Understanding Teacher's Perspectives in Media Literacy Education as an Empowerment Instrument of Blended Learning in Early Childhood Classroom

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ABSTRACT: Teacher's abilities to understand the benefits and use of media literacy play an important role in dealing with children as digital natives. Media literacy education can be an instrument through the use of blended-learning websites to address the challenges of education in the 21st century and learning solutions during and after the Covid-19 pandemic. This study aims to figure the teacher's perspective in understanding media literacy as an instrument for implementing blended-learning in early-childhood classes. Using a qualitative approach, this study combines two types of data. Data collection involved kindergarten teachers, six people as informants who attended the interviews and twenty-six participants who filled out questionnaires. Typological data analysis was used for qualitative data as well as simple statistical analysis to calculate the percentage of teacher perspectives on questionnaires collected the pandemic. The findings show five categories from the teacher's perspective. First, about the ability to carry out website-based blended-learning and the use of technology in classrooms and distance learning is still low. It must be transformed into more creative and innovative one. Encouraging teacher awareness of the importance of media literacy education for teachers as a more effective integrated learning approach, especially in rural or remote areas, to be the second finding. Third, national action is needed to change from traditional to blended-learning culture. Fourth, the high need for strong environmental support, such as related-party policies and competency training is the most important finding in this study. Finally, the need for an increase in the ease of access to technology use from all related parties, because the biggest impact of the Covid-19 pandemic is on ECE, which is closely related to the perspective of teachers on technology. The research implication demands increase in technology systems and connections between educators, parents, institutional managers, and education policy holders, for ECE services in urban areas for disadvantaged children, and all children in rural or remote areas.

Keywords: *Blended Learning, Early Childhood Classroom, Media Literacy Education*

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1 INTRODUCTION

Early childhood education during a pandemic for an archipelago country like Indonesia makes the effects of this outbreak even worse, because rural areas are wider than urban areas. Preparation of teacher competence for 21st-century skills in this country has not been completed, related to technology implementation in learning in classes, especially in rural areas. The pandemic period is an accelerating moment of increasing teacher mastery in this field. However, this is a challenge that has not been handled properly. Problems with early-childhood education and development are growing everywhere in this country, due to widespread digitization to discuss the decline in education caused by school closures, but not in line with adequate supervision of the use of technology, and low technology competency of educators, resulting in negative effects on learning outcomes, which is quite large. Learning goals are often not achieved well, so is in assessing children's development. Teachers do not have technology applications to assess children's development, many teachers are not familiar with digital devices, especially teachers in rural areas. Papadakis et al., (2020) says educational applications offered as tools are often made with limited advice from educators or development specialists, so they have little or no value at all. So that his research to the development and exploration of Evaluation Tool for Educational Applications (ETEA) produces a structure that includes four factors, like usability, efficiency, parental control, and security in children's education evaluation tools, can be an example of a solution making similar to help parents, and current teacher.

Although sometimes the use and access of technology and communication become an obstacle and a challenge for teachers to improve the quality of learning, but like previous research on teachers' understanding of technology that has been done by Kalogiannakis and Papadakis (2019), in testing the use of the Technology Adoption Model (TAM) to explore how the skills of kindergarten teachers, ICT (Information and Communication Technology) pre-service children and their attitudes towards the use of mobile devices affect their ability to use it, and it has been shown that pre-service teachers' attitudes towards the utility of mobile learning in the teaching process have the greatest influence on their plans to supports digital device, followed by perceived ease of use. This is because there are many ICT tools that teachers can use to support the teaching and learning process, and this is a big hope for many teachers in rural areas.

Major changes in information and communication technology (ICT) have given rise to new forms of literacy, which are called computer literacy or Internet literacy as a form of media literacy (Livingstone, 2013). Media literacy has the potential to change outcomes in various fields, including education, and communication (Arke & Primack, 2009). Domine (2011) identifies media literacy education as an important framework for accommodating many kinds of knowledge, skills, and dispositions that are technologically advanced, pedagogically proper, and flexible with design. Media literacy education emergence as a discipline has broadened the traditional definition of media literacy as the ability to access, evaluate, produce and communicate using various forms of media. However, sometimes the use and access of technology and communication become an obstacle and a challenge for teachers to improve learning quality.

It includes teacher flexibility to children with increased work commitment; teacher skills such as modern communication and collaboration methods, the direct access teachers offer to knowledge, and the understanding teachers generate if they are to support learning appropriately. Especially during the Covid-19 pandemic, children have been involved a lot with technological device, children as digital natives will need further stimulation related to technological devices. So, when this difficult time ends, teachers must have skills to carry out traditional learning that is integrated with new technology in the classroom. Website-based blended learning can be an option developed to help teachers give blended learning materials with media literacy disciplines. Briquet-Duhazé (2019) study provides information from the results of his research that helps to build a blended learning website. The goal is to cut learning difficulties of elementary school students by proposing research results and tools for the classroom.

Media literacy education offers a potential tool for correcting corrupted truth (Truth Decay) which is defined as the diminishing role of facts, data, and analysis in current political and civil discourse (Huguet et al., 2019) . However, the field of media literacy education requires educators

to bridge the relationship between traditional education and computer education. The research of Valtonen et al., (2019), provides an overview of some of the current media computing mechanisms and provides a new perspective for media literacy education to increase students' readiness to face modern media and become critical and skilled actors to navigate the landscape. Media today, teachers' understanding of media literacy is very important. Friesem and Friesem (2019) check media literacy development as a field of study and practice. Their results show the need to re-evaluate the paradigm that has formed media literacy education foundation since its emergence in the field, where teachers have not been heavily involved due to limited understanding. Redmond (2015) finds media literacy is common sense to bridge the core standards of traditional learning with digital media learning experiences, with the right teacher competencies.

Liene (2016) research explores media literacy as a key component of the agency learning process and explains the agency empowerment mechanism through the media education process, so that media literacy is proven to be a tool in the process of empowering learning models. Encouraging the needs of academics in pre-school classes makes teachers have many things requirement to help children focus on class activities. Blended Learning can be a strategy that helps students engage in class. This type of learning increases teacher's flexibility in teaching to focus more on personalization and differentiation based on children's needs, also accommodating the use of technology that children like as digital natives.

Based on research on blended learning (Bryan & Volchenkova, 2016; Chan, 2019; Chou & Chou, 2011; Rasheed et al., 2020; Ustun & Tracey, 2020; Yuen, 2011) researchers recognize developing media literacy education importance (Cappello, 2019; de Abreu, 2010; Kupiainen, 2019; Livingstone, 2013) as a web-based learning tool / instrument (Briquet-Duhazé, 2019; Crawford, 2017; Kennedy et al., 2017; Sabirova et al., 2019) which answers the challenges of 21st century learning as a complement to learning online which is an important fill for digital native children. To Fill the research problem gap, the research aims to find out the teacher's perspective on media literacy education as an empowering instrument for blended learning websites in early-childhood classes. It is interesting to look at so that the teacher's perspective can be used research a basis for further research, which results in various learning products for early childhood according to the challenges of the times.

2 THEORITICAL STUDY

2.1 *Media Literacy Education*

Media and digital technology are seen as tools to support the teaching of traditional disciplines, according to an instructional technology approach that has nothing to do with media literacy. Media literacy is not defined as a mere skill set, with clearly stated pedagogical objectives and performance appraisal systems, but as a new teaching culture in which technology is expected to transform schools into innovative, student-centered, and interactive learning environments. Media is no longer considered only as a tool for teaching and learning but, more broadly, as part of the social and cultural environment of children. Given the lack of a specific discipline dedicated to media literacy, teachers and schools need to develop interdisciplinary projects (Cappello, 2019).

Finland is one of the top countries in the world when it comes to literacy, due to its strong education and teacher education policies. In addition, media literacy is supported by the Ministry of Education and Culture and other government agencies. Among the members of the European Union (EU), Finland is one of the few countries that have a well-developed media literacy policy. In 2013, the Ministry of Education and Culture launched cultural policy guidelines that promote media literacy among children and adolescents. The 2013-2016 National Policy Guidelines for Good Media Literacy cover four topics; (1) high-quality, child-centered and youth-centered daily media education; (2) sustainable structures that promote media literacy achieved through national and local-level legislation, financial resources, and steering; (3) activities and various stakeholders in the media education profile itself. Networks are strengthened, and new partnerships are created; (4) Finland plays an active role in global media education activities (Kupiainen, 2019).

The educational needs of the 21st century teachers require a broader definition of technology to include object, print, audio, video, and digital media. A more appropriate terminology for teacher preparation is media literacy because it covers various technologies through which students' access, analyze, evaluate, produce, and communicate information, not just framing it but the use or acquisition of technological skills. Media literacy education can help students, and teachers better understand and communicate their views on 21st century mathematics, science, technology, social studies, English, and literacy (Partnerships for 21st-Century Skills). For example, Project looks Sharp's Curriculum magnifies the interdisciplinary nature of media literacy education, the inclusiveness of media and technology, and its emphasis on critical thinking and moral decision making (Domine, 2011).

2.2 *Blended Learning with Online Technology*

Blended learning is widely considered an approach that combines the benefits provided by in person and online learning components. Several studies have highlighted the overall challenges of blended learning modes as a whole, but there is no clear understanding of the challenges that exist in the online component of blended learning. Self-regulation challenges and challenges in using instructional technology are the main challenges faced by students. The teacher's challenge is mainly in the use of technology for teaching. Challenges in providing suitable learning technology; and effective training support for teachers is a major challenge faced by educational institutions. Rasheed et al.,(2020) underscores the need for further investigations to address the challenges of students in schools, teachers and educational institutions in blended learning.

Adopting blended learning to involve children in active learning and improving learning outcomes is the result of the development of Internet technology, but this mixed learning dilemma has been proven through research Chan (2019) which shows that participants who still choose in person learning rather than e-learning, they demonstrated a strong preference for traditional modes of learning. Students have intense cultural roots in conventional learning. This often happens in rural areas that have not fully accepted technological developments. In fact, education has shifted where, when and how learning occurs, which is a significant reason why online learning is increasingly accepted (K. Zhang & Bonk, 2019). Learning with technology has the potential to provide flexible applications that are open to be used as a tool for active, collaborative learning and remove the boundaries of traditional learning. Chou and Chou (2011) state that the limitations of online learning, such as students having difficulty managing time, commitment and maintaining motivation, have been overcome by a mixed learning model as an effective alternative learning (Wu et al., 2010). The results of Ustun and Tracey's (2020) research show that the recurrent study, design and assessment of the resulting blended learning gave researchers the opportunity to find suitable solutions to any real-world problems faced by teachers in the classroom. In addition, the design and implementation of blended learning lead's teachers to move from a passive approach to an active teaching approach and encourages students across three iterative cycles to become mobile and interactive learners.

Blended learning in the 21st century is learning related to technology. Media literacy education can be the key to improving learning without censoring students. Media literacy can make it easier for educators to develop children as competent digital natives. De Abreu's (2010) research contributes to the case of media literacy education when technology enters schools, homes, and globally as a means to empower digital indigenous children, or in other words media literacy education can be an instrument of empowering blended learning related to technology. Recent research has provided many technological applications to support mixed learning in early-childhood classes. However, Papadakis and Kalogiannakis (2017) review concluded that despite thousands of applications available today, it is difficult and inconvenient for teachers and parents to choose the most suitable educational applications for children It may be that mobile devices can increase the impact of education. However, longer duration of interventions, closer alignment of technology and curriculum, and further evaluation of higher-level skills need to reinforce the actual impact of mobile learning programs (Papadakis, 2018).

Apart from the importance of the ideal perspective of teachers in media literacy through technology to support mixed learning, teachers need to have the ability to select applications used in class. Research by a technology expert related to early-childhood education from Greece provides recommendations to teachers through a review of relevant literature so that before using educational applications, they first evaluate the application. A rubric (abbreviated as REVEAC) in four areas: content, design, functionality, and technical quality, can be used as a reference for evaluating an application for children, this can be studied further in Papadakis's et al., (2017) research article.

3 METHOD

This phenomenological research uses qualitative methods. With purposive sampling, researchers deliberately select people who understand the central phenomenon. The participants are ECE educators in the South Tangerang area. Involving thirty-two teachers, six samples that met the criteria to be interviewed in this study, the remaining twenty-six people were asked to fill out a questionnaire with the same concept of the instrument. Interviewees are asked to take part in voluntary interviews and sign a consent form showing that they can be opt out at any time.

The researcher did not force the code to fall into certain categories, but the participants had responses that were quite similar where no different cases were found. The research questions in this study are outlined as follows, RQ1: How do teachers carry out media literacy education through web-based blended learning today? RQ2: What are the challenges for teachers in facing the demands of technology-based and traditional learning? RQ3: What is the teacher's perspective on the aspects of media literacy education, learning, and website-based technology?

3.1 *Instrument*

Teachers must be technology literate individuals and must have the skills and experience they need to use in teaching activities. One of these technology standards is the ISTE National Educational Technology Standard (NETS-T) and indicators of teacher achievement in technology literacy are contained in 5 standards and 20 sub-items, used as references in the semi-structured interview instrument. Likewise, with the instruments in the questionnaire, by modifying (adjusted to the situation of teachers in Indonesia) and applying the instruments in the ISTE National Education Technology Standard (NETS-T) on the list of statements in this research questionnaire. The content of this research instrument has been validated through a construct validity test with an expert judgement by an educational technology expert. The reliability test was carried out by arranging two similar instruments (equivalent), then being tested on the same group of respondents, and the test results were correlated with the product-moment correlation technique.

Table 1. Teacher's Perspectives on Media Literacy (adapted from Aktay, 2009)

Media Literacy Cycle	Proficiency in Technology (ISTE, 2009)	Teacher Technology literate
Perception		1. Understanding the definition of media literacy
		2. Ability to analyze media texts and produce and publish instructional media content
Access	Do research & use information	3. The ability to find information on various resources
		4. Can Motivate student interest in learning
		5. Connect with students' personal interests, culture or experiences outside of school
		6. Gaining prior knowledge of students
Analysis	Critical thinking, problem solving, and making decisions	7. Lead and manage productively
		8. Always discuss with children
		9. Using the principles of Bloom's Taxonomy
		10. Case study method
		11. Reflection
Evaluation		12. Empathic disposition

Result / Out-come	Using technology effectively and productively	13. Digital reflection technique 14. Share thoughts in pairs 15. The use of mixed learning models and facilitates the effective use and collaboration of current and emerging digital tools 16. make meaningful assessments that are consistent with identified learning objectives and enforced learning activities. 17. Engage in formative and summative assessments.
Delivery	Communicate and collaborate	18. Use of oral, written and digital communication models that are effective and appropriate for students, parents, colleagues, and community members. 19. Digital citizenship

3.2 Data Collection and Research Procedures

Interview data were collected through several semi-structured and open-ended questions posed to teachers and five administrator questions over a 45-60-minute period. At the end of each interview, researchers emailed a copy of the transcription results to participants to verify their own responses. Participants were also asked to check the appropriateness of the findings in their setting. The researcher gives an open invitation to the interviewer to discuss the findings after the interview. Researchers ensure correct information records on interview forms that are processed through Google Documentation. Audio recordings were played back within 24 hours after each interview to compare with typed data. Participants will have access to the final publication of the research study. Arrangements for a 45-60-minute open question and answer session were made online due to the COvid-19 pandemic situation. Its purpose is to allow interviewees to select locations to make sure convenience and transparency. The time period the interviews were conducted after a period of distance learning for teachers and students because qualitative research is most effective when it is conducted in a natural environment. The questionnaire as a source of quantitative data, was distributed via Google form and distributed to 26 early childhood education teachers in the alumni community of graduates of the S1 early childhood teacher education program.

Before starting the interview, permission was obtained from the school district and participants. Further steps such as describing the research, identifying risks, maintaining confidentiality and providing informed consent have been taken. There was a minimal risk anticipated for the participants in this study. All demographic information was removed from the data collected and a pseudonym assigned. Participants were told that the study was completely voluntary, and withdrawals could occur at any time. Participants were given some protection during the interview starting with their identities kept secret.

3.3 Qualitative Data Analysis

Typological analysis begins by identifying the research category organizing framework, a series of perspectives on media literacy to the perspective of using website-based technology, based on the main ideas before presented in the aspect of media literacy as an instrument for empowering website blended learning in the research background section.

Semi-structured interviews and questionnaires were used as the main source of data. Accurate and well-defined research questions are used to support credibility in research. The questions included in this study come from a conceptual framework and validated instrument adoption. All information relates to the research question and is aligned with the aim of exploring teacher perspectives on media literacy as a web-based blended learning tool. After writing the interviews results, the researcher compared the transcripts with the audio recordings for accuracy and to check, clarify, and make sure the accuracy of the data collected using member checking, audit trail processing (dependability) and data triangulation (confirm ability). With peer-debriefing, researchers and external sources communicate to note differences that do not support patterns and

themes derived from data analysis for interviews and questionnaire, which are then compiled with the thick description (transferability) results. During member checking (credibility), participants can check what they said during the interview. No other edits or interview required after the process is complete. Researchers also document information that is not in line with general themes.

3.4 *Quantitative Data Analysis*

Furthermore, to help find sources of similarity and variation to form the first source group, statistical analysis was carried out from a questionnaire, measuring the perspective of the group teacher (n = 26). Composite and sub scale measures were created that averaged the responses to five-point Likert's data, so that a score of one was equivalent to 'never is misunderstood', and a score of five was equal to 'always is very well understood'. Classification was determined using the average score across all survey responses.

4 RESULT AND DISCUSSION

4.1 *Quantitative Result*

The data from the questionnaire is presented in the form of a donut diagram, which is the result of calculating the average presentation of participant responses about media literacy. The data show a presentation that corroborates the qualitative data for the teacher's perspective covering the first categories of the study. The results are shown by the code Q1 to Q22, the number of Q in accordance with the questions raised in the Google form questionnaire (Percentage of Participant Responses shown in Figure 1).
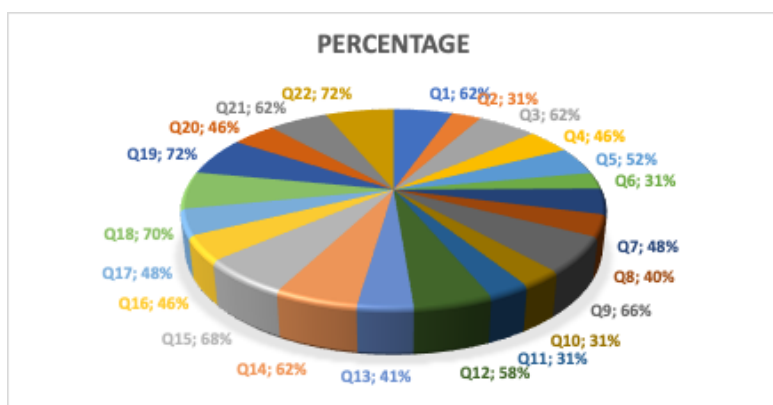

Figure 1. Percentage of Participant Responses

The results of the research findings, such as in question number 1, Q1: show that 62% of participants understand that media literacy is a means of analyzing media texts, producing and publishing instructional media content. Q2: 31% of teachers understand media content and media culture, as well as expression and production of early childhood learning media, meaning that teachers in South Tangerang are still limited in understanding the concept of media literacy. Q3: 62% of teachers find information in various resources, as material for teaching, meaning that 38% of teachers have difficulty finding information as teaching materials and inspiration for teaching.

Then in the Q4 data: 46% of teachers stated that they could motivate children's interest in learning activities, related to the remaining 54% of being unable to motivate children's interests, it was answered in the results of qualitative data analysis in the discussion. Q5 show data 46% of teachers stated that they understand the personal, cultural, or experiences of children outside of school related to the use of technology. Q6: Only 31% of teachers know the child's knowledge before learning through media literacy discipline.

Data Q7: 46% of participants stated that they could lead and manage classes and carry out productive learning using literacy media. This result is still below 50%, it is worth doing further

research to find the causes of teachers inability to manage classes with learning models, especially those based on websites, whether it is related to the ability to change from traditional to innovative which has not been well developed. Data Q8: The teacher conducts discussions with children about the media used and learning activities. About 40% of teachers carry out these in the Q9 data: is data that questions the use of the principles of affective, cognitive and psychomotor development in implementing learning through media literacy by teachers, with 46% results, this shows that early-childhood teachers still have the ability in using learning models, so that they stay without leaving one of them (online learning and traditional learning).

Data Q10: questions in the evaluation category, the teacher's ability to reflect after the learning activity is complete, shows about results, namely 31%. Data Q11: 31% recorded familiar behavior and understanding of all media and communication used in early-childhood education institutions. Ease of access to the use of technology and digital devices in institutions where teachers work requires better improvement. Data Q12: in the range of presentation values of 46%, this is the behavior of teachers on technology, are teachers friendly to media and communication. Looking at the results of data calculations, it can be concluded that the strength of support and ease of access to technology in Indonesia is still the toughest challenge for media literacy education as a learning media instrument. Data Q13: the ability of teachers to develop activities related to media literacy, shows the percentage of 31%, so answering questions about literacy in Indonesia is still low.

In Q14: the teacher's ability to do digital write reflective journals about child development is at 62%, this shows that there is a potential for understanding that media literacy in teachers that can be improved with better perspective interventions. The form of intervention can be carried out with a concept that is easy to make so that the targets of increasing the understanding of media literacy in teachers are achieved. Data Q15: 62% of teachers stated that they shared their thoughts with other teachers in evaluating learning. Q16: 46% of teachers stated that they could model and help effective use and collaboration of existing and emerging digital tools.

Looking at 46% of the Q17 data: the teacher stated that he could make meaningful assessments that were in accordance with the identified learning objectives and the website-based learning activities carried out. Q18 data: teachers who can always be involved in formative and summative assessments are 31%. Q19 shows data on the use of an effective and proper oral communication model for children, parents, colleagues, and community members with a total of 31%. Then the Q20 data: 46% of teachers choose to use a written communication model that is good for children, parents, colleagues, and community members. Q21: It shows 62% of teacher stated that they have used a digital communication model is effective and right for children, parents, colleagues, and community members. Finally, Q22: 46% of teachers can understand children as digital natives.

4.2 *Qualitative Result*

The qualitative data illustrates the various responses about media literacy as an instrument for empowering blended learning results from interviews. An excerpt from the interview is attached to the discussion, so that it can immediately complement the research findings. The patterns, relationships and themes are discussed in line with the three research questions that guide this research. Based on the analysis of the combined data for this teacher's perspective, patterns of similarities and differences between them within each source group and between the source groups are identified. These patterns are derived based on main order, perspective, access, analysis, evaluation, results / results, understanding of media literacy with qualitative and quantitative claims in web-based learning practices. Finally, five 'ideal types' (typologies) were determined based on 'patterns of similarity and difference' (see Table 2 for a summary of the results of the analysis).

Table 2. Typology Analysis Results

Typology	Code
Teacher's perspective: must be transformed into creative and innovative	Typology 1
The importance of media literacy education for teachers as a more effective integral learning approach	Typology 2

National action is needed to change from a traditional learning culture to Blended	Typology 3
Strength of environmental support with stakeholder policies (comprehensive training)	Typology 4
The need for an increase in the ease of access to technology use from all related parties	Typology 5

4.3 Discussion

The results of the research findings answered research questions in which there were typology results discussed in this section with their limitations, typology presentation numbers were not sequential because it followed the flow of research questions (PP). There are three Research Questions (PP) that will be used as a reference in the research discussion section, the first research question is answered through the findings of typology 2 and 3. Typology 5 and four answer the second research question, and the last research question are answered through the content of typology 1.

4.3.1 RQ1: How do teachers carry out media literacy education through web-based blended learning today

4.3.1.1 The Importance of Media Literacy Education for Teachers as A More Effective Integral Learning Approach

Descriptions of the research findings, both the results of questionnaires and interviews with key informants, related to media literacy education application in the perspective of early childhood teachers in South Tangerang, are still quite apprehensive in the era of competitive global technology. Implementing media literacy condition as a website-based blended learning empowerment is not yet widely known at the early-childhood teacher level. On average, they are not familiar with the term media literacy as a number of specific competencies, such as the ability to reach, analyze, evaluate, and communicate media messages in various forms (Huguet et al., 2019) or the term learning, even though they have practiced some of the concepts. As stated in the following interview excerpt:

" *I am still unfamiliar, now our learning in school traditional programs and occasionally using website-based learning. After entering the pandemic period (starting March 2020), learning has changed completely to only online from home, this makes parents overwhelmed, because blended learning socialization has not yet reached parents.*" (Participant interview (P1, [30/6 23:20]).

The data from the questionnaire showed that the presentation was below 50% for the item of teacher understanding of media literacy, which is a means of analyzing media texts, producing and publishing instructional media content. Consistency in implementing the discipline of implementing media literacy education as a learning instrument in early-childhood classes has not been maximally carried out, referring to the findings. It has not been able to consistently use the blended learning process. The findings also show that media literacy education has not been fully implemented. The reason researchers currently researching media literacy integration and blended learning are given the words of L. Zhang et al., (2020) which state that implementing media literacy education as an integral approach is more effective than simply applying media literacy education as an isolated subject. At the same time, it is a challenge for educators to embed media literacy programs as an integral of education.

Media literacy education can be an empowering instrument website-based learning models at this time, from the perspective of teachers in Indonesia. It is still something that is considered luxurious and difficult to start. Meanwhile, the contemporary education paradigm determines the transition from investment aspects (duration, place, teaching method) towards learning outcomes that are closely related to active learning, experiences, which support the need for new types of partnerships, such as, social partners involvement, and types promotion of cooperation between schools and family.

A person who is able and willing to be involved in the social process, can put forward his own goals and make these goals flexibly, while adjusting to the situation and using available resources, is the result of learning and can be defined as an agent (Liene, 2016). The researcher hopes that various related parties will be   help find answers to the main goals of media education, media education content, how media education should be integrated into didactic pedagogy and the teaching and learning process, because of surveys in the early-childhood education field, teachers' understanding is still not evenly distributed from the perspective of media education.

4.3.1.2   National Action Is Needed to Change from A Traditional Learning Culture to Blended

The research findings from the questionnaire results, only recorded 31% in familiar behavior and teachers' understanding of every digital communication media used in early-childhood education institutions, which led to the change from traditional to, resulting in slow learning targets. This is caused by various factors, in the following interview excerpt:

"*Other fellow teachers seem less familiar with website-based learning, and the difficulty in using technology makes teachers often switch back to traditional learning, sometimes due to circumstances, or fewer diligent personal teachers. Actually, there are several websites for learning references, it's just that we never fixate on one of them, when we get stuck, we don't continue*" (Participant interview (P2, [30/6 23:30]).

The traditional education culture is so inherent, that media literacy education is hidden from view. It is not realized that media literacy education has run in the classroom. However, media literacy as a website-based learning instrument requires a clear concept of practice. Children are often asked to use media content or information from the Internet and television, study cartoons, advertisements, pamphlets, and other resources that offer primary source information (Wan & Gut, 2008). Teachers can use media literacy education to hone children's abilities to value media as a source of evidence. In addition, media literacy education can foster students' analytical and reasoning skills.

