning media is an intermediary tool in the delivery of material in order to maximize the role of education, of course in its selection it must also be considered. This is because the selection of the right learning media can also influence the maximum role of learning media in achieving goals. The use of learning media that is in accordance with the characteristics of students' needs and the material to be conveyed will help arouse students' curiosity and motivation, as revealed by Alannasi (2016) in[2]and as a stimulus tool in learning activities, he further disclosed that the selection of the right learning media can also influence the maximum role of learning media in achieving goals. The use of learning media in accordance with the characteristics of student needs and the material to be delivered.

Learning media is one component of learning resources for students. Teachers must be able to choose learning media in accordance with learning objectives, and students can accept the media well as a learning resource. Learning media can increase students' motivation, activity or understanding in participating in learning activities, in this case in accordance with the opinion expressed by Azhar Arsyad (2009: 25) learning media can clarify the presentation of messages and information so that they can facilitate and improve learning processes and outcomes.[3]

Things that take into account the importance of learning media as revealed by Kemp and Dayton (1985) in Kustandi and Darmawan (2020:17-18) reveal the positive impact of using media as an integral part of learning, including, learning can be more interesting, more interactive, and the quality of the results Learning can be improved if the integration of words and pictures as learning media can communicate elements of knowledge in a well-organized, specific, and clear way.

Another consideration is that teachers' abilities can be developed because of their potential. Facilities in the form of multivisual media devices can be utilized in increasing professionalism at this time. In addition, in community service activities carried out by researchers, the following survey results were obtained. The teacher's response was 90.9% using learning media, however, 40.9% still using conventional media only 22.7% (Rosdiana, et al, 2019). This indicates the potential of teachers to be creatively willing to make interesting and attractive learning media other than conventional media that they have made in conducting the learning process. Such as the following questionnaire data support. The question whether teachers have ever made application-based learning videos, especially the VideoScribe:Sparkol media in general has never made and will use this media was revealed by 95.5% of teachers.

VideoScribe:Sparkol is a software application whose results are in the form of videos that can be combined with concept maps, images, sounds, and music that can stimulate learning actively. To support the training, guidelines have been prepared containing understanding, benefits, how to install, how to change the on line mode to off line, features,

Research on the use of the VideoScribe:Sparkol application has been carried out by many researchers. In general, research that uses this multivisual application is used to measure student learning outcomes in certain basic competencies according to the subjects developed by researchers. This scientific article has differences in the study of its analytical content with research in the use of this application in other journals. This article empirically reveals the use of the features in the application in relation to the packaging of teaching materials that are arranged according to the basic competencies in the classes taught by teachers.

This research aims for 1) Describe the implementation of understanding the features in the VideoScribe:Sparkol application, 2) Describe the use of verbal features containing material in the form of words, phrases, sentences, and their suitability with the material and basic competencies, 3) Describe the use of image features (lines, pictures, arrows, icons)), 4) Describes the use of the tone feature (music), and 5) Describes the digital literacy ability to convert working papers into MP4 (video) form.

To give you a better idea of VideoScribe:Sparkol. The following is a presentation and visualization.

3   *Videoscribe:*Sparkol

*Video Scribe Sparkol*ais software that we can use to create white background animation designs very easily. This software was developed in 2012 by sparkol (one of the companies in the UK). And exactly a year after it was released and published, this software already has more than 100,000 users. Videoscribe-sparkol can be used for educators, teachers, or lecturers as an introduction to learning. Videoscribe-sparkol can be used for educational presentations[4]

*Whitboard animation video*It is known by many other names, such as 'sketch videos', 'doodle videos', 'video scribing' or 'explainer videos', however, people prefer to call it whiteboard animation. Whiteboard animation is where an artist sketches images and text on a whiteboard, or perhaps paper or canvas, to illustrate a particular script or narrative. (Air:2014) and[5].
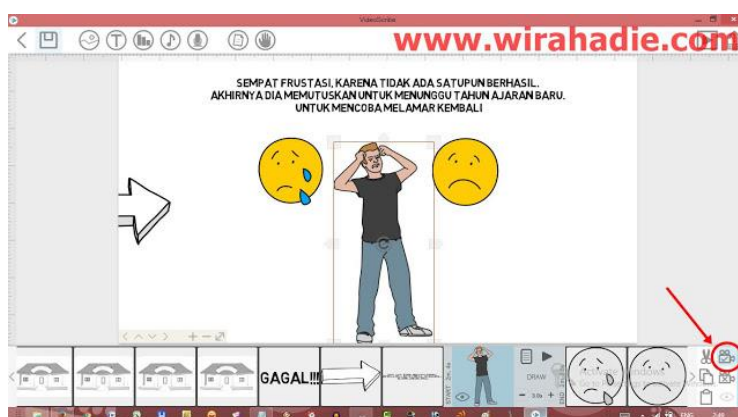

Figure 1. Application *videoscribe*

`*Software*This software was developed by a company in the UK, precisely in 2012 this software was released. Furthermore, the great thing is that this software already has more than 100,000 users, after a year this software or application was published. This application is an appropriate and accurate tool because it can be used as an introduction to learning, and is very helpful in providing understanding to students.

Based on the explanation above, it can be concluded that *videoscribe:*sparkol is an application or software used to create a video with handwritten animation which includes a combination of language, concept maps, pictures, sounds, and music. In this application there are many interesting and unique animations, so that it will make students more like and entertained in teaching and learning activities. With this software, it will be easier for us to convey messages, because we do not need to present something with a long duration.

4   Methods

This study uses a qualitative descriptive method with content analysis techniques. With this method the author can obtain the data of the essay as it is. The descriptive method underlies a research based on existing facts or phenomena that empirically live on in the speakers. Thus, the results obtained or recorded are in the form of language descriptions that can be said to be exposing what it is[6]The objectives of qualitative research are description, exploration, and discovery. In this case, qualitative research studies the breadth and depth of a phenomenon to reveal richer and more meaningful information about a phenomenon that is the object of research.

The analysis in this study is more descriptive analytic, which means that the interpretation of the content is made and compiled in a systematic and systematic manner with content analysis techniques. Content analysis techniques are used to find facts with data interpretation. Content analysis is a research technique for making replicable inferences and valid data by taking into account the context.

The data is in the form of VideoScribe:Sparkol media which contains teaching materials or materials according to the basic competencies made by the teacher. The focus of the analysis is on the competence of teachers in using the features of the VideoScribe:Sparkol application. Text features, image features, tone/music features, recording features, and digital competence in converting worksheets into videos by converting them into MP4, so that students can access them via whats app. This aims to obtain an overview of the digital literacy competence of teachers in making their own multivisual-based learning media VideoScribe:. The amount of data is 22 VideoScribe:Sparkol media data from teachers in Cluster 3 Mandiri, Bogor City.

5   Research Result

5.1 Using VideoScribe:Sparkol

To reveal the results of the distribution of the use of the VideoScribe:Sparkol feature, various features will be presented in this application.
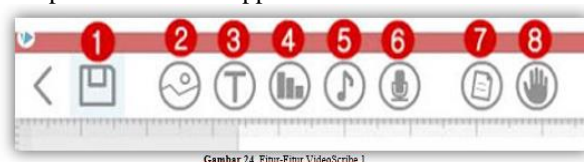

Gambar 24. Fitur-Fitur VideoScribe 1

Figure 2. Sparkol Features

The following is an explanation of the symbols in the VideoScribe application: Sparkol: 1) save the work in the form of a project (still editable), 2) enter characters or images, 3) enter text or text, 4) enter the date, month, and year in the video, 5) insert music into the video, 6) insert voice narration or voice recording for the video, 7) change the appearance of the video background, 8) change the animation in the video, for example a picture of a writing hand or other moving hands.

The features studied in this study are inserting images, writing text, recordings, tones, changing techniques in MP4 (video) form. So, not all features are reviewed. Specifically for writing text, the writing will be revealed in the form of words, phrases, sentences, and paragraphs. while in the picture it will be revealed about the use of arrows, as a form of video flow pointer, photos/animated images for interesting and illustrative material, recordings, if the teacher requires it, and music as video backsound. This music can be in the form of instrumentals or songs, either from the default application or uploading from their own files or from YouTube. The teacher also used the background and hand-animated images in the making of this video.

In the following, data regarding the use of these features will be presented in the form of the following table.

Table 1.Teacher's Ability to Use VideoScribe:Sparkol

Score	Feature Application	Conformity of Material with Indicator	Video File Conversion
SM	89%	95%	93%
M	5%	5%	7%
C	6%	0%	0%
TM	0%	0%	0%
Total%	100%	100%	100%

Based on the table above, it can be revealed that in the first aspect, the teacher's mastery in implementing the features in VideoScribe reached 89% in the very capable category, 5% capable and 6% quite capable. In the second aspect regarding the suitability of the material with the indicator, the data obtained are 95% very capable and 5% capable. In the third aspect, converting into video files, it appears that 93% are very capable and 7% are capable (needs a little assistance).

The table above, if illustrated in the distribution of competencies on feature mastery, conformity with indicators (KD), and mastery in converting to video files is shown in the following graph.

VideoScribe:Sparkol Vitur Application Percentage
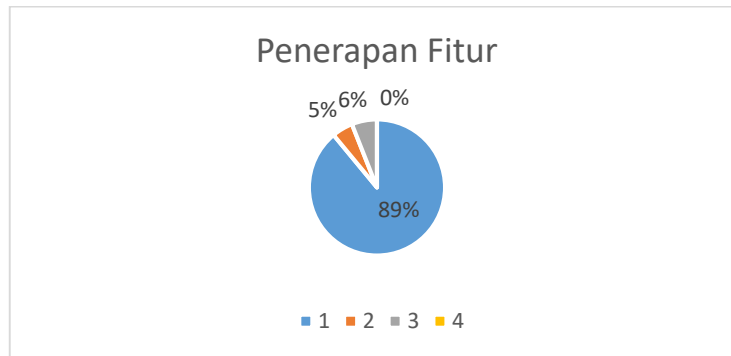
Graph 1. Feature Implementation on VideoScribe:Sparkol

Based on the table above, it can be revealed that the teacher's mastery in implementing the features in VideoScribe reached 89% in the very capable category, 5% capable and 6% quite capable. This indicates that almost all teachers are able to master information technology, especially in making information technology-based learning media. This mastery is an illustration of the preparation of digital-based learning materials or media. In accordance with the demands of the industrial revolution 5.0. This video contains elements that meet the demands ofinew innovations that can be used for the improvement of modern human life. As stated at the beginning of this paper that sOne of the changes in this era is the need for the preparation of adequate human resources to be ready to adapt and be able to compete on a global scale. This quality improvement also has an impact on increasing the competence of teachers as agents of change in education. In this case, the improvement of teacher competence is sought in digital skills.

5.2 Suitability of Teaching Materials with Basic Competencies

The development of learning media refers to basic competencies and indicators. In the media made by the teacher, the suitability was also analyzed. The presentation of conformity is shown in the graph below.
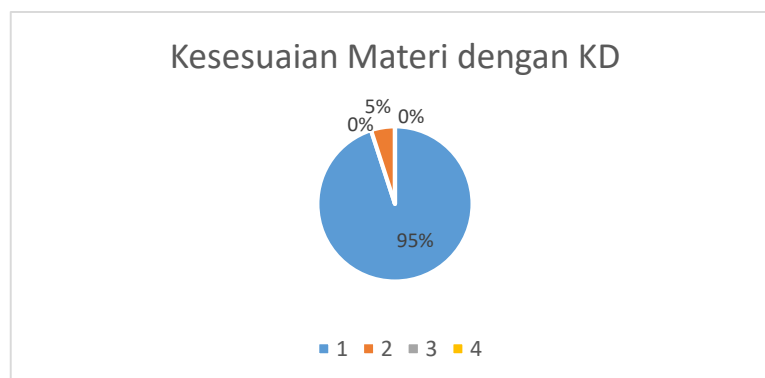
Graphics 2. Material Conformity with KD

In the second data, based on the media made by this teacher, it is the professional competence of teachers in developing learning media, namely by referring to the 2013 Curriculum. This is reflected in the percentage of mastery of 93% very capable and 7% capable. The media prepared by the teacher refers to the basic competencies and indicators in the subjects according to the class level. The development of materials and media must be in line with the curriculum. In this case, it is in accordance with the 2013 Curriculum.

Convert File to MP4
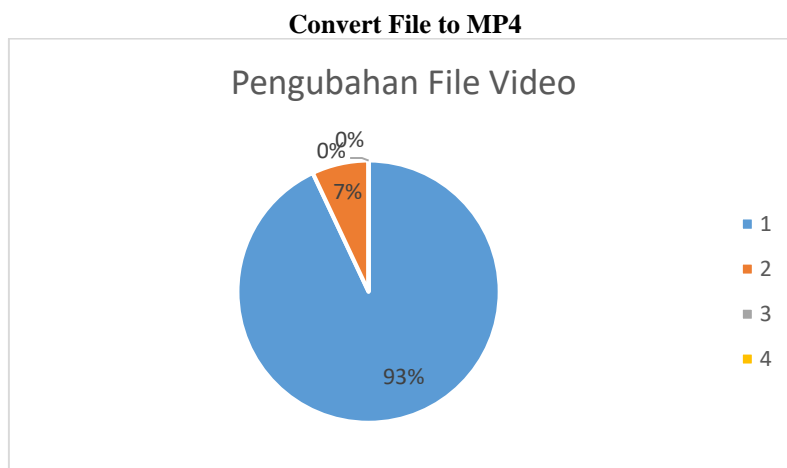
Graphics 3. Video File Conversion

Converting video files is also mastered by the teacher by converting from a worksheet, then saving it in a work file and converting it to MP4 (video) form. This mastery can be seen in the frequency distribution of mastery as follows: 93% are very capable of converting into MP4 and 7% are able (there is an aspect of mentoring in this case). This can be done by converting online and selecting one of the available applications.

6   Discussion

The strengthening of the above data more specifically, specifically for mastery of features, is described in the following table.

Mastery of VideoScribe Feature Type:Sparkol

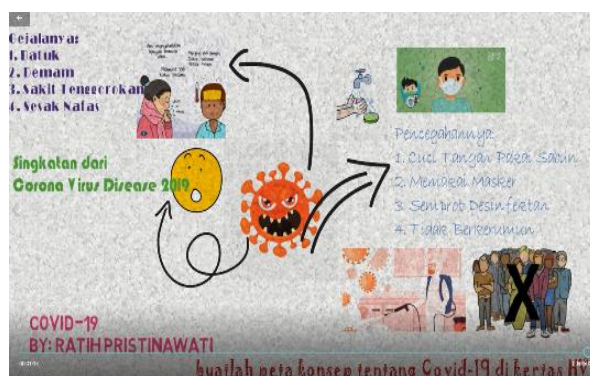| **Using the VideoSribe Feature: Sparkol Elementary School Teacher Cluster 3 Mandiri, Bogor City**							
Text	Picture	Arrow	Icon	Object	Recording	Music	MP4
100	90	100	60	90	10	70	100

Based on the data from the implementation of the features in the VideoScribe:Sparkol application made by the teacher, the following data were obtained: 1) using (writing)/adding text (100%), 2) using/adding black and white images, colors, concrete images, animated images (from the app or from google/youtube (90%), 3) using/adding lines/arrows in various shapes and sizes (100%), 4) using/adding icons (60%), 5) using/adding good objects from applications or from computer files or google/youtube (90%), 6) using/adding recordings containing

explanations or teacher voice instructions (10%), 7) using/adding music (70%), and 8) composing videos to in the form of MP4 (video) file types in the application.Changing the video format is intended so that the videos made by the teacher can be enjoyed by students on their cellphones through the Whatsapp application.

In the following, the VideoScribe:Sparkol product made by the teacher will be presented. Description according to features.

a. use (write)/add text
b. The following is an example of writing on text. Writing can be in the form of words, phrases, sentences or paragraphs.
c. use/add black and white images, colors, concrete images, animated images (from the app or from google/youtube
d. use/add lines/arrows in various shapes and sizes
e. use/add icons
f. use/add objects either from applications or from computer files or google/youtube
g. use/add a recording containing the teacher's explanation or voice instructions
h. use/add music
i. convert video into MP4 file type (video)

Here are some snippets of VideoScribe's products: - Guru Gugus 3 Mandiri, Bogor City.

Figure 3. Example of a VideoScribe Teacher product

Based on the learning media products, it appears that the implementation of the VideoScribe:Sparkol media features. First, the media made by this teacher include features for making text (words, phrases, sentences), as in the material above "Symptoms: 1) Cough, 2) Fever, 3) Sore throat, 4) Shortness of breath. The material made in the text in the following sentences. 1) Wash your hands with soap, 2) Wear a mask, 3) spray disinfectant, 4) don't crowd, etc. Second, the image feature used can be seen in the results of the VideoScribe:Sparkol image. Images are displayed with various concepts, images are presented in the form of animation. The image was uploaded from the use of technology through Google (not the default from the application. This is the development of digital teacher competencies), Third, The icon features in the form of a corona image symbol and a smile icon symbol are chosen by the teacher to make interesting videos and get the context of the material to be delivered. Fourth, the use of various arrows as a form of direction, so that the flow of the material is clearer.

Another example of teacher production is in the image below. Served. Visualization appears to be presented with text, image selection, arrows and other features made by the teacher, music is presented in it. Videos appear one stage to the next to clarify the concept.
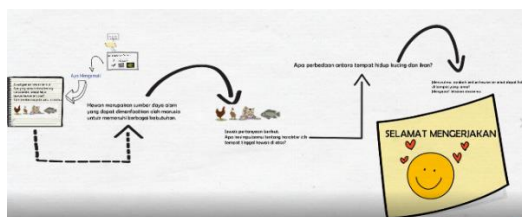
Figure 4. Sparkol Teacher products

In the following, an illustration of part of a section of videoscribe is presented which contains content about teaching materials. The teacher's competence in choosing a cloud-shaped image as a place for text requires its own skills. Placing text must be after the cloud image is placed, filling in the material content according to basic competencies.

Figure 5. VideoScribe:Sparkol Product Snapshot (Text and Image)

In the following video fragment, a collaboration activity designed by the teacher is presented by using the text feature. This shows that the use of this media can be interactive between teachers and students, and between students and other students. The use of text features in this case can be used in addition to presenting material exposure as well as instructions for students to carry out their learning activities.

Figure 6. Product Highlights of VideoScribe:Sparkol Teacher (Text)

In the example below, the use of the text feature, the real image feature (teacher's photo), the object image, variations of the arrow and the video background are used in the video.

Figure 7. VideoScribe Product:Sparkol Teacher

From the video clip, the teacher (almost all videos feature a picture of the teacher and the teacher's name, indicating an effort to close the distance between teachers and students during the pandemic. The video footage illustrates the form of direct communication between teachers and students by using question sentences. Visually, the teacher can choose a picture in the form of a clock that can be an inquiry question for students. The relationship between the text and the object of the image is added by an arrow in the form of an arrow to connect the two concepts. The concept of thinking through questions (what time is it? With objects in the form of a wall clock). This form of visualization will interesting and stimulates students' thinking activities. If you look closely at the video, there is a song that accompanies it. This adds to the fun learning atmosphere. Visualization like this is illustrated in almost the entire development of learning media made by the teacher.

7 Conclusion

Utilization of learning media is an important means of learning that brings concepts (basic competencies) that must be mastered by students and closes the distance between students and teachers. Especially in the current situation of the Covid-19 pandemic. Meanwhile, changes in various areas of life are moving rapidly. The industrial revolution 5.0 is also a part of changes in the field of education.

Efforts are needed to bridge this revolutionary change, especially in the field of education. Efforts to package information technology-based learning media can be a solution that can meet the demands of the development of this era. One of the multivisual media that can be developed by teachers is VideoScribe: Sparkol. This media can be applied in distance learning. As an online learning media. Learning that closes the distance between students and teachers. Learning that is communicatively and attractively presented by the teacher in the classroom can be presented by the teacher through the use of this multivisual-based learning media. This is an indication of the embodiment of efforts to increase teacher professionalism in facing the 5.0 industrial revolution.

The use of the VideoScribe:Sparkol media can be used as an alternative in preparing interesting learning tools, because the development of this media is presented in a multivisual manner and can be accessed by students as a form of mastery of competencies in each of the basic competencies developed and trained by the teacher. In addition, this media can also be applied to all subjects, especially during distance learning (on line) as it is today.

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The Restorative Justice in Shariah Perspective

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Abstract. Criminal law enforcement through the Penal not the only beacon of hope to be able to completely solve the problem. In addition to efforts penal, in the context of the criminal policy of delinquency prevention can also be solved by non-penal. The application of restorative justice is a framework of thinking to find a way out in deciding actions in accordance with the conditions and development criminals. The existence of some weaknesses in the substance of criminal justice system, demanding the importance of implementation from restorative justice. In restorative justice, the parties involved in the whole process of reaching an agreement. Application of restorative justice involving the parties concerned have been rooted in Shariah.

Keywords: Restorative Justice, Shariah Perspective

1 Introduction

The terms of restorative justice appear in the writings of Colson and Van Ness (1990), Mackey (1981, 1991), Van Ness and Strong (1997), Wright (1991), and Zehr (1990: 89). Nonetheless, social movements which are then given the name of restorative justice has emerged much earlier, for example, in the 1970s held Victim-Perpetrator Reconciliation Programs (VORP) first time in Canada. Then by K. Daly and R. Immaregon (1998), the emergence of of restorative justice be encouraged by a blend of social movements, practices and programs as well as research and scientific theory.

Restorative justice approach is a paradigm that is used as a frame from strategy of handling criminal cases, aims to answer dissatisfaction with the workings of criminal court system that exists today, the process of completion criminal cases conventionally is highly complex, require a long time to arrive at a decision by the judge, even not necessarily get justice or satisfaction expected by the litigants.

Restorative justice in the last 20 years been progressing very rapidly in some countries, such as Australia, Canada, England and Wales, New Zealand and several other countries in Europe and the Pacific region. and also, the United States as a country that is more often making associations with countries to introduce repressively to punitive measure who cannot avoid the strong influence development of restorative justice.

Resoratif justice is a process for settling disputes which took place outside the formal justice. Restorative justice has a way of thinking and new paradigm of looking at a crime committed by a human without solely provides criminal penalties. The handling of a criminal offense can be done by taking into account the wider impact on the victim, the perpetrator and

the community. Restorative justice its starts and begins from the notion that crime is an act against the people or the community, and relates to a breach/destruction of a legal norm in force.

The violations committed not only a law breaking which has made by the country, but also destructive to the society value, because of the crimes committed concerning the interests of victims, the environment, public and state. The opinion was expressed by Howard Zehr (1990: 181), which explains that the interests of all parties that come into contact with such violations should be actively involved in the process of completion. Although the criminal offenses committed have damaged the foundations of society, but which became the central or the subject matter of the offenses committed is that the problem of violations was declared a guilty and subject to criminal liability.

In the view of restorative justice, the handling of crimes that occured is not only responsibility of the state, but also the responsibility of society. Therefore, restorative justice is built on the understanding that crimes have caused losses must be returned, both the losses suffered by the victim and losses are borne by the public.

Towards the view of restorative justice, many experts refer to it as new paradigm in the thinking pattern of response to crime that happened. In practice, restorative justice gives peoples an opportunity to take an active role in the resolution of criminal matters. Restorative justice becomes a framework of thinking in an attempt to find an alternative solution to the criminal cases that occur. Alternative completion as settlement efforts that create humane justice.

2   Methods

The methods used in this research is a case study. According to Yin (Woodside, 2010) research case study is the empirical studies that investigates a contemporary phenomenon in real life terms, especially when the boundaries between phenomenon and context are not clear. While according to Eisenhardt (Woodside, 2010) case study is a study that focuses on a time to understand and explain the dynamics.

3   Results and Discussion

Restorative justice is a concept of thought to respond to the development of criminal justice systems with emphasis on the needs of community involvement and victim that is felt excluded by mechanisms that work in criminal justice systems that exists today. Tony F. Marshall (1998: 1) argues that restorative justice is:

> *"Restorative justice is a process whereby all the parties with a stake in*
> *particular offence come together to resolve collectively how to deal with*
> *the aftermath of the offence and its implications for the future"*

Restorative justice first emerged in Canada and North America and then spread to Australia, New Zealand, and to other areas. Starting from the social movements of the volunteers who carry out programs for reconciliation and mediation to react and judicial practices deemed unfair imprisonment. Social movements are equipped with research and critical analysis to then bring the principles and restorative justice.

In restorative justice, the dignity of the victim must be reckoned with. Perpetrators must be held accountable and be integrated back into the community. Perpetrators and victims to be domiciled balanced and need each other, therefore must be reconciled. In the application of

restorative justice, the position of the case need to be changed, that is no longer in the interest of order in the country, but for the sake of the interests of victims and perpetrators.

Restorative justice involves the victim, the family and other parties to solve the problems and make the perpetrator liable to repair the damage caused. At the victims, emphasis which carried for restoration of asset losses, physical pain, safety, dignity and satisfaction or a sense of justice. With restorative models, perpetrator do not need to go to jail if the interests and casualty losses already in restoration, the victim and society had already forgiven, while the perpetrator has expressed remorse.

The justice system is currently assigned with the effort penal or formal, does not prove that a person becomes a deterrent and also does not solve the problem. Conceptually, restorative justice is a justice that can be viewed overall. This comprehensive justice includes the possibility of improvements made by the inmate victim. In this way, restorative justice can be accepted by all parties. Unlike today, where someone could take revenge on inmate after she got out of prison.

Another face of laws and formal legal process is is a fact that the formal justice in Indonesia, was 'expensive' and 'convoluted'. One of issues that make it look problematic form of justice is done one for all mechanism.

This has resulted in the developed and growing countries search for alternative settlement of a problems that conflict with the law, namely to put forward well-being, promote mediation or deliberation, consider the interests and future of perpetrators as well as victims of crime.

According to Eva Achjani Zulfa & Indriyanto (2011: 88-89), the characteristics of processes using restorative justice approach among others:
a.   Flexibility of response from the environment, both on criminal acts happened, the perpetrators and the victims, is individual and should be seen a case-by-case;
b.   Response were given on a case that occurred reflects a deep concern and equal treatment for everyone, building understanding among fellow members of the community and encourage a harmonious relationship between citizens to eliminate the damage caused by a criminal act;
c.   An alternative to settling disputes outside or using the formal criminal justice system in force and preventing the negative stigma that arise in the process due to the perpetrators. This restorative approach may use criminal law as settlement efforts, both in the process and the type of sanctions;
d.   This approach also covers efforts to solve the problem and resolve any conflicts that arise;
e.   This restorative approach is an effort aimed at eliminating guilt the perpetrators and is a medium for businesses to meet the needs of victims;
f.   This approach should be accompanied by efforts to encourage the perpetrators to get correction and feedback for behavior change and encourage perpetrators accountable through meaningful actions;
g.   Flexibility and variables used in the approach to the use of this paradigm can be adopted from the environment, legal traditions in the society as well as the principles and philosophy adopted in the national legal system.

Restorative justice is based on a certain understanding about crime. According to conventional understanding, crime is a destructive action order of the universe derived from divine law. This action is then called unlawful. Evil actions must be redeemed by a self-cleaning action by the perpetrator. This is called a penalty. With an understanding of such crimes, as described before, the pressure put on punishment on the perpetrators of crime.

According to the theory of restorative justice, the definition of crimes above is not longer appropriate for the era that has already been secularized. Currently, the order of divine and

universe is not longer into thought of today's society. Currently, crime was understandable as a hurt action of victims and their families, as well as damage the community. Then, it wound should be recovered so that the trauma suffered by victims can be healed, and also so that victims and perpetrators was restored, and peace in society will be restored.

Then as described above, the focus is on recovery restorative justice and peace the victims, perpetrators, and the community. To achieve this objective, the process of reconciliation reached by restorative justice is to involve all parties, namely the victims, their families, societies, and perpetrators. Unlike the judicial processes that involve only officials in the judiciary as judges and prosecutors as well as the perpetrators of crime and its defenders, restorative justice involves all the relevant parties to the crime, the victim, perpetrators and community. Restorative justice minimize the role of government.

Restorative justice is not concerned with the punishment that must be endured perpetrators, but the compensation paid to recover damages and losses suffered by the victim and society. In determining the amount of compensation is also carried out along with conversations involving the victim and society. No matter how big punishment undertaken by the perpetrators, it will not heal the wounds of victims and damages society. But compensation is negotiated together in discussions that involve perpetrators, victims, and the community will recover and reconcile all parties. Based on the new paradigm, Yoachim Agus Tridiatmo (2015: 42) introduces the four pillars of restorative justice:

Firstly, restorative justice is based on the view that in human life, there is a relation between one person to another person, the institution and community with community institutions and others. If a violation of the relationship, for example with a crime, then devastated the harmonious relationship. So to restore the network of relationships, the encounter should be held between the parties involved in that relationship.

Secondly, in contrast to the view of the legal system that sees crime as a violation of state regulations or society. Crime is a violation on victims. Who bear the brunt of crime, first is the victim and then the community and transgressor. So, different from the court system that emphasizes punishment for the perpetrators of crimes, the principle of restorative justice emphasize rapprochement the transgressor with the victim and the community. The perpetrator or the transgressor must provide compensation for the damages received by the victim and community. Punishment for victims who applied in the court system is often less effective. Perpetrators of these violations can not repair themselves to that penalty, but instead it became a grudge because of punishment it receives the perceived inequitable. In addition, punishment were mostly in the form of imprisonment does not cause the perpetrators, or law violators repent into a good person, instead they learn to commit a crime or offense to other inmates in prison. Imprisonment is precisely the perpetrator, or law violators more skilled/expert in doing evil. Therefore, restorative justice is more emphasis on restoring the relationship between offenders with victims and their communities, with an obligation for the offender to compensate the victims and their communities.

Thirdly, the principle of collaboration/cooperation through meetings and deliberations was emphasized. To restore the relationship between perpetrator, victims and community, a meeting between the parties concerned. In the meeting, victims share their experiences as victims who are suffering. Instead offenders listen to stories the victims then give responsibility on their breach. Finally, in that meeting was agreed on the compensation to be borne by the offenders that should be a given to the victim and the community for repairs and damages that have occurred as a result of these violations.

Fourthly, restorative justice concerned with respect for each person. Comity is indicated with the encounter and dialogue between the parties concerned. Unlike the judicial process with

interrogation and accusation on lawbreakers, in a restorative justice that happens is dialogue and mutual listening.

To develop restorative justice must consider several things:

a. Crime is basically a conflict between individuals that generate traumatize on the victim, society, and perpetrators of themselves, only by the effects of continuation is lawlessness.

b. The purpose is more important than the process of criminal justice systems must reconcile the parties that aim to fix the damage that existed at the victim as a result of criminal that happened.

c. The process of criminal justice system of facilitating the active participation of victims, perpetrators and society was not dominated by the state with put out all the people who involved with violation from the settlement process.

3.1 The Basic Principles of Restorative Justice

First, restorative justice prioritizes the recovery or restoration of for all parties of affected by the crime, namely the victim, perpetrators and society. The first victim is the most disadvantaged because of crime. Direct victim suffered because of crime. it will be suffered physically and mentally. It could be that suffered loss of material, whether it's money or other assets. It could also lose the honor due because derided, humiliated, abused, or raped.

The perpetrators also suffer losses. With committing crimes, a perpetrator suffered mental deterioration, thus losing the power of self-control and ability to follow his conscience. otherwise it may give in to temptation bad, and lose yourself to choose the good and true. Instead it will choose the bad and wrong. This causes the loss of honor and dignity as human beings. The common life and society is also harmed by crime. Shared living arrangements into chaos. Authority of law harassed by the courage of lawbreaker who have violated. Peace was gone, replaced by fear, anxiety, suspicion and feelings of distress, the possibility of a crime will come again. Social relations between citizens become damage by blaming each other, or a loss of trust.

From the damaged condition that, restorative justice aspire to recover the three parties. Victims was restored from physical injuries, emotional hurt, and all other losses. The perpetrators was restored honor and dignity as a human person. Shared living arrangements are also restored. Here, restorative justice does not concentrate on the punisher of perpetrators, but recover all the aggrieved party because of crime.

Secondly, with regard to the ideals of the above restoration, restorative justice focuses on needs of three parties, including victims, perpetrators, and society, which is not met by the judicial process. In judicial proceedings, victims of crime are ignored, because crime is understood as action against or harm the state. The role of victims was taken over by the state. The state that have responsibilities to punish perpetrators of crimes, while victims of crime do not get anything at all. A penalty imposed on the perpetrator is not at all concerned with the suffering of victims. In this case the victim needs are ignored. Therefore, the restorative justice will focus on the needs of victims.