4.4   *RQ2: What are the challenges for teachers in facing the demands of technology-based and traditional learning?*

4.4.1.1   The Need for An Increase in The Ease of Access to Technology Use from All Related Parties

The findings of the questionnaire and interview data have related results, namely that the ease of access to technology use in early-childhood classes still has significant obstacles. If we compare these findings with the European Commission which defines media literacy as the ability to reach the media, understand, and critically rate various aspects of media and media content, as well as create communication in various contexts (L. Zhang et al., 2020), then teachers ability to understand media literacy is an important agenda before providing media literacy education to children. When access to technology is open, teachers in behavior, and abilities are still at the traditional level and have not changed towards innovative technology. The interview excerpt shows what is common in technology backward countries:

"*Sometimes the title fits what we want to find but is locked inaccessible, u sing English in explaining the material and the wi-fi network in the classroom*" (Participant interview (P2, [30/6 23:43]).

4.4.1.2   It appears that the obstacles and challenges do not always come from outside, but teachers in understanding competencies the media is a big challenge to fix. The teacher's perspective also on the ease of access to technology use reveals that the important emphasis of this has shifted, starting from technical difficulties such as Internet networks, inadequate digital equipment facilities, etc., currently shifting to easy access to technology use on content quality. Access to quality

content is still a major obstacle in media literacy education as a website-based learning empowerment instrument.

4.4.1.3 Strength of Environmental Support with Stakeholder Policies (Comprehensive Training)

The excerpt from the teacher's interview in this case shows that environmental support is a major reason in media literacy application of an instrument for empowering blended learning. Because interventions in this field must be designed to meet the needs of people of various ages by understanding the roles and life goals they have throughout their ages (Rasi et al., 2019). Different pedagogical strategies are needed to address children's media literacy competencies. Adopting a life perspective certainly allows an examination of media literacy competencies that develop over time in response to change historical conditions, social institutions and policies.

"*I would be very grateful if learning websites appeared that could become references in teaching. For us, it is very helpful when we need a refresher on learning activities, so that finding new ideas so that children don't get bored, this provides support for teachers so that the learning load becomes lighter* "(Participant interview (P6, [30/6 23:43])

Media literacy offers teachers and students a set of skills to analyze, criticize, and respond to information that appears before them in digital texts. Many case studies have identified ways in which teachers have integrated media literacy into their instruction. Teacher candidates tend to use constructivist teaching methods that need students, not teachers, to interpret media messages. Recent research shows that ways teacher educators can develop prospective teachers ability to bring media literacy skills to their content area instruction are the closest and strongest support for enhancing teacher perspective and understanding (Cherner & Curry, 2019).

Media literacy skills can be integrated into curricula to support student learning with positive outcomes (Cheung & Xu, 2016; Redmond, 2015), with a focus on understanding prospective teachers of how they plan to discuss media literacy in their classrooms in the future can offer now teacher educators about how to prepare them for the job. Thus, educator preparation programs will respond when they are tasked with developing media.

4.5 *RQ3: What is the teacher's perspective on the aspects of media literacy education, learning, and website-based technology?*

4.5.1.1 Teacher's Perspective: must be Transformed into creative and innovative

Although the teacher's perspective is the most important thing in media literacy application as a tool for empowering website-based learning, the findings of this study say that the strongest support is in comprehensive teacher training because teachers are the key actors in the success of blended learning. Teachers' understanding of media literacy is an important factor in transferring the same thing to children to successfully master any school subject. An educator must be able to change from cooperation through training methods, and must also receive quality support in the educational transformation process (Liene, 2016).

Educators must be able to adopt a semiotic perspective on media literacy to focus on helping children gain the knowledge they need and understand it well. Such as, how they influenced by media and how influence others through the original media that they create and share (Schmidt, 2019). Training to improve teacher skills and policies on the use is technology are priorities that need to be considered by many stakeholders. The teacher's perspective on media literacy application as empowering instrument for blended learning can transform teacher understanding to be more innovative.

5 CONCLUSION

Referring to the research findings, that the results of interviews and questionnaires have answered research questions, which are divided into five typologies. The results showed five ideal type results, which were the results of typological data analysis as follows; First, about the ability

to carry out website-based blended-learning and the use of technology in classrooms and distance learning is still low. It must be transformed into more creative and innovative one. Encouraging teacher awareness of the importance of media literacy education for teachers as a more effective integrated learning approach, especially in rural or remote areas, to be the second finding. Third, national action is needed to change from traditional to blended-learning culture. Fourth, the high need for strong environmental support, such as related-party policies and competency training is the most important finding in this study. Finally, the need for an increase in the ease of access to technology use from all related parties, because the biggest impact of the Covid-19 pandemic is on ECE, which is closely related to the perspective of teachers on technology.

The research implication demands increase in technology systems and connections between educators, parents, institutional managers, and education policy holders, for ECE services in urban areas for disadvantaged children, and all children in rural or remote areas. The findings give an insight that there are still many big tasks for academics and policy makers about learning and technology integration. When the pandemic period ends, and early childhood learning returns school, a website-based blended learning model empowerment is expected to have been developed a lot. Exploration of children with technology during a pandemic, must continue in the early-childhood classroom. Further research is that it can become the basis for research that develops various technology-based learning products as a result of media literacy education and demands an improvement in technology systems and connections between educators, parents, management institutions, and education policy holders.

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Movement and Song Idiom Traditional to Enhance Early Mathematical Skills: *Gelantram* Audio-visual Learning Media

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ABSTRACT: Many studies have shown a link between being competent in early mathematics and achievement in school. Early math skills have the potential to be the best predictors of later performance in reading and mathematics. Movement and songs are activities that children like, making it easier for teachers to apply mathematical concepts through this method. This study aims to develop audio-visual learning media in the form of songs with a mixture of western and traditional musical idioms, accompanied by movements that represent some of the teaching of early mathematics concepts. The stages of developing the ADDIE model are the basis for launching new learning media products related to math and art, and also planting the nation's cultural arts from an early age. These instructional media products were analyzed by experts and tested for their effectiveness through experiments on five children aged 3-4 years. The qualitative data were analyzed using transcripts of field notes and observations and interpreted in a descriptive narrative. The quantitative data were analyzed using gain score statistics. The results showed that there was a significant increase in value for early mathematical understanding of the concepts of geometry, numbers and measurement through this learning medium. The results of the effectiveness test become the final basis of reference for revision and complement the shortcomings of this learning medium. Further research can be carried out to develop other mathematical concepts through motion and song learning media, and to create experiments with a wider sample.

Keywords: *Early Mathematical Skills, Movement and Song Idiom Traditional, Audio-visual Learning Media*

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1 INTRODUCTION

The results of Indonesia's PISA data for mathematics and science are also a big homework. For Mathematics scores, it is ranked 72 out of 78 countries. The Science score is ranked 70 out of 78 countries. This value has tended to be stagnant in the last 10 - 15 years (Harususilo, 2020). The low level of mathematics ability among students in Indonesia, in particular, requires important attention from various parties, such as teachers and parents. Often mathematics is disliked due to limited media and fun learning models, especially in children's learning. Therefore, it requires high creativity and innovation from educators and parents.

The low rank in the world with the math ability in Indonesian children, making most children anxious, afraid, and do not like mathematics. Some researchers say that math anxiety can be triggered by weak math skills, others argue that math anxiety exists at all math skill levels (Pantoja et al., 2020). In fact, the results of the study indicate the relationship between children's math anxiety and parental beliefs and attitudes. Parents with stronger beliefs about the importance of math tend to have children with higher math skills (Silver et al., 2020). Early math skills and knowledge are closely linked to long-term achievement, but there is little knowledge of the processes, forms of mathematical activity, and by which children acquire these skills and knowledge (Missall et al., 2015). To ensure children master the concepts of math skills necessary for success in the future, it is important to find or create a variety of media and learning methods that attract preschoolers to math and reduce math anxiety in school.

Poor math competence among adult's results in difficulties and difficulties at work in many common daily activities (Geary, 2012). Low performance in mathematics competence can be avoided by pursuing quality mathematics teaching in Early Childhood Education that understands its long-term benefits and does not just maintain access for all children (Bausela Herreras, 2017). Teachers and parents should give every child the opportunity to learn mathematics from an early age. However, as shown by many studies, the potential of individuals to excel in school is highly dependent on their math skills in school (Geary, 2011). Vennberg's et al., (2018) findings suggest that deliberate systematic learning of pre-school intervention programs will improve children's long-term success in mathematics. As well as learning models or the use of representations are needed in the process of planting early mathematical concepts, because an important aspect of mathematics is representation (Sterner et al., 2020). In fact, mathematicians use representations such as pictures, graphs, diagrams and simplified equations at all levels to analyze and communicate their work (Cross et al., 2009). Intervention through audio-visual media with content of images related to mathematical concepts can be a good representation tool for early childhood.

Fun interventions in early childhood usually involve movement and song. Moreno et al., (2011) mentioned the children in the music training group that showed increased intelligence and allowed the transfer of high-level cognitive skills in early childhood. Music interventions were found to be more effective than video game interventions at improving attention control in children (Kasuya-Ueba et al., 2020). The integrated music-math learning intervention led to a statistically significant increase in the math ability of children playing music (Roa & IA, 2020). An and Tillman (2015) conducted a study to examine the effects of a sequence of class-room activities that integrate math content with musical elements, which aims to provide an alternative approach for teachers to teach mathematics. Interdisciplinary music-math lessons had beneficial effects on several areas of mathematical ability (S. An et al., 2013).

The current state of the pandemic encourages online early-childhood mathematics professional development programs and learning media related to technology developed to meet the needs of early-childhood educators (Sheridan et al., 2020). Early-childhood education experts in the field of ICT and mathematics from Greece revealed their findings that compared to conventional teaching approaches, tablet-assisted learning provides better learning outcomes for early childhood (Zaranis et al., 2013). Likewise, when comparing learning between the use of tablets and computers, the former makes a more significant contribution to the development of children's math abilities. Maybe because the use of tablets is simpler and easier to move and carry, more fun for children (Stamatis Papadakis et al., 2016). Intervention through audio-visual media that can be

input into various digital devices will make it convenient for children to absorb many concepts of knowledge, especially for children who have felt a connection with technology since in the womb.

Previous research using songs to improve children's math skills, one of which is from Basco (2020), who has tested the learning media for song, drill and games in teaching mathematics and with the name Sodriga strategy, has shown cognitive improvement, motivation, and building constructive attitudes towards learning mathematics while increasing mastery and retention of the concepts. Based on research on mathematical skills, and related to movement and songs into children activities, as well as technological devices in the early-childhood classroom, this study aims to make a new product in learning media for introduce math concept through digital device. Movement and songs learning media were made to improve math skills in three early math concepts, namely the concepts of geometry, measurement, and numbers. This research will develop movement and songs learning media with traditional music idioms, in addition to improving math skills as well as introducing distinctive features of Indonesian culture Early childhood.

2 THEORITICAL STUDY

2.1 *The Importance of Early Mathematics Skills Competencies*

The significance of early mathematics interventions is attested by numerous studies on children's learning in the first six years of life (Sarama & Clements, 2006b). For children's early experiences with mathematics, a fun and supportive atmosphere develops their confidence in their ability to understand and use mathematics. These positive experiences help children build settings that lead to their potential for success inside and outside of school, such as enthusiasm, creativity, versatility, inventiveness and determination (Sarama & Clements, 2006a). During the preschool years, children's mathematics skills undergo comprehensive growth. However, opportunities to participate in mathematics in the preschool classroom are limited, and lessons and preparation are often aimed below the ability levels of children (Litkowski et al., 2020).

Internationally, children's poor math outcomes reflect the need for a new approach to teaching math concepts, one that differs from conventional approaches to learning and teaching mathematics (Papadakis et al., 2017). It is hoped that the Covid-19 pandemic will stimulate educators to be able to provide well-designed media, enrich, expand, and strengthen the mathematical knowledge of children they bring from home.

2.1.1 *Geometry*

Early childhood learning the name of geometric shapes beforehand is by the teacher showing various geometric shapes to preschoolers who initially have disaggregated knowledge. Verdine's et al., (2015) research investigates when children first begin to understand shape names and how they apply those labels to unusual examples. Comparing sample objects with geometric shape names will lead children to refine shape categories. Gejard and Melander (2018) explores the mathematics of preschool children in daily block play activities. Knowledge of children's use of geometric discourse appears in the flow of ongoing interactions. The opportunity to introduce geometric shapes to children will be greater when the learning media invites children's interest.

To develop spatial sensitivity, a child must have experiences that lead to geometrical relationships, namely direction, spatial orientation and point of view of objects in space, the size and shape of objects, and how shapes can change as a result of changes in size (Maričić & Stamatović, 2017). The spatial sensitivity experience when children move and sing, along with the recognition of representative images in audio-visual media, allow more opportunities to improve children's spatial intelligence and children's mathematical abilities in understanding geometric shapes from an early age.

2.1.2 *Measurement*

Direct participation in measuring objects in class allows children to make their understanding of length measurements, and relates classroom learning to their own experiences in meaningful

ways (Macdonald & Lowrie, 2011). Teacher instructional actions at a specific level can be a means of promoting informal measurement theory (Barrett et al., 2011). It takes a special learning environment design to teach children about measurement, which is the development of flexible strategies and adaptive, depending on the use of mathematical structures.

2.1.3 *Numbers*

Children who reach pre-school with weaker mathematical language abilities are more likely to fail to learn numeracy skills, because children with lower mathematical language skills would not have had access to mathematical instruction in schools because they did not understand the language used to address these concepts (Purpura et al., 2019). Early knowledge of numbers had a direct influence on the arithmetic ability development. In order to facilitate it, Östergren and Träff (2013) research findings also stress the importance of training early number awareness before school entry.

Counting activities in early-childhood classes is often wrong in applying concepts, educators prioritize the ability to name numbers, not introduce the concept of how many objects are in the symbol. This common mistake is also made by parents at home, teaching how to spell names from one to ten, without explaining how many objects are in the names of the numbers one through ten. Papadakis et al., (2018) has provided an alternative to numeracy learning through experiments with the findings supporting that the use of digital devices such as tablets can make a significant contribution to understanding numbers by early-childhood students.

It is critical to broaden our understanding of the relationship between number talk and math-related activities, including how number talk takes place within and outside the context of math-related activities, to understand how these variables might facilitate math learning for children (Thippana et al., 2020). In the home numeracy climate, survey tests also correlated with math skills.

2.2 *Early Childhood Movement and Song*

Music / songs are an important part of human life. Useful for living with joy and well-being, it is very interesting to analyze various research studies related to music and children's brain development. Assuming studies regarding the importance of music and children's brain development can be established. One of them is the research Sarkar and Biswas (2015), an effort to access creative parts of the brain through dance, early childhood can more easily mathematical concepts such as spatial awareness and mathematical knowledge before formal assessments in elementary school. At a basic level, when students have access to pre-school mathematics learning through the performing arts, they are more than one month earlier than their non-Preschool peers when they Kindergarten classes (Ludwig et al., 2016).

Learning integrated mathematics with art engages both hemispheres of the brain and all types of students by preparing students with basic knowledge in mathematics before facing formal math concepts in Kindergarten ((Temple et al., 2020). Introducing music to children's lives means developing concentration, memory and listening skills. Singing songs helps children learn to speak patterns. Singing songs can also develop a vocabulary, and if you incorporate dance into it, your child can memorize words through movement. Music activates new brain neural pathways and ties that speed up the process of learning. This means increasing creativity and curiosity in children (Upadhyaya, 2017).

When children sing, children listen carefully to learn new lyrics and rhymes, children internalize word expressions, predict chorus, and mentally adjust rhythmic patterns (Winter & Seeger, 2015) The movements and songs are very attractive to children, so a motivational effect on practicing can be anticipated. Integration in the educational process can motivate students to learn, create interesting needs from learning, and facilitate the learning process (Kołodziejski et al., 2014). Movement with music is considered to be the main in the five forms of music education. It is also described as an expression of movement or elements of dance. Gesture expressions should be accented and used especially during preschool and early school age. Buchoff (2015)

said that movement and song activities are one of the elements commonly used in the teaching and learning process in preschool. The use of elements of music and movement helps to attract children's attention and focus, increase understanding and enrich children's emotional and behavioral development. Preschool teachers should vary their teaching approach to include the use of music and movement in their mathematics learning. As a result, music and movement are seen as useful, including helping to attract children's attention and interest, increasing children's understanding and building children's emotional development.

Globalization and the process of internationalization led to the separation of isolationism for centuries. Society is becoming highly diverse culturally. Educating citizens capable of leading active and effective lives in culturally diverse environments is one of the most pressing challenges. Early childhood begins to recognize ethnic / racial diversity. There are currently many bodies of research that address the ages and stages in developing an understanding of the race and ethnicity of children. Research shows that the attitudes of a child towards their own race, and towards other racial groups begin to form in the preschool years. Therefore, multicultural education must start with the very young (Logvinova, 2016; Lopintsova et al., 2012). Research and development of learning media for children's songs use distinctive patterns or traditional musical idioms (Nketia, 1982; Phyfferoen, 2019; Tsai, 2017). It is inspired by one of the most influential Taiwanese composers, Hsiao (1999), whose music is a blend of traditional Taiwanese musical idioms and Western musical composition techniques. The purpose of using these musical mixes is to promote these works as valuable pedagogical material. The dominant brain activity occurred when the subject listened to familiar music in the temporal lobe and when the subject listened to new music in the frontal lobe (Wardani et al., 2018).

3 METHOD

This research and development are a research method that combines quantitative and qualitative research methods that are packaged with certain stages in the context of a feasibility test or a test of the effectiveness of a product developed / innovated or a new / original product related to the education sector. Qualitative approach is carried observation activities and anecdotal notes, which are useful for describing events that have occurred while the research is ongoing. The quantitative approach is carried out through the observation guidelines used to calculate the level of effectiveness of learning media (*Gelantram*) in introducing early mathematics concept for children aged 4-5 years.

In conducting research and development, researchers use the ADDIE model design (Analysis, Design, Development or Production, Implementation or Delivery, Evaluation). This research and development model aim to produce a movement and songs learning media to improve early math skills. ADDIE Model uses five simple steps, including Analysis, Design, Development or Production, Implementation or Delivery, Evaluation. However, this model provides clear and standard detailed procedural steps for the media's feasibility and needs. Learning Media are expected to be used as a whole in the world of early-childhood education, but with the conditions that must be passed through several tests of feasibility extensively by using a larger number of samples and different sample strata so that people from various circles can be used.

3.1 *Validation and Media Effectiveness Test*

3.1.1 *Validation Test*

The model trial procedure in stages through a process of testing experts (one to one), small-group trials, large-group trials and the media effectiveness test (field try-out). Each trial was evaluated for the improvement of the media developed to revise the final product. Expert validity tests are carried out on learning media to determine the quality and effectiveness of the product being developed. Product design assessments are doing by experts in the fields of early-childhood education, dance and music, language, and media to obtain statements about the practicality and suitability of learning media (*Gelantram*).

3.2 *Media Effectiveness Test*

3.2.1 *Instrument*

The instrument on the media effectiveness test uses indicators of aspects of the development of the 2013 ECE Indonesian curriculum.

Table 1. Early Mathematical Instruments

Mathematics Ability Variable	Aspects of Early Mathematical Understanding
Geometry	a. Recognize the shape of a circle, triangle, square and rectangle
	b. Matching geometric shapes to concepts with geometric shapes on real objects
	c. Mention geometric forms
Measurement	a. Comparing the concept, long-short, high-low, large-small
	b. Measuring Length-short, high-low, large-small
	c. Estimating Length-short, high-low, large-small
Number	a. Understand the concept of numbers 1-10
	b. Associating numbers (sums) with numbers is called a one-to-one correspondence
	c. Number sequence system

3.2.2 *Data Collection*

Data collection techniques are carried out with several kinds of techniques: (1) Interview conducted during the need's analysis as well as in the media revision process to collect input and suggestions in the development of the designed media; (2) Observation carried out starting from activities when taking data for need's analysis as well as on testing the use of the media; (3) Documentation conducted to document research results in various forms of photo and video recordings during the research trial process.(4) Field notes, are notes made by the researcher to record various things during the research needed to find accurate information as input in research and development media (*Gelantram*).

3.2.3 *Analysis Data of Media Effectiveness Test*

Data analysis in research and development of Learning Media (*Gelantram)* uses two types of data. The qualitative data were analyzed using transcripts of field notes and observations and interpreted in a descriptive narrative. The quantitative data generated from the calculation of the test results from data before, and after the uses of the Media (*Gelantram*) in the field trial activities were analyzed through the SPPS program with gain score statistics.
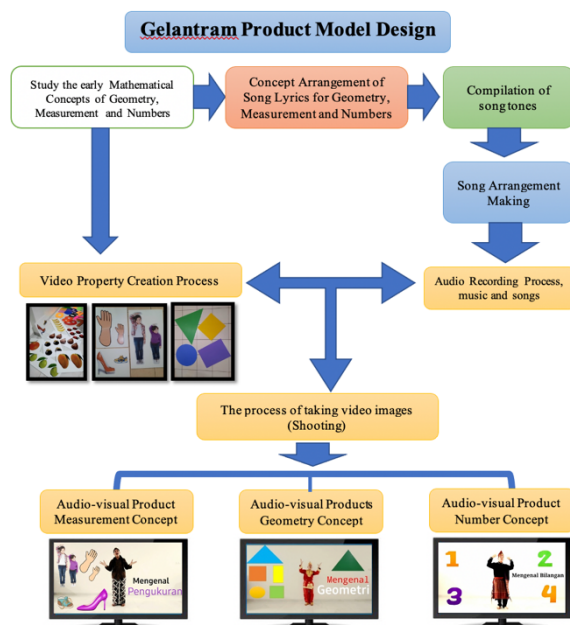
3.3 *Gelantram Product Model Design*

The design of the learning media model for the Idiom Song of Traditional Mathematical Music (Gelantram), which will determine the criteria for the quality of the model which includes validity, practicality, and the effectiveness of the model (see figure 1).

Figure 1. Product Model Design

3.3.1 *Gelantram media conceptual model*

The concept design in the preparation of *Gelantram* media can be seen in figure 4, which shows the media concept starting from the analysis of media needs in early childhood mathematics learning carried out in a preliminary study. Then proceed with a literature study to find suitable media to improve early childhood math skills. Researchers designed a media concept design based on these *results and* collaborated with music and dance education experts for children, researchers created the *Gelantram* media.
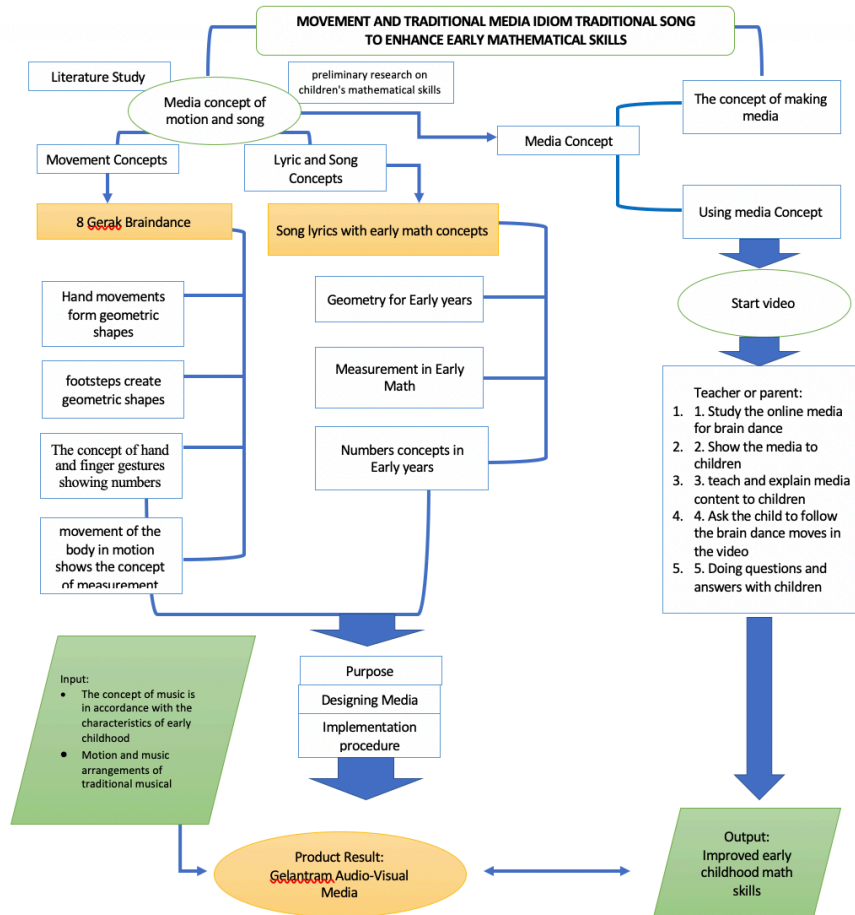

Figure 2. Conceptual Model

4 RESULT AND DISCUSSION

4.1.1 *Preliminary Observation Data*

Data collection activities in the preliminary study, it was carried out using conversation and question and answer methods, in this case the researcher invited teachers to hold an observation Focus Group Discussion (FGD) with thirty early-childhood teachers in Jakarta. Teachers are asked to answer difficulties in the introduction of early mathematics concepts, especially in children aged 3-4 years, about three basics of early mathematics, geometry, measurement and numbers. The results of needs analysis data that show an understanding of early mathematics in early childhood, especially in children aged 3-4 years about geometry, measurement and numbers. Can be illustrated in the graphic form (see figure 3-5).

The percentage graph image in figure 3, represents an understanding of early mathematics, especially geometry in the initial activities for observations for need's analysis. The teachers stated that the children still had difficulty distinguishing geometric shapes, be it triangles, circles (round)
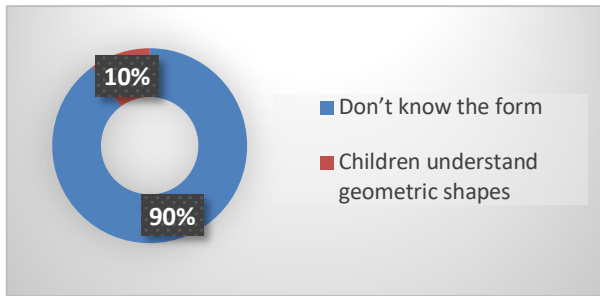
squares, and rectangles. Data obtained from the recognition of teachers in schools of several children. Amount 90% children cannot mention geometry shapes yet. About 10% of kids can name some shape from Geometry, and those're only two of some geometric shapes.

Figure 3. children aged 4-5 years knowledge about geometry

The number 85% in figure 4, is for the ability to recognize the number of symbols without u nderstanding the concept ofthe number. The teachers stated that children still had difficulty rec ognizing numbers, be it sorting numbers anddistinguishing the number of numbers. And the tea cher also provided information that children had difficulty recognizingnumbers. Numbers, child ren can only sound like the numbers one to ten but do not know the number of objects.
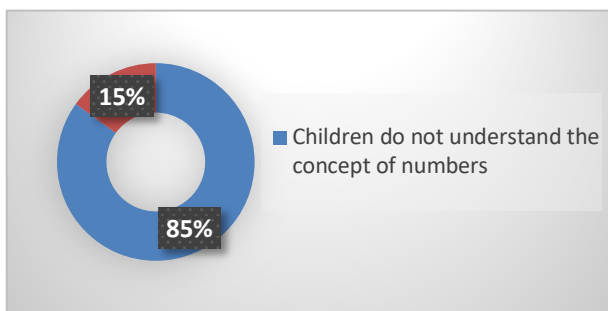

Figure 4. children aged 4-5 years knowledge about numbers

Figure 5 show about the teachers answered that children at the age of 4-5 years, had difficulty getting to know the concept of measurement. Children were still difficult to distinguish Length-Short, Big-Small and High-Low. Based on the results of interviews with teachers in the role of schools in introducing early mathematics concepts, a little is still constrained by the limitations of the media used for children to be more enthusiastic about learning.
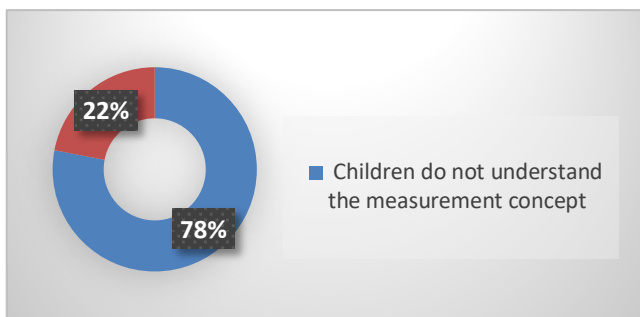
Figure 5. children aged 4-5 years knowledge about Measurement

4.1.2 *Expert Validation*

An expert in early childhood education movement who is an expert in movement media and traditional mathematics songs is an expert who works as a lecturer in the Faculty of Education of the Early Childhood Education study program at the State University of Jakarta. Music experts who assess music content on Motion media and traditional mathematics songs (*Gelantram),* to see whether the music content on the *Gelantram* media is appropriate to music at an early age, both the suitability of the music tempo, the suitability of content / material or song lyrics in early childhood. Based on the media eligibility criteria above, the percentage results of the feasibility test of all experts can be seen in table 2.

Table 2. Result of Theoretical Feasibility Test (Expert Test)

No	Expert	Value	Percentage	Media Feasibility Value
1	Media	23/24 x100%	95,8 3%	Excellent
2	Early Childhood	20/20 x 100%	100%	Excellent
3	Movement	15/16 x 100%	93,75%	Excellent
4	Music	16/16 x 100%	100%	Excellent

4.1.3 *Empirical Test Result*

Next, to complete the theoretical feasibility test, the feasibility test through empirical tests was carried out on Motion Media and traditional mathematics songs. The empirical test for the movement media and traditional mathematics songs involved several respondents from the city of South Jakarta. The empirical test is a feasibility test for the media of motion and traditional mathematics songs for media users, namely children aged 3-4 years (geometry see on table 3; measurement concept see on figure 6; and about number see on figure 7).

Table 3. Small Group Geometry Concept Trial Results (pre-test and post-test)

Respond-ent	Recognize the shape of a circle, triangle, square and rectangle		Matching geometric shapes to concepts with geometric shapes on real objects		State the forms of geometry		Average
	pre-test a	post-test a	pre-test b	post-test b	pre-test c	post-test c	
R1	75%	100%	75%	100%	25%	100%	42%
R2	75%	100%	75%	100%	25%	100%	42%
R3	50%	100%	25%	100%	25%	100%	67%
R4	25%	100%	25%	100%	25%	100%	75%
R5	50%	100%	50%	100%	50%	100%	50%

At the beginning of the media effectiveness experiment, children were asked about three early math concepts. Results of the questions and answers at the beginning of the activity showed the same results as the results of the preliminary study for need's analysis. 80% of the five respondents did not understand the three basic concepts of early mathematics, namely geometry (see pre-test geometry on table 3), measurement (see figure 6) and numbers (see figure 7). Then the next activity the children were given special learning by using the media for math learning. Children are invited to participate to follow the movements and songs of the Idiom Traditional Music mathematics while getting to know geometry, measurements and numbers with audio-visual learning media, for several weeks.
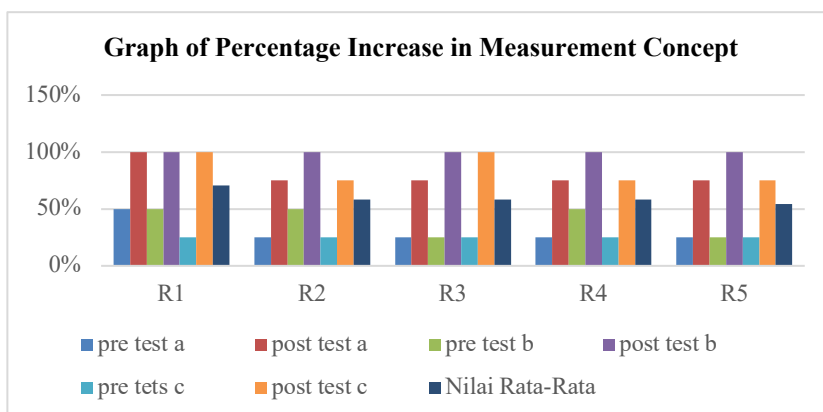

Figure 6. Results of Small Group Measurement Concept Trial (pre-test and post-test)
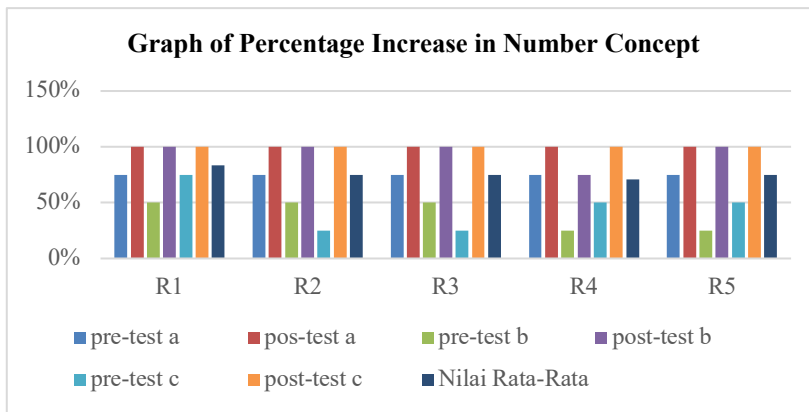
Figure 7. Graph of the Increase in Value Concept of Numbers

Based on the results of the effectiveness test through pre-test and post-test on five respondents at one research location, it can be concluded that there is a significant increase in the acquisition of values for early mathematical understanding, especially geometry, numbers and measurements. This can be seen from the scores obtained before the test and after the test. As illustrated in the chart above, the results of the effectiveness test form the final basis for revision and complement the shortcomings of Media *Gelantram*.

4.2 *Discussion*

The findings in research and development of *Gelantram* media for early-childhood education begin with preliminary research, which is the result of a field needs analysis in early-childhood mathematics education. The average ability of Indonesian children in math concepts is still low in the world competitive level (*PISA worldwide ranking; Indonesia's PISA results show need to use education resources more efficiently*, 2016). The results of field observations in several kindergartens to test the initial mathematical abilities have shown that there is still a need for media that can help teachers improve children's early math abilities. Likewise, the results of the preliminary analysis in the form of focus group discussions with kindergarten teachers, the result is that there is so much demand for instructional media related to how to improve early-childhood mathematics education. Moreover, media in the form of motion arts and songs with elements or goals to improve early mathematics skills are few in the field of early-childhood education. Based on the results of the field needs analysis, the researchers designed and produced instructional media with material content to improve the concept of early math abilities of children aged 4-5 years.

4.2.1 *Findings on the Improvement of Early Mathematical Ability in Geometry*

Currently, researchers still limit the initial mathematical concepts to only three types of mathematical concepts for children, namely geometry, measurement, and numbers. Researchers chose the concept of early geometry math skills based on the importance of the concept of geometry for children according to Clements (2014) that geometry and spatial reasoning are important because these concepts form the basis of learning mathematics and other subjects. Teachers at an advanced-level use geometric models for arithmetic when using grids to describe multiplication or circles or bars to describe fractions. Furthermore, based on recent research by Clements et al., (2019) which found that early-childhood form's schemas based on analysis of visual form features. As children develop, children continue to rely primarily on visual matching to differentiate geometric shapes. The child is also able to recognize the components and simple properties of familiar geometric shapes.

Based on the results of this study, the researcher tried to introduce geometric shapes in learning media related to the introduction of the concept of geometry. The findings in the field on expert due diligence data for geometry concept videos have been declared very feasible by early-childhood experts in shaping children's early math concepts. Likewise, the small-group trial data given to five early-childhood respondents showed a 95% increase in the scores on the pre-test and post-test data in understanding the concept of geometric shapes. In line with a recent study conducted

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by Paul (2019) who said, there is a lot more in the relationship between mathematics and music. Just as, there is more to this analogy between math and music score, this analogy is more pleasing to mathematicians than to musicians.

An important finding in the field observation notes from collaborator teachers is that the *Gelantram* learning media with traditional idiom's music Mans (2002) has brought new knowledge for children to get to know the national culture apart from *Minang* culture (West Sumatra) in the geometry concept video. In addition to improving early math skills, the advantages of traditional music are also able to build children's cultural characters (Kristanto, 2020; Nyota & Mapara, 2008). Research and development of learning media for children's songs uses distinctive styles or traditional musical idioms (Nketia, 1982; Phyfferoen, 2019; Tsai, 2017). It is inspired by one of the most influential Taiwan composers namely Hsiao (1999), the music is a blend of traditional Taiwanese musical idioms and Western musical composition techniques. The purpose of using these musical mixes is to promote these works as valuable pedagogical material.

4.2.2 *Findings on the Improvement of Early Mathematics Ability to Measurement*

The results of the Media expert's assessment on the three *Gelantram* videos that raised the concepts of geometry, measurement, and numbers stated that 93.75% were very suitable to be used as learning media for children 4-5 years. From the level of the flow of media content, material content, media safety, and others, this learning media is interesting to be disseminated to various related parties so that it can help the process of increasing understanding of early mathematical concepts, especially in the ability of measurement concepts, this media is very effective for children.

Likewise, according to the results of expert tests on music and dance movements, the suitability of the motion and music in this video was declared very feasible. PAUD experts assess that the concept of early mathematics measurement on the video *gelantram* is very appropriate in early-childhood education standards and attractive as a learning medium who is preferred by children. How these movements and songs become interesting media for children. Researchers look at the facts of a recent study of music to improve early math concepts.

Music, movement and song training, is considered a multi-sensory program that simultaneously integrates the visual, audio, oral and kinesthetic senses. In addition, motion learning media and songs stimulate cognitive function in a ludic way instead of directly utilizing the context of traditional school learning, including mathematics. The main finding of Ribeiro snd Santos (2020) is that intervention in understanding mathematical concepts by involving motion and song / music appears to be a useful tool for improving various conceptual understanding of early mathematical skills, such as measurement.

The *Gelantram* video introduces the concept of early mathematics measurement using the idiom of traditional Javanese music. The important finding in this section is that the effect of multidisciplinary science in this study has improved other aspects of child development, especially aspects of understanding on multicultural education. The child in the video *gelantram* with this initial mathematical concept of measurement makes the child understand the existence of various cultures in Indonesia through the traditional clothes worn in the video. The child gets to know Javanese culture, and the types of traditional Javanese music.

An 85% increase in scores on the pre-test and post-test data on early math abilities on the measurement concept, shows that the video *gelantram* learning media shows the effectiveness of the media that is suitable as a reference in improving children's early math skills. It can be seen from the results of the teacher's field notes. The children's enthusiasm for music and dancing makes it easier for children to absorb and memorize measurement concepts contained in the video *gelantram* material, which introduces the concepts, big-small, long-short, high-low. Children are also helped by visualizing the concepts shown in the video, so that children are able to recognize the concept of measurement in a relatively short time. This shows the effectiveness of the media in introducing the initial mathematical concept of measurement at the pre-school level.

4.2.3   *Findings on the Improvement of Initial Math Ability in Numbers*

The Recent research supporting the development of motion learning media and chanting songs show that the impact of preschool mathematics learning media on children's early mathematics learning, which shows positive children's outcomes, is at the heart of high-quality preschool. The study Wakabayashi et al., (2020) examined the effect of adding mathematics learning media on the widely used comprehensive children's curriculum with the newly developed skills-based curriculum. The findings indicate the feasibility of implementation. In addition, it could improve children's math knowledge and skills during the preschool year and found additional positive effects on the results of children's early math skills. Likewise, the research of Austin et al., (2011) extends the existing research relative to predictors of early math skills. Teaching math as often as literacy skills might reinforce the more efficient acquisition of the two. Research suggests that some differential training in early-childhood education institutions is so that educational institutions are able to design various learning activities to improve children's early math skills by using appropriate learning media.

Gelantram video with the concept of numbers, introducing the culture of the archipelago from the North Sumatra region. This *Gelantram* learning media product introduces North Sumatra traditional clothes and the idiom of traditional music that has been adapted to the characteristics of early-childhood music. So that the assessment of music experts on all *Gelantram* videos is declared very feasible, because even though it uses the idiom traditional music, the color of the music has been modified by researchers so that the music is successful and effective in attracting children's interests. The hope of researchers in making learning media is that it is easier for teachers to improve early-childhood math skills, as well as being able to introduce the rich diversity of Indonesian cultures and provide multicultural learning in early childhood through idiom traditional music.

5   CONCLUSION

Based on the results of research and discussion that have been described, the following conclusions, implementation and suggestions are formulated. The findings of research and development of *Gelantram* media are developed through the initial process of preliminary studies, literature reviews, literature studies, and observations and interviews. It finds that teachers or adults around children aged 4-5 years do not have much appropriate media to improve early-childhood math skills. Early-childhood interest problems in mathematics get solutions to problems through the use of learning media *Gelantram*. Based on the results of the small-group test, the development of *gelantram* learning media is proven to be effective in improving early mathematics skills in children aged 4-5 years in the city of South Jakarta. The form of *Gelantram* media is soft motion video files and songs for gadgets such as smart phones, laptops, tablets, or desktop computers. Based on the points of the research findings, it can be concluded that the learning media G*elantram* can improve the early math skills of children aged 4-5 years. Learning media, *Gelantram* is media that are designed and developed to improve understanding of early-childhood math skills. *Gelantram* media can be used for the needs of learning media to improve early math skills in schools. It can also be used as a solution to the problem of increasing children's mathematics interest by parents at home.

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Assessing the Toxic Levels in Parenting Behavior and Coping Strategies Implemented During the COVID-19 Pandemic

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ABSTRACT: The COVID-19 pandemics have caused a lot of stressors for parents. Apart from doing daily activities, parents also have to take care of their children and accompany them to study. The number of stressors can lead to toxic behavior in parenting. This study aims to measure the level of toxicity in parenting behavior and coping strategies adopted by parents. This study uses quantitative descriptive methods to measure toxic levels in parenting behavior during the COVID-19 pandemic. A total of 568 parents from Banjarmasin and Yogyakarta participated in this study. The survey results show that several factors can trigger parenting stress during the COVID-19 pandemic, namely worsening economic conditions, delinquent children, excessive anxiety, accumulated daily hassles, growing family demands, and disputes with spouses. However, some of these stressors do not lead to toxic parenting. The results showed that 97.79% of respondents from Banjarmasin and 95.29% from Yogyakarta showed a low toxic level. The remaining 2.21% of respondents in Banjarmasin and 4.71% of respondents in Yogyakarta indicated a moderate toxic level. Coping strategies are crucial for neutralizing stress. There are several strategies applied, namely trying to consider a problem is God's test, and there is a positive side to every problem; trying to address the source of stress and solving it; Withdrawing and finding individual time; looking for social support from the family and others; crying and releasing it by doing favorite things and capitulate and get back the problem. This Research is expected to be a reference for parents in choosing coping strategies to manage the stress they feel in parenting during the pandemic.

Keywords: *Toxic parenting; stress trigger, coping strategy; COVID-19*

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1 INTRODUCTION

Parenting is a process of care that is applied by parents throughout the child's development. Care includes physical, emotional, and social aspects. Bodily care is related to protection against injury, cleanliness, provision of clothing, and food. Emotional care includes parental behavior and attitudes that show a sense of security and autonomy for children, provide opportunities for children to take decisions, and the capacity of parents to stimulate children's social care. So, parents are the primary reference for children, and therefore, they must set appropriate emotional and social attitudes in order to ensure healthy child development (Branco & Linhares, 2018).

Many factors influence the ability of parents to care for their children. Belsky's (2005) model suggests three factors that influence parenting skills, namely individual parent factors, individual child factors, and environmental factors. Parental factors such as personality symptoms and psychopathology; individual child factors such as temperament, developmental delay and disability; and environmental factors, such as social context, social support, parental relationships, parental professions, as well as ancestral pasts. These factors can have an impact on the child's development directly or indirectly. There is much research that reveals that authoritative positive parenting and harmonious relationships built by parents with their children are very beneficial and influential for children in dealing with and managing the stress they will face in each phase of development (Badanes et al., 2012; Mortensen & Barnet, 2020).

According to Shonkoff, stress that can be experienced by young children classified into three types (Jack P. Shonkoff & Bales, 2011; Jack P. Shonkoff & Levitt, 2010; Siegel et al., 2012). The first type is positive stress, which is a psychological state with a short duration and mild to moderate intensity. Children can cope with positive stress with adequate help and support from their parents. Positive stress experiences are widespread during childhood, such as fear of immunization and anxiety when first entering school. According to Shonkoff (J. P. Shonkoff et al., 2012) when children have a stable environment with protective and supportive relationships, the experience of positive stress can be a good challenge for children's growth and development. This challenge is an opportunity for adaptive learning to deal with negative experiences.

The second type is tolerable stress, associated with exposure to atypical experiences that present a higher level of difficulty or threat to individuals (J. P. Shonkoff et al., 2012; Jack P. Shonkoff & Bales, 2011; Jack P. Shonkoff & Levitt, 2010) for example, death of family members, illness severe, natural disasters, or even acts of crime. However, if children have a protective environment that supports them to cope, psychological risks in the short or long term can be moderated and reduced. When dealing with tolerable stress, parents must express child protection through relationships that are full of adaptive responses (J. P. Shonkoff et al., 2012)

Toxic stress is the third type of stress that children may experience. This kind of stress is the most dangerous event for child development, with negative consequences in several dimensions of life at the short, medium, and long-term levels. Toxic stress is characterized by frequent and robust reactivity to sources of stress stimulation (Jack P. Shonkoff & Levitt, 2010; Siegel et al., 2012). Also, toxic stress is more dangerous because there is no support and protection from parents (J.P Shonkoff, 2012). Risk factors analyzed by the Adverse Childhood Experiences Study (Gilbert et al., 2015) mention several forms of stressors for this type of stress, such as child abuse or neglect, abuse of illegal substances by parents, and depression experienced by parents (Jack P Shonkoff, 2010; Jack P Shonkoff & Fisher, 2013). This statement is in line with what was revealed by (National Scientific Council on the Developing Child, 2007) that toxic stress was an adverse childhood experience, caused by abuse, neglect and household dysfunction, which places children at risk of continued stress response activation without protection.

Toxic stress affects children's brain architecture and increases the risk of developing poor physical, behavioral, social-emotional, and cognitive health (J. P. Shonkoff et al., 2012). Toxic stress also interferes with the development of the nervous system, including the growth of parts of the brain associated with planning, problem-solving, and self-regulation (Felitti et al., 1998; Juster et al., 2010). This stress can affect a child's cognitive, behavior, and physical health disorders (Bethell et al., 2014). Toxic stress also causes various chronic diseases when the child is growing

up, including heart disease, substance abuse, and depression (Braveman, 2009; Pediatrics, 2018). Families can be a substantial buffer to protect children from this toxic stress. Research shows that consistent and attentive communication, positive and responsive parenting can protect children from health hazards due to stress (National Academies of Sciences, Engineering, 2016).

Children who live in a bad family environment can show abnormal development. Children affected by toxic stress show higher levels of cortisol (a hormone that regulates stress) than other children who live in a healthy environment (Slopen et al., 2014). Cortisol is related to specific areas of the central nervous system that are responsible for regulating memory, learning, emotions, and the immunological system (Jack P Shonkoff et al., 2012). This finding shows that chronic illness can arise if children are often exposed to conditions that trigger stress. On the other hand, parents also have a high possibility of suffering stress while they care for their children. Parenting stress is the experience of distress or discomfort that results from parental role demands (Deater-deckard, 1998). In general, parenting has the consequence of causing high levels of stress (Koeske & Koeske, 1990) , especially in the preschool period (Kuczynski & Kochanska, 1990). Parents who see their children as depressed or overly demanding, and unable to develop positive interactions with children can increase stress levels (Ostberg & Hagekull, 2000).

The stress felt by parents from interactions with their children also depends on the psychological well-being of parents. Many studies have examined the factors that trigger this distress, including depression, lack of social support, marital disputes, and excessive anxiety (Davis & Carter, 2008; Ekas & Whitman, 2010). This kind of stress is possible emerged from many sources, including children, parents, and environmental characteristics (Abidin, 1990; Mash & Johnston, 1990). The spread of COVID-19 and the enactment of WSFH can also be a factor in increasing stress on parents. This condition raises many factors simultaneously; excessive anxiety, increasingly difficult economic conditions, many children's tasks that must be handled by parents in addition to their tasks, and the lack of social support from various parties due to social distancing. The rush of stress-triggering factors at the same time can reduce the psychological condition of parents so that they fall into toxic parenting behaviors.

Researchers found several previous studies on parenting stress, including: The Relationships Between Parenting Stress, Parenting Behavior and Preschoolers' Social Competence and Behavior Problems in the Classroom (Anthony et al., 2005), the results showed that Parenting stress was most strongly related to children's social competence. Then another study entitled Toxic Parenting Adversely Correlates To Students 'Academic Performance In Secondary Schools In Uasin Gishu County, Kenya (K. et al., 2020), This study concluded that toxic parenting adversely correlated to students' academic performance. Researchers have not found an article that discusses toxic behavior carried out by parents when under stress in raising early childhood. The purpose of this study was to measure the level of toxicity in parenting behavior by parents towards their children who were still at an early age during the COVID-19 pandemic, as well as to determine the coping strategies applied by parents in dealing with stress in caring for their children during the COVID-19 pandemic.

2 THEORITICAL STUDY

2.1 *Toxic Parenting*

Toxic parents are those who demonstrate life and interaction styles that damage children's ability to form healthy connections with family members, friends, and partners. Every parent does tend to make mistakes. In the frequency and intensity of specific interactions, those mistakes can harm the child. These impacts can last in the long term, implicating self-esteem, friendship, and a warm relationship between children and their parents (Mikulincer et al., 2010).

Embedding poisonous words in parenting looks rather harsh. However, upon closer examination, this analogy is precisely correct. Toxic substances are complex and not always dangerous if used under certain conditions and doses. Likewise, poisonous parenting can be good at first but applied to the wrong situations and excessive doses that damage the child. For example, when

parents set strict regulations for their children, it might have reasonable goals. However, it can cause a backlash from children or even make them insecure.

Another example, parents show affection for children as a way to express attention, warmth, and love. However, excessive love can make children feel uncomfortable and can even step into the realm of sexual abuse. Toxicity varies according to many factors: level of exposure, repetition of exposure, preparation, purpose, and individual sensitivity of the person absorbing the substance. Parents and their systematic style of interacting with children can be drugs or poisons for interpersonal relationships (Mikulincer et al., 2010). Certain behaviors such as competition, ridicule, humor, control, and punishment can all have healthy or dangerous effects depending on the intensity, expression, how many times they occur, the context in which they are expressed, and the psychological and interpersonal needs and sensitivity of the child.

Dunham and Dermer (2011) Describe three types of toxic parents, namely: Contest parents, dismissive parents, and contemptuous parents who are insulting. Contest parents try to make children as they wish. Through the successes of the infant, this form of parent receives pseudo-self-esteem. Parents encourage children to accept their wishes as child goals. The dismissive parent is not connected with children in the way intended. Parents may not be physically, emotionally, or financially available. Dismissive Parents may be in the house every day, but they are busy with their own lives and not involved in the children's lives. They may provide basic needs but without a warm emotional connection.

Contemptuous parents are judges of the needs, desires, and dreams of their children. They depend on disparaging, criticizing, cursing, and blackmailing their children emotionally. Humiliation always causes disgust and effective in damaging relationships (Gottman & Silver, 1999). The parent expressed the insult through sarcasm, cynicism, summons, rolling eyes, sneering, mocking, and hostile humor. If parents become toxic parents, then the child will not have a backrest in dealing with stress. Even, toxic parents can be a source of toxic stress in children. This study intends to measure the toxic level of parenting behavior that is applied by parents during the COVID-19 pandemic. This research will also reveal the stress triggering factors experienced by parents and the coping strategies they employ.

2.2 *Parenting Stress*

In the article (Crnic et al., 2005) mentions parenting stress is closely related to negative attitudes in parenting, parental well-being, and negative parenting behavior. The higher parenting stress is also dominated by authoritarian parenting styles, in the negative interaction patterns between children and parents, and the low involvement of parents in parenting. In addition, the hassles of day-to-day parenting also contributes to parenting stress. Stress triggers for parents are also due to the lack of knowledge about parenting, lack of perceived competence, and lack of emotional support such as assistance in caring and daily work from spouses, other family members, as well as assistance from closest people (friends). The arrival of a new baby is a joy to a family, but being a new parent also leads to new jobs and demands for parenting. These new demands can be a stressor for young mothers or parents who have no previous experience in parenting (Deater-deckard, 1998). Stress in parenting occurs because of the obligation to be a parent (Anthony et al., 2005).

2.3 *Coping Strategy*

Coping strategy is a disposition variable that refers to individual characteristics that are relatively stable. The results of research conducted on various groups show that emotionally oriented coping strategies (such as grumbling, self-blame) positively correlated with health problems such as depression and anxiety. Whereas problem-oriented coping (an active approach to be problem-solving) negatively correlated with these conditions (Cohan et al., 2006). In a study conducted by Rodenburg et al., (2007), social support complemented family cohesion and coping behavior that focused on finding the source of a problem and solving it contributed to lower levels of parenting stress. However, in this study, coping strategies by trying to understand the source of stress problems and solve them only rank second while looking for social support ranks fourth. The majority

of respondents prefer coping strategies based on religious values, which are trying to understand that the problem is a test of God and that there is a positive side to every problem.

3 METHOD

This study uses a quantitative method with a descriptive form. Respondents came from two different cities: Banjarmasin and Yogyakarta. The researcher chooses Banjarmasin city because it is known as a religious city. This city is full of the number of mosques and ta'lim assemblies. Many assemblies attended by tens of thousands of people every day. Yogyakarta city becomes the second place for research because this city was famed as a learning city. In this city, we can find many high-quality universities. Yogyakarta absorbs many people to study there. This educative climate positively affects the life patterns of the Yogyakarta citizens. The research instrument was a closed questionnaire with a Likert scale and an open questionnaire. Data collection techniques in the form of distributing questionnaires. Data were analyzed using SPSS.

3.1 *Participant*

The population of PAUD students in Yogyakarta city is 13,559 people, while in Banjarmasin, there are 15,912 people. The questionnaire distributed and filled out by the parents of each child selected to be the sample. Samples were taken by referring to the Isaac Michael table with a significance level of 10% so that 266 children from Yogyakarta and 267 children from Banjarmasin. The questionnaire to measure the toxic level of parenting behavior developed from the toxic parent indicator mentioned at https://id.theasianparent.com/toxic-parents. These indicators are selfish, lacking empathy; emotionally reactive; lack of respect for children; excessive control; criticizing and blaming all mistakes on children; demanding something that cannot be done by children to then underestimate and compare it with others, and bringing up what he has done for the child causing guilt.