At least, there are four needs by the victims to be met. (1) Victims need information about why crime is imposed on him. In other words, the victim wants to know "why me?" "Is it my fault that I was subjected to a crime?" The need for information or answers to these questions can be obtained if a meeting and dialogue was held between victims and perpetrators. (2) In order to heal the inner wounds, the victim needs a chance to recount his experiences of suffering because of crime. Victims have a need to be heard. This is a basic requirement for the sake of healing emotional wounds or trauma victims. (3) the victim in need of empowerment or support, because when the victim suffered a crime, the victim is helpless and lost control of himself and

what it has. Power or those strengths will be restored when the victims were included in the negotiation process (4) The victim also require compensation (restitution) for the suffering and loss as a result of crime received. Certainly it is not easy to determine the amount of compensation for the victims. Any amount of compensation will not be able to replace the amount lost and the suffering of victims. Then, the compensation was more symbolic role as a form of recognition from the perpetrators will be the impact their actions for victims. It would be perfect if in providing redress the perpetrator apologized and sorrow for what it has done.

Perpetrators have different needs with the victim. As a human person, the perpetrators need a chance to take responsibility for his actions. Perpetrators need to admit to the crime and all the effects of crime act. Based on such recognition, then agreed compensation and damages to be borne by the perpetrators will be given to the victim. Such recognition is not possible in the judicial process, because what happens in the judicial process is the trial that convey the charges and allowing perpetrators to argue or defend themselves. Responsibility and recognition of perpetrators will actually occur when there is dialogue and conversation between the victim and perpetrators. Dialogue and conversation will happen in a meeting between the victim and the perpetrator to follow the principles of restorative justice.

As described above, society is also a victim of crime. Order to live together and the rule of law to be damage because of crime and lawlessness. Recognizing the common life and society are involved in the crime, even as a victim, then society must strengthen their self, for example, searching for the truth on acts of violence and do not add to the rumors or issues that are not true. Society leaders must take the initiative to form a joint community forums. Society must create the conditions that will help restoration the victim and perpetrators.

Thirdly, restorative justice must consider the obligations and responsibilities arising from the crimes. Perpetrators must restore the damage suffered by the victim, and society. The obligation on the victim is accomplished first by admitting that his was guilty. This recognition is important, because this is evidence of recognition of suffering endured by the victims. Victims need to be heard and recognized his suffering. Acknowledgment and apology is an important process in the healing of wounds and mental suffering of victim. After that, perpetrators have an obligation to recover the physical suffering and material. This obligation can be satisfied by compensating for paying the cost of healing physical injuries and replace the loss material for the victims.

As described above, the crime is also bad for society and living order together. Then the perpetrators must disclose acknowledgment and apology to the public or the person who is believed to represent. Perpetrators should also provide compensation to repair the damage that occurs in the community caused by these crimes.

The obligation of victims to receive recognition from the perpetrators and forgive the perpetrators. Similarly, communities were required to receive the recognition of perpetrators and forgive the perpetrators. Thus, it comes about reconciliation and peace returned.

With the principles above, according to Howard Zehr there are six things in restorative justice:

a. Restorative justice is not first of all mean that forgiveness and reconciliation. Many parties, including victims and advocates, suspicious that restorative justice is a form of coercion to the victims to forgive and reconcile with the perpetrator. From the basic principles outlined above, it appears that restorative justice is not to focus on forgiveness and reconciliation. Of course, it is possible that the impact of restorative program is forgiveness and reconciliation.

b. Restorative justice is not just mediation. Indeed, restorative approach prioritizes the encounter, but is not first of all aimed at making mediation. The term "mediation" is not

appropriate to refer to the restorative justice. As described above, the precursor to restorative justice is mediation programs, such as VORP, VOM, FGC, and judicial circles. But then a term that is widely used is the conference, dialog, or deliberations. Restorative approach can still occur if meetings between the victim and the perpetrator does not occur.

c. Restorative justice is not intended to provide a deterrent effect so that perpetrators do not repeat the crime again. So, when after the model of restorative approaches are applied, crime still occurs, it does not mean the failure of models restorative approaches. Which is made by a restorative approach to the needs of three parties that deal with crime, victim, perpetrators, and society.

d. Restorative justice is not a program that is ready to use with the blueprint that has been finished. Programs of restorative keep looking form, in accordance with the conditions of society and culture that exists. Restorative programs must be built from the ground according to the circumstances and needs of society. The initiative of society is required. But the principals involved in restorative justice above must be adhered to.

e. Restorative justice not only be applied in cases of small or new cases. Restorative justice can be applied in any case, the important basic principles above are applied. The big case or a small case of children or adults can be handled with restorative approach. Cases of new or old cases can be approximated by models of restorative.

f. Restorative justice is not intended to replace legal system. Restorative justice is not to replace imprisonment and retribution. Restorative justice emphasizes the restoration damages and cracks caused by crime. The crime was loading the social dimension, local, and personal. Retributive and legal approach just looked from the public and social dimensions, and less in looking at local and personal dimension, so that handling is handed over to the state. The approach of restorative make it balanced with watched the dimension of local and private.

3.2 The Perspective Of Shariah

There are differences in the practise of restorative justice procedures in comparison to judicial practice in retributive justice (Zehr and Toews (eds), 2004: 6). First, there was a meeting between the victim and the family, perpetrators, and facilitators as community representatives. Perpetrators are required to participate in a meeting with the victim, and third parties are facilitators. In this meeting all parties will be given the first opportunity to speak. Victims are given the first opportunity to tell state and suffering caused by the crime. Similarly, the victim's family are given the same opportunity. While the perpetrators were asked to listen in earnest story of victims and their families. If necessary, perpetrators are asked to answer the questions to confirm the victim's story. Similarly, perpetrators are given the opportunity to tell the reasons and circumstances so that the perpetrators committing crimes and why perpetrators choose victims as targets. Recognition of perpetrators that is truly honest will create an atmosphere of regret. From the sincere regret will be expected to appear to apologize.

Additionally, in the restorative justice perpetrators are not required to pay (retribution) for crimes in the form of punishment and suffer pain, but perpetrators is obliged to forgive without limit. The above description shows the evolution of civilization gradually towards universal love and leave hatred and vengeance as understood by Islam.

In the religion of Islam, to forgive is also an important virtue, that flows from the power of God that Merciful. It can be found in the Qur'an and the Hadith of Prophet Muhammad. There are three words that have meaning "pardon" or "forgive" is afw which means 'forgive', 'delete', 'punishment', 'amnesty', Al-Qur'an Surah 42: 40; 2: 187); sahfu which means 'repent from sin or wrong action', 'ignore' (Al-Qur'an Surah 2: 109; 15: 85; 43:89); ghafara, maghfira

meaning 'close', 'forgive', 'forgave', (Al-Qur'an Surah 2: 263; 42: 37; 43: 43). Prophet Muhammad are prime examples in embodying the spirit of pardon or forgiveness.

In addition, the spirit of forgiveness in the tradition of Islam in Indonesia is very evident in the celebration of Eid. After fasting during the month of Ramadan, mankind returns to their disposition. At that time Muslims were saying "beg forgiveness" or in Arabic reads "minal aidin wal faidzin" which roughly means "may you be among the blessed '. In Java there is the tradition of paying respect or tip. In that tradition, young people kneeling or kissing knee elder people to salute and begged forgiveness. The elders will be forgiving and blessing. So, this is strong tradition, to the extent that spirit to forgive each other is also spoken by people of non-Muslims. Thus, the spirit of forgiveness has become the nation's premises or even mankind throughout the world.

Allah SWT has advocated the faithful that 'forgiveness is better: "... But if you pardon and overlook and forgive - then indeed, Allah is Forgiving and Merciful." (QS. At-Taghaabun: 14). In another verse Allah says: "... and let them pardon and overlook. Would you not like that Allah should forgive you? And Allah is Forgiving and Merciful."(Qur'an, An-Nur: 22). The Qur'an states that forgiving is noble commendable. "And whoever is patient and forgives - indeed, that is of the matters [requiring] determination." (QS. Asy-Syuura: 43). Based on this, the believers are men who are forgiving, compassionate and tolerant.

The researchers believe that anger is likely to increase the occurrence of heart attack. In a rage the release of stress hormones, increased oxygen demand by the heart muscle cells, and increasing the viscosity of pieces of blood. When angry, the heart rate increases beyond reasonable limits, and cause a rise in blood pressure in the arteries, and thus increase the likelihood of having a heart attack.

Understanding of believers about forgiveness is very different than those who do not live by teachings the Qur'an. Although many people may say they have forgiven someone who has offended them, but it takes a long time to free themselves from hate and anger in the heart. The attitude of forgive people of faith is sincere because they know that human beings are tried in this world, and learn from their mistakes, they are tolerant and compassionate. Moreover, believers are also capable of forgiveness even when they are right and others wrong.

When forgiving, they do not distinguish between major and minor errors. A person can only hurt them accidentally. However, believers know that everything happens according to the will of Allah, and according to a specific destiny, and therefore, they surrendered (put my trust in Allah SWT) for the incident, were never fettered by anger. Allah says: "Indeed, those who have believed and done righteous deeds - the Most Merciful will appoint for them affection" (QS. Maryam: 96).

According to Dr. Frederich Lukin, in his book, "Forgive for Good ', anger which is maintained (revenge) can cause physical impacts (physical) that can be observed in a person. "The problems about long-term anger (revenge) or already faileth is we've seen it resets the temperature control system in the body. When you get used to the low level of anger all the time, you do not realize what's normal. It creates a kind of adrenaline rush that people get used. It burns out the body and makes it 'difficult to think clearly' make things worse. "

An article entitled 'Forgiveness', published by the Healing Current Magazine in edition September-October 1996, stated that anger towards an individual or an event led to negative emotions in oneself and harmed their emotional balance and even their physical health. The article also states that people realize after a while that the anger is a nuisance to them, and wish to repair the damage to the relationship.

So, they take steps to forgive. It added that, despite all they endure it, people do not want to spend the precious moments of their life in anger and anxiety, and prefer to forgive themselves and others.

All the available research shows that anger is a state of mind which is very damaging to human health. Forgive themselves, on the other side, though heavy, feels happy, one part of that commendable morals, that eliminates all the destructive effects of anger, and help these people enjoy a healthy life, both physically and spiritually. It has been proven scientifically, it has been revealed in many verses in the Qur'an, is just one of many sources of wisdom it contains.

Dr. 'Aidh Al Qani revealed in his book' La Tahzan ". Prices punishment (qisash) The most expensive is to be paid by someone vindictive and spiteful when envious with the others. The reason has to pay all of it with heart, blood, flesh, feeling, peace, tranquility, and happiness itself. So how disadvantage the spiteful, That Allah SWT has spread the news to believers about medicines and cure of these diseases: "...and who restrain anger and who pardon the people - and Allah loves the doers of good;" (QS. Ali 'Imran: 134).

4 Conclusion

Restorative justice is a concept of thought as a response to development the criminal justice system that focuses on the involvement of the victim and society. The concept is an alternative that accommodates weakness penal efforts, without going through the expensive process, serpentine, and a long time, not just for the sake of order in the country, but instead notice as well the interests of victims and perpetrators, as well as the the interests of society.

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The Relationship of Rewarding With Work Motivation of Nurses in the Operating Room

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Abstract. The hospital is one of the sectors to achieve the national development goals of the Indonesian nation, play a role in health services and contribute to the development of the Indonesian nation, good nursescan improve the health status of the community more optimally. The preliminary preliminary study was conducted by the researchers on 12 respondents in the Operating Room, all respondents revealedthat sometimes they were tired and stress levels increased due to tight operating schedules while the existing nurse were inadequate, and this could affect their performance which in turn decreased. so that it can have an impact on the quality of services provided. Even out of the 12 interviewed respondents, they have to reduce time with family to make up for the shortage of employees in running operations so that it becomes a mental burden. The results of the preliminary study, there are several factors that affectthe performance of the nurses themselves, one of which is motivation. And Rewards This study aims todetermine the relationship between reward and work motivation. This study used a cross sectional method, the instrument in this study used a questionnaire. The sample for this study was 30 nurses. The results of the study were obtained more than some 16 respondents with a low reward of 53%more than some 14 respondents with moderate work motivation of 47%, using the help of a computer application, namely SPSS, a ChiSquare Test was carried out and obtained a significant value of $0.001(p = <0.05)$ thus HO is rejected, so it can be concluded that there is a relationship between giving rewards and work motivation of nurses in the operating room at Awal Bros Hospital in Batam in2021. For further Researchers it is recommended to examine the relationship between attitudes and motivation of nurses in the implementation of nursing services. public health at the Batam City puskesmas. 05) thus HO is rejected, so it can be concluded that there is a relationship between giving rewards and work motivation of nurses in the operating room at Awal Bros Hospital in Batam in 2021. For further researchers it is recommended to examine the relationship between attitudes and motivation of nurses in the implementation of nursing services. public health at the Batam City puskesmas. 05) thus HO is rejected, so it can be concluded that there is a relationship between giving rewards and work motivation of nurses in the operating room at Awal Bros Hospital in Batam in2021. For further researchers it is recommended to examine the relationship between attitudes and motivation of nurses in the implementation of nursing services. public health at the Batam City puskesmas.

Keywords: Motivation, Reward, Nurses

1 Introduction

Hospitals are one of the sectors to achieve the national development goals of the Indonesian nation, play a role in health services and contribute to the development of the Indonesian nation. The hospital is a health service organization that has specificity in terms of Human Resources (HR), facilities and infrastructure and equipment used, the products used are intangible (intangible) comes from the service provider, in this case health workers or human resources. (Fatmawati, 2016) Nursing service is a professional service and has an important role in biological, psychological, social, and spiritual approaches that are provided continuously 24 hours of client care (Law of the Republic of Indonesia, 2014).

In the form of professional services Nursing is required to be able to participate in improving the quality of the hospital in providing nursing care, whether it is preventive, positive, curative, and rehabilitative. According to (Pangemanan. Wenda R, Bidjuni. Hendro, 2018) explained that nurses while providing care need to have high motivation in carrying out nursing care, because the meaning of motivation cannot be separated from the word need. There are several things that can affect the performance of nurses in carry out nursing care, among other things, namely the competence of nurses, motivation in work, and the workload that is borne.

There are three indicators that affect competence, namely knowledge, attitudes and skills. indicators that can measure motivation are affiliation, reward, and punishment. According to (Pasolong, 2011) workload is the amount of work that must be borne from the position which is his responsibility, in fulfilling an achievement of goals it will create new needs and encourage someone to work even harder. The basic needs that need to be met are based on motivationhuman, human has five needs that form a level or also called a hierarchy from most important to insignificant and from easy to most difficult to obtain or achieve (Robbins, Stephen P. & Judge, 2017).

Motivation is a condition that can move the nurses themselves directed to achieve work goals (Mangkunegara & Octorend, 2015). Nurses as one of the health workers who play an important role in the fulfillment of a health service depend on their participation in providing quality services for patients (Potter & Perry, 2015). This relates to the nurses who are on duty 24 hours serving patients, as well as the number of nurses who are dominate the health workers in hospitals which range from 40-60%. Therefore, the hospital must have well-performing nurses who will support the hospital's performance so that customer satisfaction can be achieved.

A decrease in work motivation for services also affects the quality of health services in hospitals and health service institutions, unsatisfactory services will affect the level of patient satisfaction, this will also have a direct impact on the hospital or health institution. Things that can affect the performance of nurses in carrying out nursing care include the competence of nurses, work motivation, and the workload that should be carried out (Nugraha, 2018). In the scope of the role of the operating room nurse itself is clinically responsible and functions as a scrub nurse instrumentator or circulation nurse, the surgical room nurse has the skills and responsibilities in carrying out nursing care, both pre-operative, intra-operative and post-operative nursing care (Ministry of Health 2010).

According to (Nurjannah, 2018) Duties and The responsibility of the operating room nurse is not an easy thing to bear, the operating room nurse is responsible for providing preoperative facilities and managing the surgical package during the surgery, administration and documentation of all nursing activities / actions during surgery and completeness of medical documents including complete complete status, surgical reports, anesthesia reports, filling pathology forms, patient safety check-lists in the operating room, overcoming anxiety from

patients who will be operated on, preparing tools, arranging and providing for the needs during the operation either into scrubs or circulernurs, and nursing care after surgery in the recovering room aware recovery room. The above causes tension and boredom in dealing with patients, peers, pressure from leaders.