3.2 *Instruments Penelitian*

Table 1. Indicator and item in questionnaire

No	Indicator	Item	rxy	Ket
1	Selfish, lacking empathy	I feel that children always interfere when I want to relax	.424**	Valid
		If a child falls down and cries, I will not calm him down, even I will scold him or tell him to cry to his heart's content	.525**	Valid
2	Emotionally reactive	I shouted if the child did not immediately respond when called	.378**	Valid
		I immediately punish a child with physical punishment if he troubles me (hitting, tweaking or pinching, etc.)	.541**	Valid
3	Control children tightly	I get annoyed if the child does something that is not exactly what I want	.463**	Valid
		I will not fulfill the wishes of the child if he does not do what I command	.484**	Valid
4	Lack of appreciation	If a child wants to help when I do something, I will reject it because it will only slow down my work	.440**	Valid
		I pout children when they fail to do what they want or achieve what they expect	.410**	Valid
		I am angry if the child says my opinion is wrong	.526**	Valid
5	Blame the child excessively	I felt that I could not do anything if the child was around me	.624**	Valid
		Children often cause me to argue with my partner (husband / wife)	.444**	Valid

		My economic condition is a mess because many children will	.330[*]	Valid
6	Disparaging and comparing children	If it's a bad boy, I call him a nickname he doesn't like (like bad boys, whiny kids, spoiled kids, etc.)	.407[**]	Valid
		I told my child that he was not as good as his brother (brother / sister) or other family	.535[**]	Valid
7	Bring up what has been done for the child	I warned the child not to be naughty because I had spent a lot of money on him	.388[**]	Valid
		I warn the child to appreciate the effort I put into raising him, so he has to carry out my orders	.441[**]	Valid

The result categorization of the questionnaire guided by the provisions proposed by Arikunto, (1998), namely:

Table 2. Categorization of Questionnaire Results to classify toxic level

No	Category	Range
1	Very Good	76-100
2	Good	50-75
3	Not Good	40-55
4	Very Not Good	< 40

4 RESULT AND DISCUSSION

4.1 *Result*

4.1.1 *Respondent Demographics Data*

Respondents who participated in this survey were 568 people, exceeding the specified number of samples. Two hundred ninety-seven parents come from Yogyakarta and 271 parents residing in Banjarmasin (see table 3).

Table 3. Demographic Data of Respondents

No	Respondent	Percentage
1	Gender	
	Woman / mother	95.4
	Male / father	4.6
2	Age	
	21-30 years	33.6
	31-40 years	51.1
	41-50 years	15.3
3	Profession	
	housewife	50
	Honorary staff	17.3
	Government employees	7.6
	General employees	14.4
	Entrepreneur	10.7
4	Last Education	
	Graduate program	6.7
	Undergraduate program	34.2
	Diploma program	7

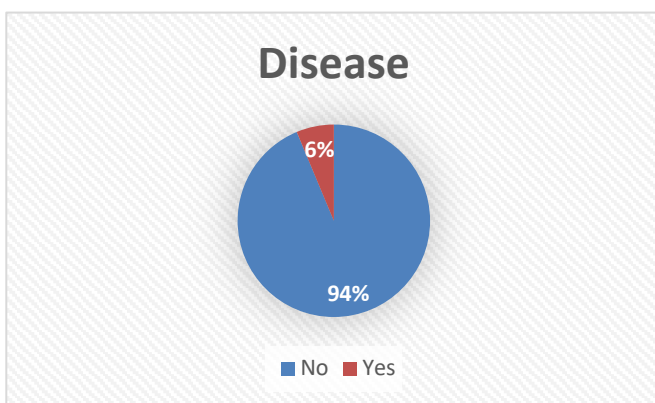|		
	Senior High School	41
	Junior High School	9
	Elementary School	2.1
5	Number of children	
	1	26.4
	2	46.7
	3	20.6
	> 3	6.3
6	Monthly family cumulative income	
	< Rp 500.000	8.6
	Rp 500.000 – Rp 1.000.000	14.8
	> Rp 1.000.000 – Rp. 2.000.000	16.5
	> Rp 2.000.000 – Rp. 3.000.000	18.1
	> Rp 3.000.000 – Rp. 4.000.000	13.7
	> Rp.4.000.000	28.2

Figure 1. Disease

Figure 1, as many as 93.7% of respondents said they did not have a congenital disease that could make their emotions unstable. While the remaining 6.3% said they have a condition that can affect emotional stability. The disorders include hypertension, internal diseases, acute gastritis, diabetes, cholesterol, and postoperative trauma.
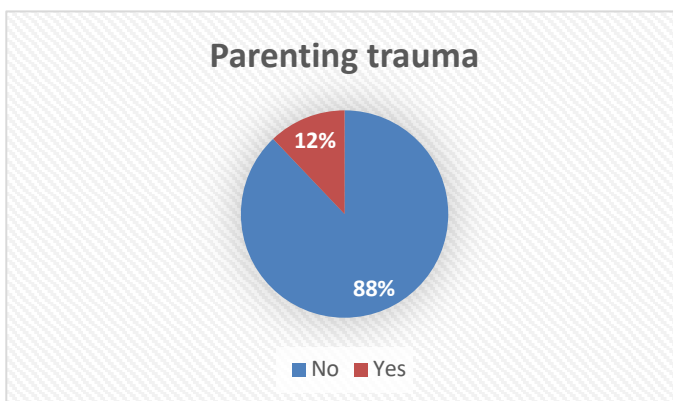

Figure 2. Parenting Trauma

Figure 2 show, as many as 87.9% of respondents stated that they had never experienced poor care by their parents before. While the rest, 12.1% said they had experienced trauma due to the abusive attitude done by parents.
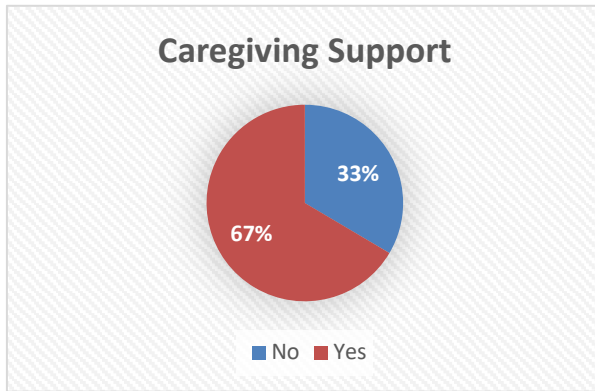
Caregiving Support

33%

67%

No Yes

Figure 3. Caregiving Support

As many as 33.5% of respondents in figure 3, said that they take care of their children without the support of other parties. The remaining 66.5% stated that they received nurturing support from various parties, especially their husbands. Besides, they also received support from siblings, parents, grandmothers, teachers, motivators, parenting sharing groups, and books.
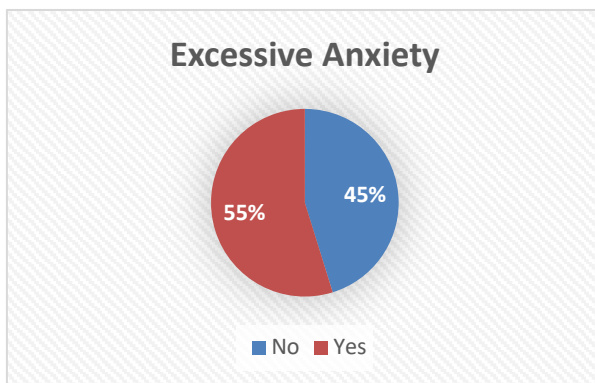
Excessive Anxiety

45%

55%

No Yes

Figure 4. Excessive Anxiety

When asked about the anxiety they felt during the co-19 pandemic, 54.8% of respondents said they felt more anxious than before. While the rest, 45.2% of respondents stated that there was no significant increase in anxiety due to the spread of the coronavirus in their area (see figure 4).
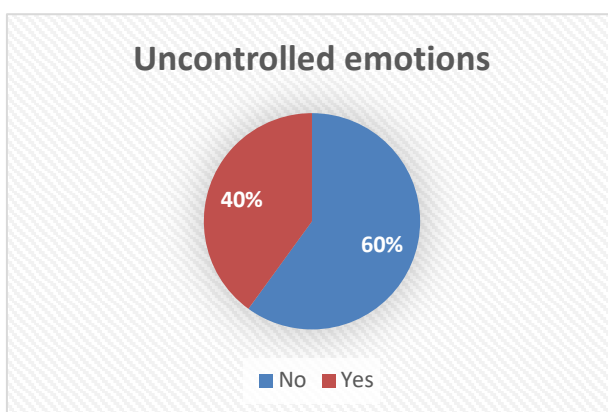
Uncontrolled emotions

40%

60%

No Yes

Figure 5. Uncontrolled Emotion

During WSFH, as many as 40% (see figure 5) of respondents felt angrier and had difficulty controlling their emotions compared to the previous time. The other 60% of respondents did not feel difficulty in controlling emotions in their current state.
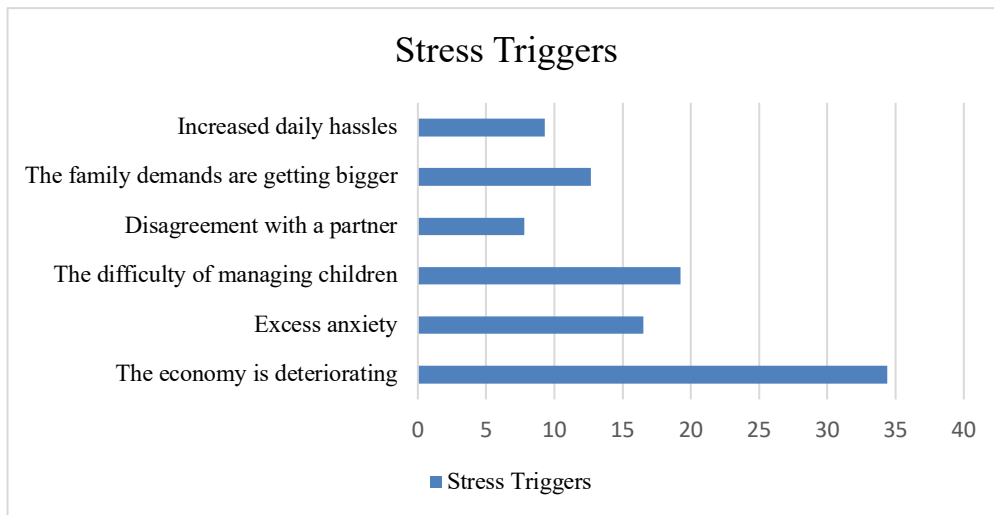
Figure 6. Stress Trigger Chart

There were 805 responses regarding stress triggers felt by parents during this co-19 pandemic. As many as 34.41% or 277 responses stated that a worsening economy could trigger stress more quickly. Then 19.25% or 155 responses stated that children who are challenging to manage when parents work at home also create stress. Followed by excessive anxiety and fear infected by COVID-19 expressed can make parents stressed by 16.53 or 133 responses. Then the growing family demands when the pandemic COVID-19 is also considered by 12.67% or 102 responses as stressors. Increased daily hassles, including taking care of homework, completing office tasks, and accompanying children to learn, also adds to the stress burden of parents. A total of 9.32% or 75 respondents said this. Finally, 7.82% or 63 responses stated disagreements with partners when arranging some things during the coronavirus spread were also considered to trigger stress for parents (see figure 6).

It is widely recognized that parenting might be stressful. Parenting stress defined as an adverse psychological reaction to parental demands (Deater-deckard, 1998). However, this reaction is multi-sided and depends on several factors, including parent's psychological, health, relationship with their child, source of support, and their own experience as a parent (Anthony et al., 2005). Therefore, parents will differ in the amount of stress they experience, although most parents will still experience stress at some point. Research shows that increased parental stress can harm parent-child relationships (Deckard & Scarr, 1996). For example, stress can make parenting harder and be bound to the imposition of punishment, thus resulting in lower emotional development for children (Crnic et al., 2005).

Parents' own experiences of their childhood and the style of care received tend to be the primary determinant of the style of care they will apply to their children. Research has shown that the experience of ill-treatment received by parents when they become children tends to have a detrimental effect on subsequent caregiving abilities (Fitzgerald et al., 2005). For example, a strong correlation identified between mothers who experienced physical abuse during childhood and records of the abuse of their babies who were not yet 26 months old (Berlin et al., 2011). Mothers who experience childhood emotional distress reported to display less empathic responses to their babies who are six months old and have lower scores on parental self-efficacy (Caldwell et al., 2011).

4.1.2 *Description of Toxic Levels in Parenting behavior during the COVID-19 Pandemic Period*

All items in this questionnaire are unfavorable. Scoring uses a Likert scale. Options never get a value of 4, sometimes get 3, often get 2, and always get the lowest value of 1. The following is a statistical description table of the results of a questionnaire from two different cities:

Table 4. Results of a questionnaire from two different cities

		Statistics	
		Banjarmasin	Yogyakarta
N	Valid	271	297
	Missing	26	0
Mean		56.81	56.76
Median		57.00	57.00
Mode		60	56
Std. Deviation		3.880	4.158
Variance		15.057	17.286
Range		22	22
Minimum		42	42
Maximum		64	64
Sum		15396	16857

From this table, the number of samples from Banjarmasin city is 271 people, and from Yogyakarta city is 297 people. The average value obtained by all respondents who live in Banjarmasin is 56.81, while respondents from Yogyakarta have an average value of 56.76. the minimum and maximum values obtained from these two different cities are identical, namely 42 and 64. Similarly, the median value that gets the same points as 57.00. the mode results of individual questionnaire obtained by parents from Banjarmasin are 60, while parents in Yogyakarta get a value of 56. From this statistical table, there is no noticeable difference from the questionnaire results obtained in the two cities where the study conducted.

4.1.3 Categorization of Toxic Levels in Parenting behavior during COVID-19 Pandemic Period

This categorization follows the guidelines set by Arikunto (2010). Because all questionnaire questions are unfavorable, the categories reversed. The higher the score obtained by the respondent, the lower the toxic level applies. The result categorization of the questionnaire from the following table:

Table 5. Result categorization of the questionnaire

No	Category	Range	Banjarmasin	Yogyakarta
1	Low toxic level	76-100	265/97.79%	283/95.29%
2	Moderate toxic level	50-75	6/2.21%	14/4.71%
3	High toxic level	40-55	-	-
4	very high Toxic level	< 40	-	-

The following is the average value of each indicator

Table 5. The average value of each indicator

No	Indicator	Banjarmasin	Yogyakarta
1	Selfish, lacking empathy	3.36	3.42
2	Emotionally reactive	3.33	3.39
3	Control children tightly	3.15	3.11
4	Lack of appreciation	3.69	3.7
5	Blame the child excessively	3.63	3.61
6	Disparaging and comparing children	3.82	3.76
7	Bring up what has been done for the child	3.72	3.7

Parents from Banjarmasin and Yogyakarta both received the lowest scores on the third indicator. It concluded that the aspect of controlling children is an indicator that often causes toxic

parenting. The highest value is in the sixth indicator. It concluded that the aspect of underestimating children and comparing them with other children is the unusual behavior performed by parents in parenting, both those who live in Banjarmasin and Yogyakarta.

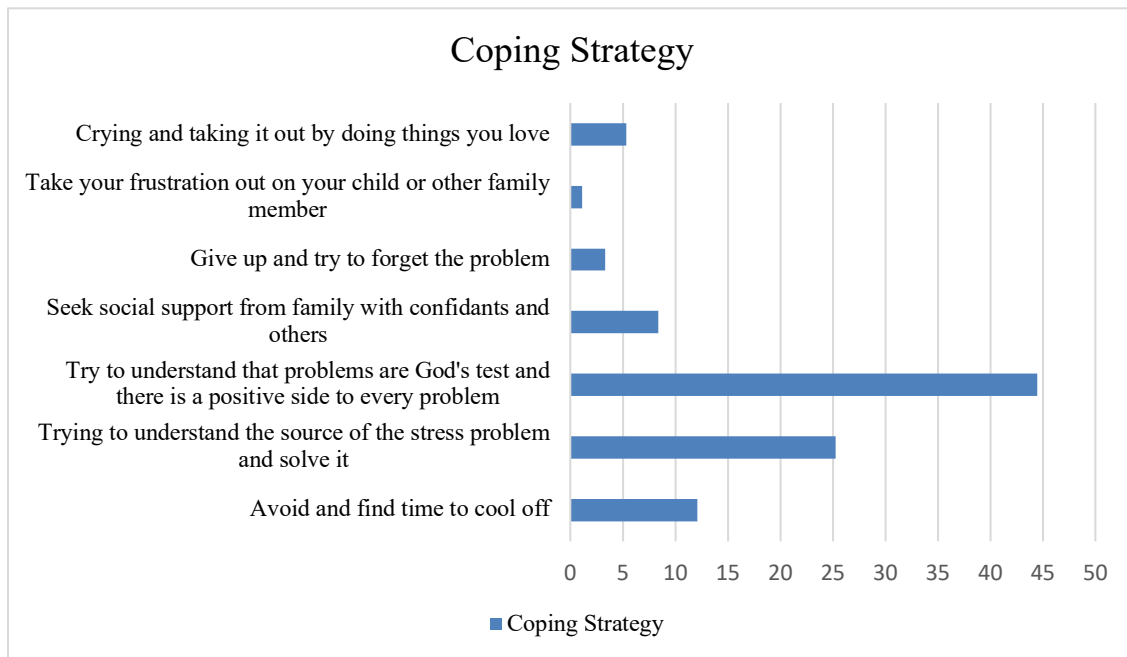### 4.1.4 *Coping Strategies to Prevent Toxic Parenting Behavior*

Figure 7. Coping Strategy

There are 787 responses regarding coping strategies applied by parents when they respond the parental stress. The most coping strategy practiced by parents is Trying to understand that the problem is God's test, and there is a positive side to every problem. This religious strategy is chosen by 350 responses or equivalent to 44.47%. The second most preferred strategy is trying to understand the source of stress and solve it. There were 199 responses or 25.28% who chose this strategy. Avoiding and finding time to calm down is the third most chosen strategy by respondents. There were 95 responses, or 12.07% chose this strategy. Then as many as 66 responses or 8.38% chose the strategy of seeking social support from families with confide and the like when facing the stress of care.

Furthermore, as many as 42 responses or 5.33% chose to cry and vent by doing what they liked. There are 26 responses or 3.30 who chose to surrender and try to forget the problem when stressed caregiving. Finally, there are only nine responses or 1.14% that vent frustration to children or other family members when stressed. If classified from 787 responses, 341 responses came from parents who live in Banjarmasin and 424 responses from parents who live in Yogyakarta. There was one respondent who stated that if the parenting stress hit her, usually she would do something harming himself. Following is the percentage of coping strategies compared between the two cities where the research held:

Table 6. Percentage of Coping Strategies Compared Between the Two Cities Where the Research Held

No	Coping Strategies	Banjarmasin Percentage	Yogyakarta Percentage
1	Avoid and find time to calm down	11.14	12.73
2	Trying to understand the source of the stress problem and solve it	27.56	24.06
3	Trying to understand that the problem is God's test and there is a positive side to every problem	48.97	42.93
4	Seek social support from family by vent etc.	5.58	9.91

5	Surrender and try to forget the problem	2.06	3.77
6	Vent your frustration to the child or other family members	0.58	1.42
7	Cry and vent it out by doing something you like	4.11	5.18

4.2 *Discussion*

In stressful parenting situations, parents make cognitive judgments about their situational control, which is the extent to which they are confident they can manage stress in the context of raising children. This assessment is the product of parental evaluation of the demands of the situation, as well as their coping resources, options, and ability to implement the required coping strategies (Lazarus, 1993). Parental resources defined as stress relief and parental coping practices defined as the way parents manage stress.

The conditions of respondents found in this study included diseases that could trigger stress, such as hypertension, internal disease, acute ulcers, diabetes, cholesterol and postoperative trauma. However, this percentage is only 6%. Then there is the trauma of parenting during childhood due to rude attitudes carried out by parents. However, this percentage is only 12.1%. Then parenting support, of which 33.5% of respondents stated that they cared for their own children without any support from other parties. There was excessive anxiety during the COVID-19 pandemic, which was 54.8%. During WSFH, as many as 40% of respondents felt more irritable and had difficulty controlling their emotions compared to the previous time. These conditions can also trigger stress factors.

As for the stressors felt by parents in childcare during the COVID-19 pandemic, 34.41% or 277 responses stated that a deteriorating economy can trigger stress more quickly. These stressors are the ones most expressed by respondents. During the COVID-19 Pandemic, large-scale social restrictions or lock downs were imposed, which caused several offices and shops to close. This certainly has an impact on the economy of the community, which must temporarily close their shops. There are also those who continue to sell, but there are fewer buyers. Then, there were some workers who were also laid off because the company made a reduction in employees. It turns out that this condition contributes to the stress of parents in caring for their children, as in the article (Crnic et al., 2005) mentioned one of the stressors is parental well-being.

As many as 19.25% or 155 responses (the second highest choice of respondents) stated that children who are difficult to manage when their parents work at home are also stressful. Children who learn from home become difficult to manage because they feel there is freedom at home, unlike at school. Parents who are accustomed to not being with their children during school hours are certainly surprised by this condition. Children and parents gather for 24 hours, parents are busy, and children are difficult to manage. This can occur due to the low involvement of parents in care during the pre-COVID 19 pandemics, as CRNC wrote that the low involvement of parents in care can be a trigger for stress in parenting.

Excess anxiety and fear of being infected with COVID-19 were stated to stress parents by 16.53% or 133 responses. Excess anxiety also occurs due to a lack of adequate understanding of something, such as COVID-19. At the beginning of its appearance, it was very surprising, with a million deadly viruses, causing parents to have excessive anxiety because they were afraid of being infected with the COVID-19 virus. 12.67% or 102 responses considered the increasing family demands during the COVID-19 pandemic as a trigger for stress. Especially during the lockdown period, people were too panicked, so they did panic buying, which is buying excess daily necessities for fear of leaving the house. Apart from that, there is also a need to buy internet data quotas because children and parents work online. Likewise, with the increasing demands of daily activities.

As many as 9.32% or 75 respondents stated that the Increasing daily hassles, including taking care of homework, completing office tasks and accompanying children to study also increase the stress burden on parents. This is related to the results of research which states that the hassles of

daily parenting also contribute to parenting stress (Crnic et al., 2005). When parents work from home, and their children go to school from home, it means that the inconvenience of parents at home is increased by taking care of daily work coupled with the task of helping children learn from home. Of the several stressors, the level of toxic parenting is still at a low level, both for Banjarmasin and Yogyakarta. the love to control the child tightly is an indicator that often causes toxicity in care. The highest value is obtained in the sixth indicator on the aspect of underestimating children and comparing them with other children. This means that this behavior is rarely carried out by parents in a toxic upbringing style.

The attitude of controlling children is strictly seen from most respondents who want what the child does according to the wishes of the parents, it must be in accordance with what is instructed, so that when children do something that is not in accordance with the wishes of the parents, this can be an indicator of toxicity in parenting. The next indicator is that the parents do not want to fulfill the child's wishes if the child does not want to do what the parents tell them to do. This type of toxic parenting will harm the child psychologically. Physically and verbally, it doesn't look like a toxic form, but it attacks the child psychologically. In contrast to the type of toxicity that parents rarely due to their children, namely underestimating children and comparing them to other children. For example, calling a child with a call he doesn't like, such as a naughty child, a crybaby, a spoiled child. Apart from that, another indicator is telling the child that he is not as good as his sibling (brother / sister) or other family. This type of toxicity is verbal.

Coping strategy is a disposition variable that refers to individual characteristics that are relatively stable. The results of research conducted on various groups show that emotionally oriented coping strategies (such as grumbling, self-blame) positively correlated with health problems such as depression and anxiety. Whereas problem-oriented coping (an active approach to problem-solving) negatively correlated with these conditions (Cohan et al., 2006). In a study conducted by (Rodenburg et al., 2007), social support complemented family cohesion and coping behavior that focused on finding the source of a problem and solving it contributed to lower levels of parenting stress. However, in this study, coping strategies by trying to understand the source of stress problems and solve them only rank second while looking for social support ranks fourth. The majority of respondents prefer coping strategies based on religious values, which are trying to understand that the problem is a test of God and that there is a positive side to every problem.

This finding confirms the results of previous research, which states that in Indonesian culture, parental stress minimized by religious coping. Religion and spirituality have proven to contribute positively to the exact process of life in various ways, such as religion providing support to overcome the problem of stress, and religion can make mothers and families grateful and interpret the presence of children with autism spectrum disorders positively (Daulay, 2018). Research held by (Corrigan et al., 2003) also found that religious involvement has a positive correlation with psychological well-being..

5 CONCLUSION

Respondents stated that the spread of COVID-19 caused several stressors, namely deteriorating economic conditions, difficulty controlling children, excessive anxiety over the spread of the virus, growing family demands, increased daily hassles due to having to take care of homework, offices and child chores, then disagreement with a partner. However, the stress experienced by parents in their parenting behavior does not lead to them becoming toxic parents. The results showed that 97.79% of respondents from Banjarmasin and 95.29% from Yogyakarta showed a low toxic level. The remaining 2.21% of respondents in Banjarmasin and 4.71% of respondents in Yogyakarta indicated a moderate toxic level. There were no respondents who had high toxic levels. Coping strategies applied by parents influence the low level of toxic parenting during the spread of the co-19 pandemic. The majority of respondents implement religious coping strategies by instilling awareness that the problem is part of God's plan, which always has a positive side, then followed by problem-solving coping strategies. Respondents admitted that they faced more stressors during the COVID-19 pandemic, but the level of toxicity in the majority of caregiving was still low, both in Banjarmasin and Yogyakarta. This is because parents can manage stress with religious coping techniques. This coping technique is emotional. Although this technique is

effective, it is defensive in nature. Parents are still expected to develop coping techniques that focus on problem solving

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The Implementation of Online Learning in Early Childhood Education During the Covid-19 Pandemic

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ABSTRACT: Covid-19 has changed the learning process from class attendance to distance learning using the Internet. Early childhood education is threatened to enter into the lost generation, due to distance learning, which causes confusion for teachers and parents to be able to provide the best stimulation for them. Therefore, the Indonesian government made a new policy on online learning. The objectives of this research are to find how effective at online learning policy formulation, how productive it is in policy implementation, and what are the obstacles of the implementation at Early-Childhood Education (ECE). This qualitative research uses a mixed method approach with an iterative analysis design, conducted in Central Java Province in 35 districts / cities with 1,899 respondents. Data collection techniques with open-closed questionnaires, study from 15 documentation, and in-depth interviews. Data analysis uses quantitative-qualitative software Nvivo12+, with Miles and Huberman models. The results showed the policy formulation of online learning at ECE has been effective. However, the implementation of online learning policy at ECE still takes a lot of effort to become more powerful in preventing a decline in learning. There are five obstacles in in applying this in the field, namely the ability of teachers, the ability of parents, economic capability, facility constraints, and pedagogical constraints.

Keywords: *Online Learning Policy; Children Engagement; Learning Management System*

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1 INTRODUCTION

Corona Virus Disease 19 (Covid-19) which has killed millions of the world's population and thousands of Indonesians has changed the way people live. This pandemic has forced people to work, study and worship from home. Early March 2020 the Indonesian Minister of Education and Culture issued a Circular No. 4/2020 so that the learning process is carried out from home through online learning (Kemendikbud, 2020). Some parties question whether the online learning policy can run effectively or not. Some of the questions are related to student readiness, teacher readiness, Education Office readiness, and readiness of learning support facilities such as internet access and ownership of hardware such as laptops, desktops, or smart phones.

Survey results show that almost 64% of Indonesia's population has Internet connection (Pertiwi, 2020). Meanwhile, Internet users in the world have reached 60% of the population (Ramadhan, 2020). This means that Internet connections in Indonesia are above the world average Internet connection. The report of the Indonesian Internet Service Providers Association shows that Internet penetration in Indonesia reached 64.8%, while the Internet penetration rate in Central Java has reached 71.4% (Association, 2018). The high level of Internet penetration in Indonesia can be utilized in supporting the learning process at home and schools, including. Especially at this time many ECE students have used smart phones. For example, in the Special Province of Yogyakarta, smart phone usage in kindergarten children aged 4-6 years reached 94%. One reason for the high level of use of smart phones and tablets is as a means of introducing information and communication technology (Zaini & Soenarto, 2019). Another study shows that the majority of children in Indonesia spend time playing with gadgets (Pebriana, 2017).

As the development of technology & information and the Internet, learning can be done online, and then came many terms such as e-learning, especially learning using electronic devices. Learning that is carried out with the Internet network or with the world wide web is called online learning or online education. Online learning connects students with subject matter via the Internet (Johnson & Manning, 2010). Some refer it as cyber-education (Palloff & Pratt, 2002). Now there are those who use smart phones as a means of learning so-called m-learning or mobile learning because teachers and students can move wherever they are. In the United States, it is called online learning if it meets the minimum criteria of 80% of the learning content delivered in a network. If online is only 1-29%, then it is called web facilitated learning. Called mixed learning or called hybrid learning if learning material is delivered online 30% to 80% (Allen & Seaman, 2013). In Indonesia, there is no policy statement on the use of various terms. So, what is meant by online learning in this article is that learning is not done in person and with the help of electronic devices or gadgets such as desktops, laptops, or smart phones owned by teachers and students / parents of students so that the learning process remains took place in the Covid-19 pandemic situation. Therefore, several terms such as online learning, e-learning, m-learning, e-education will emerge, all of which will be used interchangeably to illustrate the implementation of online learning.

Various research results indicate that the application of online learning in ECE with several terms used, gives positive results and impacts to students (Panjaitan, Yetti & Nurani, 2020; Taufik et al., 2019; Setyaji et al, 2015; Asilestari, 2016). Indeed, there are several obstacles in online learning in ECE such as research (Harjanto & Sumunar, 2018; Suhartanto, 2010; Sari & Setiawan, 2020; Winter et al., 2010; Roach & Lemasters, 2006). However, these studies are small in scale and with a small number of respondents. Meanwhile, this research has a medium scale. That is the provincial level with a large number of respondents. There has never been a similar study of the scope and number of respondents like this. At present, the implementation of online learning policies to prevent the spread of Covid-19 is ongoing. There are no research results that reveal the effectiveness of policies and obstacles in implementing online learning in Indonesia. Therefore, this research is important to do, the results of which can be useful to improve the policy formulation and implementation of policies, especially online learning at ECE.

Based on the learning problems during the pandemic and previous studies, the questions of this study are, first, how is the effectiveness of online learning policy formulation in ECE, how is the implementation of this policy in ECE, and what are the obstacles faced by all subjects related to policy implementation? This study aims to describe the formulation of online learning policies in

early childhood education, policy implementation, and related constraints. The results of this study are expected to be useful as input for policy makers in developing online learning policies at the District / City Education and Culture Office, as a reference for school principals and teachers in implementing learning policies in the field and providing solutions to learning problems during the pandemic.

2 THEORITICAL STUDY

The Circular issued by the Minister of Education, and Culture is included in the formal type of public policy in the form of regulations in the field of education, hereinafter referred to as education policy (Nugroho, 2017). The Minister of Education and Culture has forced education practitioners to change learning models from conventional learning models in person to online learning models. Educational policy is public policy in the field of education (Nugroho, 2008) whose starting point is in the interests of students (Tilaar & Nugroho, 2009). The characteristics of educational policy include having goals, having legal-formal aspects, being made by the authorities, being able to be evaluated, and having an operational concept (Imron, 1995). Some year-ago recommendation made that policy to consider curriculum and digital technology on education (Kong *et al.*, 2014). Including social media will take important part in education and will reshape the future of education (Jebba & Umaru, 2019). There are four benefits of online learning namely convenience, flexibility, cost-effectiveness, and time flexibility (Layne et al., 2013). Teacher must facilitate active learning and student-centered learning (Sharoff, 2019). One of the key successes of online learning is meta cognitive and thinking skills of students (Yu, 2020). Another key success is student engagement to complete the tasks (Kwon et al., 2019).

In organizing online learning, several aspects that need to be considered are planning, measuring student needs, support systems, developing teacher competencies, designing material, choosing the right platform, and evaluating the progress of learning outcomes (Lynch, 2002). Other opinions state aspects that need to be considered in online learning are students, teachers, learning material that includes quality and flexibility, the quality of technology or platforms used, and the learning environment (Inoue, 2007). Platforms in online learning systems are learning management systems (LMS) that can create virtual-learning environments (Coates, 2006). Another opinion said the need for three main aspects, namely developers, educators, and students, each of whom faced the same challenges, namely technological challenges, development challenges, and pedagogical challenges. Factors supporting the success of online learning are the dimensions of the system which includes three things, namely the quality of the system and infrastructure, the quality of information and learning, and the quality of institutions and services. In Indonesia, there are still things that need to be repaired the most important is the infrastructure of providing access points in the outermost, foremost, and isolated areas (Pangondian et al., 2019).

Online learning can be successfully carried out if you pay attention to the following main things: ensuring access and technology, the existence of guidelines and procedures, the existence of maximum participation from students, the teacher implementing collaborative learning, and the existence of interaction. There are three levels of student interaction, namely interaction with concepts, interaction with assignments, and interaction with others both teachers and other students (Palloff & Pratt, 2002). The students' test score will improve significantly when online learning run interactively (Ha & Im, 2020). To make it more effective, it requires share understanding of learning goals (Vonderwell & Zachariah, 2005). However, teacher needs to pay attention on student to safeguard themselves when online (Seok & Dacosta, 2020). There was some obstacle in implementing e-learning. Internet access in Indonesia is a still problem (Harjanto & Sumunar, 2018). Another problem in Indonesia there is no minimum standard in implementing e-learning (Suhartanto, 2010). This condition is far different from China that prepares e-learning for the last decades (Wang, Zhu, Chen & Yan, 2009).

3 METHOD

This qualitative research uses a mixed method approach with an iterative analysis design, was conducted in Central Java Province in 35 regencies / cities with total respondent of 1,899 ECE

teachers consisting of 519 ECE teachers under the Ministry of Religion and 1,380 ECE teachers under the Education and Culture Department. Data was collected for two weeks at the end of March to early April 2020. This study uses a mixed approach between quantitative-qualitative. The research procedure following Miles and Huberman models starting from data collection, data presentation, data reduction, and conclusion. Data collection techniques use instrument of open-closed questionnaires either that are circulated through Google forms distributed through WhatsApp Group of ECE teachers. This study also uses documentation from 15 Government and Local Government report and completed with in-depth interviews through voice applications on WhatsApp. Data analysis of closed questionnaires analysis using Pivoting Program on Excel. While the data of open entry's questionnaires and interviews transcript's analysis using NVivo 12+ quantitative-qualitative software. Written documents used were 15 policies ranging from Government Regulations in lieu of Laws. Government Regulations, Presidential Decrees, Circular Letters of the Minister of Education and Culture, Circular Letters of Regents / Mayors, Circular Letters of the Head of the Office of Education and Culture, and Circular Letters Head of Regency / City Ministry of Religion.

4   RESULT AND DISCUSSION

4.1   *Result*

4.1.1   *Qualitative Data*

Based on qualitative data, it was found five main obstacles in the implementation of online learning, namely obstacles from the teacher's side, obstacles from the parents' side, constraints on facilities and infrastructure, economic constraints, and pedagogical constraints.

4.1.1.1   The ability of teachers to deal with learning challenges during the pandemic is still inadequate

The first obstacle is from the teacher's point of view, with the following phrases that are repeated frequently.

"cannot carry out online learning "(this statement admits by many teachers)," there is no clear technical guide regulating online learning "," due to time constraints teachers cannot monitor students directly "," teachers have difficulty communicating with people parents and students at home "," teachers were overwhelmed in judging because they had to open videos and recordings of the children one by one "," could not send and receive videos because the signals were sometimes difficult "," lack of tools online "," school human resources were available who do not understand well about online "," a lot of material cannot be conveyed so that monitoring of children's learning is not optimal "," teachers do not have smartphone communication tools "," geographic location is not very supportive "," we also only provide several times already in the lesson plan, the main obstacle is that the student guardian has to go out to buy internet and paper packages to support activities, so we don't dare to provide there are many "," to directly monitor road obstacles that are far away due to remote villages and online signal constraints "," the problem is sometimes children learn that the time they want to learn cannot be determined at will so we (teachers) have to be patient "," obstacles in online learning when in remote areas. and far from the city, it is difficult to access the assignments given by the school, so the teacher also has to visit house to house because not every child has a school communication tool in the mountains and villages to find out how the child learns ", and" learning in early childhood a lot of emphasis on habituation or giving examples so that online learning is certainly not appropriate if it is carried out by parents who in fact have jobs that are not as professional as teachers, for example traders who prioritize looking for profit rather than being educators at home to replace the role of teachers.

4.1.1.2   The ability of parents to solve children's learning problems at home still requires guidance from teachers and the government

The second obstacle from the parents' side can be seen from the respondent's repeated statements as follows.

"There are some student guardians who are not used to being online", "cooperation with parents who are less creative with their children", "children often get angry when their parents teach them", "guardians do not have androids", "not all guardians of students have an Android cellphone "," there are parents who are still less active in guiding their children "," are constrained when uploading a visual video, there are some student guardians who cannot download because of technical problems "," supervision from parents is lacking "," not all guardians of students have an android cellphone "," the response of parents who are not responsive in their children's duties "," because parents work outside the home while the children are at home "," there are student guardians who do not understand "," not all student guardians use androids " , "The active role of parents is lacking so there are those who are not active", "parents who do not have Android or laptop facilities", "lack of knowledge about technology", "time is consumed for taking care of learning whereas if the child is two or more children "," Learning at home makes parents restless and a burden "," lack of response to parents because students' parents do not always hold cell phones that are always connected to the internet so teachers have difficulty contacting students "," learning at home is not optimal "," the lack of encouragement from parents in delivering assignments then the guardian of students may be part of the economic problem for buying quotas or problems with the attention of the parents of the children in telling the child that the teacher has given the child the task ", All students do their assignments because of the minimum number of parents who don't have an Android cellphone "," sometimes even though parents have an Android cellphone there are some parents who don't want to accompany their children studying at home because many parents are busy with their work "," not all parents have the time to accompany their children in online learning, and ECE are not yet able to learn online by themselves without guidance parents."

4.1.1.3   Facility constraints from related parties to support early childhood learning during a pandemic

The third obstacle is the aspects of online learning facilities and infrastructure based on teacher recognition as follows. Many respondents mentioned the statements of obstacles or constraints.

""The network is not good", "internet quota equals difficult internet connection", "bad signal", "not all students have the media for the learning", "the lack of equipment to receive assignments from teachers cannot accept everything to guardians of students "," not all guardians of students have WhatsApp "," internet network and also the lack of parents who have Android cellphones because they are still in the village area "," lack of tools owned by the school and parents "," slow signal and not necessarily all guardians have cellphones and also how to explain it to children is not necessarily effective "," when there are students whose parents do not have cellphones "," do not have cellphones and do not have friends near their homes "," signal is weak because we are in the mountains ", "Apart from that, the response of the guardians is still small to support children's activities at home", "more than 50% of my children cannot participate in this online activity for various reasons", and " I don't have a cellphone and don't have a quota or can't operate a cellphone ."

4.1.1.4   Declining to weak economic capacity due to the long period of the COVID-19 pandemic

The fourth obstacle is the weak economic capacity of the community with the following expressions.

"parents have no quota "," student guardian has run out of quota "," suck up internet quota "," it is burdensome for parents to also use cellphones "," student quota limitations so that some do not follow "," money problems to purchase quotas or suddenly install Internet network "," the obstacle is the economic factor because not all parents or teachers can afford to buy internet quota "," the community's economy is inadequate so they can't access online facilities "," for

example don't have an Android cellphone "," can't afford to buy it. internet quota package "," for students with limited economic conditions and online learning will be very burdensome for students "," lack of funds for internet facilities "," not all children can participate in online learning because the economic conditions of parents make it impossible to buy an android mobile phone as a tool for online learning "," other than that the problem lies in the user who is less so that it is difficult to m follow this online learning ", and" not all learning participants (in this case parents) understand technology given their diverse educational and economic backgrounds."

4.1.1.5 Pedagogical constraints that need more attention from various parties related to the most effective learning needed for early childhood

The fifth obstacle is the pedagogical aspect based on the acknowledgment of the teacher who completes the open questionnaire as follows. Similar statements were made by the teachers and not all of them are presented here.

"Cannot directly meet the child because the assessment from the observation of the child's attitude", "the child is less controlled in carrying out their duties", "the child feels boredom", "child work is not optimal", "the child always asks when the school-teacher enters me. want to study with the teacher at school "," the delivery of activities is not maximal "," so that the results are less than optimal "," difficult to communicate "," difficult to monitor the tasks that children do at home "," cannot face children directly so that do not know exactly the child's development ", and" the side effects of online learning will provide opportunities for children to open sites that are not appropriate and as parents who will be affected by the impact "," sometimes there are guardians of students who don't listen because they are busy and there also those who do not have a quota "," the limitations of learning media in children's homes "," there is a signal problem in our place to download videos of children's learning outcomes "," learning results are poor g is not immediately accepted "," sometimes there are busy parents who cannot assist the children completely "," children themselves are sometimes less responsive and enthusiastic to their parents "," evaluation cannot be done maximally because of network constraints "," constraints the lack of cooperative attitude of parents to report children's activities while at home "," students who do not actively interact with teachers "," students who do not have cellphones so that assignments distributed in groups cannot be opened and read "," information sometimes becomes unclear ", "Because written language is sometimes different from spoken language", "there are children who are not in the mood to do assignments so that teachers and parents work together to be extra encouraging and motivating", "because children who guide students' parents involve the parents and parents. It takes up the parents' time, "children can't use their own cellphones yet", "my problem is that when I give lessons or assignments to my students, not all children because maybe the child's mood is always changing "," maybe because of the busyness of each working parent "," or maybe not all parents have and understand about this online "," the problem is the delivery of material cannot be maximized like in school because only through simple text and short videos and the teacher could not monitor how well the students understood the material because students could not ask questions directly like in class "," teachers could not directly criticize students' work ", and" teachers only can monitor from parents' reports only. "

4.1.2 *Quantitative Data*

4.1.2.1 The Effectiveness of Online Learning Policy Formulation at ECE

All documents used in this study were analyzed for correlation using Nvivo12 + software and obtained the lowest Pearson correlation of 0.13 and the highest of 0.84. This means that as young as the documents used in this analysis are relevant to the purpose of the study. In addition to ensuring the validity of the documents used, a Text-Query analysis and the word "education" was found 183 times, "health" was found 89 times, and "school" was found 83 times. These three words are words that are found in many of the policy documents analyzed. The results can be seen in Figure 1.
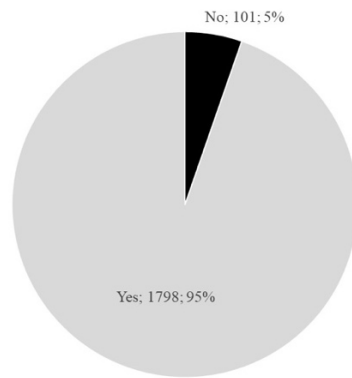
Figure 1. The validity of the Analysis of Documents (Data Process using Indonesian Language)

Policies made by the Government and Local Government have been known by ECE teachers to carry out online learning in order to prevent the spread of Covid-19. The results 90% of teachers understand this policy and only 10% stated not understand. This can be seen from the answers of respondents in Figure 2.

Figure 2. Policies Known to Respondents

ECE teachers also know that the policies made by the Government take several forms, such as the Presidential Regulation in Lieu of Law Government Regulation, and Ministerial Circular. Respondents' answers in this matter may be more than one and the results are 77% ECE teachers know that there is an SE Minister of Education and Culture, 42% of teachers know there is a Government Regulation, and 11% know that the main basis is Presidential Regulation.

Policies issued by the Regional Government have also been understood by ECE teachers. In answering this choice respondents may choose more than one. The results showed that 58% of respondents knew that there was an SE Head of the Education and Culture Office or the Head of the Regency / City Ministry of Religion Office. As many as 36% of respondents claimed to know there was a Decree of the Head of the Education and Culture Office or the Head of the Regency / City Ministry of Religion Office. Meanwhile those who know there are policies in the form of SK or SE of Regents / Mayors of 36%. Based on the ECE teacher's understanding of online learning policies in order to break the chain of the spread of Covid-19, most teachers have implemented it with 95% implement it while other 5% did not. This can be seen in Figure 3.

Figure 3. Teachers Conduct Online Learning

4.1.2.2   The Implementation of Online Learning Policy at ECE

Judging from the experience of ECE teachers implementing online learning, there are many who have no experience. Figure 4 shows that only 6% of ECE teachers are accustomed to applying online learning, another 13% sometimes apply, and surprisingly 81% say they have never applied online learning in their classrooms.
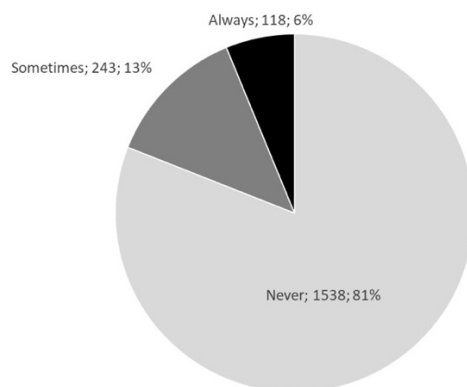

Figure 4. The Teacher's Experience of Conducting Online Learning

After the Covid-19 pandemic and the presence of the Minister of Education and Culture, as many as 82% of ECE teachers who were respondents of this study claimed to be motivated to practice online learning (figure 5). The Covid-19 pandemic has encouraged the Ministry of Education and Culture to issue a circular on the implementation of online learning.
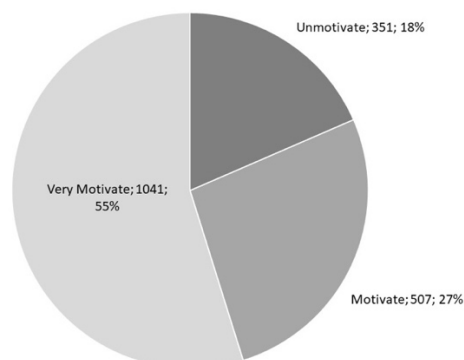
Figure 5. Teacher Motivation to Practice Online Learning

In this online learning emergency, ECE teachers who became research respondents claimed that 83% had made lesson plans and the other 13% had not made them. Based on the experience of implementing online learning, the lesson plans made are not for online learning because they have never received online learning training. Most ECE teachers in Central Java Province use text media as well as tools to interact with students at 63%. The rest uses visual media 29%, text 5%, and Audio 3% (picture 6). This is contradicted by statements about the choice of platform they use to help online learning that 95% of teachers use the WhatsApp application. Even though the social media application is classified as the application that uses the most text, not audio visual.
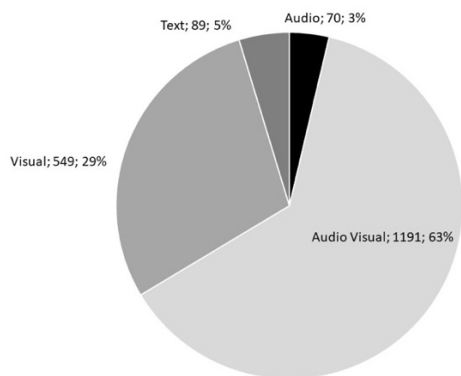
Figure 6. Media Used by Teachers in Online Learning

Because the platform used is the application that uses more text, the learning methods used by ECE teachers are assignments reaching 95% and are equipped with questions and answers, discussions, brainstorming, and experimentation. ECE teachers state that in online learning they do not use a single method but a mixture of several methods even though it is recognized that assignment is the most widely used method. 61% of teachers stated that they did written evaluations both online and offline. Evaluation options that are also mostly done by ECE teachers are portfolio evaluation and product evaluation by sending results online and offline. Overall, 51% of teachers stated that the implementation of online learning in ECE was only sufficient.

4.1.2.3 The Obstacles to Implementation of Online Learning at ECE

Of all the statements that came from respondents as many as 1,899 ECE teachers be coded with Nvivo12+ software, it can be concluded that there are five main obstacles in organizing online learning in ECE. This result can be seen in Figure 7 below.
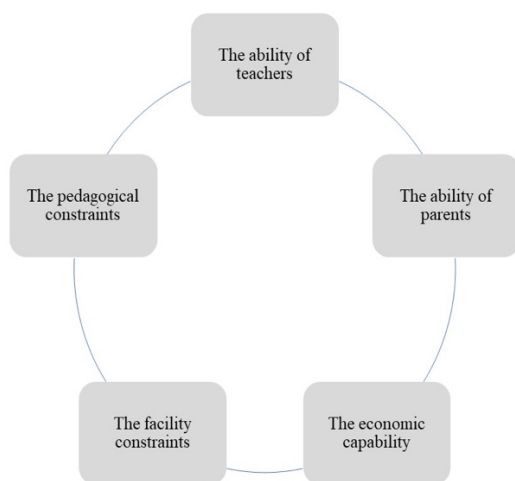

Figure 7. The Obstacles of Online Learning Implementation at ECE

4.2 *Discussion*

4.2.1 *The Effectiveness of Online Learning Policy Formulation at ECE*

The Studies on the effectiveness of educational policies can be carried out through the characteristics of wisdom, including having a purpose, fulfilling legal aspects, being made by the authorities, and having an operational perspective (Imron, 1995). This study is based on policies made by the Government to Local Governments. Does this online learning policy serve a purpose? The highest regulation in the context of this study is a Government Regulation in Lieu of a Law (Doc-1) which aims to deal with the 2019 Corona Virus disease pandemic (Covid-19). Likewise, the presidential decree (Doc-2) and Government Regulation have the same goal, namely handling Covid-19 (Doc-3). Two Circulars of the Minister of Education and Culture have a mission, which is to prevent the spread of Covid-19 (Docs-4 and 5). At the provincial and district government levels, the circular of the head of the education office and the head of the service has the objective of learning about the pandemic and dealing with Covid-19.

Does the policy meet legal aspects? Law Number 30 of 2014 concerning Government Administration states that one of the principles adopted in governance is the principle of legality which in the administration of Government puts forward the legal basis of a decision and / or action taken by a Government Agency and / or officer, thus, the policy this has fulfilled the legal aspect. Does the policy make by an authorized official? Policies made by various levels of government have been made by authorized officials ranging from the President, the Minister, the Governor, the Regent, the Head of the Education and Culture Office or the Head of the Provincial Ministry of Religion, and the Regent / Municipal Education and Culture Office or head of the Regency / City Ministry of Religion. This procedure shows that the policy has met the criteria as a policy.

The next question is, does this policy have an operational aspect? At the lowest level of policy makers at the district / city level, policies issued have it. For example, a circular issued by the Head of the Education, and Culture Office has been enforced when students are prohibited from attending school, what should be given to students while at home, what educators should do while at school, and how to prevent Covid-19 transmission from occurring 19 (Doc. -6)? Based on respondents' answers, all ECE teachers are 100% aware of the educational policy related to online learning to prevent the spread of Covid-19.

However, not all can do online learning for several reasons, such as who carries out as much as 95% while 5% cannot implement it because of problems with the teacher's ability, availability of equipment, and Internet connection? The characteristics or aspects of this learning policy have been fulfilled and understood by most ECE teachers, even the majority of ECE teachers have implemented online learning according to their abilities. Thus, it can be concluded that the online learning policy in early-childhood education during the Covid-19 pandemic was quite effective in the research area.

4.2.2 *The Implementation of Online Learning Policy at ECE*

Has the implementation of online learning policies been effective? To discuss it, the next study will discuss aspects of students, teachers, interactions, media, technology platforms used, and evaluation of learning outcomes. The results of this study cannot reveal the readiness of students to take part in online learning in ECE. Using the results of an earlier survey which stated that 94% of ECE children aged 4-6 years in Yogyakarta had used a smart phone (Zaini & Soenarto, 2019). The conditions in Central Java are not too different from those in Yogyakarta if we use the survey results of Internet penetration rates (Association, 2018). The Internet penetration rate in Central Java is only 2% lower than Yogyakarta.

In fact, most children use gadgets to play alone (Pebriana, 2017). As a result, the social interaction of ECE children with friends and the surrounding environment is not good. Even children who play gadgets since the childhood result in less effective development of communication and tend to be passive (Ulya, 2019). Though gadgets, including computers can be used by parents to introduce lessons to their children. Based on the results of research children who have been introduced and taught basic computers will be more skilled in learning activities (Taufik et al.,2019).

ECE children can learn to type, drawing, making tables, and composing stories, even learning mathematics (Setyaji et al., 2015).

From the teacher's side claimed that 95% stated they have been implementing online learning in the past one month. It was because there was no other choice because in person learning could not be done. But do ECE teachers have the ability to carry out online learning? As many as 81% stated that they had never applied online learning, even though the ability of teachers is an important factor affecting the quality of online learning. Based on the results of in-depth interviews with some teachers, they stated that they had not once taken part in the preparation of online learning material. So that the material prepared does not meet the standards of online learning material.

The training provided to ECE teachers includes planning online learning, the process of interaction with students, evaluating learning, selecting the right media to deliver material to students. In this online learning emergency, ECE teachers who were research respondents stated that 83% had made lesson plans, and 17% had not. However, the lesson plans made were not for online learning because they had never received training about it. In online learning, one of the things that are very important to note is the interaction. There are three student interactions, namely interaction with concepts, interaction with assignments, and interactions with other people both with teachers and other students (Juwah, 2006). "Interaction with concepts" is students' contact with other people's conceptualizations. It involves the interaction between students' existing understanding frameworks and the material to be studied. "Interaction with assignments" is the application and testing of new concepts into meaningful tasks. These stage students must be able to build an understanding which then becomes the basis for doing the assignments given by the teacher. "Interaction with others" is the creation and testing of new concepts during conversations with teachers and other students and reflecting on concepts and assignments that have been worked on.

For maximum interaction to occur, the choice of instructional media used must also be correct, such as the audiovisual. Meanwhile audio media alone or text alone cannot allow for maximum interaction. Audiovisual media such as interactive computers and CDs will help motor children become more sensitive and honed (Asilestari, 2016). The results showed that there was an interaction between digital learning media and confidence in learning outcomes (Panjaitan et al., 2020). Online Learning failure rates are reported between 20-80%. Based on the analysis of quantitative content in stages 24 studies concluded that interaction factors are important factors that support the success of online learning (Rostaminezhad et al., 2013).