According to (Sengkey, 2013) that There are several driving factors of motivation consisting of intrinsic and extrinsic motivation, intrinsic motivation including age, occupation, education level, length of work, interests and abilities, while extrinsic motivation includes training, coaching, facilities, community support, gifts and intensive. Efforts in improving hospital quality services in general can reach various aspects, including nursing services and one that can influence it by giving rewards. According to (Handoko, 2001) the appreciation given in the form of material or greeting, either individually or institutionally for certain achievements is a reward. It is important to listen to the opinion of nurses to create a reward system that integrates fair financial and non-financial rewards from the nurse's point of view (Seitivirta et al, 2016). It is important to know that giving rewards has an impact on nurses for hospital services, and the intended rewards are those that come from other people (Tjahyanti, 2010).

Various situations and work demands Naturally, nurses can be a potential source of work stress, decreased work motivation and have a risk of human error at work and resulting in hospital and individual losses. In the context of work, if someone is motivated, he will try his best to achieve goals, but not necessarily high efforts will result in high performance, therefore, it takes intensity and quality of these efforts and is focused on organizational goals. Needs are internal conditions that give rise to impulses, which if these needs are not satisfied, it will create tension that stimulates impulses from within the individual. This impulse gives rise to a search behavior to find a specific goal. If there is a fulfillment of needs, there will be a reduction in voltage. Basically, Based on Ana dwi's research fatmawati 2016 entitled "The Relationship of Reward Giving with Work Motivation of Implementing Nurses in Inpatient Room Class Iii Regional General Hospital RAA Soewondo Pati" said that the results of the data show that the level of reward giving to nurses in the class III inpatient room in the moderate category is indicated by the percentage results (72.2%) of 39 respondents. The results of the data for the level of work motivation of the nurses in the class III inpatient room of RAA Soewondo Pati Hospital are also in the medium category with a percentage result (66.7%) with a probability value of p value <0.05 with a correlation coefficient of 0.845 which means that there is a very strong relationship. strong with the level of R square 72.8%,

According to previous research (Nugraha, 2018) at Bintang Amin Hospital in Bandar Lampung, decreased work motivation will have an impact on decreasing nurse performance and a decrease in the service process provided by the nurses themselves. Nurses who have good motivation will lead to good performance too. In (Abu Hassan Asaari et al., 2019) at the Malaysian Science University that rewards and work motivation are very important for an organization, because they can be used to direct staff towards achieving organizational goals, reward and motivate employees who efficiently increase employee productivity. In (Syaifudin et al., 2020) shows that rewarding is largely satisfying (61%), Nurses work motivation is mostly positive (51.2%), and the quality of nursing services is mostly good (43.9%). The conclusion of this study shows that there is a relationship between the provision of rewards and the quality of nursing care at Puskesmas Bangetayu Semarang p value (0.003) and there is a relationship between work motivation and service quality of nurses at Puskesmas Bangetayu Semarang p value (0.008). Research (Usastiawati, 2018) explains that there is an influence of nurse motivation on nurse performance with a large influence of 0.609 and a p-value of 0.000. The indirect effect of reward through motivation on the performance of nurses with a large influence

of 0.383, greater than the indirect effect of reward through motivation of nurses on the performance of nurses with a large influence 0,235. Result Previous research has shown that giving rewards has a very direct effect on work motivation and has a positive effect on the company.

Based on the operation registration data in the last 4 months, the number of operations in September amounted to 301 with special operations group 185 and large group 116, October total operations amounted to 310 with special groups numbered 190 and large 120, November total operations totaled 313 special groups 201 and big 112, in December the total operations amounted to 259 special groups 174 and large 85. Each special operation has an estimated time span of 3-5 hours and a large 1-3 hours.

Based on the preliminary preliminary study conducted by the researchers on 12 respondents in the Operating Room, all respondents revealed that sometimes they were tired and stress levels increased due to tight operating schedules while the existing nurses were inadequate, and this could affect their performance which ultimately decreased so that it can have an impact on the quality of services provided. Even out of the 12 interviewed respondents, they have to reduce time with family to make up for the shortage of employees in running operations so that it becomes a mental burden. This shows that employees are more easily at risk of increasing stress levels, therefore the importance of reward here plays a role in providing support for motivation for performance both mentally and materially for what has been done, From the results of interviews and observations and the phenomena in the survey, then researchers are interested in researching about "The Relationship between Rewards Giving and Nurses Work Motivation in the Operating Room at Awal Bros Hospital, Batam.

2 Methods

The study discusses the relationship between giving rewards and work motivation on the performance of nurses in the operating room at Awal Bros Hospital in Batam. The independent variable in the study was the provision of rewards, while the dependent variable was the work motivation of the nurses. This research was conducted in January 2021. The research location was the Operational Room at Awal Bros Hospital in Batam. Correspondents for all nurses who work in the Operational Room at Awal Bros Hospital in Batam. This study uses a quantitative research design with a cross sectional approach, and this study used chi square analysis, where the sample was taken by 30 nurses with a total sampling technique.

3 Results and Discussion

3.1 Characteristics of Respondents

Table 1. Distribution of Respondents by Gender, Age, Occupation, Period of Service, Education

No.	Variable Frequency Percentage	%	%
1.	**Gender**		
	Male FemaleTotal	18	60
		12	40
		30	100

2.	**Age**		
	(20-30th)	14	47
	(30-40)	13	43
	(40-50th)	3	10
	Total	**30**	**100**
3.	**Years of service**		
	<3 years	6	20
	> 3 yearsTotal	24	80
		30	100
4.	**Education**		
	D3	17	57
	S 1	4	13
	Ners	8	27
	S2	1	3
	Total	30	100

Source: Primary Data, 2021

Based on table1 above, it is known that more than 18 respondents are male (60%), the age frequency is dominated by 20-30 years, namely as many as 14 respondents (47%), the frequency of working period is dominated by> 3 years as many as 24 people (80%). Education in the Domination of D3 Nursing 17 people (57%).

Table 2. Distribution of Frequency and Percentage of Respondents Based on the Giving of Rewards in the Operating Room at Awal Bros Hospital, Batam, in 2021

Rewards	Frequency Percentage (%)
Low 16	53
Medium 14	47
Total 30	**100**

Based on Table 2 above, the researcher can conclude more than 16 people respondents with low rewards by 53%.

Table 3. Distribution of Frequency and Percentage of Respondents Based on Work Motivation in the Operating Room at Awal Bros Hospital in Batam in 2021

Work motivation	Frequency	Percentage (%)
Low	16	53
Moderate	14	37
Total	**30**	**100**

Based on table 3 above, the researcher can conclude that more than 14 respondents with moderate work motivation are 47%.

Table 4. The Relationship of Giving Rewards with Nurses' Work Motivation in the Operating Room at Awal Bros Hospital, Batam, in 2021

Rewards	Motivation			Total
	Low	**Moderate**		
	N%	**N%**	**N%**	
Low	72	3.07	23.0	14
Moderate	93	0.07	23.0	16
Total	65	3.014	47.0	30

By using the help of a computer application, namely SPSS, the ChiSquare Test was carried out and obtained a significant value of 0.001 (p = <0.05), thus HO is rejected, so it can be concluded that there is a relationship between giving rewards and work motivation of nurses in the operating room of Awal Bros Hospital Batam Year 2021.

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The Effect of Cognitive Behabior Therapy (Cbt) on the Level of Anxiety of Chemotherapy Patients of Colorectal Cancer Long Cycle

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Abstract. Colorectal cancer (CRC) is a malignant disease that is very heterogeneous, which is caused by the interaction between genetic factors and environmental factors. This disease is one of the malignancies with the highest prevalence and incidence in the world and an estimated 1.2 million people are diagnosed with CRC each year. The World Health Organization (WHO) estimates that there will be an increase of 77% new cases of CRC and 80% of deaths due to CRC in 2030. Colorectal cancer patients often experience psychological disorders, one of which is anxiety. At Awal Bros Hospital, especially in the Chemotherapy room, there were still many patients who still showed anxiety, especially in patients in the early phase of undergoing chemotherapy, according to data that researchers got in December 2020 there were 32 patients suffering from gastrointestinal cancer, and there were 28 patients. who underwent adjuvant chemotherapy, and of the 28 people there were 20 people who still expressed anxiety during chemotherapy. This study aims to determine the effect of cognitive behavior therapy in reducing anxiety as an effort to optimize the mental function of colorectal cancer patients with chemotherapy. This study useda quasi experimental method without control, with a pre post test design approach. The study sample consisted of 20 people with colorectal cancer who underwent 12 cycles of long cycle chemotherapy. The anxiety instruments used were STAI form Z-1 and Z-2. The intervention was given in the form of CBT with the mind over mood method for5 sessions. Based on quantitative measurements with the Wilcoxon Test, the p-value of 0.000 is smaller than <0.05, it can be concluded that "H0 is rejected", or in other words there is an effect of cognitive behavior therapy to reduce the anxiety level of colorectal cancer patients who are undergoing long cycle chemotherapy.. It is recommended for the Awal Bros Hospital in Batam to provide special training for nurses who treat cancer and chemotherapy patients on how to approach and provide therapy for patients who experience anxiety so that patients can optimally undergo treatment.

Keywords: Cognitive Behavior Therapy, Anxiety, Colorectal Cancer Patients

1   Introduction

Colorectal cancer is a malignant tumor that arises from the epithelial tissue of the colon or rectum. Colorectal cancer refers to malignant tumors found in the colon and rectum. The colon and rectum are part of the large intestine in the digestive system which is also called the gastrointestial tract. More specifically, the colon is in the proximal part of the large intestine and

rectum in the distal part about 5-7 cm above the anus. The colon and rectum function to produce energy for the body and get rid of useless substances. (Ii et al., 2013) (Sayuti & Nouva, 2019)

Colorectal cancer is a malignant tumor. Colorectal cancer (CRC) is a very heterogeneous malignant disease, which is caused by the interaction between genetic and environmental factors. This disease is one of the malignancies with the highest prevalence and incidence in all unia and it is estimated that as many as 1.2 million people are diagnosed with CRC each year. The World Health Organization (WHO) estimates that there will be an increase of 77% new cases of CRC and 80% of deaths due to CRC by 2030 (Sari et al., 2019).

CRC is the second most common malignancy in women (614 thousand cases / year) and the third most common cancer in men (746 thousand cases / year). The incidence and mortality of CRC increases with age. Approximately 90% of new cases and 93% of cases of death due to CRC occurred at the age> 50 years. (Sari et al., 2019)

The Global Cancer Observatory released 19,292,789 cancer cases in 2020, this figure increased from 2018 where the number of cases in that year was 18,078,957 with the percentage of cancer incidence in 2020 Lung Cancer (11.4%), Breast Cancer (11.7%), Abdomen cancer (5.6%), Prostate cancer (7.3%), Colorectum cancer (10%), other cancers (53.9%).

The Ministry of Health reports that the incidence of cancer in Indonesia (136.2 / 100,000 population) ranks 8th in Southeast Asia, while in Asia it is 23rd. The highest incidence rate in Indonesia for men is lung cancer, which is 19.4 oer 100,000. population with an average death rate of 10.9 per 100,000 population, followed by cancer days of 12.4 per 100,000 population with an average death rate of 7.6 per 100,000 population. While the highest incidence rate for women is breast cancer, namely 42.1 per 100,000 population with an average death rate of 13.9 per 100,000 population and based on Riskesdas data in 2018 the prevalence of tumir / cancer in Indonesia shows an increase from 1.4 per 1000 population in 2013 to 1.79 per 1000 population in 2018. (Ministry of Health of the Republic of Indonesia,2nd)

According to Smeltxer and Bre (2002), chemotherapy is the use of antineoplastic preparations as an attempt to kill tumor cells by disrupting cellular reproductive function. Desen (2008) explained that chemotherapy is a cancer modality therapy that is most often used in locally advanced and metastatic cancers and is often the only effective therapeutic method option. Chemotherapy can be given as the main therapy, adjuvant (additional), and neoadjuvant, namely adjuvant chemotherapy given during pre-surgery or pre-radiation (Sukardja, 2000). Adjuvant therapy refers to the treatment of cancer patients after surgical removal of the tumor (Johnson, et al. 2014)

Adjuvant chemotherapy is chemotherapy that is given as an adjunct therapy or following primary therapy, which aims to eliminate the microscopic residues of cancer cells, as well as to cure and reduce the risk of recurrence in patients. Adjuvant chemotherapy in CRC is recommended for stage III and stage II high risk, namely lymph node <12 pieces, poorly differentiated tumors, vascular / lymphatic / perineural invasion, tumors with obstruction / perforation and tumors with T4. (Sari et al., 2019).

Adjuvant chemotherapy that is widely used is the type of cytostatics in the form of a combination of FAM (5-fluoracil, adriamycin, and mitomycin c), where chemotherapy with 5-Fluoracil is given as many as 12 cycles in one period with the administration of chemotherapy drugs in each cycle for 2 x 24 hours, here that differentiates it from other cancer chemotherapy, such as breast cancer for the administration of 6-8 cycles of chemotherapy and giving each chemotherapy drug for 3-6 hours.

According to research by Pratiei, Widianti and Solehati (2017), 59.8% of breast cancer patients experience moderate state anxiety and 54.6% experience moderate trait anxiety. The same thing is also found in the research of Adipo, Jumaini, & amp; Damanik (20154) obtained

data that from 39 respondents on average undergoing 2 to 6 cycles of chemotherapy, 12 patients (43.6%) experienced moderate anxiety levels and 22 patients (56.4%) very severe anxiety levels.

At Awal Bros Hospital, especially in the Chemotherapy room, there were still many patients who still showed anxiety, especially in patients in the early phase of undergoing chemotherapy, according to data that the researchers got in December 2020 there were 56 patients undergoing chemotherapy with various cancer diagnoses, 32 There were 28 patients suffering from gastrointestinal cancer, and there were 28 patients who underwent adjuvant chemotherapy, and of these 28 people there were 20 people who still expressed anxiety during chemotherapy, starting from always asking when it would be finished, what happened when chemotherapy drugs were given, and how you react at home after chemotherapy. And there are some patients who have arrived at the 9-10 cycle who feel their body has started to weaken and have experienced a decrease in enthusiasm and several times expressed their discontinuation of chemotherapy. There are 2 patients who experience anxiety which can be seen from the patient's behavior, in the first patient when an infusion for chemotherapy is going to be done, the patient always cries without being able to express a clear reason and this incident lasts from cycle 2 to cycle 10, and there is one patient. a woman with Adeno Ca Musinosum aged 28 years was undergoing chemotherapy in the 11th cycle suddenly at night the patient was hysterical, this incident occurred every time chemotherapy was carried out since the 9th cycle, when the study was carried out the patient had the belief that there were "other beings" who always followed him and disturbing most at night.

The education provided by specialists and nurses is not fully understood by patients considering that some chemotherapy patients are elderly so that patients are less able to open up and experience obstacles in conveying problems and feelings they experience. Based on the phenomena that occur above, the researcher is interested in studying the effect of Cognitive Behavior Therapy (CBT) with the Mind Over Mood method where subjects are invited to recognize, understand and ultimately change negative feelings, thoughts and behaviors, and this research is expected to contribute to science. knowledge specifically related to the mental health of cancer patients undergoing chemotherapy.

2   Methods

The type of research in this research is quantitative. The research used in this study is a quasi-experimental or so-called " Quasi Experiment " with pretest and posttest research without control. Because in this study, researchers only used the experimental class without a control class. Sugiyono (2007: 107) defines that experimental research is research that is used to find the effect of certain treatments on others under controlled conditions. The experimental method is an experimental activity that aims to identify a symptom that arises as a result of certain treatments. Research using this method is a study to determine cause and effect without involving a control group. This study uses a quantitative approach. The data obtained during the study were in the form of observations, interviews and assessing the level of anxiety of colorectal cancer patients who were undergoing chemotherapy before treatment (pre-test) and after treatment (post-test). Data in the form of pre-test and post-test scores will be processed using statistical data analysis methods. The statistical test used is paired datastatistical test.

3 Results

Table 1. Characteristics of Respondents

Characteristics	Amount (n)	Frequency(%)
Age		
25 – 35 years	2	10%
36 – 45 years	2	10%
46 – 55 years	5	25%
56 – 65 years	11	55%
Genders		
Man	11	55%
Woman	9	45%

Source: Primary Data 2021

From table 1 above, it can be seen that the general frequency is dominated by the age of 56-65 years and the sex is dominated by men.

Table 2. Frequency Distribution of Respondents ' State Anxiety Levels and Respondents' Trait Anxiety Levels before Giving Cognitive Behavior Therapy

Level Cancer Patient Anxiety	State		Trait	
	F	%	F	%
Mild	1	5	1	5
Moderate	17	85	18	90
Severe	2	10	1	5
Total	20	100	20	100

Source: Primary Data 2021

From the table 2 above, it can be seen that the level of anxiety before being given intervention is mostly dominated by moderate anxiety levels in the State Anxiety category with 17 respondents (85%) and Trait Anxiety by 18 respondents (90%).

Tabel 3. Frequency Distribution of Respondents' State Anxiety Level and Trait Anxiety Level after Giving Cognitive Behavior Therapy

Level Cancer Patient Anxiety	State		Trait	
	F	%	F	%
Mild	18	90	19	95
Moderate	2	10	1	5
Severe	0	0	0	0
Total	20	100	20	100

Source: Primery Data 2021

From the table 3 above, it can be seen that the level of anxiety after being given intervention is mostly dominated by mildanxiety levels in the *State Anxiety* category as many as 18 respondents (9 0%) and *Trait Anxiety* as many as 19 respondents (95%).

Table 4. The Effect of Cognitive Behavior Therapy (CBT) on Anxiety Levels of Chemotherapy Patients in Long Cycle Chorectal Cancer at Awal Bros Hospital in Batam in 2021

Variabel	N	Median		Std.Dev		ρ Value
		SA	*TA*	*SA*	*TA*	
Before Intervention	20	2.00	2.00	394	324	0.000
After Intervention	20	1.00	1.00	308	224	0.000

Based on the table 4 above, the results of the analysis of 20 respondents are as follows: (1) The minimum value of the 20 respondents above shows the value before intervention / provision of CBT for moderate State Anxiety values, there are 17 respondents, mild 1 respondent, weight 2 respondents and Trait Anxiety was there 18 respondents mild No one respondent, and there are one responder weight after intervention / therapy State Anxiety is becoming the second respondent, light there are 18 respondents and for Trait Anxiety was no one respondent, there were 19 respondents light. After testing the normality of 20 respondents, the Sig. Value was obtained <0.005, so it can be concluded that the data distribution is not normal. Furthermore, the researcher used an alternative test to see the frequency distribution of anxiety levels before and after the intervention giving CBT was carried out, namely by means of inferential static analysis, Non-Parametric-Bivariate hypothesis testing by testing different mean ratings (ordinal data) of 2 measurement results of the same group (for example, different mean ratings. pre test and post test). (Dharma, 2015). Based on the output "Test Statistics" in table 4.4 above, it is known that the value of ρ-value is 0,000. Because the value of 0.000 is less than <0.05, it can be concluded that "H0 is rejected", or in other words there is "The Effect of Cognitive Behavior Therapy (CBT) on Anxiety Levels of Long Cycle Chemotherapy Patients of Colorectal Cancer at Awal Bros Hospital Batam Year 2021.

4   Discussion

The results of research related to the discussion about the therapy Cognitive Behavior Therapy in reducing Anxiety as an effort to optimize the mental functioning of patients by quantitative measurement obtained a decline in the degree of anxiety in patients with cervical cancer after the intervention using cognitive behavioral therapy (CBT), the results obtained are in all patients experienced a decrease in the category from the medium category to the low category. (Junaidi et al., 2019) This is in line with the research results obtained based on the author's observations and interviews while in the chemotherapy room of 20 respondents who underwent long cycle chemotherapy for 2x24 hours and as many as 12 times with a time difference of 14 days, there were 85% of patients. experiencing moderate state anxiety and 90% experiencing moderate trait anxiety and after being given CBT therapy with the mind over mood method for 5 sessions for 14 days the anxiety level decreased with 90% of patients experiencing mild state anxiety and 95% experiencing mild trait anxiety.

Respondents with severe anxiety levels require longer time and therapy than respondents with moderate anxiety, this is because patients with severe anxiety will find it more difficult to accept the intervention that will be given. In this study, patients feel comfortable and not burdened when given CBT therapy because respondents can choose what therapy is appropriate to the problem they feel and for respondents who are still experiencing moderate trauma are able to do the therapy independently so that the respondent's level of anxiety decreases can be resolved.

5   Conclusion

More than some chemotherapy patients before being given CBT with anxiety levels using the STAI-AZ method, there were 17 moderate State Anxiety results with a percentage of 85% and moderate Trait Anxiety there were 18 people with a percentage of 90 AND More than some chemotherapy patients after being given CBT with anxiety levels using the STAI method AZ showed that there were 18 people with mild State Anxiety with a percentage of 90% and 19 people with mild Trait Anxiety with a percentage of 95%. There is a difference in the level of anxiety of long cycle colorectal cancer chemotherapy patients who undergo chemotherapy before and after giving Cognitive Behavior Therapy (CBT) with the Mind Over Mood method which is proven based on statistical tests, namely a significant value is obtained <0.001 (p = <0.05), it can be concluded that "H0 is rejected", or in other words it can be concluded that there is a significant effect in the provision of Cognitive Behavior Therapy (CBT) on the anxiety level of chemotherapy patients.

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Implementation of The Community Development Centre Partnership Program in Telkom Region III West Java

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Abstract. Micro Small and Medium Enterprises (MSMEs) is one of the sectors that play an important role in Indonesia's economy, which makes Indonesia's national income increased. PT. Telkom establishes Community Development Center (CDC) To support the development of SMEs around the company. The purpose of this research is to know the implementation of the Community Development Center Partnership Program in supporting small to medium enterprises at Telkom Regional Java III. This method of research using the qualitative method by collecting data and facts. This research shows that many partner partners do not pay installments on time and routine so as to inflict a large amount of arrears annually. With the partnership program of PT Telkom TBK. Expects the target partner so that the business is progressing and expanding until it can enter the international market share. Because CDC conducts coaching and training objectives to improve the quality and quantity of MSMES around the company.

Keywords: MSMEs, Partnership, Community Development Center

1 Introduction

Indonesia's economic growth in 2019 grew 5.14% (YoY) and Micro, Small, and Medium Enterprises (MSMEs) played a major role in the Indonesian economy and the people's economic reliability was proven to be able to survive during the 1997 economic crisis, with SMEs as the driving force. The resilience of MSMEs against crisis storms as occurred in 1997 - 1998 shows the fact of the importance of developing MSMEs for improving people's welfare and national economic development. This incident explains that MSMEs are productive businesses to be developed to support macro and microeconomic development in Indonesia and affect other sectors in order to develop. In the economic development of the people in a country, the role of MSMEs contributes to overcoming the problem of unemployment, employment, and increasing innovation so as to produce new products that provide benefits and opportunities for other people to open new businesses. With a large number of economic actors and their ability to absorb labor, the development of MSMEs can increase people's purchasing power, increase the level of demand, and increase investment growth.

However, the MSME sector also has weaknesses that make it difficult for MSMEs to develop compared to other large businesses. These weaknesses are limited capital owned, weak management, lack of use of information and technology, inability to form business networks, and minimal access to markets. The competitiveness of MSMEs in the global era depends on external and internal variables. Internal variables such as company size, stakeholder personality, and educational background (owners and workers), as well as company culture[1].

Meanwhile, external factors that can affect performance are national culture, a country's economic system, regional economic integration, and people's purchasing power. The high level of competition in the market and limited resources encourages MSMEs to make partnerships with large industries. Partnership is a relationship between two or more parties which aims to seek profit where one party is in a lower condition than the other but forms a relationship that occupies both of them based on an agreement to achieve a goal. Skilled business partnership patterns in development for the welfare of the people. Partnership is a collaboration between stakeholders to accelerate the development of small and medium enterprises [2]

The government hopes that MSMEs have global value chain competitiveness by increasing market access both at home and abroad, improving production quality and innovation, financing aggregation, and developing management capacity which is realized through providing consultation, training, mentoring, providing facilities and opportunities to develop. The main challenge for partnerships is how to make partnerships drive change[3]. The government has issued laws and decrees regulating small business development, one of which is based on article 7 of Law No. 20 of 2008 concerning Micro, Small and Medium Enterprises, it is explained that the business world (corporation) plays a role in fostering a climate. conducive business, namely in the aspects of funding, facilities and infrastructure, business information, partnerships, business licensing, business opportunities, trade promotion and institutional support and the Decree of the Minister of Finance of Indonesia Number: 316 / KMK.016 / 1994 regarding the development of Small Businesses and Cooperatives through utilization. funds and a share of the profits of State-Owned Enterprises (BUMN).

To support MSMEs, BUMN companies have a program called the Partnership and Community Development Program (PKBL) to improve production performance, income, profits, assets, turnover, savings, and the market area of the fostered partners. The existence and sustainability of the fostered partners must be maintained in order to develop their business more advanced and create jobs for the people around them. The Partnership and Community Development Program has a different scope of duties where the Partnership Program is a program designed to provide capital loan assistance and guidance to MSMEs while Community Development is a form of concern and responsibility related to empowering the social conditions of the community around the company.

PT Telkom Tbk. as one of the BUMNs in Indonesia has a Community Development Center (CDC) unit which is responsible for managing the partnership program and environmental development. CDC is a division that connects companies with micro-businesses in the form of providing business capital loan services to fostered partners who have businesses in any field and need funds to run their business. However, CDC has certain conditions to provide capital loans that will be given to prospective fostered partners on the condition that the partners must have been running their business for at least six months. If it has not reached this time, CDC will not process the applications that have been made by the Foster Partners.
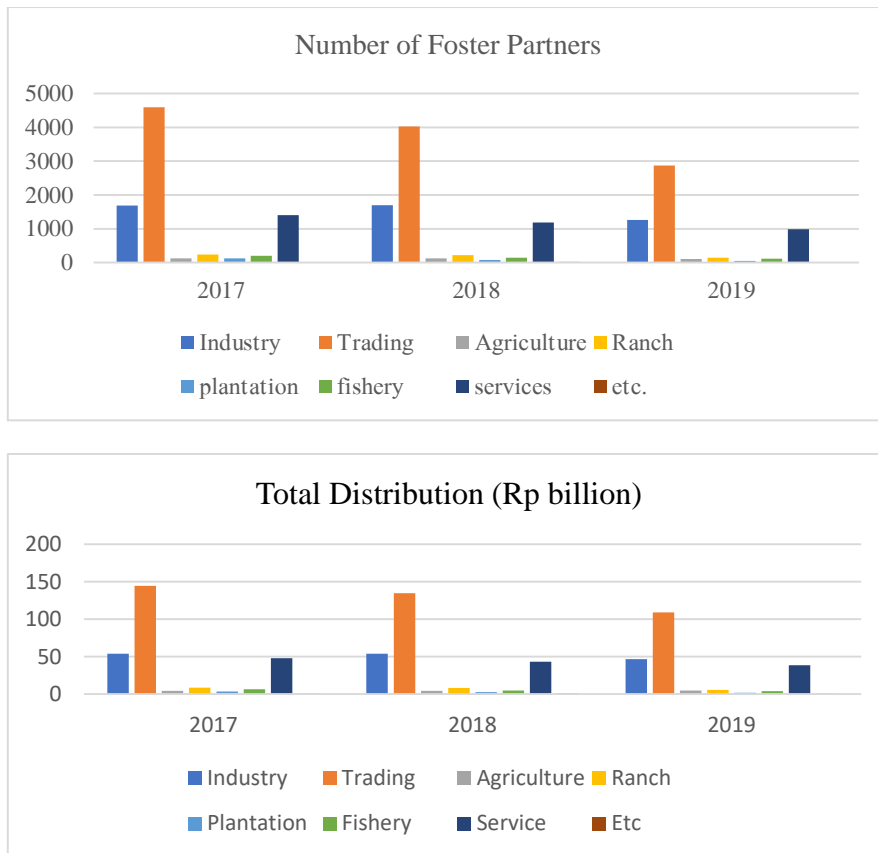
Figure 1. Distribution Of Partnership Program Funds and Number Of Telkom Development Partners, 2017 - 2019

Based on the data above, it can be seen that the longer the number of Foster Partners has decreased, this is a result of the failure to pay the installments that have been given by PT Telkom. Foster Partners who do not pay arrears of more than 2 (two) months will be reminded by the CDC Officer by means of a remanding call, arrears that are more than 6 (six) months will usually be carried out by Moneva (monitoring evaluation), namely visiting the Foster Partner's place of business and seeing the business conditions there is progress or not. If the Foster Partner's payment is stuck, the circulation of money to help other partners will be hampered. Therefore the authors are encouraged to examine how the implementation of the Community Development Center Partnership Program in Supporting Small and Medium Enterprises at Telkom Regional III, West Java.

2 Literature Review

2.1 Partnerships

Partnership is translated as a collaboration, however partnerships have a pattern, have strategic value in supporting the successful achievement of the company's vision. Partnerships can be done in technology transfer, knowledge / skills transfer, resource transfer, learning

exchange, capital transfer, or various things that can be assisted so that they can achieve success. Partnership is a policy.[4] To build a strategic partnership requires organizational compatibility and a top management vision from the partner. Strategic partnerships are long-term relationships that focus on strategic goals that aim to provide value to customers and profitability to partners[5]. Building partnerships and collaborations is the best way to gain a competitive advantage today[6]. Partnership is a strategic collaboration between a business and a non-profit organization, resources and skills means that a partnership is carried out between two or more parties to benefit each partner.

The main benefits of partnerships are increased corporate performance, better risk management and reduced costs in the financial function. Partnership management is needed in building partnerships.[7] According to Simonim there are four stages of the partnership management model, namely identification and selection; negotiation and consultation; monitoring and management; and termination of cooperation.[8] Many companies fail in partnerships due to inability to see opportunities or process existing opportunities [9].

In developing business partnerships, medium or large entrepreneurs have a moral responsibility in guiding and fostering small entrepreneurs as partners, so that they are able to become reliable partners to gain benefits and prosperity in each partner. This partnership is developed as a form of community involvement in business organizations, and business organizations see themselves as not just an economic machine that works for profit but also establish themselves as a social institution that can provide social benefits. Sustainable partnership will have an impact. which is positive for both parties, either the organization or its fostered partners[10]

2.2 Micro small and Medium Enterprises

In Indonesia, the law that regulates MSMEs is Law no. 20/2008, in the Law, MSMEs are described as small companies that are owned and managed by a person or owned by a small group of people with a certain amount of wealth and income. " The following are the criteria for wealth and income in the law.

Table 1. Msme And Large Business Criteria Based On Assets And Omzets

Size of Business	Criteria	
	Asset (excluding land & building where the business is)	Turnover (within 1 year)
Micro business	Maximum of IDR 50 million	Maximum of IDR 100 million
Small business	More than IDR 50 million - IDR 500 million	More than IDR 300 million-IDR 2.5 billion
Medium Enterprises	More than IDR 500 million - IDR 10 billion	More than Rp. 2.5 billion-Rp. 50 billion
Big business	More than IDR 10 billion	More than Rp. 50 billion

In general, MSMEs have a specific market share that only focuses on local markets or surrounding locations, very limited business capital and access to capital assistance are also relatively difficult to obtain, and limited resources [11]. Regardless of technological developments that occur today. Several studies have shown that one of the factors that support the development of MSMEs is due to the use of ICT facilities (technology, information and communication). Business actors are starting to take advantage of technological means such as smartphones to expand their business market, and use communication applications such as WhatsApp and social media to market the products they sell. The Indonesian government has a

target for MSMEs with digital use such as e-commerce to sell and develop their businesses so that they reach international market share MSMEs.

An activity or economic activity that drives Indonesia's development, such as the manufacturing, agribusiness, agriculture, and human resources industries. In this sense, it indicates that MSMEs mean the recovery of the Indonesian economy through the development of the trade sector for community empowerment programs that require jobs.