Mostly, around 95% of PAUD teachers in Central Java Province use text media as an online learning aid in the WhatsApp application, which is the social media application which is classified as the application that uses text the most. Research suggests that the unique characteristics of media may support or limit certain types of learning. So that certain types of media used to require certain strategies and approaches to increase the effectiveness of online learning (Swan, 2003). The factor of the lack of teacher skills, the choice of the appropriate technology platform, the media used, the methods used by the teacher, ultimately encourages teachers to conduct an evaluation with old habits. The assignment method used by the teacher encourages parents to complain that their child gets too many assignments from school. This was captured by the Minister of Education and Culture that the online learning process is expected to not always provide assignment of subject matter to students. The Minister's policy states that learning should be directed at providing life skills, especially related to the prevention of Covid-19 as stated in the distribution and statements in the mass media (Doc. 5).

Based on these conditions, the first thing that ECE teachers need to do is force themselves to attend online learning training. An important rule on online learning is to have to push teachers and students out of their comfort zones. They must dare to go beyond what is already known and conventional. The teacher must radically change his way of thinking and stick to the idea of out of the box thinking (Lynch, 2002). This condition must be utilized by the Education and Culture Office and the District / City Ministry of Religious affairs immediately to conduct online learning training for ECE teachers. Moreover, 82% of ECE teachers who were respondents of this study

claimed to be motivated to practice online learning. Taking into account the ability of the teacher, the ability of parents, the readiness of learning facilities, the process of interaction during learning, the media and choice of platforms used, the learning methods, and the evaluation used by ECE teachers, it can be concluded that the implementation of online learning has not been effective.

4.2.3 *The Obstacles to Implementation of Online Learning at ECE*

The first obstacle is the teacher himself. Teachers cannot organize online learning models because they have never attended training. Teachers have not been able to arrange lesson plans for learning and assess children's development of this model, and teachers not capable yet to operate the available online learning platforms. It seems that the ability of ECE teachers in Central Java is different from the abilities of ECE teachers in the Jakarta and Tangerang areas whose ICT skills are already good. Based on the results of research by ECE teachers in the Jakarta and Tangerang areas, teachers have been able to make good use of ICT for the benefit of organizing educational development activities (Rohita, 2020). The ability of PAUD teachers in preparing lesson plans is still happening in other places, especially in rural areas. The results showed that the teacher's ability to develop a fun lesson plan was still minimal. The lack of teacher pedagogical competence, including in the preparation of RPP, ultimately affects the quality of the learning process (Sum & Taran, 2020).

The second obstacle is from the parents, namely many do not have online learning tools, or cannot operate smart phones / laptops / desktops for online learning. And if the parent owns the device, and it can operate, the problem that concerns the parent is another, such as his own job. Parents' involvement in online learning is important to accompany their children when they are physically far away from the teacher. Many factors influence the involvement of PAUD parents in educating children. Including social status factors, family form factors, and family development stages factors (Irma et al., 2019). Therefore, teachers must be able to invite parents of students to play a more role in guiding their children.

The third obstacle is the availability of supporting facilities and infrastructure such as internet access or wi-fi, because in online learning, the existence of an Internet network is very important. Included in the constraints on facilities and infrastructure is the weak signal of cell phones in various suburban areas. These obstacles are not only experienced in learning at ECE, in tertiary institutions that also face technical constraints on limited internet access, as well as weak mentoring, and supervision of education delivery (Harjanto & Sumunar, 2018). In Indonesia, there is no official minimum standard for implementing e-learning from the government, and the survey results show that the quality of e-learning sites is still lacking. The low quality of e-learning is due to the lack of learning infrastructure in schools nationally, especially in relation to the need for the Internet (Suhartanto, 2010). While China could provide the better infrastructure schools and universities need in e-learning, it is believed to be a promising approach as it offers students a way of interacting with teachers. The Chinese government has initiated a number of national projects to prepare infrastructure in schools and even online school projects (Wang et al., 2009).

The fourth obstacle is the economic ability of the parents of students. Many people are economically disadvantaged, so they cannot afford to buy telecommunications devices, to buy data packet quotas, to boast of wi-fi, all of which will hinder the smooth and effective online learning. The fifth obstacle is the pedagogical aspect, namely the difficulty of interaction between teacher and student, the difficulty of the teacher to make an assessment, and the difficulty of the teacher to monitor the negative effects of using smart phone / laptop / desktop devices by children if there is no intensive parental guidance. The constraints of this interaction do not only occur in ECE, but also occur in tertiary institutions that experience communication challenges that are not timely, clear direction regarding learning expectations, assignments and student requirements, and data security (Roach & Lemasters, 2006).

Many ECE teachers have difficulty assessing student learning outcomes. A study shows that teachers have not been able to carry out assessment of early-childhood learning on an ongoing basis and teachers in this learning are not systematic and comprehensive. The negative effect of using gadgets is that children will run amok if no gadget is given up to 40%. Though 22% of

parents claim the goal of giving children gadgets to their children to be smart. In reality, only 1% of children get achievements in school by using gadgets (Novianti & Garzia, 2020). A study revealed that online learning has a number of advantages but also has some potential pitfalls, especially in managing learning and non-learning activities (Winter et al., 2010). That It is, when students are studying online, they can also do activities that do not have to do with ongoing learning. There are five main obstacles in implementing online learning in ECE, namely the ability of teachers, the ability of parents, economic ability, the availability of learning facilities, and pedagogical constraints.

5 CONCLUSION

It can be concluded that the online learning policy in ECE during the Covid-19 pandemic has been effective. This can be seen from the fulfillment of the characteristics or aspects of pandemic learning policies. Besides this, policy has been understood by most ECE teachers, even the majority of ECE teachers have implemented online learning in accordance with their abilities. The conclusion in the implementation of online learning is not yet effective with regard to the ability of teachers, the ability of parents, the readiness of learning tools, the process of interaction during learning, the media and platform choices used, the learning methods, and the evaluation used by ECE teachers. There are five main obstacles in implementing online learning in ECE, namely the ability of teachers, the ability of parents, economic ability, the availability of learning facilities, and pedagogical constraints.

It is recommended that the District / City Education and Culture Office and the District / City Ministry of Religion Office immediately conduct online learning training for ECE teachers. This is important not only during the Covid-19 pandemic, but also anticipates the development of the times with the tendency to use gadgets in the educational process. It is recommended to the Government and Local Governments immediately to invest in communication and information technology facilities and infrastructure in education. The implication is that the Government and Regional Government will immediately change the direction and policy of education by following the development of communication technology and information and the Internet.

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STEAM to R-SLAMET Modification: An Integrative Thematic Play Based Learning with R-SLAMETS Content in Early Childhood Education

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ABSTRACT: STEAM-based learning is a global issue in early-childhood education practice. STEAM content becomes an integrative thematic approach as the main pillar of learning in kindergarten. This study aims to develop a conceptual and practical approach in the implementation of children's education by applying a modification from STEAM Learning to R-SLAMET. The research used a qualitative case study method with data collection through focus group discussions (FGD), involving early-childhood educator's research participants (n = 35), interviews, observation, document analysis such as videos, photos and portfolios. The study found several ideal categories through the use of narrative data analysis techniques. The findings show that educators gain an understanding of the change in learning orientation from competency indicators to play-based learning. Developing thematic play activities into continuum playing scenarios. STEAM learning content modification (Science, Technology, Engineering, Art and Math) to R-SLAMETS content (Religion, Science, Literacy, Art, Math, Engineering, Technology and Social study) in daily class activity. Children activities with R-SLAMETS content can be developed based on an integrative learning flow that empowers loose part media with local materials learning resources.

Keyword: *STEAM to R-SLAMETS, Early Childhood Education, Integrative Thematic Learning*

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1 INTRODUCTION

The STEAM learning approach in the context of Early-Childhood Education is still a new discourse. The STEAM approach is one of the efforts to implement integrative thematic learning that involves a number of learning content (Broadhead, 2003; Mengmeng et al., 2019; Science, n.d.; Taylor et al., 2018). An approach with STEAM is carried out through a variety of play activities according to the needs, characteristics and stages of children's development (Colucci et al., 2017; Lillard et al., 2013). In the context of early-childhood education, the use of the STEAM education is also seen as a form of academic-oriented learning (Dell'Erba, 2019; Sawangmek, 2019) This learning is considered to prioritize academic education rather than child development. Such learning practices are also a concern among academics, policy makers and practitioners in Indonesia (Wang et al., 2018).

STEAM is important because it allows teachers to combine several disciplines at the same time and facilitates learning opportunities that empower children to explore, challenge, study, discover and practice creative building skills (DeJarnette, 2018). It is a perfect fit to include the arts in the STEM disciplines because of STEAM's focus on innovation and design. The STEAM concept is natural for children, because they like to explore and experiment. Within their natural environment, and adding art to STEM, is to offer educators an additional option to present art-packed STEM concepts to children, especially at the elementary and early-childhood levels. Regarding to Quigley et al., (2017) opinion, in education, the STEAM conceptual model offer's educators the ability to teach effectively using trans disciplinary science.

Science, Technology, Engineering, Arts and Mathematics (STEAM) has become an increasingly popular acronym in the educational because of the recent trend to incorporate art and design in science, technology, engineering, and mathematics (STEM education). In Costantino (2018) study, the STEAM category can describe transdisciplinary curriculum model to be implemented across disciplines, such as investigating the role of art and design in STEM. This is a reference for researchers to modify STEAM to be broader, so that they can use the STEAM approach to be more comprehensive, by adding literacy, social studies, and religion. Religion is combined in STEAM because of national culture with various religions, but each religion has the same teaching, which is to unite all important life elements introduced to children through daily learning, such as introducing the existence of God to all of his creations in learning science, math, technology, engineering, and art.

Responding to the challenges of early-childhood learning, for a more substantive integration of art discipline material with the humanities and other subject areas such as science, technology, engineering, mathematics, social studies, and entrepreneurship, a pluralistic STEAM-driven model, easily adaptable in education refers to on any of these innovative paradigms impartially (Rolling, 2016). Over the last few years, there has been an increasing interest in incorporating STEAM-promoting practices into the formal education context (Cook & Bush, 2018). Other subjects such as history, music and geography could benefit from the STEAM mentality, apart from science and arts (Henriksen, 2017). The STEAM method is implemented through a modified project-focused learning model, showing that children are learning to develop data, literacy, and self-direction skills (Ridwan et al., 2017). To make it easier for teachers to organize learning, it is necessary to add literacy elements to STEAM.

The thematic approach is a way of teaching and learning, linking and incorporating multiple aspects of the curriculum within a theme (Varun A, 2014). There will be plenty of opportunities to connect with peers, teachers, parents, and good community engagement as all topics are incorporated. Thematic approach in ECE curriculum, that incorporates various areas of knowledge is deemed appropriate for improving the knowledge and skills of young children in early childhood education (Björklund & Ahlskog-Björkman, 2017).

The academic approach in ECE practice is considered to shift the position and essence of play in children. There are concerns that this approach will lead to early schooling in children. The condition is considered normal because many practitioners commit malpractice in early-child-

hood education services. Learning uses in kindergarten classes, mostly paper and writing materials focused on reading, writing and arithmetic exercises (Dell'Erba, 2019; Krogh & Morehouse, 2014; Wang et al., 2018). Such educational practices have resulted in children losing their playtime. Conceptualizations of successful play-based learning that teachers experience as part of a collaborative school community, the enactment of play pedagogy by teachers, and collaboration with home schools. The studies recommend implementing a holistic integrative model of support in ECE curriculum and actively trying to incorporate parents, teachers and kindergartens in creating an optimal experience of play learning for young children (Keung & Cheung, 2019).

Based on various research studies that present various opinions about modifications to STEAM (Ata Aktürk & Demircan, 2017; Badmus, 2018; Clapp et al., 2019; Conradty & Bogner, 2018, 2019; Cook & Bush, 2018; Costantino, 2018; DeJarnette, 2018; Doyle, 2019; Milara et al., 2020; Ridwan et al., 2017; Rolling, 2016; Sawangmek, 2019), and also their implementation in the ECE curriculum through thematic play-based learning (Ali et al., 2018; Fesseha & Pyle, 2016; Jay & Knaus, 2018; Keung & Cheung, 2019; Keung & Fung, 2020; Wong et al., 2011). This research focuses on the study of how the process of developing integrative thematic play activities containing STEAM content in ECE education units, as well as seeing the impact of modifying STEAM to R-SLAMETS in field implementation.

2 THEORITICAL STUDY

2.1 *STEM, STEAM, and R-SLAMETS*

STEAM is a broad term that seeks to integrative tie together education in science, technology, engineering, arts and mathematics, bringing together the methodologies of technical design typical of engineering and technology fields with the enquiry learning approach used in mathematics and science and the divergent style of thought coming from the arts. With regard to conventional ideas from multiple disciplines, STEAM must construct an indefinable transdisciplinary space. The theme of the universe, for example, if students do not identify what they are learning as science, technology, or art (Liao, 2016). Children's reflections on other things in learning show that transdisciplinary space has been achieved. In addition, they consider their learning to involve the creation of collaborative and critical-thinking skills through the application of STEAM skills.

Arts-enriched STEM approach (STEAM) are believed to improve science lessons and make them more appealing. The intervention generated long-term knowledge and developed stable intrinsic motivation scores, but with a single STEAM intervention, self-reported aspects of creativity were not affected (Conradty & Bogner, 2019). Experts recommend that educators use integrative methods to present STEM content through subjects using design methods to facilitate literacy for all students (Gess, 2019). Integrative STEM education refers to a learning method that focuses on technology / engineering design that consciously combines the concepts and practices of science and / or mathematics education with the concepts and practices of technology and engineering education. Through potential integration with other school subjects, such as language arts, social sciences, architecture, etc., integrative STEM education can be strengthened. Educators are expected to focus on a deliberately designed pedagogical approach by placing the teaching and learning process of STEM concepts and practices in a pedagogy based on technology / engineering design, art design, literacy, social studies, and religion.

Research has shown that providing early childhood and elementary-age children with meaningful hands-on STEM activities positively influences their attitudes and dispositions towards STEAM (DeJarnette, 2018). For preschoolers who are diligent and determined when designing, STEAM concepts are not too difficult; they naturally try to fix them when things don't turn out exactly the way they expected. Early exposure to the STEAM technique has many advantages for young children. Integrated and exciting learning interactions strengthen the interests and learning of students in STEM and help prepare them for the 21st century (Moomaw, 2012).

Some have begun to pursue a transdisciplinary approach, in which the incorporation of the arts into the STEM disciplines provides a radically new way for learners to discuss and solve real-world issues, as educators and researchers strive to identify and describe STEAM. When limited

to only five letters between the many others that can help students explore and clarify solutions to the puzzles and challenges they will face today and tomorrow, this transdisciplinary space can feel confined (Clapp et al., 2019).

The same thing is felt by ECE educators in Indonesia, who already have a standard curriculum for ECE, which stimulates children based on basic competencies. Therefore, adding three other aspects, namely religion, literacy, and social studies, is to make it easier for teachers to implement the STEAM approach, because the limit has been expanded to an additional eight letters, R_SLAMET. This alphabetical arrangement was chosen because the term R-SLAMET feels more familiar and is more distinctly Indonesian.

2.2 Integrative Thematic and Play-Based learning in ECE

Each curriculum will undoubtedly describe the programs and learning experiences that early childhood will go through. Learning experiences that occur naturally in children is play experiences (Gronlund, n.d., 2015). Playing is a natural activity that early childhood does throughout the day and throughout their age range. Through the experience of playing, children interact with objects, people, tools, situations and environmental conditions that can help them acquire knowledge, skills and various value institutions (Inglese et al., 2014; Jacman, 2012; Sancar-Tokmak, 2015). Playing is an activity that makes children happy. Playing is believed and proven to be the most natural, meaningful way of learning and has a great impact on the development of children's potential. Playing activities always make children happy to do various things, both alone and in groups (Jay & Knaus, 2018)(Peng, 2017). In an atmosphere of playing together with friends (peer group), many children dissolve or drift away with an atmosphere that is built or created by themselves. The playing atmosphere like this can be categorized as immersing or immersing play.

One of the keys and fundamental thoughts are the understanding that a good and correct curriculum in early childhood is a curriculum that is in accordance with the characteristics and stages of child development (Danniels & Pyle, 2018). In general, the characteristics and stages of early-childhood development are in play, so the right curriculum for that is a play-based curriculum (Whitebread, 2012; Wong et al., 2011). Play-based curriculum is focused on developing learning activities in order to achieve developmental content and learning program content based on play activities. The development of play activities is at the core of the abilities of professional teachers in curriculum development (Zosh et al., 2017). In some references, the educator's ability is usually discussed in a study of the emergent curriculum, which is designed in various forms of play activities after a study of developmental aspects, and the program is planned in learning tools.

Playing is synonymous with the world of children, even some experts call it early years is play (Jacman, 2012; Jay & Knaus, 2018). Playing is the main activity and needs of children throughout the early-childhood development range. Through play, a child reflects on a variety of activities filled with cheerfulness, fun and sincerity (Inglese et al., 2014; Sancar-Tokmak, 2015). For early childhood, playing becomes an activity that is carried out on a voluntary basis, without coercion, maybe even without end and ends and goals. Playing allows children to build various aspects of their personality such as knowledge, values, skills, attitudes and life skills that children can use to adapt and socialize with a wider environment.

Play-based curriculum (PBC) has a key component that becomes the basis and reference in providing educational services for early childhood. Key components in a PBC include development references, program content, learning processes, management of learning areas and assessments (Gronlund, 2015; Hennessey, 2016). The development component becomes the center for curriculum and learning tools for childhood education (Sancar-Tokmak, 2015). Development needs to be placed as a basis for consideration in improving other components, especially in the content of learning programs (religion and morals, science, literacy, art, mathematics, social studies and technology) and the learning process (play activities). The selection and exploration of content or learning material in early childhood must consider the characteristics and stages of development.

The learning process component in the play-based curriculum provides a reference overview of the choice of the pedagogical process in presenting an interactional learning model designed in the form of a play scenario. This shows the understanding that playing is a pedagogic process that is presented in the early years. The pedagogical approach to playing activities means that the learning process built through playing activities must be seriously presented a learning process or educational play activities (pedagogical instruction or pedagogical play) (Fesseha & Pyle, 2016; Pyle & Danniels, 2017). The learning process presented in the play-based curriculum must provide a play scheme that is continuous, meaningful and fun for children. The play-play scheme is designed in the form of a play activity scenario that has educational goals, contains playing content that is in accordance with the characteristics and stages of development as well as media and teaching materials are designed in an interesting way (Edwards, 2017; Finch et al., 1997; Gronlund, 2015).

In order to complement their practice, which includes building successful play-based learning, teachers must be able to develop pedagogical skills. Play-based learning development is contextual(Keung & Fung, 2020). Play-based curriculum is based on a number of play assumptions that form the basis of curriculum development and development. In simple terms, the curriculum is often interpreted as a learning experience that children will go through in an educational activity. Learning experiences that will be compiled and developed in the curriculum must be based on the main characteristic of early-childhood learning, namely play experiences (Kennedy & Barblett, 2010; Peng, 2017).

The play-based curriculum has at least four main components that will guide educators in providing ECE services. The four components referred to have been described in the previous section. One of the curriculum components that are at the core of learning is learning content. children activity content can be classified in the form of science, literacy, mathematics, art, social technology studies (Faas et al., 2017; Jacman, 2012). The content a number of concepts that knowledge, values and skills in accordance with their respective scopes.

The selection of learning content is adjusted to the needs, characteristics and stages of early-childhood development. Therefore, it is necessary to understand the contents of the content and how to develop it so that it becomes meaningful early enjoyable learning material for children (McLaughlin & Cherrington, 2018; Pyle & Bigelow, 2015). Early childhood learning content teaching materials can be packaged in a variety of interesting ways and media, for example, big books, comics and various forms of foster. Many kind of packages of ECE teaching materials can be used in the implementation of play-based learning.

3 METHOD

This research uses a case study method that uses a training activity background and a workshop on the implementation of playing R-SLAMET content based on loose part media. The study participants consisted of 37 active participants with backgrounds as early-childhood educators in various ECE units (17% formal and 83% non-formal). There are 90% of ECE educators who have never attended R-SLAMET training or the like and 10% of participants have attended R-SLAMET training for ECE units. Training held in meetings, the first meeting understanding the concept of learning. In the second meeting, participants must attend a comprehensive workshop. The third meeting, micro teaching training participants to evaluate training results. Data collection was carried out through participatory observation, interviews, focused discussions and analysis of document reflections on the results of activities submitted by the participants. Data analysis was performed using narrative analysis, which describes the process of assisting in understanding the concept and practice of designing and implementing loose part media-based R-SLAMET content playing.

4 RESULT AND DISCUSSION

4.1 *Orientation Change: from Competency-Based Practice to Integrative Thematic Play-Based Practice*

Along with the policy of implementing the competency-based curriculum in the 2013 curriculum, educators in ECE units have acquired a fairly permanent understanding of the concept that learning design (play) must start and be based on predetermined competency indicators. This is recorded in the statements and learning design documents prepared by ECE educators. The summary of the ECE educator's statements is revealed that we have always made the game based on the indicators of basic and core competencies, which previously were basic abilities. We often had difficulty connecting themes and competency indicators into play activities. Participants realized that the design pattern was too simple, and the activity was partial because one game was only intended for one indicator. After being given an understanding of the concept and illustration of an integrative thematic play plan containing STEAM content, participants feel and gain new understandings that show more integrated learning, use flexible themes and can contain a number of STEAM content in continuous play.

Science is used as the main example since, while the lexical requirements vary, the literacy standards of this discipline somewhat align with those of the others. In particular, areas of content, the vocabulary of science illustrates how language works. However, (Doyle, 2019) suggests related requirements from the Australian Curriculum (ACARA, 2018) prior to the discussion of languages and literacies and notes Australian government positions on STEM (Science, Technology, Engineering and Mathematics) education (Australian Government, 2015). The Arts are then highlighted as a pivotal resource for the STEM content areas as a mode of artistic study, representation and expression. Finally, as springboards for realistic classroom events, some ideas are given for the creation of school STEAM language and literacy.

4.2 *Repositioning between Developmental Content and Play Activities*

So far, participants have made aspects and indicators of development as learning content that must be improve into learning activities (play). The scheme follows the theoretical and practical flow of instructional design-based curriculum development. When given a play-based curriculum understanding, participants began to realize that naturally early childhood plays with various games that can reach many aspects of development at once. Participants responded to the video showing natural play in early childhood activity, saying "ow...that was my childhood play activity and I learned a lot from the game."

Through the illustration of the video show, participants are invited to reminisce about designing a game on a theme and playing scenario. After that, participants are invited to analyze play activities and each play scenario that is compiled will have an impact on what aspects and development indicators. Almost all participants gave correct answers and simultaneously. Finally, the participants began to reflect and grasp the understanding that activities that include regular and programmed play scenarios can actually build many aspects and indicators of development.

This process is what builds participants' awareness that developmental aspects and indicators are the impact or consequence of the games given to children. In this position, participants began to change their way of thinking from exploring content-based learning to play-based learning. and how their perspectives affect its implementation in ECE classrooms. The findings demonstrated differences in the concepts and implementations of play-based learning by participants in kindergarten classrooms. The play enactment, which was entirely different from learning, was identified by several participants, but also showed some confidence in the ability to learn through play. Although positive perspectives of play-based learning were described by all participants, more than half described the implementation of kindergarten programs, which did not completely incorporate play-based learning. In their introduction of play-based pedagogy, participants were also asked to describe obstacles they faced. Participants in both enactment classes reported that their play execution was experiencing difficulties. These findings support

the need for a clear and consistent concept of play-based learning to help decide how play is better incorporated and how academic skills are learned (Fesseha & Pyle, 2016).

4.3 *Play continuum and STEAM (R-SLAMET) content*

Training and workshop participants are also invited to compile play scenarios that are programmed with STEAM content (Science, Technology, Engineering, Art and Math). Researchers accompany and guide participants to find as many types of play (density of play) as possible on a theme and sub-theme without first thinking about aspects and indicators of development. After getting more than three play activities, participants are invited to choose one of the play activities, which will be compiled a play scenario that is continuous and has STEAM content.

Participants are guided to formulate a continuum of playing scenarios from the beginning of the game to unlimited activities. In each scenario, participants are invited to enter the appropriate learning content. For example, in the initial scenario, children are invited to pray before playing activities and asked the participants what learning content did we include? Participants simultaneously answered, that is religious and moral content. The scenario was continued with the child observes pictures and videos of the growth process of grass jelly plants. Participants were again asked what learning content fits this scenario? They answered science content. This activity is carried out until it becomes a continuum of playing activities filled with STEAM learning content. Based on this continuum play, participants can examine the aspects and indicators that are expected to emerge as a result of the assigned play scenario.

In line with research conducted by DeJarnette (2018) over the past decade, STEAM (Science , Technology , Engineering, Art, and Math) education has gained rising attention , particularly at middle and high school levels. At the early childhood level, this article focuses on the need for STEAM education. With their sense of curiosity and imagination, preschool children have a natural inclination for science. The researcher investigated how it will influence the arrangements, self-efficacy, and rate of implementation for teachers to include hands-on professional development, consistent encouragement, and rich resources for STEAM lesson implementation into the early childhood curriculum. The research also included observation by preschool children of the receipt of STEAM instruction. The results showed an improvement in the positive arrangements and self-efficacy of pre-school teachers, but the rate of teachers' adoption of STEAM lessons was initially reduced.

4.4 *Modification of STEAM Content to R-SLAMETS content*

Apart from STEAM, the curriculum content at ECE also provides learning content related to Literacy and Social Studies. Specifically, the ECE unit in Indonesia has a special content of religion and morals. Participants were then introduced to a complete analysis of curriculum content, namely R-SLAMETS (Religion, Science, Literacy, Art, Math, Engineering, Technology and Social Study). The implementation of content development is in principle the same as STEAM content-based playing activities, only being extended to playing the R-SLAMETS-based continuum. Participants are presented with illustrations of continuum playing activities containing R-SLAMETS content, either in whole or in part. To achieve these skills, participants are guided through the stages of developing continuous play with R-SLAMETS loads.

The addition of art to STEM becomes STEAM important even though most children do not become professional artists from year to year. As an acronym for educational creativity, STEAM promises to enhance the distinct findings emerging from art + design studios by immersing students in multiple knowledge bases covering the contributing domains of science, technology, engineering, art, and mathematics (Rolling, 2016). After Art is entered into STEM content, it changes to STEAM. R is for Religion in R-SLAMET because the religion from the ECE Indonesia curriculum is one of the components that can support children's morals and behavior. Therefore, in the STEAM application so as not to confuse teachers, we are trying to integrate religion into the STEAM implementation content format. This has been presented by recent research that explains the application of STREAM-based approach (Science, Technology, Religion, Engineering,

Art, and Mathematics) project-based learning models for student learning activities and student creative work item. The results showed that the introduction of the STREAM approach based on the project-based learning model had an impact on increasing student learning outcomes and their activities in learning activities made them more innovative in developing attractive products. There are four innovative products developed by students in this study, namely drip irrigation, water cycles, water quality testing, and story booklets with religious images. Great opportunities for primary school teachers to use the STREAM-based project-based learning model to increase students' curiosity, imagination, and social attitudes in learning (Azizah et al., 2020).