3 Methods

In writing this scientific journal, the method used is a descriptive method with a In writing this scientific journal, the method used is a descriptive method with a qualitative approach. Qualitative descriptive method is a research method used to analyze or describe the object of research based on facts or existing data. The research object was conducted at the Community Development Center (CDC) Treg3 PT Telkom Tbk. West Java. CDC Treg3 PT Telkom Tbk. West Java covers the Bandung area and the Tasikmalaya area. The author makes CDC Treg3 PT Telkom Tbk. The Tasikmalaya area is the object of research because there are many Foster Partners who have problematic status in Tasikmalaya. The number of Fostered Partners in Tasikmalaya reached 80 people with 8 partners in the craft sector and 3 partners in the fashion sector, most of which were in the food sector, 33 partners, problems or bad credit assisted in the food sector were 55% with the following composition.
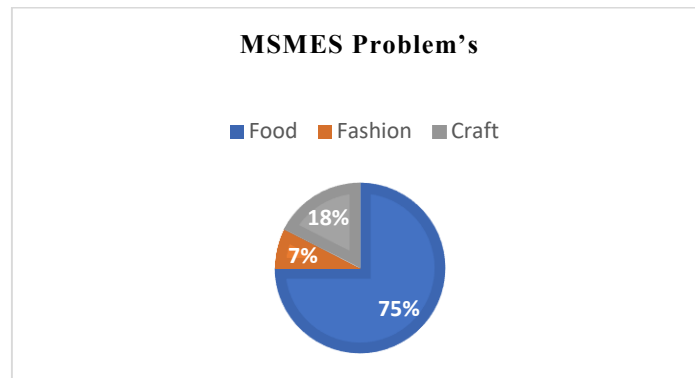

Figure 2. Fostered Partners Problem's in Tasikmalaya

4 Results and Discussion

Based on the author's observations, PT Telkom Tbk. In implementing the partnership program, applying the Simonim theory [12] where there are four stages of the partnership management model used by companies, namely:

a. Identification and selection;
   The fostered partners submit applications through the smartbisnis application by mapping the fostered partners by grouping the business categories of each prospective foster partner into 3 categories of food, craft, and fashion, each prospective foster partner is required to produce their own products at least have been running their business for 6 months by including financial reports. The selection process is carried out by PT Telkom Tbk after the prospective partners complete the requirements by conducting a survey to the place

where the business is run to assess the condition of the fostered partners whether they fit the category or not.

b. Negotiation and consultation;

The negotiation process is carried out after obtaining the results of the analysis of the foster partner's proposals and a survey process, then those who pass the selection of PT Telkom Tbk will provide capital assistance of a maximum of 50% of the gross income per month. The consultation process is carried out by the officer to make a determination recommendation to Telkom Regional III until waiting for the Partnership Program Loan Determination Letter to CDC Witel. If the notification of the determination has been signed then print the Partnership Program Loan Agreement, the consultation process is carried out by the officer to the foster partner when the foster partner is present to be given provisioning and signing the Partnership Program Loan Agreement.

c. Monitoring

The monitoring process is carried out starting from the time the funds are disbursed through transfers to the fostered partners, then field observations are made after 3 months of disbursement of funds. The fostered partners begin to make installments after the coaching program runs. For fostered partners who have problems, PT Telkom conducts remanding calls and evaluation monering whose arrears have reached 3 months.

d. Termination of cooperation

Termination of cooperation is very rarely done by PT Telkom because PT Telkom always tries to provide guidance continuously.

Telkom Regional III West Java implements the CDC (community development center) activity which is a Partnership and Community Development program. The partnership program is a form of implementation of the pillars of profit from the triple buttom line strategy of Telkom's CSR with a focus on digitizing the management of the partnership program, digital training for fostered partners and including fostered partners in national and international scale exhibitions. The Community Development Center Unit specifically for the partnership program activities that have been running so far is the provision of revolving loans whose source of funds comes from company profits which is set aside a maximum of 2% after tax deduction.

In managing its partnership program, Telkom has used digital technology since the implementation of the Management Information System (SIM) for the Partnership and Community Development Program in 2007 as a data management tool for foster partners and a reporting system that is continuously being developed. Telkom has begun implementing a more transparent partnership program fund loan application service through the smartbisnis web (www.smartbisnis.id) as well as installment payments through virtual accounts, all of which aim to ensure accountability for the partnership program's fund installment payments. The form of Foster Partner fund lending to Telkom CDC is recorded in digital form through many forms to be filled in by prospective Foster Partners. However, this business capital fund lending does not always run smoothly because many Foster Partners do not make refunds in accordance with the installments that must be paid every month. This has become a major problem for CDC Telkom to overcome its Foster Partners whose payments are stuck. CDC Telkom makes Remanding calls politely because it is to show Telkom's image to the public.

Telkom CDC has 3 conditions to provide loans to prospective Foster Partners, namely those whose businesses are in the fields of Food, Fashion, and Craft. But it must be in the form of producing it yourself, for example food selling cassava chips by processing it yourself, not becoming a reseller, fashion such as convection businesses or making embroidery for clothes, and Craft making crafts or weaving that are made by yourself and sold themselves as well. That way Telkom CDC can see the development and progress of its Foster Partners. Telkom also

provides provisions in the form of coaching and participating in international scale exhibitions, the aim of which is that the business being run can continue to develop and be more advanced. PT. Telkom in providing Community Development Center services has not carried out the management stage where PT Telkom should participate in monitoring the governance contained in the fostered partners.

5 Conclusion

The partnership program plays an important role in helping MSMEs to develop in a business sector to build the economy of the Indonesian people because MSMEs contribute to absorbing labor and reduce unemployment, can also increase people's purchasing power, increase the level of demand, and increase the growth of state investment. The partnership program with revolving loans and intensive coaching contributes to improving the quality of MSMEs and training efforts provided by Telkom CDC for fostered partners such as digital MSME training, which is very useful in the form of promoting and marketing its products to enter the global market by utilizing the blanja.com web facility. PT Telkom CDC encourages fostered partners to conduct export training so that the fostered partners know the procedures and requirements for cross-country (global) trade. All efforts are made by Telkom CDC to encourage the continuity of the foster partner's business so that it can be sustainable and competitive so that the fostered partners have the ability to reverse the revolving funds received as capital development which can then be used for other fostered partners.

The author suggests that the monitoring and evaluation process of the partnership program still needs to be carried out and the assertiveness needs to be done at the signing of the Partnership Program Loan Determination Letter by still paying attention to the norms of decency norms that become corporate culture. To anticipate, officers need to increase the intensity of communication with the fostered partners so that there is no lost contact with the fostered partners and increase the closeness with the partners.

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Hate Speech through Social Media in Indonesia: Based on Space Transition Theory in Cyber Criminology

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Abstract. The feelings legitimate expression experienced a cyberspace polarization in absolutism and totalitarianism by the State has been seen as a reprehensible deed in the form of hate speech. The Space Transition Theory use in Cyber Criminology on writing this in order to verify the extent to which the scope of the postulates that have been built, can justify causality relationship hate speech in the virtual world with the reality world.

Keywords: Hate Speech, The Space Transition Theory, Cyber Criminology

1   Introduction

Indonesia classified as a country with a continental European legal system (civil law), based on the concordance principle of the Netherlands colonial law after independence through Transitional Rules article II of the Constitution of 1945., with the use of wetboek van strafrecht voor indonisie which is then passed as the book of the law of criminal law through Act No. 1 of 1946.

The provisions in the criminal code still mostly is translation result process with equivalent words search that match the Indonesia grammar. Therefore, the pattern thought in reading the authoritative text in the criminal code following the activities over the years as taught by expert Netherlands criminal law. Therefore, in general it can be said that Indonesia did not yet have its own political criminal law, particularly with regard to acts that are codified in the criminal code. Currently, in modern times started to feel the presence of the criminal code failed as a result of the widespread behavior pattern or society deeds by modification some novelty aspects.

Bagir Manan [1] explained that any legislation have congenital defects (natural defects) and artificial defects, which is a consequence form of Written law which resulted in the regulation has limited coverage — just opname moment from elements of political, economic, social, cultural and the most influential defense and security at the time, because it's easy "out of date" when compared with the changes in society.

One of the modified Act is regulated in article 310 of the criminal code and article 311 of the KUHP where the two terms are arranged under Chapter XVI of humiliation criminal acts. Article 310 of the criminal code confirms the following (1) Anyone who deliberately attacked the honor or someone's good name with accusing, which means that the light so that it is known to the public, was threatened with imprisonment because contamination longest nine months or criminal fines at most four thousand five hundred rupiah, (2) If it is done by post or picture, broadcast, display or affixed in public, then threatened due to libel is written with imprisonment of no longer than one year and four months or a criminal fine of at most four thousand five

hundred rupiah, (3) No libel or contamination is written, if the Act is clearly done for the sake of public interest or because it is forced to defend himself.

Whereas in Article 311 of the CRIMINAL CODE confirms the following: (1) If the libel or contamination crime writing is allowed to prove what is alleged is true, it does not prove it, and the charge is carried out contrary to what is known, he was threatened with criminal libel doing jail the longest four years, (2) Rights revocation under article 35, no. 1-3 can be dropped.

Its development, both the criminal deeds is experiencing a transformation of the form in relation to the phrase "public" and the phrase "publicly". That is, how to make something that fit in the classification in article 311 of the criminal code Article 310 jo's can no longer as an act by classic means a during the criminal code enacted.

In the globalization era and new technologies industrialization, the society development affecting information technology makes the interconnectivity world between individuals become indefinitely. So, there was a shift in values, socio-cultural, economic and even political that made each individual can be inter-connected well access or accessed.

Legal developments in Indonesia is currently pretty taste, along with population growth and social development. Various diseases society that demands and requires the law to move forward as a social control to become the leading guard in creating an orderly society, advanced and prosperous. The development of the law itself is characterized by the development of the law components itself, in terms of the legal system, that is, the attendance products variety and the special nature of the new law/lex specialist [2].

The conditions that created the convergence of information technology and telecommunications development in recent years, have resulted in growing various also multifarious services existing telecommunication facilities, as well as increasingly sophisticated information technology capable products commercial all media information integrated. In the middle of a communication that is increasingly integrated globalization (global communication network) with the growing internet popularity has made the world seems increasingly shrunk (the shrinking) and increasingly fades the boundaries following the country's sovereignty and public order. Ironically, the dynamics of the new Indonesia community grow and develop as an industrial society and the information society, as it still seems premature to usher the technological development [3].

Advances in information technology now and chances are on the impetus future which performed by communication technology development and computer technology, computer technology and telecommunications while driven by Microelectronics technologies, material and software. The combination of computer and communication technology gave birth to the internet that became the information technology backbone. Internet developments triggered by the launch of Sputnik by the Soviet Union-owned aircraft that are taken by the United States by creating a project spacecraft launch and the internet development in the 1960s (Kompas, June 28, 2000).

Scope being someone in cyberspace access (cyber world) through a wide range of applications in various forms of social media to create a situation where someone can establish communication with other people who "sometimes" has social values background and different cultures.

The development of social behavior patterns in the society commented upon by Soedjono Dirdjosisworo [4] stating the change and adjustment of social as well as technological development since 1958 (Act No. 73 of 1958) so rapid, and the rapid development of social and technological as well as influential globalization and continue to be driven by information and communication technology is absolutely feels that the book of law criminal law already since a long time not being able to perfectly accommodate and anticipate an increasing crime both

qualitative as well as quantitative, with type, pattern and modus operandi which is not contained in the criminal code and the most prominent example is the cybercrime.

The community's behavior development in conveying the views or opinions of these indeed would never release from the euphoria freedom of expression, in particular, there are still many who argue that such expression is personal due to social media is contained in the attached. Further, personal views expressions that displaces term negative connotations "hater".

The hater term itself--in Indonesia--recently known since the party of democracy or presidential election in DKI Jakarta by 2014 which is rife in social media. Those who do not support the Joko Widodo as a presidential candidate, not only has the disagreement behavior in support however lead to hatred [5]. Since that time, to this day, any criticism expression or disapproval even dislikes to any person in particular who have public figure status are always classified as "haters".

The "haters" phenomenon make State police of the Republic of Indonesia (Polri) issued circular letter of the head of Indonesian National Police number: SE/6/X/2015 about Hate Speech Handling at October 8, 2015. Where according to the National Police Headquarters public relations Division Head Inspector General Anton Charliyan tried to set the record straight that the SE it just reminded not to carelessly speak. It further explained that the circulars to remind the public that anyone issued opinions in public speaking/speech in cyberspace so carefully, do not carelessly. Don't insult, defamation, provocation, deeds do not soothe the related tribes, religious, racial, gender, disabilities and others (gatra.com, accessed on March 10, 2017). Hate speech classification in the circular letter are: Humiliation, Libel, Sacrilege, Unpleasant behavior, Provoke, Incite, Spread hoax news, All the above actions have goals or could have an impact on discrimination acts, violence, disappearances, and the the social conflict life.

The Circulars letter specifically mentions social media networking as one means of doing the hate speech.. And specifically, Circulars letter of The Indonesian National Police contain basic ruling as follows: (1) Article 156 of the Criminal Code, (2) Article 157of the Criminal Code, (3) Article 310 of the Criminal Code, (4) Article 311 of the Criminal Code, (5) Article 28 jis Article 45 paragraph (2) of the law number 11 Year 2008 of the information and electronic transactions, (6) Article 16 of Act No. 40 of the year 2008 on elimination of racial discrimination and ethnic

In fact, the hate speech phenomenon through the social media networking gets special attention from President Joko Widodo. President of Joko Widodo deploying Limited Meetings discussing the anticipation associated with social media. In the meeting, the President of Joko Widodo asked legal apparatus did a firm action and hard for social media users who throw the speech of hate and slander (news.detik.com, accessed on March 10, 2017). The request was met with he did the amendment to the law number 11 Year 2008 of the information and electronic transactions through law number 19 Year 2016 about changes in the law number 11 Year 2008 of the information and electronic transactions. Where the changes are contained in article 45 paragraph (3) which confirms the following: Any person who intentionally and without rights to distribute and/or transmit and/or make can be accessible electronic information and/or electronic document which has the insult charge or defamation as stipulated in article 27 paragraph (3) are convicted with imprisonment of no longer than 4 (four) years and/or a maximum fine of Rp 750.000.000 (seven hundred fifty million rupiah)."

Concerns against the uncontrolled hate speech through social media that ought to be permissible, where according to Sarlito Wirawan Sarwono [5], if the person does not have a sense of sincere or not being able to accept what is expected does not fit his desire then it will happen "Deprivation". If deprivation occurred cumulatively would cause anger. The

phenomenon of hate speech, in fact is not new in the world of law in General. In addition to Indonesia, there are some countries that provide settings regarding submission of expressions or opinions, i.e., among others:

a. In the United Kingdom there are two provisions, namely the Public Order Act 1936 which amended in 1986 that governs and The Criminal Justice and Public Order Act1994 which regulates a number of acts that are classified as "anti-social". In 1998, enacted The Crime and Disorder Act 1998 that has scope against Anti-Social Behavior Orders, Parenting Orders and give more responsibility to local institutions to implement strategies to reduce crime and disorder and introduced the law, which specifically led to the offence of racial and religious offences (Section 28 until 32 of The Crime and Disorder Act 1998). The police record just under 43,000 hate crimes a year - about 1% of all recorded crimes - another source suggests that the real figure could be more than six times that amount. The CSEW suggests that there are actually about 278,000 hate crimes a year, which is way above the number recorded by the police (theguardian.com, accessed on March 12, 2017)

b. In America there is The Hate Crime Prevention Act of 2003 was passed by the House of Senate as law on June 15, 2004. The submission rules, is based on reports from the FBI in 2002, there were 7462 crimes hate speech reported.

c. In Hong Kong there is The Public Order Ordinance 1967, last amended in 1997. This Act is the most controversial arrangements in Hong Kong due to prohibit freedom of expression and freedom of Assembly. The prohibition is based on the State security Interests and protecting human rights and freedom of others.

d. In Pakistan there is "The West Pakistan, Maintenance of Public Order Ordinance, 1960" which provides the power and authority to the Government to use all means, including making arrests and detention by order in writing, against a person considered doing the harm public safety and the public order maintenance (Article 3 verse (1) The West Pakistan Maintenance of Public Order Ordinance, 1960).

Hate Speech itself in the international world better known as Hate Crime. "Hate crime" generally refers to criminal acts which are seen to have been motivated by bias against one or more of the types above, or of their derivatives. Incidents may involve physical assault, damage to property, bullying, harassment, verbal abuse or insults, mate crime or offensive graffiti or letters (hate mail) (en.wikipedia.org, accessed on March 12, 2017)

That becomes interesting to note is how a speech or expression can be classified as a hateful, but contains the actual content? And in a form that, when the activities of such speech has a form of digital text, would later be classified as cybercrime? How does Criminology looks at the phenomenon of hate speech containing religious truth?

2   Methods

The methods used in this research is a case study. According to Yin [6] research case study is the empirical studies that investigates a contemporary phenomenon in real life terms, especially when the boundaries between phenomenon and context are not clear. While according to Eisenhardt [6] case study is a study that focuses on a time to understand and explain the dynamics.