The dialogue in the photo is an illustration of the development flow of playing continuum with E-SLAMETS content which can be described in Figure 1:
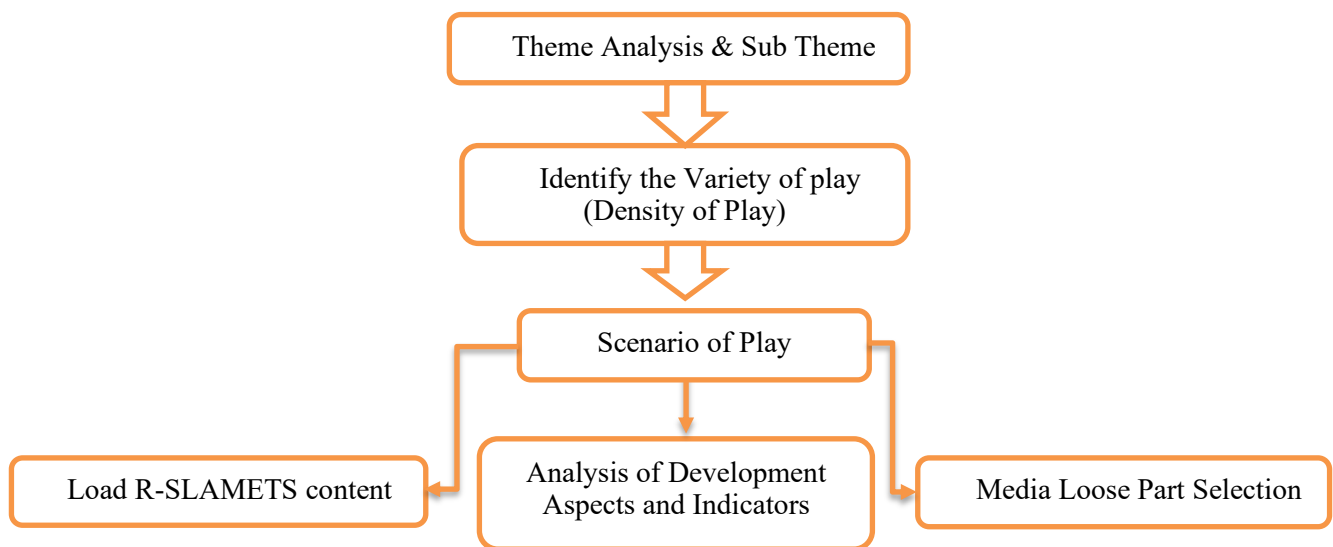

Figure 1. Continuum Play Development Flowchart with R-SLAMETS Content Load

The flow chart shows the development of playing continuum with R-SLAMETS content starting from; analysis of themes and sub-themes, identification of play types or density of children's play, drafting play scenarios with content SLAMETS, analyzed the aspects and indicators of development that were affected, and chose loose part media based on local materials.

4.5 *Strength of Loose Part Media*

Loose-part components provide children with opportunities to develop their imagination, collaborative actions, and cognitive functioning (Maxwell et al., 2008). With loose-part media, a significant consideration is that the materials are open-ended, to encourage unstructured child-led play, and to allow children to use these materials any way they want, while the idea of loose-parts has existed for many years. Loose-parts provide children with opportunities for unstructured play that adults do not dominate (Ridgers et al., 2012). Unstructured environments have minimal guidelines and rules set by adults who allow children to develop their own play activities and enable them to do so. Outdoor play environments with loose-part that are frequently altered to provide kids with challenges and a sense of wonder, as future play opportunities are continually evolving (Canning, 2010).

In general, early-childhood teachers and programs that accept the use of loose-parts have more flexible schedules, while enabling children to practice their freedom to play and develop individual control and self-regulation skills. Among preschool children, loose parts encourage varied play activities. Integrative thematic play activities that contain STEAM or R-SLAMETS content will be more effective, and meaningful when ECE are can find and use surrounding part materials and media from the loose environment. ECE educators who prepared loose media from the environment are able to develop continuous play activities with STEAM to R-SLAMETS

content quickly and precisely. The illustration of the show of loose part media can be drawn by the example on figure 2 & 3:

Figure 2. Children make geometric shapes from mangrove leaves and twigs

Figure 3. House design from dry twigs and leaves

This figure 2 & 3 illustrates that the use of loose part media in playing activities with STEAM or R-SLAMETS content has provided opportunities for children to be more active, creative and innovative. Children are involved in play activities that are continuous, meaningful and fun (immersion play). More precisely, identifying loose parts enable greater adoption and deeper discussions and professional development of the subject. Loose parts of the sample were classified as natural or man-ufactured, and terms defining loose parts were analyzed (Gull et al., 2019). Spencer et al., (2019) found educators considered to play loose outdoor parts with several social and cognitive advantages for pre-school children who are important for optimum growth and development and overall health and well-being.

5 CONCLUSION

Advocacy of early childhood educators through training and workshops has helped improve professional quality on an ongoing basis. There has been a change in the mindset of implementing the operational curriculum from a partial competency-based approach to an integrative thematic Play-based approach that integrates STEAM content across learning. Educators demonstrate the application of thematic integrative Play-based into a continuum game scenario containing STEAM content and R-SLAMETS content. This process becomes more effective and efficient and meaningful when PAUD educators are able to elaborate and empower teaching materials and loose-part media based on local material sources. The implication of this research is to invite other

researchers to develop R-SLAMETS content, and become a new icon for STEAM learning in Indonesia.

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Clean and Healthy Lifestyle Behavior (PHBS Program) for Children with Intellectual Disability

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ABSTRACT: The achievement of children's quality of life is undoubtedly linked to the development of positive habits that will continue to be practiced in future lives. This can be done by developing awareness and behavior of a balanced clean and healthy lifestyle. The purpose of this study was to determine the increase in the PHBS ability of children. Various efforts have been made so that children with intellectual disabilities can maintain their cleanliness. The efforts made by the teacher are still not maximal so that the delivery of information about PHBS must be completed by another method, namely demonstration. This research was conducted at SDLB 127710 Pematangsiantar5 with an action research method that refers to the Kurt Lewin model. Data collection techniques used purposive sampling and data analysis with the Wilcoxon test. The results showed an increase in understanding of the PHBS of children with intellectual disabilities able to learn SDLB 127710 Pematangsiantar through the demonstration method. This is evidenced by the increase in the score, where the initial assessment was obtained (59%), while in the first cycle, the average score was good (69.9%). In short, the understanding of children with intellectual disabilities being able to learn about PHBS is increased by using the demonstration method.

Keywords: *Intellectual Disability Children, PHBS program, Demonstration methods*

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1 INTRODUCTION

It is important to instill clean and safe living behavior early on, since this behavior will protect kids from various infectious diseases, including serious infectious diseases. It can thus enhance the health status of children. Children's health status at an early age is very important for the health status of children in the future (Puspita et al., 2020). However, health education in schools is still lacking in Indonesia (Ketut Sudiana et al., 2020). The school community and the community's commitment to health efforts at school are poor. The healthy conduct was a disadvantage in students. During school, many childhood illnesses may reappear. The nutritional status of the children at school was low.

Clean and balanced life (PHBS) activity is a duty to be carried out by everyone. PHBS is an attempt to protect the welfare of their families and themselves. For approximately 18 years, the PHBS coaching program has been going, but its popularity is far from anticipated (Putri et al., 2019). Children with intellectual disabilities can afford to be susceptible to infection due to an unclean lifestyle and poor self-care abilities, especially frequent nail-biting, not washing their hands after doing activities (Lee & Lee, 2014). So that it provides an understanding of PHBS from an early age both to educate and instill awareness of the importance of hygiene as an effort to maintain personal and environmental health (Agarwal, 2017). PHBS efforts can be carried out for school-age children include washing hands with soap, brushing teeth, bathing and washing hair regularly, these indicators are some things reflect behaviors that must be practiced both at school and home (Kementerian Kesehatan, 2011; Arip & Emilyani, 2018). The emergences of various diseases that often attack school-age children (6-10 years) are generally related to cleaning and healthy living habits (PHBS). That is why every child should be taught to wash their hands before and after eating.

Clean and Healthy Living Education (PHBS) should be given to children with disabilities as early as possible considering that children with intellectual disabilities can afford to be susceptible to disease. Remembering that children with intellectual disabilities are very helpful when invited to do it. The most appropriate method is the demonstration. The lecture-demonstration method is a teaching technique that combines oral explanation with "doing" to communicate processes, concepts, and facts. It is very effective in teaching observable skills (Basheer et al., 2017). Primary school education has a very important position to achieve learning goals.

Problems that arise in the field, and previous studies are related to cleaning and healthy lifestyle programs for children, as well as research related to the emergence of diseases when attacking children with disabilities, maintaining cleanliness is one way so that children can learn the science of how to live clean and healthy for build their future. To present solutions and problem gaps, this study aims to improve children's understanding of clean and healthy lifestyle behaviors, with the PHBS program implemented through demonstration methods.

2 THEORITICAL STUDY

2.1 *Intellectual Disability*

The view of children with intellectual disabilities has begun to shift and is characterized by definition of the American Association on Mental Disorder (AAMD), which is a significant impairment of intellectual and adaptive function. It is defined as an IQ score below 70 in addition to deficits in two or more adaptive behaviors that affect everyday life, eventually shifting and being replaced by Luck Asson's definition of the American Association of Mental Retardation(Cavanaugh, n.d.). Intellectual disability if you have two or more deficiencies, and this occurs before the age of 18. Intellectual disability is the limited intellectual ability and adaptive behavior seen through adaptability (Purba et al., 2018). This means that intellectual disability children throughout their lives cannot stand alone, so assistance is needed so that they can survive.

2.2 *Method Demonstration*

The method used in this research is the demonstration method. There are several definitions of the demonstration method according to experts; the demonstration method is a demonstration of the process of the occurrence of an event or object to the appearance of exemplary behavior so that students can know and understand it in real or imitation (Giridharan & Raju, 2017). Demonstration method is more suitable for teaching-learning materials which are movements, processes, or things that are routine (Ekeyi, 2013). With the demonstration method, students have the opportunity to develop the ability to observe all objects that are involved in the process and be able to draw the expected conclusions.

The advantages of the demonstration method are as follows (Ekeyi, 2013): (1) Students' attention can be focused on things that are considered important by the teacher so that they can be observed. (2) Can guide students towards the same thinking in the same thought channel. (3) Economical in school hours and economical in a long time can be demonstrated through demonstrations with a short time. (4) Can reduce mistakes. (5) Because the movements and processes are performed, they do not require a lot of information. (6) Some issues that raise questions or doubts can be clarified during the demonstration process.

2.3 *Clean and Healthy Living Education*

Behavior is an activity or activity of living things that can be observed directly or indirectly, which can be observed by outsiders. Health behavior is a person's response to stimuli related to illness, disease, health care systems, food, beverages, and the environment(*Pedoman Umum Program Indonesia Sehat Dengan Pendekatan Keluarga*, 2015). Clean and healthy living behavior (PHBS) is a set of behaviors that are practiced based on awareness as a result of learning that allows a person or family to help themselves in the health sector and play an active role in realizing the health of their community. Healthy conditions can be achieved by changing behavior from unhealthy to healthy behavior and creating a healthy environment in the household. Therefore, health needs to be maintained, maintained, and improved by every member of the household and fought for by all parties. A healthy household means being able to maintain, improve, and protect the health of every member of the household from disease threats and an environment that is less conducive to healthy living (*Kementerian & Kesehatan,* 2011)**.** Early on, clean and health conduct is instilled by modeling, habituation and conditioning, so that it becomes a positive habit that continues and occurs in children's everyday actions (Puspita et al., 2020).

3 METHOD

The action research model used is the Lewin model. Problem formulation is carried out by knowing the problems developing in the field, the identification of alternative actions which are expected to solve the existing problems. The most likely alternative to be implemented is an action plan(Cummings et al., 2016). The number of students was eight students, four boys, and four girls, Class 3 SLB. For Lewin, problem formulation and action planning, are the first steps taken by researchers simultaneously. For them, these two things cannot be separated considering that every problem that arises needs to be looked for a solution before acting. Problem formulation is carried out by identifying problems developing in the field.

Furthermore, the identification of alternative actions that are expected to solve the existing problems the alternative is most likely to be implemented into an action plan, likewise, the implementation of action and observation or observation. Observation carried out when the action is in progress or vice versa when the action out. Actions are carried out consistently following the plans that have been made. Observations are made by gathering information about the subject and the impact of the actions given. Reflection on action is the next step after the implementation of the action and observation with this reflection it can be understood the strengths or weaknesses that occur in the implementation, thus if the impact of the action is deemed not as desired, revisions can be made to the previous ideas or ideas contained in the planning so that planning can be back.

4   RESULT AND DISCUSSION

4.1   *Result*

4.1.1   *General Condition of Children with Intellectual Disability, SDLB 127710*

General description of the characteristics of class 3 SDLB 127710 consist of eight, f our women and four men aged about 10-13 years and intelligence between 55-70 Scala Wichsler (Flanagan et al., 2010). Reading ability is the same as grade one elementary school children, while the ability to count up to thirty can add up to a maximum of five teens. Fine motor skills are not good, some speak with unclear pronunciation, but understand when other most attention is easily distracted.

4.1.2   *Condition of Preliminary Learning Before Action*

In this initial assessment, quantitative data were obtained using a rating scale. The results of the observations are then analyzed according to the initial conditions that are owned. There are two dimensions observed, the first was the understanding of hand hygiene, which consists of three items, namely: washing hands before eating, washing hands after eating, washing hands after activities. In this first dimension, the highest score that must be achieved is 16. The result is that SDLB 127710 students do not understand hand hygiene $\bar{x}$= 9.50.
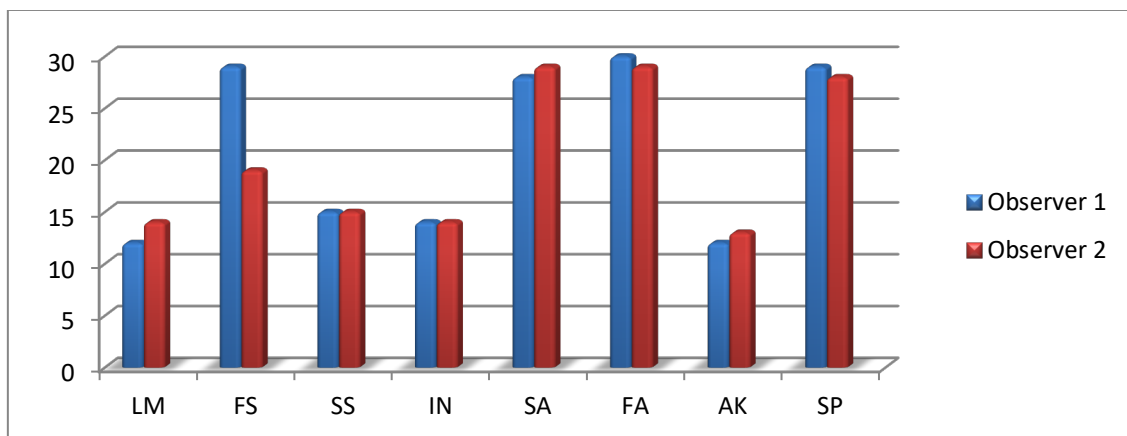

Figure 1. Initial Ability Pre-Test

The second dimension of trained toilets is the ability to maintain the cleanliness of the genitals and be polite, consisting of five items, namely: the ability to keep the genital organs clean, being able to clean themselves after defecating and urinating, knowing the consequences that arise if you do not clean your genitals after urinating, big or small and can use cleaning tools. In this second dimension, the highest score that must be achieved is 20. SDLB 127710 children are less able to do it, with a value of $\bar{x} = 11.87$. The total score in the first and third dimensions that must be achieved is 36, and SDLB 127710 grade three children get a score of $\bar{x}$= 31.87, which means it is still lacking.

From the initial assessment (see figure 1), it can be seen that the children's understanding of PHBS has a poor performance value, this result shows that out of eight children, only 4 of them have sufficiently good abilities. Reliability is done by correlating the results of the observations made by two observers using the non-parametric Wilcoxon model test with α = 0.05. The result is rh = 0.995, rt = 0.7067, count is greater than r table. It is significant, meaning that the level of trust between interpreters is high, it can be said that there is no difference of opinion between observer 1 and observer 2 regarding the data obtained because the data has high confidence. The criterion for the success of this action is that if there has been an increase in children's understanding after the action, of the eight children, six of them have correctly understood the focus described in clean and healthy living education.

4.1.3 *Description of the Research Process and Results*

4.1.3.1 Cycle I

This first cycle starts from April 5, 2020, to April 27, 2020, each meeting is held for 60 minutes.

(1)　　Action Planning

Initial descriptions in this learning process include dissecting the curriculum and determining the learning theme and media used, conducting initial assessments, and preparing observation formats, and preparing recording devices. Determine specific goals based on the basic competencies and indicators listed in the class 3 SLB / C curriculum, plus the researcher's knowledge from references. Making spider webs and learning units is made based on Basic Competencies (KD) and indicators and linking the chosen theme which contains objectives, learning material with detailed descriptions, required media, and cover. The second dimension is the ability to maintain the cleanliness of the genitals and to be polite, the ability to maintain the cleanliness of the genital organs. The aspects studied: clean oneself after defecating and urinating, knowing the consequences that arise if you do not clean the genitals after defecating or urinating, can use cleaning tools.

(2)　　Execution of Actions

This action will be held eight times, the following is the discussion:

(a)　　The first meeting to the fourth meeting

This first meeting is about how to wash hands properly. Learning PHBS education for intellectual disability children capable of grade 3 SDLB 127710 students who are done are washing hands before eating, washing hands after eating, and washing hands after activities. So happy, with the soft voice of the teacher makes the children feel loved and cared for. At this first meeting, the researchers found this activity took place with great enthusiasm. It was clear they already understood washing hands is one of our ways to avoid disease and keep the body healthy, what's more, currently there is a virus that is spreading around the world called COVID-19 one way to avoid corona is to wash your hands?

(b)　　The fifth to the eighth meeting

At the five meetings, toilet-trained lessons, genital hygiene, among others: flushing floors and latrines before defecating/urinating, defecating/urinating, wiping, for women wiping the vagina with tissue, flushing the toilet, washing hands with soap, and drying hands with a cloth/tissue. Based on observations, researchers found that they happily learn the things they have been doing every day, especially because they are studying outside the classroom. Of the eight children, six of them can do toilet trained themselves, but there are still those who refuse and ask for help from their parents. At the sixth meeting on toilet-trained learning, they are understanding the diseases that are caused if it is not cleaned, for example, the genitals will itch, vaginal discharge for women, venereal disease, etc.

In this study, it was found that three could not understand the disease caused by not cleaning the genitals after defecating. This is evident show when teachers asked, they answered that the disease caused by not cleaning the genitals after defecating/urinating is smelly. When the learning process is taking place, the teacher continues to supervise each child because children are playing with their friends. At the seventh and eight meeting, they discussed was cleaning tools, for example, soap for cleaning the body, shampoo for cleaning hair, towels for drying the body, toothbrushes, and toothpaste for cleaning teeth.

At this meeting, it was emphasized to the children when cleaning their body or taking a shower, they should use soap, clean their hair using shampoo, and dry the body with a dry towel. The findings obtained at this stage where they enjoyed the educational process at this meeting and did not look tired for each child. From of eight children, six of them could point, mention the names of the cleaning tools and their uses. Two children can only show that they cannot mention how its use. In providing an understanding of cleaning tools, the teacher brings examples of cleaning

tools, so that it is easier for children to understand that the objects that are used as teaching aids by the teacher is the things they see and use every day.

(3)   Observation

The observation stage was carried out to determine the extent to which action interventions had the expected impact of improvement in first cycle of action research. It turns out that in general the method of demonstration applied in learning in first cycle has had a positive impact on the ability to wash hands properly, and toilet trained. When the research was assisted by collaborators in applying the instrument of understanding PHBS for children with intellectual disability, it can be described that quantitatively it has achieved very satisfying results. This is indicated by the results of the performance of children's understanding of PHBS with a good average value. Thus, it can be concluded that there has been an increase in the understanding of PHBS in children with intellectual disabilities so that they do not need a second cycle.

The second dimension, trained toilets, with indicators: can clean yourself after defecating/urinate, can know the disease caused if not cleaned, can use cleaning tools, can sit politely both at home, at school and in public places others, and can greet when you meet teachers, friends, or people you know. The method used is a demonstration with direct practice or providing training. The tools prepared for the lesson are those related to the PHBS education program, hygiene tools, for example, bath soap, hand washing soap, tissue, toothpaste, toothbrushes, towels and image media, videos related to PHBS education. Changes in increasing, namely the desire to practice toilet trained yourself, an attitude that is willing to learn while playing makes the classroom atmosphere livelier. Difficulty experienced when the toilet trained is due to motor skills that require self-therapy. The enthusiasm for learning arises and there is a change in attitude caused by happy learning, happy to repeat learning because the teacher motivates them to do so that confidence arises to be able to protect themselves.

(a)   Rating System

The evaluation criteria for each dimension are based on a rating scale that uses 4 elements, namely: very poor (1), poor (2), good (3), very good (4). This scale can be used as a description of the child's PHBS understanding ability which describes the quality of each of these dimensions.

(b)   Non-Parametric Hypothesis Calculation Using the Wilcoxon Model

Non-parametric or free-distribution methods that do not assume any knowledge of the distribution of the underlying population, except that the distribution is continuous (Walpole, 1955). statistical hypothesis: H_0 = average before = after H_1 = average before $\neq$ after. The results of this study were obtained rejecting Ho and accepting H1 stated that there was no rejection of the difference between the pre-research and post-research assessments, meaning that there were differences between pre-research and post-research.

(4)   Reflection

Based on reflections between researchers and collaborators, there are several things related to learning demonstration methods in activities that need attention. First, every child is unique so that teachers and researchers must use a variety of ways to stay focused on learning as well as share and give equal attention to each. Secondly, teachers have limitations in handling different conditions and backgrounds. Third, the focus of attention and motivation is optimal. Forth, involvement to focus attention is optimal because it is familiar through exploration before the research takes place. Fifth, very happy when singing together with the joy increases when they are given time to play Simon Says.

In educational presentation activities, the approach that the researcher chose turned out to be able to motivate to want to ask, answer, and carry out all the researchers' instructions. The demonstration method is the most suitable to be applied to mentally retarded children who can learn. This method can encourage enthusiasm and enthusiasm for learning to be more independent and maximal. This is evident in the results of observations. In this study, children can understand why boys and girls are different, how to maintain genital hygiene and how to behave politely at home,

at school, and in other public places. With lots of evidence, they can understand three dimensions that have been tested with 14 indicators with good. However, there are still some things that need to be considered in the presentation stage, related to the demonstration method, first, It is better if teaching about men and women, male and female teachers are in the classroom so that the differences can be seen clearly. Secondly, Male teachers provide instruction on genital hygiene for boys, and female teachers for girls. Third, still having difficulties and not accustomed to waiting for their turn to appear in front of the class.

Likewise, at the end of each lesson, the researcher can provide an assessment or feedback as a measuring tool for children's competency mastery. Reflections on the process and the final results of learning activities carried out by researchers need to be developed and optimized as suggestions and input for improving the quality of subsequent learning. There is no need for the next cycle because the criteria for the success of this action are if there has been an increase in children's understanding after taking action, of the eight children six of them have correctly understood the focus explained in PHBS education.

4.1.4 *Analysis Result of Pre-test and Post-test*

4.1.4.1 Dimensions Ability to wash hands properly

Washing your hands is a very simple thing that you can start at home. Washing hands before and after meals is fundamental and must be taught. After being given the act of washing their hands properly, mentally retarded children can wash their hands even though the order is always forgotten, but they are excited to wash their hands after, before, and after activities. From the graph (see figure 2) it can be said that there was an increase from pre-research to post-research. Out of eight children three children get very good scores, three children get good scores, and two children get poor scores. Overall, there was an increase from pre-study to post-study.
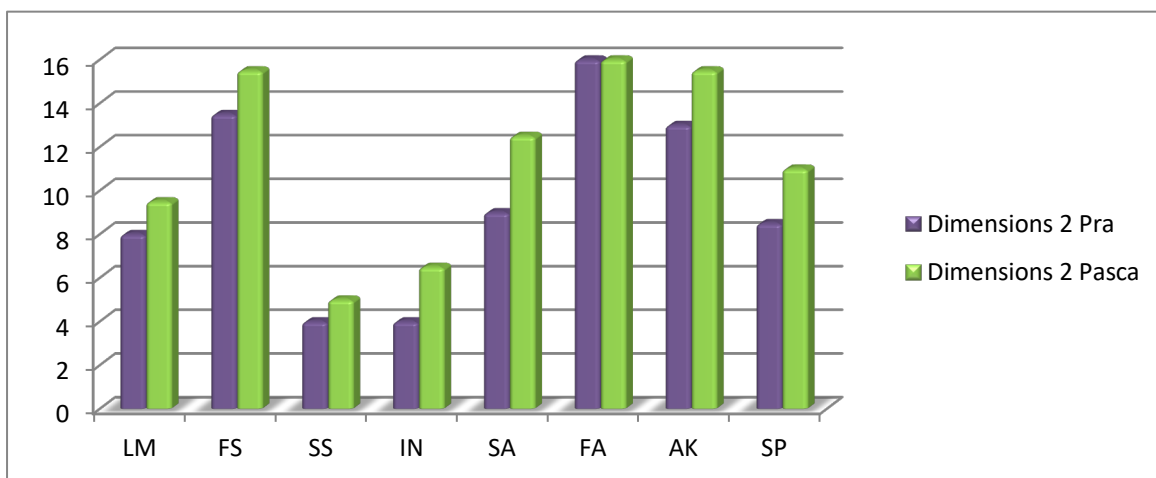

Figure 2. Washing Hands

The increase in this first dimension can be seen from the value $\bar{x} = 9.5$ to $\bar{x} = 11.4$ or a percentage from 50.3% increased to 69.5%, meaning that there has been a significant increase from pre-study to post-study. Thus, a second cycle is not required, and these criteria can be said to be the ability to wash hands properly.