3   Results and Discussion

3.1 Result: Act No. 11/2008 as Cyber Law in Indonesia

Finally, law number 11 Year 2008 of the information and electronic transactions has been endorsed and enforced. So that is a plus for Indonesia's response to the international world, that

evidence electronically gets recognition in law. And can be used in the authentication process in front of the examination proceedings, where previously things relating to proof set in law No. 8 of 1981 on the criminal code procedure and Indonesian civil code.

The technological information progress, like the two sides of the coin are side by side, where in addition to the technological advances over the information expediency makes the world without limits (borderless), but can also have an impact on the utilization of which is the Act of breaking the law. The inception of the law No. 11/2008 this is a great milestone for the legal use of Telematics Cyber or legal (cyber law) in Indonesia. Cyber law, internationally used for legal terms associated with the information utilization and communication technology. Similarly, the telematics law is a convergence embodiment of the telecommunications law, media law, and legal informatics. The term is also used in other information technology law (law of information technology), virtual world law, and the law mayantara. Those terms born considering activities conducted through a computer network systems and communications systems both in the local scope and global (Internet) by utilizing information technology-based computer system that is an electronic system that can be seen virtually.

On the law application, it turns out that a lot of pros cons raises in practice. Pros-cons that appear along with popping up the victims be snared by Act No. 11/2008. That in fact the victim-perpetrator instead was the one business that uses telematics means for his intense business interaction.

The first victim was a journalist named Iwan Piliang (November 2008), allegedly defiled the either name the House of Representatives member through his writings on the internet and be snared with article 27 paragraph (3) of Act No. 11/2008. Second, Erick J. Ardiansjah (November 2008), an Account Executive at Bahana Securities Equity in Jakarta, which convey information limited non-confirmations to clients who then circulating in Mailling List, then Erick detained Unit V Cyber Crime Police Headquarters because it is considered violating Act No. 11/2008, article 27 paragraph 3 and article 28 paragraph 1 (spread hoax news through electronic systems). Erick was suspended from his company and the examination of the case is still underway. Third, Prita Mulyasari, a span of August 2008 – present, suspect the libel case Hospital Omni International. Prita dijerat with article 27 paragraph (3) of ACT No. 11/2008, with a maximum imprisonment penalties of 6 yrs and/or a fine of a maximum of 1 billion dollars. Fourth, Nur Arafah/Farah (July 2009 – present), a High School student, who did scorn through facebook, and social media in the snare of Article 310 and 311 of the Penal Code and Article be considered for be snared with the law No. 11/2008 article 27 paragraph (3). *Fifth*, Luna Maya, artist (December 2009), berate infotaiment workers through social networks Twitter, and have been reported with article 27 of Act No. 11/2008, although in the end peace.

In addition to the five cases, the number of victims of the law No. 11/2008 that continues to grow. Of existing cases, article 27 of ACT No. 11/2008 specifically paragraph (3) becomes the extension of article 311 of the Criminal Code and article 310 in cyberspace.

3.2 Discussion: The Criminology Convergence and Cyber Law

Cyberspace is a term first used by William Gibson in his novel Neuromancer, entitled scientific fiction. Cyberspace is showing the reality, but not reality that is real as we seen bias, but rather virtual reality (virtual reality), virtual world, a world without borders. This is actually is a borderless world, as indeed in cyberspace knows no State boundaries, the loss of the boundary dimensions of space, time and place so residents-residents bias associated with anyone and anywhere. In fact the cyberspace offers men to "live" in the alternate world. A world that can take over and replace the existing reality, which is more fun than fun, more fantastic than the fantasies that exist, the more exhilarating than excitement. Cyberspace universe has led the

community in different sides of the new reality that never imaginedbefore, hope full, pleasure, convenience and adventure, such as teleshopping, teleconferences, teledildonic, virtual café, virtual architecture, virtual bawdy, cybersex, cyber party, and cyber orgasm [7] even included as a means of spreading propaganda in various political and propaganda of terrorism..

The convergence of computing and communication and the exponential growth of digital technology have brought enormous benefits to modern society. With these developments has come awareness that "information security" is no longer a matter for the technical and computer specialist, but for millions of people who now engage these new media every day for business, communications and leisure (Broadhurst and Grabosky, 2005).

Against such developments, Sarah Lowman (lowmanio.co.uk, accessed on March 10, 2017) explains as follows with the huge growth in computer connectivity and usage over the last decade there has never been such a wealth of opportunity for prospective criminals.

Similarly explained by Jose R. Agustina as cybercrime has proliferated exponentially across the globe, those in the criminal justice field have lacked suitable and updated knowledge concerning the pedestrian reality of modern cybercrime.

Since 2000, cyberspace has changed the ideological perspectives of criminologists. The paradigm shift created by the development of the Internet and its sophisticated forms of communication and its ugly off shoot, cybercrime, have broken the traditional barriers of research done by conventional criminologists (Jaishankar, 2011).

According to [8] that, the technological developments associated with cybercrime mean that -- while traditional laws can be applied to some extent -- legislation must also grapple with new concepts and objects, not traditionally addressed by law.

One of the activists in this case is [9] has declared his theory to explain the phenomenon of cybercrime, the Space Transition Theory. The theory is used to explain the causation of crime in cyberspace (cyberspace). K. Jaishankar believes it is important to separate the special theory for cybercrime with conventional criminological theory. Therefore, the explanation through a general theory that there has been inadequate in explaining the whole cybercrime phenomenon. K. Jaishankar [9] describes as follows Space Transition Theory is an explanation about the nature of the behavior of the persons who bring out their conforming and non-conforming behavior in the physical space and cyberspace. Space transition involves the movement of persons from one space to another (e.g., from physical space to cyberspace and vice versa). Space transition theory argues that, people behave differently when they move from one space to another.

Based on the Transition Spaces Theory postulates, then according to the author it can be drawn a conclusion that in fact the new concept is a breakthrough in the field of Criminology in the study of the encounter between hosts the science of sociology, communication sciences and the psychology science in the public space.

At issue is whether the theory postulates-with postulates can be in absolute terms to explain hate speech phenomenon in social media in the context of the Republic of Indonesia? Although, it cannot be said as the State Religion but it is certainly Indonesia is not a secular State. Through the Indonesia, there are 6 (six) legally recognized religion and a variety of beliefs that is growing and growing in fertile. Religion has an important role in the society lift, in addition to the existence of the indigenous culture. So, certain religions and beliefs that have the potential to affect the climate of politics, law, economy and culture. It is this pluralistic schemes that often play in the entire realm of areas of life in particular political, economic and cultural.

As a country of civil law-keepers, with the teachings influence of the Roscoe Pound developed by Mochtar Kusumaatmaadja, influencing the legal system formation in Indonesia that is bottom up. The spirit of the rust rule en order in the National legal system, the suspected

cause frustration on the certain groups.

Many dark history that happened in Indonesia, which isn't managed properly, but instead developed the principles of Ethics are strictly a categorical Imperative. For example, the occurrencesAct No. 40 of the year 2008 on the Elimination of racial and Ethnic Discrimination, ought to be suspected as an effort of State absolutism and totalitarianism do emphasis-emphasis the understanding behind fictile theory. Coercion against the attitude ought to be to the regulations thus gave rise to many questions of interests who are covered by that province regulation.

Things that are interesting and worth to ponder when Writers associate with the view of Tb. Ronny Nitibaskara Rachman [10], that a crime will be perfect (the perfect crime), when an abuse of power or detournement de pouvoir or onrechtmatige overheidsdaad. Then, with all the attributes, the law legally change its functions into law as a tool of crime. The State also showed the presence of miss-understanding the Basic Law of the State with regard to a more meant as a State law, which is considered as a means of changing society, so that the State made the law as an instrument for justification based on the principle of positivistic-instrumentalistik to impose maksim-maksim universal legitimate.

Space Transition Theory in Cyber Criminology examines barriers experienced in causalit y through postulates-postulatnya when confronted with an inner attitude of society Indonesia, for example, Muslims in Indonesia, which in absolute terms must acknowledge an understanding the tolerance concept is based on the statutory universal through maximum

Rocky Marbun [11] submits arguments using evidence from the Qur'an, Surat Al-verse 120, Baqaraah and Al Qur'an Surat An-Nisaa ' verse 34, in order to illustrate the phrases that frequently appear in Social Media Networks as well as religious lectures when relating to the transition of national leadership is loaded with issues of religion and gender, which is explained as follows:

Al Qur'an Surat Al-verse 120 Baqaraah to mean as follows:"And the Jews will not be pleased with thee, nor will the Christians, till thou follow their creed..."If a listener this verse when spoken in the Mosque or *Mushalla*in media lecture, is religion other than Islam, can then the non-Muslim the report it as hate speech? Whether it can be classified as criminal acts of hate Speech? However, if social conditions are indeed in conditions potentially emerging social conflict, then the verse continues to blow, very likely occur Party Police argued it was included to the hate speech. However, it is not because of its content which can be categorized as hate speech, but the conducive conditions that should be built so that put a damper on the content of the lectures became important. While the paragraph content itself is not a hate speech category. Or, we are trying to put a condition among the "religious talk" with "in campaign activities" Oration.

In the political conditions in Indonesia which is pluralistic, then critical interface interests often occurs. In the political situation history in the Indonesia, appears to have once occurred friction between the interests of a group of religious-based political interests. For example, by the Megawati Sukarnoputri advance as presidential candidate.

In the Qur'an, Sura An-Nisaa ' verse 34 is defined as follows: "Men are in charge of women..."*It was narrated from Abu Bakar said, When up to the Messenger news that the Persians lifted the King Emperor's daughter, he said, will never be the lucky circumstances of a people who handed the leadership on a woman." (Narrated by Al-bukhaari, Al-nisaa'i and Turmudzi).*

Within the campaign period for the sake of Megawati Sukarnoputri, when these verses and Hadith is echoed in various lecture-religious talk, then the question is whether these verses and Hadith is the behavior of hate speech? Which are then supported by arguing that the groups

that don't like the women's leaders harness the verse and Hadith for his political interests. It certainly goes back to the orientation of a person or a people group who are separating between the religious lives with the life of a country or separate between religion and politics.

The Praxis operates ratio in the philosophy of Immanuel Kant consciousness or philosophy of the subject. Immanuel Kant assumes the subject action as something that weigh up autonomously about what she should do. The subject is autonomous weigh up which actions can the maxim goes into effect to everyone. Furthermore, Immanuel Kant formulated the action in "maxim imperatives of his" categorical "Act in such a way, so that your will may apply the maxim at any time at once can be specified as a law that is universal." The ratio of Praxis that is taken as a monologue, because without any consensus with other subjects. The ratio of praxis in Immanuel Kant's "categorical imperative" is based on the methodical solipsism (accessed on March 12, 2017), which is interpreted by Jürgen Habermas in the philosophy intersubjectivityhorizon. The ratio of Praxis Immanuel Kant's can no longer be applied in social theory and political theory. Therefore, how to reflection is monologal, so the worth and totalitarian absolutism are suspected. Absolutism of the ratio of Praxis, as contained in the "categorical imperative", is a command that must be obeyed by the subject without conditions with no opportunity of dialogue with other subjects or in monologal who later claimed to be the "essential". Anything that is real then it was total, so that the truth of knowledge gained from the subject that monologal will be considered for all rational beings legitimate. The totalitarian nature of the subject emerges from the ratio of the Praxis imposes both mind and will to all the people without dialogue. So, simply put in place a totalitarian basis through universal principles that can be understood in essentialism(Hardiman, 2013).

Based on that, hate speech through social media networking that happens in Indonesia is now one of the things that cannot be applied to the theory of the transition Spaces intact, therefore there is room and not accommodatedgaps in postulates. The most important thing in understanding hate speech through social media, which is meant by the authoritarian State as forms of cybercrime, in the form of expressions of belief in pure it is not can be a legitimize which postulates. The tendency of United in the virtual world is not based on the trend of doing a crime, but based on the commonality of views and opinions even beliefs diversity.

With regards to the descriptions above, according to the author, there is an understanding that is mistaken in understanding hate speech, which in this case is often exchange experienced between the confidence expression in the diversity pluralistic believed was hate speech with one cybercrime form that is a cyber-bullying.

In the context of cyber bullying, according to K. Jaishankar (2011) – a sample of students as subjects of cyber bullying – explains as follows: "Scenes like this are playing out in schools around the world. Students, especially adolescent girls, are increasingly victims (and, sometimes, perpetrators) of degrading, threatening, and/or sexually explicit messages and images conveyed electronically via cell phones, e-mail, chat rooms, and personal online profiles. As Harmon (2004) observed, the Internet has provided young people with an arsenal of weapons for social cruelty. The phenomenon is called *cyber bullying*, which Patchin and Hinduja (2006) define as "willful and repeated harm inflicted through the medium of electronic text". Cyber bullying has its roots in traditional bullying that takes place in the physical school setting; however, the medium of cyberspace allows it to flourish in distinct ways, creating numerous challenges."

When setting against hate speech if you want to be associated with cybercrime, cyber bullying construction then more appropriate use in events that disrupt public security (public order). So, the delivery of knowledge especially prolific religiosity can be drawn out of the classification of hate speech, all have built a diagonal construction first. So, the Transition space

theory should experience a special modification when associated with specific conditions and circumstances that are unique in Indonesia.

4 Conclussion

Hate speech as well which is a feeling expression or containing a certain belief, although expressed in cyberspace, is not making it a cybercrime. Therefore, a normative expression as an ignoble deeds is not able to monologue based on power. Hate speech determination in social media networks, is part of the legitimate feeling in certain people groups, so dialogist process is the only solution in solving hate speech.

Space Transition Theory will find more compatibility on the physical actions in the virtual world that gave rise to bodily harm. Whereas in the hate speech, Space Transition Theory will find obstacles causality in expressions that are based on the legitimate feeling. How to measure an act that has the tendency is a form of crime in virtual worlds is to have the same tendency with the real world--and vice versa--in the real world in fact is not an ignoble deeds, but became deplorable when entered in the cyberspace. This is the main difficulty of the Space Transition Theory if it is dealing with hate speech as cybercrime.

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Teaching English In A Rural Area During Pandemic Of Covid-19

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Abstract. This research aims to find out the teaching strategies used by English teachers of SMAN 6 Bengkulu Tengah during the pandemic of COVID-19, analyze how the teachers implement them in teaching English during the pandemic of COVID-19, and describe the challenges were faced by the teachers in implementing the strategies. The research method in this study was qualitative descriptive, where the data was obtained from interviews towards two English teachers and observation checklists. The result demonstrated that both teachers applied asynchronous e-learning and direct instruction strategy. Teachers implemented English teaching strategies during the COVID-19 pandemic by paying attention to 3 teaching components, namely presentation technique, evaluation technique and classroom management. The challenges that were faced by the teachers were from the aspects of internet accessibility, electronic device availability, and the high level of stress of students in online learning. The results suggested that the implementation of technology in EFL learning were not optimal yet, even though the strategies helped the teachers in some aspects of classroom management, such as time management and effectivity of learning.

Keyword: Teaching Strategy; E-Learning; COVID-19

1. Introduction

Teachers are those who have a pivotal role in shaping the young generation to be better in the future. Additionally, they are required to have the ability to fulfill their duty well at the institutions of education. This is supported by Roestiyah theory, "Seorang guru adalah seseorang yang memiliki pengetahuan, keterampilan, profesionalisme, dan keyakinan untuk peningkatan diri dalam bidang pendidikan" (A teacher is someone who has knowledge, skills, professionalism, and faith for self-improvement in the education area). Then, "Guru adalah pendidik profesional dengan tanggung jawab utama mendidik, mengajar, membimbing, mengarahkan, melatih, menilai, dan mengevaluasi siswa pada pendidikan anak usia dini melalui pendidikan formal, pendidikan dasar, dan pendidikan menengah." (Teachers are professional educators with the core responsibility of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education,

primary education, and secondary education). To be able to perform well in teaching activities, teachers should have strategies of teaching. Then, "Strategi mengajar adalah tindakan guru melaksanakan rencana pengajaran, artinya upaya guru menggunakan beberapa variabel pengajaran, yaitu: tujuan, bahan, metode dan alat, serta evaluasi untuk mempengaruhi siswa dalam mencapai tujuan yang telah ditetapkan" (The teaching strategy is the act of the teacher implementing the teaching plan, meaning that the teacher's efforts to use several teaching variables, namely: objectives, materials, methods and tools, and evaluation, to influence students to achieve predetermined goals). Without using strategies, the activities of teaching will not be optimal and students may not get the good achievement they expect at school. Teaching strategies also help the teacher to make good assessment to analyze the best way of teaching.

During the pandemic of COVID-19, the minister of education decided that the activities of teaching at the class were shifted to an online system. It is done to avoid the risk of a pandemic. In fact, it's already had a near-universal impact on learners and lecturers around the world, from pre-primary to secondary schools, technical and coaching education and coaching (TVET) institutions, universities, adult learning, and skills development establishments. By mid-April 2020, 94 % of learners worldwide were influenced by the pandemic, representing 1.58 billion kids and youth, from pre-primary to education, in two hundred countries.. It indicates how serious the problem is for the education of human beings. Therefore, educators such as teachers, lecturers or trainers are demanded to adapt to a new situation by changing the way of teaching. One possible way is by using a teaching strategy that can be applied to conduct distance learning and online learning because it is impossible to come to class. Some of the teaching strategies are cooperative learning, inquiry-based instruction, differentiation, behavior management, and technology in the classroom. The technology used in teaching is highly useful for teachers at all levels of education, especially in this era of the pandemic. For example, a teacher can use WA, google classroom, or zoom to deliver lessons to students at their homes without meeting directly with students.

To help the researcher with the main research, a pre-observation in SMA 6 Bengkulu Tengah has been conducted, with several problems identified, they are: the teacher does not know very much about technology. For example, she got problems with creating google classroom, setting up zoom meeting, and operate other applications. Then, some students who do not have laptops or smartphones, which forced them to buy new ones or borrow from a neighbor. Then, where they live in rural areas, it often causes them to have problems, namely, the internet connection is often unstable. The teacher still experiences several obstacles in the process of implementing teaching strategies and sometimes she finds students do not understand the material or instructions conveyed during online learning. This can be due to the different competences of each student, the teacher's monotonous strategy, too many assignments for students, and she does not make interesting videos or creative teaching. Besides, during the interview, the English teacher said that he could only use WA to deliver lessons, namely by sending course materials in the form of pdf and also having difficulty with more complex teaching applications, such as google classrooms or zoom. Moreover, the electricity was sometimes shut down during teaching times. Finally, she also said that signal lost frequently.

2. Model System

There are many kinds of teaching English strategies that can be applied in the language teaching process, According to Killen such as the teaching strategies as follows:

a. Direct Instruction

Direct instruction is a highly structured and teacher-centred and also direct instruction, as discussed previously, involves the direct transfer of knowledge from the teacher to a student, with the teacher doing most of the talking. The teacher leads the instruction and the focus is on acquiring factual knowledge and this leaves few opportunities for the students to initiate activities.

b. Discussion

Discussion can be used in any classroom environment by students to test their own ideas against those of other students. It is a good way to learn from different perspectives on the same information and it can help to guide students to understand or grasp a principle that has eluded them previously. The students can express their own opinions and can give other students their views on the topic. The teacher will facilitate the discussion and guide the discussion in the right direction if it strays.

c. Small-group Work

Small-group work is an activity that focuses on the students and the teacher should facilitate and give guidance to the different groups. These groups can vary in size, depending on the classroom and desk layout but average group sizes are usually four to six students. Students can work together to achieve their goals or outcomes and they can acquire social skills as well as factual knowledge. The main goal is to produce evidence of their understanding. Small-group work can include a wide variety of activities. These activities can include small-group discussion, completing worksheets, solving problems or making presentations. Small-group work can thus be integrated with other strategies.

d. Co-operative Learning

Co-operative learning can take place within small groups or between two students working together. Students learn from each other and the teacher should pair students who will work effectively together. This encourages student-to-student interaction, and can help team members to establish a supportive relationship. It further gives merit benefit for both students and the teacher.

e. Problem Solving

Problem-solving is a strategy that is widely used in classrooms. The students should solve the problem themselves using their prior knowledge to guide them towards a solution. Problem-solving tests the students' ability to use their knowledge and to prove that they have assimilated it by using it to solve problems. This topic will be further discussed at length under the next heading.

f. Research

Research can be used as a teaching strategy to promote self-learning and allow the students to discover new information on their own. Research can take the form of an investigation or guided research using materials such as books or the internet. It can also be combined with case studies. Research can lead the student to discover new methods and information, thus giving the student a broader perspective; this will enable the student to retain new information when it is transferred from the teacher.

g. Role Play

Role-play is effective as a teaching strategy: it helps the students to gain confidence and grasp knowledge and use it in an everyday situation. Role-play can be used to create a particular scenario and it brings a kind of realism to the classroom. This helps the students to solve problems and use the knowledge that they have acquired in a situation that resembles a real life situation. Role-play can help the students to understand information and to see its value.

h. Case Study

Case studies provide real-life scenarios: the students can learn from these experiences to put their knowledge to use and build on their current experience. Case studies can provide useful information that is not in the textbook. A case study can be combined with research, small-group work or co-operative learning. This strategy can be used to gather data in real-life situations and to analyze the data using problem-solving methods. This can help the students apply knowledge from the classroom and analyze data to present useful information.

i. Writing

Writing is a good way of testing the students' knowledge and their understanding. It reveals their ability to write and tests whether they can relay information effectively. Through writing students can represent their opinions and also deal with problems that they might encounter in the classroom.

Synchronous e-learning refers to learning/teaching that takes place simultaneously via an electronic mode. It means that even though the teacher and students are not in one physical place together, they still interact in real-time through media such as:

Zoom Meeting is a learning medium using video. The founder of the Zoom Meeting application is Eric Yuan. Zoom was inaugurated in 2011, with the headquarter is in San Jose, California. According to Danin and Aqilah, "Dalam aplikasi Zoom Meeting, guru dapat berkomunikasi langsung dengan siswa melalui video" (In the Zoom Meeting application, teachers can communicate directly with students via video). YouTube can be defined as a service of video sharing that enables users to watch videos posted by others and upload their videos. One of the features of YouTube is called YouTube Live. It is a simple way for creators to reach their community all at once. YouTube has tools that will help manage live streams and interact with viewers in real time, whether teaching a class, streaming an event, or hosting a workshop. Google Meet, or more commonly known as Google Hangouts Meet, is created to let many people joining the same virtual meeting, and speaking or sharing each other's video from anywhere through internet access.

Asynchronous E-Learning, Although Synchronous and Asynchronous E-Learning are similar, each of them has different characteristics in terms of the types of digital media used, and the effectiveness in various situations. Some learning applications and social media that can be used in Asynchronous E-Learning are:

WhatsApp is a type of mobile messaging application that can be installed on iPhone, Android, Windows Phone, or Windows PCs. It allows users to make free voice calls, face-to-face video calls, or text messages. For example face-to-face learning in class, the teacher can send pictures or certain problems/cases, then students are invited to discuss by sending answers via the WA Group. E-mail is defined as a system for delivering messages to single or multiple recipients through telecommunications links of computers by applying a web-based service or dedicated software. An example of email use in e-learning is that the teacher instructs the students to turn in the assignment through email. Edmodo could be a teaching tools shapely once social networks with attention on communication and not simply the distribution of data from the teacher and grade reportage. Google Classroom is an associate internet-based service provided by Google as an associate e-learning system. Teachers are helped by this design to create and distribute tasks to the students without using paper.

3. Channel Model

In this research, the writer used descriptive qualitative research that focuses on the teacher's strategies in the rural area during the covid-19 outbreak. It describes the strategies used by the teacher in SMAN 06 Bengkulu Tengah. This research was applied descriptive qualitative with a narrative approach to get and analyze narratives about teaching strategy used by English teachers in remote areas. Then, Qualitative is used to investigate a problem in order to get a clear understanding of a certain phenomenon.

Then, a narrative approach is very purposeful to gain insight into several aspects of a person's life that other qualitative approaches cannot reach. By listening to teachers' stories, the researcher was able to make the interpretation or relationship among education during crisis times using the online system, the limited resources, and the stories they tell about their experiences.

This study used qualitative data analysis techniques. Data analysis is an integral part of the research process which is poured either in writing or not. Study with a qualitative approach, the focus of the research problems demanded researcher conduct systematically, deep, and meaningful assessment as confirmed by Burgess below. In qualitative research, all investigators or researchers focus on the problems studied, guided by the conceptual or theoretical framework. Data analysis in qualitative research is often carried out simultaneously or together with data collection. There are three stages of qualitative data analysis based on the theory of Miles and Huberman (1994):
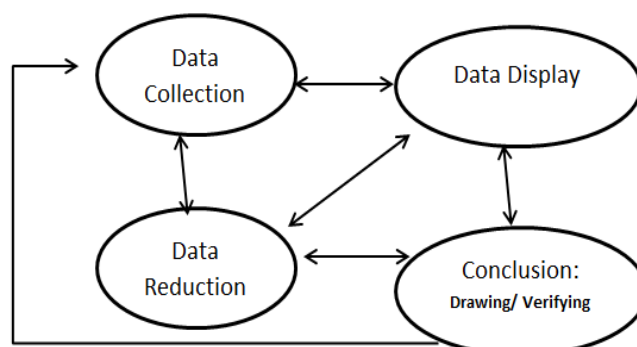

Chart 1. Data Collection Method.

4. Performance Result

1) Presentation Technique

Based on the online classroom observation, the techniques used in the presentation are as follows:

Table 1. Observation Checklist 1

COMPONENT	TYPES	INDICATORS	Teacher 1		Teacher 2	
			Yes	No	Yes	No
1. Presentation Technique	a. Synchronous	a.1. Using zoom		√		√
		a.2. Using Google Meet		√		√
		a.3. Using YouTube Live Streaming		√		√
	b. Asynchronous	b.1. Sending materials by using WA	√		√	
		b.2 Using Google Classroom		√		√
		b.3 Using E-mail		√		√
		b.4 Using Edmodo		√		√

Based on the data above, it can be seen that in the Presentation Technique there are 2 types, namely synchronous and asynchronous, where each type uses various online learning media. On an asynchronous basis, the learning process is carried out face to face online using zoom, google meet and YouTube Live Streaming. Then, in asynchronous, the learning process uses WA, Google Classroom, e-mail, and Edmodo media.

2) Evaluation Technique

After carrying out the online learning process, the teacher evaluates the technique to find out the level of students' understanding of the subject matter. Here are the data;

Table 2. Observation Checklist 3

COMPONENT	TYPES	INDICATORS	Teacher 1		Teacher 2	
			Yes	No	Yes	No
3. Online classroom management: Teacher and students interaction, Teacher Questions, and Online Classroom Environtment	a. Synchronous	a.1. In order to make the online classroom atmosphere more active when using zoom, the teacher asks students related lessons, and students answer questions using the raise hand feature and the chat column for permission to answer questions.		√		√
		a.2. The teacher builds interaction with students on google meet by asking questions or asking students to ask questions. Then		√		√

		students use the chat feature to respond.				
		a.3. When the learning process uses YouTube live streaming, the teacher asks or directs students to give questions and students respond using the comment column feature		√		√
		a.4. The teacher asks all students to turn off/mute the audio when the teacher delivers the material so that the class is more orderly.		√		√
		a. 5 Teachers allows students to unmute the audio when students want to respond to instructions from the teacher.		√		√
	a. Asynchronous	b.1. Teachers asks questions and directs students to provide questions related to the material by sending messages on WhatsApp.	√		√	
		b.2. Teachers asks students to respond to questions given by the teacher or students provide questions related to the material by writing them in the comments feature on Google Classroom.		√		√
		b.3. Teachers students ask the teacher by email.		√		√
		b.4. Teachers checks the attendance of students who have seen the message by viewing it in the info feature on	√		√	

		WhatsApp.				
		b.5. Teachers checks student attendance by asking students to write their names in the comment feature on Google Classroom.		√		√

Based on the data above, on synchronous and asynchronous e-learning, there are several ways for teachers to conduct online classroom management. Synchronous e-learning includes: 1. In order to make the online classroom atmosphere more active when using zoom, the teacher asks students related lessons, and students answer questions using the raise hand feature and the chat column for permission to answer questions., 2. Teachers builds interaction with students on google meet by asking questions or asking students to ask questions. Then students use the chat feature to respond, 3. When the learning process uses YouTube live streaming, the teacher asks or asks students to give questions and students respond using the comment column feature, 4. In order for the class to be orderly, the teacher asks all students to turn off/mute the audio when the teacher delivers the material., and 5. Teachers allows students to unmute the audio when students want to respond to instructions from the teacher. Then, in asynchronous e-learning, namely: 1. Teachers asks questions and asks students to provide questions related to the material by sending messages on WhatsApp, 2. Teachers asks students to respond to questions given by the teacher or students provide questions related to the material by writing them in the comments feature on Google Classroom, 3. Teachers students ask the teacher by email/Edmodo, 4. Teachers checks the attendance of students who have seen the message by viewing it in the info feature on WhatsApp, and 5. Teachers checks student attendance by asking students to write their names in the comment feature on Google Classroom.

In the discussion, research findings are organized and presented in such a way that the research problem becomes a reference in preparation and presentation. In the following, the researcher discusses answering the research questions based on the results of the observation and interviews.

1. Teaching strategies used by English teachers in online learning

Teaching strategy is a step-by-step process of planning, designing, implementing and evaluating the materials and techniques used in the teaching activities to know how effective they are. It means that teachers have to use varied strategies in teaching based on the purpose of the learning process. Then, e-learning broadly refers to electronically assisted instruction and is often associated with instruction offered via computers and the internet. Through the use of various electronic delivery methods, learning aspects of information transmission and interaction can be facilitated. So, for a different online learning purpose, the teachers are expected to use different strategy to make the learning process become effective and efficient.

2. How the Teachers Implement the Strategies in Teaching English during the Pandemic of COVID-19

The purpose of teaching strategy is to make it easier for teachers to deliver subject matter so that it can improve the quality of students towards developing reliable and capable human beings. Then, based on Muhaimin's theory, teaching strategy is very useful at every stage and process of teaching and learning, both at the readiness stage, giving motivation, attention, providing perception, retention, and transferring knowledge to students. So, to achieve the objectives of the teaching strategy, the teacher must implement the strategy according to the components of the teaching strategy. There are various strategies that

teachers can use in the online learning process, where each strategy has its advantages and disadvantages. So that teachers can determine which strategies are easier to use to apply them to the online learning process. Based on the results of data from observations and interviews, teachers at SMAN 06 Bengkulu Tengah used asynchronous e-learning, namely WhatsApp and direct instruction strategy. They use this strategy because it is easy to use in the online learning process that adjusts to the signal in rural areas.

3. Challenges faced by the teachers in implementing the strategies

The challenges faced by the teachers in implementing the strategies are Unavailability of signal/network in a rural area, expensive internet, students did not own smartphones/laptops, no internet cafes, lack of computers/technology skills, and students experience increased stress because they don't understand online instruction, that's based on the data found in observations and interviews. This is following Bekithemba Dube's theory (2020), where the challenges of online learning in rural are: unavailability of a network in rural areas, shortage of devices for online learning, closure of internet cafés, lack of computer skills of some rural teachers, and expensive internet data.

5. Conclusion

Based on the research finding and discussion in chapter IV. The researcher concludes that the research problem is to know the teaching strategies used by English teachers in online learning at SMAN 06 Bengkulu Tengah, to answer this research problem, the researcher used observation, interview, and documentation as the technique of collecting data. The researcher found two types of teaching strategies used by English teachers in online learning. There is an asynchronous e-learning type, namely using videos from YouTube and WhatsApp groups, and direct instruction strategy. Those strategies are mostly used by teachers in helping with the teaching-learning process in the online class.

Then, Teachers implemented English teaching strategies during the COVID-19 pandemic by paying attention to 3 teaching components, namely presentation technique, evaluation technique, and classroom management. Besides that, in implementing teacher teaching strategies at SMAN 06 Bengkulu Tengah, they used asynchronous e-learning and direct instruction strategies for these teaching components.

Currently, as a teacher, it is very important to master and use strategy appropriately. Besides, during the pandemic of Covid-9, learning was carried out online. Knowing teaching strategies can help teachers to choose which teaching strategies are suitable for use in each class or level, certain materials related to what will be taught to students. The teaching strategy must be applied by the teacher because this is one way for the teacher to determine learning objectives during the teaching and learning process. So that the teaching and learning process of English can run well and students will be interested in taking part in learning.

This can motivate students to be enthusiastic about learning and easily understand the learning material delivered by the teacher in learning during the pandemic of covid-19. Hopefully, the result of this research can be a reference for other researchers who do advanced research about teaching strategies. It also can provide an alternative source for the next researcher to get a better and more accurate result.

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