4.1.4.2 Dimensions The ability of toilets trained to maintain genital hygiene.

The cleanliness of the genital organs is very basic to be taught because the cleanliness of the genital organs will affect health as well. These genitals for men and women have different shapes. For girls, because the urinary tract is short if they urinate sitting down, for boys standing because of the long urinary tract that makes it possible to stand up while urinating. grade 3 SDLB 127710 Pematangsiantar already understands what to do before and after defecating/urinating. From the graph above, it can be said that there was an increase from pre-research to post-research. Out of

eight children two children get very good scores, three children get good scores, and three children get poor scores. Overall, there was an increase from pre-study to post-study. The increase in this first dimension can be seen from the value $\bar{x} = 13.5$ to $\bar{x} = 16.0$ or a percentage from 60.9% increased to 78.4%, meaning that there has been a significant increase from pre-study to post-study. Thus, there is no need for a second cycle and these criteria can be said to be toilet-trained ability (see figure 3).
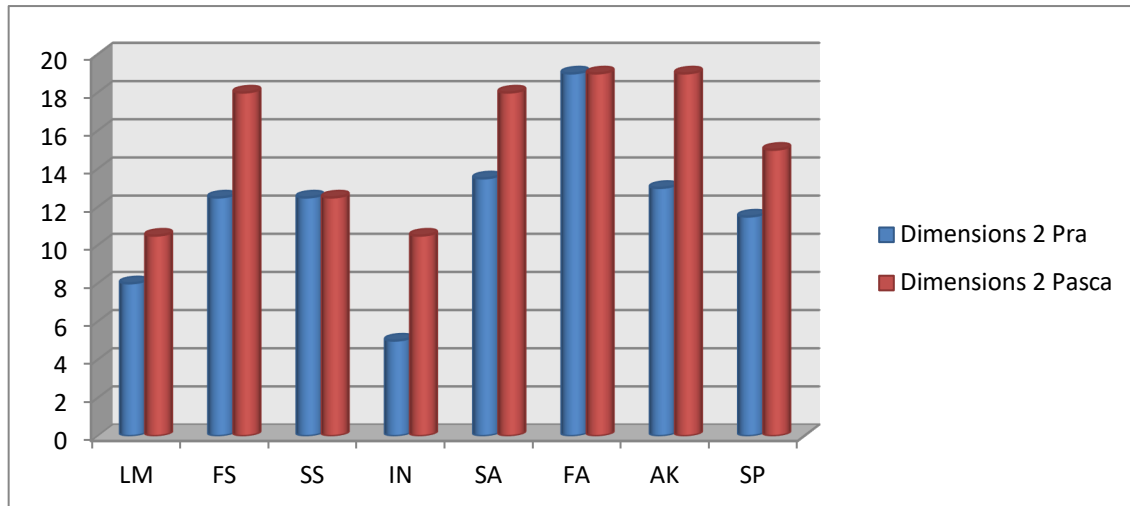

Figure 3. Toilet Trained

4.1.4.3   Overall Results of Dimensions 1 and 2

Intellectual disability children were very enthusiastic when participating in PHBS education for I cycle with eight meetings. From the graph in figure 4, it can be said that there was an increase from pre-research and post-research. Out of eight children three children get very good scores, three children get good scores, two children get poor scores. Overall, there was an increase from pre-research and post-research from 55.6% to 73.9%. Thus, there is no need for a second cycle and these criteria can be said to be the ability to wash hands and toilet trained well.
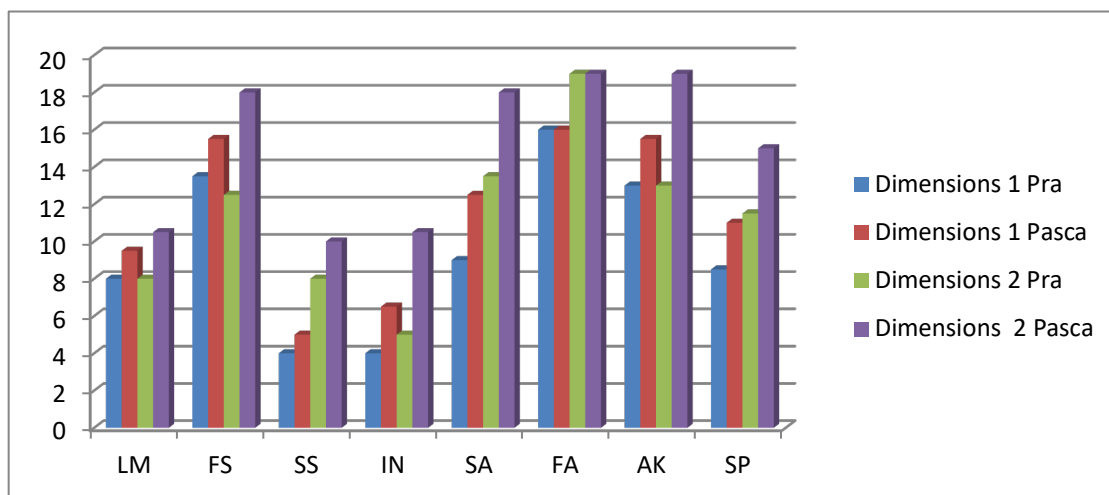

Figure 4. The Overall Results of The Study

The results of the comparison test from pre-research and post-research were conducted to determine the significance of this research data. The results of the comparison test using paired data between pre-research and post-research have increased from unfavorable to good. Furthermore, after going through the process of producing data based on data coding and theory, the following research findings are obtained (1) using an integrated approach is not difficult, all it takes is the

courage to try new things, high creativity in using learning media, (2) The interest in learning increases because PHBS education is carried out in a way that is very easy for them to understand by using the demonstration method. , (5) in providing children's learning must be divided according to gender to make it easier to give examples, train, and exchange opinions.

4.2 *Discussion*

4.2.1 *Wash Hands Properly*

Children with intellectual disabilities can afford to be susceptible to infection due to an unclean lifestyle and poor self-care abilities, especially frequent nail-biting, not washing hands after activities (Lee & Lee, 2014). Research has shown that children with intellectual disabilities are more susceptible to infectious diseases because their developmental disabilities make them unable to follow complex steps for life skills such as proper handwashing (Lee et al., 2015). Frequent hand-to-mouth activity without proper handwashing puts them at a greater risk of contracting the disease.

Indonesia according to data from the ministry of health, infectious diseases are common, causing huge losses (Health & Indonesia, 2011 (*Laporan Akuntabilitas Kinerja Kementerian Kesehatan tahun 2014*), still according to the ministry of health, infectious diseases are one of the health indicators that can be measured directly. Hand hygiene is the key to good hygiene practices at home and at school and can produce significant benefits in terms of reducing infections, particularly gastrointestinal but also respiratory and skin infections (Bloomfield et al., 2007). A meta-analysis of 30 studies by Aiello et al., (2008) found that hand washing reduced gastrointestinal disease by 31% and decreased respiratory disease by 21%. In underprivileged communities, current handwashing therapy at primary health care sites may not be viewed as appropriate. However, ECE practitioners have the effect of improving the handwashing conduct and awareness of pre-school children and families with sufficient assistance. Communication and distribution of handwashing messages should be transparent, realistic and important and should provide recommendations about what to do while facing infrastructure problems and during times of water restrictions. Strategies for health promotion should concentrate on optimizing handwashing activities when taking care of pre-school children (Steenkamp et al., 2020).

Good hand hygiene, especially washing hands with soap, is important to keep individuals free from severe environmental diseases, congenital Cytomegalovirus (CMV) infections, and respiratory infections (Dirjen P2P Kemkes RI, 2019; Hung et al., 2016; Koh et al., 2016; Ruan et al., 2011). Besides, currently, the world is hit by the coronavirus, so it is necessary and very necessary to teach intellectual disability children to be able to maintain proper hand hygiene. Not only that, when in contact or contact with other people, children must be told to wash their hands immediately because we never know who has been in contact, some with symptoms, some without symptoms, this is confirmed by the results of research from Shen et al. with symptomatic cases and asymptomatic cases with silent infection being the main transmission route for covid-19 infection in children (Shen et al., 2020). Therefore, it is necessary to cultivate an introspective attitude in this PHBS.

Maintaining good hand hygiene in children with intellectual disability and being able to educate is a difficult task for parents, caregivers, and children's teachers (Lee et al., 2015). To optimize health benefits, the promotion of hand hygiene must be accompanied by PHBS and must also involve other aspects (Bloomfield et al., 2007) which is why PHBS needs to be taught to children with intellectual disabilities who can educate so that they can maintain their body cleanliness. However, difficulties in verbal reasoning and short-term memory present its challenges in teaching children with intellectual disabilities how to properly wash their hands (among other life skills) through demonstration methods. Instructional strategies that incorporate visual support (e.g., pictures, video models) are considered evidence-based practices that have been used to teach students with intellectual disability (Kang & Chang, 2019). However, the results of the research we found in the video that we provide to make children sleepy and bored, so the practice of washing hands in the bathroom is very interesting for them. We found that playing with water relaxes children.

Washing hands is not a habit in Indonesia, therefore, getting used to children who have no deficiencies or normal children does not require significant hard work, but when they have special needs, it will be very different. Washing hands properly is not easy for children with special needs, need to practice as often as possible, that's why demonstration methods are needed to show how to wash hands properly. Before washing their hands, the teacher played a video about proper handwashing produced by the Ministry of Health, but only two children were interested in the video, the others were immersed in their world. So that the teacher took the students to the bathroom to immediately demonstrate how to wash their hands properly. When they are invited to the bathroom, the students immediately feel happy.

A study conducted in Washington, United States that children washing their hands by watching videos varied results. But the interesting thing is that children with special needs, in this case, autistic children, also have to pay attention to whether a video is shown is interesting or not (Rosenberg et al., 2010), for example, is there a sound or is their praise given to the child? In general, children already understand that they have a gender identity, namely male and female. When teaching about men and women, male and female teachers are in the classroom so that the differences can be seen clearly, because what they face is children who have intellectual disabilities so that real examples that they see every day are needed.

4.2.2 *Toilet Trained*

Toilet-trained activities are very interesting for children with intellectual disabilities, the same as washing hands. Students experience a lot of problems on the first to the third day. Students still have to show the toilet holes to defecate or urinate. Another obstacle is that there are still students who suddenly defecate and urinate in their pants, and this needs more attention. Other problems were not noted or reported, and this was a follow-up study. The decreased need for toilet trained is likely to be avoided due to the intensity of training where children are not far from the toilet during the early stages of training.

The results for this study indicated that the intensive training outlined was very successful in providing caregiver training to effectively toilet train two children with intellectual disabilities to use the toilet independently in a relatively short period and retain skills over time. Demonstration methods seem promising for children who have recently been introduced to toilet training and are also committed to hygiene education. This result is also expected to be able to be carried out for more children, increasing the self-understanding of parents in dealing with their children with intellectual disabilities.

Parents of children with developmental disabilities report higher personal stress before getting toilet trained. The results of research conducted by Kroeger and Sorensen show that continuous training not only improves the quality of children's life factors by increasing hygiene-related factors and access to activities and places but also improves the quality of life of parents by reducing stress and further for other family members such as siblings (Kroeger & Sorensen, 2010). Toilet trained can be a long-term source of stress reduction for families who have intellectual disability children who can educate.

Achieving toilet independence is an important developmental milestone for every child. Independent toilets are not only a frequent requirement for school entry and involvement in all school activities, but they are also a major developmental step and an important daily life skill. Toilet training (TT) is one of the most challenging stages of early childhood development and one that all children must complete successfully to comply with the norms of our society and to gain autonomy and self-esteem (van Nunen et al., 2015). Unfortunately, children with intellectual disabilities are often late in getting toilet trained (Levato et al., 2016). Obtaining toilet-trained skills for children with developmental disabilities is a very important competency (Chang et al., 2011). Toilet-trained training is the goal of Clean and Healthy Life Education, and behavior strategies must be adapted to the characteristics of children. For this reason, in PHBS a teacher must train children with intellectual disabilities to be able to use the restroom.

Collaboration with parents is highly recommended because children not only defecate and urinate at school, they will also defecate and urinate at home. This PHBS program must be run

together with parents so that children with intellectual disabilities can quickly become skilled. It cannot be denied that the education and economy of parents affect the success rate of children in toilet training programs.

There are several methods that can be used in teaching toilet training to children, the first is taking them to the toilet regularly, the second is when they feel they are going to the toilet, the child is immediately guided to the toilet, and the third approach is to help the child not to hold back bowel movements and urination in his pants, by asking the child. However, this is a troublesome thing for class teachers because they always feel like going to the restroom and all the time making the teacher invite them or accompany them to go to the restroom. Studies conducted in Iran have a strong inverse correlation between the level of education of fathers and the application of punishment for training and a direct correlation between refusal of toilet trained and elderly people to complete toilet training (Hooman et al., 2013). Providing punishment and rewards for children when they are unable to do toilet training for children with special needs may or may not be done, because there are children who basically do not want to do it, father's education is very influential in the success of this toilet training program. Age also greatly affects the ability of children with intellectual disabilities to be able to go to the restroom independently.

5 CONCLUSION

One of the effective ways to improve personal hygiene for mentally retarded children is to provide a PHBS program with a demonstration method, especially when COVID-19 spreads, children with mental retardation must be given PHBS with the main focus on washing hands, and properly and how to use the toilet. The findings of this study illustrate that there has been an increase in test scores before and after the intervention of the PHBS program, through the demonstration method, which is carried out on children for clean and healthy lifestyle behaviors. The implication of this research is the hope that there will be many new programs that are effective in providing life skills for children with disabilities.

6 ACKNOWLEDGEMENT

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Star of The Week Programs Based on Peer Relationship for Children Social Emotional Development

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ABSTRACT: The influence of family, school and peers on students' emotional social development is very important as a starting point for the design of school activities that will also improve student development in an integral way. The Star of the Week program was developed with the aim of helping students apply the knowledge, attitudes, and skills needed to socialize and understand and manage emotions. This study uses the Thiagarajan model stages, namely define, design, develop, and disseminate (4D). The results of the validity test from the experts show that this program has workable value with 91.1% material aspects, 90% emotional development aspects and 92% presentation aspects. For the practicality test results through teacher questionnaires obtained scores of 90%, and 88.67% through teacher observations of children who are in the high practical category. The results of the program effectiveness test showed a value of 89.08% on children's social-emotional development, because it showed an increase in values before and after the intervention. The implication of further research is that it is hoped that various kinds of learning methods will develop aspects of child development based on cooperation and peer relationships.

Keywords: *Early Childhood, Peer Relationships*, *Star of the Week Program, Social Emotional*

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1 INTRODUCTION

Children today are socially unstable, and this creates emotional and achievement problems at school. Most of today's children's best friends are digital toys and TV and watching animated videos and playing video games are their favorite shows to pass the time. In the future, extended device usage time could result in little or no contact with adults and peers (Alwaely et al., 2020). As far as the recreational activities of preschoolers are concerned, it should be noted that children at an early age can become insensitive and unable to control their own emotions (Watanabe et al., 2019).

The child's inability to behave as expected by their social environment, has an impact on the exclusion of children from their group. The child becomes insecure, and it is believed that the child will experience obstacles to further development (Mayar, 2013). Peer acceptance creates a healthy emotional atmosphere (Beazidou & Botsoglou, 2016; Coelho et al., 2017). Likewise, vice versa, Shearer et al., (2010) obtained research results, which showed that children who had behavioral problems in class simultaneously showed problems with peer social relations. Rejected children are prone to feelings of loneliness, which will impact on their social-emotional development (Asher & Parker, 1989).

Children difficulties interacting with peers, causing decreased ability to manage emotions, and adversely affecting academic achievement (Westrupp et al., 2020). The positive effect of social-emotional competence on school achievement performance has been demonstrated in various studies. At the beginning of the academic year, children's social-emotional skills can predict their score at the end of the year (Elias & Haynes, 2008). A meta-analysis research that focused on 213 social-emotional learning programs found that these programs were successful in increasing academic grades (Durlak et al., 2011).

Forrest et al., (2018) has found that peer problems partially mediate the relationship between language problems and emotional problems, and better peer relationships can provide better mental health as a teenager. Teachers and peers embody two significant aspects of social ecology in the classroom that have important consequences for the social-emotional adaptation of children (C. Wang et al., 2016). Given the evidence that socio-emotional abilities are linked to peer experience in preschoolers, it is important for experts to gain a more precise understanding of this. This awareness will help identify more effective approaches to increasing this ability in children at risk of social difficulties. Additionally, during peer interactions, it is important to consider how the regulatory and reactive aspects of temperament work together (Acar et al., 2015).

The power of family, teachers and peers is of extreme importance during the time of middle childhood. The findings showed that in relationships with peers, children who have built a relationship of confidence with teachers are more socially competent (Uslu & Gizir, 2017). Teachers need to have an educational impact, inspire students to work in groups, and build on engagement, collaboration and cooperation in their classes (Nix et al., 2013). In order to contribute to improving children social-emotional development, teachers should generate more quality school activities that stimulate the social development of children, as well as integral development in general (Blazevic, 2016).

After studying research related to early childhood emotional social development (Alwaely et al., 2020; Chung et al., 2020; Durlak et al., 2011; Magdalena, 2013; Morris & Williamson, 2019; Nix et al., 2013; C. Wang et al., 2016; Yang et al., 2019), as well as how peer influence is on this crucial ability (Acar et al., 2015, 2017; Akhir & Wisz, 2018; Beazidou & Botsoglou, 2016; Blazevic, 2016; Conti-Ramsden et al., 2019; Forrest et al., 2018; Uslu & Gizir, 2017; C. Wang et al., 2016), to fill the problem gap in interesting interventions based on activities or interactions with peers, this study was conducted to complement previous studies. This study aims to develop an intervention program based on peer relationships in developing children's social emotional.

2 THEORITICAL STUDY

2.1 *Early Childhood Social Emotional Development*

Social-emotional is an integrated function of relationship efficiency and different abilities, including understanding, recognition, control and emotional communication. Emotional social development interventions are essential for children's preparation for school and lifelong well-being (Moore et al., 2015). The foundation of early-childhood programs, the curriculum, is a way to prepare children with planned goals. Therefore, the presence of various and interesting programs in them should be well prepared (Yang et al., 2019).

In the context of social emotions, social development is determined by emotional development, and a person's social activities tend to be driven by emotions (Nurmalitasari, 2015). Social emotional development is related to the results of social behavior (Domitrovich et al., 2017). Healthy social and emotional development for children will make them able to display appropriate behavior patterns, understand the meaning of life, and be able to go through the phases from children to adults without any obstacles (Khoiruddin, 2018).

Emotional comprehension and emotional self-regulation both influence pre-school children's ability to respond to the social norms of behavior (Di Maggio et al., 2017). The ability to understand the very concept of emotions, or emotional knowledge, represents multicompany constructs. Which embraces the children's knowledge about the existence of emotions and factors affecting the presence of positivity/negativity resonance. The children's realization of their ability to hold one's own emotions under control (Krauthamer Ewing et al., 2019). The study demonstrates a strong link between self-regulation and abilities for growth, such as emotional and social skills (van der Pol et al., 2016). When they reach the age of four, you may begin building a base for emotional growth in children. At this age, they learn the basics and begin to recognize feelings.

Another important factor of social emotional competence is also illustrated in research (Domitrovich et al., 2017), where common problems that occur in the early days of school can be prevented through good social emotional competence. The importance of early identification of social emotional disorders is for the improvement of welfare and quality of life in the future. They also held the view that this social-emotional competence is closely related to social behavior outcomes, triggers academic achievement, predicts important life outcomes in adulthood, and more importantly for healthy mental development. The same thing was also conveyed by (Chung et al., 2020) which stated that emotional social competence allows children to manage emotions and regulate behavior, learn skills, gain knowledge, achieve welfare, and train endurance.

2.2 *Peer Relationship*

The literature addressed different aspects of peer relationships between children: peer acceptance, socio metric status, responsibility, peer rejection, and popularity(Y. Wang et al., 2019). The presence of important variations between peer acceptance, and friendship have been proven by researchers (Beazidou & Botsoglou, 2016). Peer acceptance is a one-way idea that relies on the degree to which a child is socially appreciated by peers, whereas a relationship is supposed to be reciprocal (Coelho et al., 2017). It is important to describe friendship as an affective relationship between two children. In friendship, there are three basic components: mutual preference, mutual enjoyment, and the ability to engage in skillful interaction. Peer approval, however, represents the opinion of the peer community of the child and facility access to play activities in the classroom. suggest that in early childhood, peer approval predicts whether children have mates.

In early-childhood education, the ability of children to develop peers' relation is a significant topic. Making and holding friendships fosters the growth of social skills for children. It finds that children pursued secure and reciprocal relationships instead of expanding their peer networks, showing a greater preference for gender segregation than age similarity. Regular pedagogical arrangements also had some effect on peer relationships in the seating order (Y. Wang et al., 2019).

Kids with behavior problems are at risk of rejection by teachers, peers and academic failure without successful intervention. However, many preschool kids aren't diagnosed and don't get the care they need. Children will exhibit both prosocial and aggressive behavior towards colleagues at the age of two. Lojk & Adolfsson, (2017) emphasize the importance of healthy childhood peers' relationships, since early childhood is the time when kids learn how to communicate with each other. Children improve emotional, cognitive and language skills through peer interactions. The findings indicate that all the strategies implemented to have had a significant influence on peer interactions and have decreased behavior issues in classrooms. From this perspective, it can be concluded that through the interaction of children with their peers it can be faster to develop social emotional in children, especially for early childhood. Children are free to do everything in one week through the Star of The Week Program.

2.3 Star of The Week Program (SWP)

This program is designed as a means of stimulating children's social-emotional development based on peer relations conducted at the Excellent Bukittinggi Islamic Kindergarten. Although several educational institutions abroad and ECE institutions in Indonesia themselves have implemented or have similar activity programs, researchers have not yet seen the activity design as the Star of the Week Program that the researchers developed. Existing programs have similarities in terms of time and program name. However, it differs in terms of material, presentation and basis. This program is designed to be easy in its implementation, using tools and materials that are not difficult to obtain, not dangerous, and of course fun in accordance with the characteristics of early childhood.

Through the SWP, children are invited to see the positive character of their peers, and are accustomed always to respect others, as well as the motivation for children who become stars is that they will behave in accordance with the views of their friends towards them. The recognition and appreciation that his friends attach to him will encourage his positive way of thinking and acting, so that he will protect himself from wrong and negative actions. This research is also expected to be able to invite children to accept their peers. Peer acceptance affects emotional development. If the child is well received by the peer group, pleasant emotions will be dominant in him, whereas if the child is rejected or ignored by the peer group, unpleasant emotions will dominate him. There is no specific definition that explains this definition, but epistemologically, Star of the Week can be defined as the activity of giving awards to an accomplished person, or other criteria that are set in an institution or organization every week. The development of the Star of the Week Program departs from the need for children to be recognized and treated as valuable people. Children who are valued will feel proud of themselves, and will have positive attitudes and views of themselves and others (Kompri, 2016).

The child's need for self-esteem is in accordance with the concept of need motivation put forward by (Maslow, 1984) known as a hierarchy of needs. Maslow's thinking emphasizes that every child has the right to meet their needs starting from basic needs, to get a sense of security, to be appreciated, recognized, received with love and affection, to shape their self-confidence, so that their self-actualization will be realized by developing themselves according to their interests and talents. The Star of the Week program is seen as being able to meet children's needs for self-esteem and will be motivated to show positive behavior patterns and be able to express their feelings in a natural way. So, it is considered important to be applied in the learning process of early childhood and included in the school curriculum. Early childhood educators need to strengthen the design and implementation of their curricula with a focus on developing social-emotional competencies to support children's socialization processes while narrowing the gap in social status (Yang et al., 2019).

3 METHOD

The type of research used in the development of the Star of the Week Program is Research and Development (R&D), using the 4D Thiagarajan model. This model consists of four stages, namely define, design, development and disseminate. In this study, data were collected using several

methods, namely questionnaires, observation, and interviews. Each of the data collection methods used can be described as follows: (1) The questionnaire / questionnaire is used to determine the assessment of early-childhood experts on the Star of the Week Program, which will measure the validity of this program in terms of child development psychology, especially early-childhood social-emotional development. A questionnaire will also be given to the teacher with the aim of seeing the teacher's response when this model is applied to children. (2) Observation is used to see the response of teachers and children when the Star of The Week Program is applied. Observations were made by the researcher who also acted as an observer in this study, and also by the teacher to assess the stages of development that were expected to appear when and after the application of the Star of the Week Program. (3) Interviews are used to find out the responses, comments, and responses of the teacher when the Star of The Week Program is conducted. The interview method was chosen because the researcher was closer to the source so that the researcher could obtain more in-depth data about the implementation of this program. The data obtained in this study were then analyzed descriptive quantitative, namely by describing the level of validity, practicality and effectiveness of the Star of the Week Learning Program. The following is a chart of the design of this research conceptual model (see figure 1):
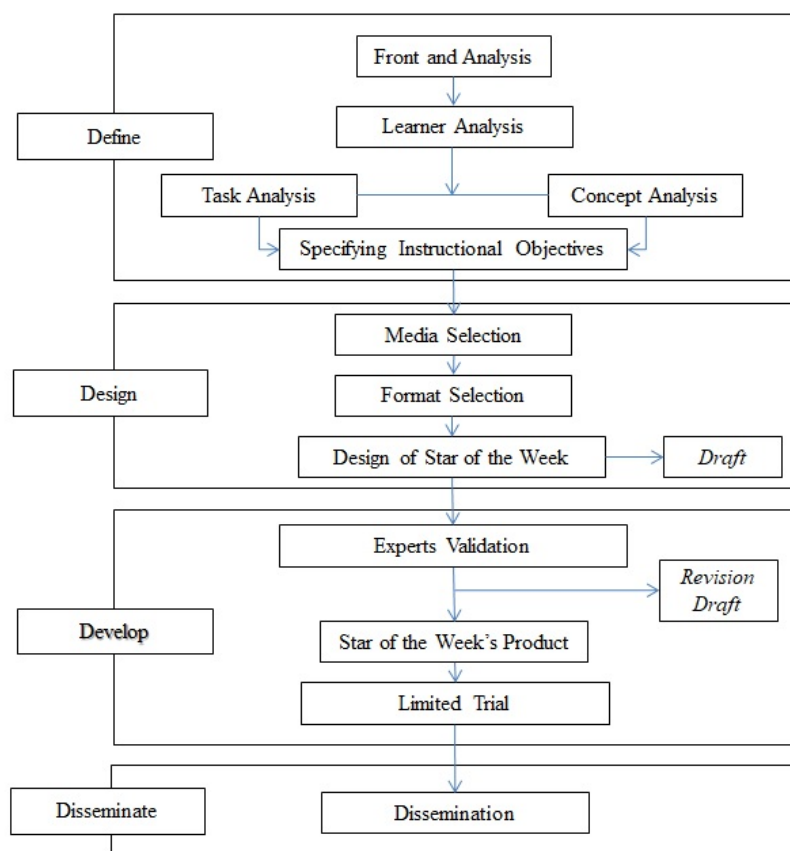
Figure 1. Conceptual Model Design Chart

4   RESULT AND DISCUSSION

4.1   *Result*

4.1.1   *Phase definition*

Researchers do some analysis of the stages of this like, the analysis of the initial analysis of the participants, the task formulation, the formulation of the concept, and the purpose of Instructional.

In the initial analysis stage, the researcher identified the problems faced when implementing efforts to stimulate children's social-emotional development and carried out direct observations. In the analysis of the students do classroom observation, discussion with the class teacher, and search for information related to the needs of students through about literature theory children age prematurely. Meanwhile, at the task formulation stage, it is carried out by analyzing the main tasks that must be mastered by students so that the competencies to be achieved get satisfactory results. In the formulation of the concept is done by way of identification things are presented on the implementation of the Program Star of the Week were developed concerning the Basic Competency which is in Curriculum 2013 ECE. And the formulation of the objectives of the Star of the Week Program objectives is obtained after the achievement of learning outcomes indicators are determined based on the Basic Competencies listed in the 2013 ECE Curriculum.

4.1.2 *Design Stage*

On stage this, researchers began to design a program of activities for the development of competence of social emotional children aged early and will be tested to the child. The program is to be poured into in a hint of technical implementation of the Star of the Week, which will be explained the stages of implementation, the media used and the time that is needed. Selection of tools and materials as media consisting of paper carton, photo closeup of children who became sta*r,* markers, glue, and a fitting photograph the kids the other did not become a *star.* The following is a picture of the flow of the Star of the Week Program (see figure 2).
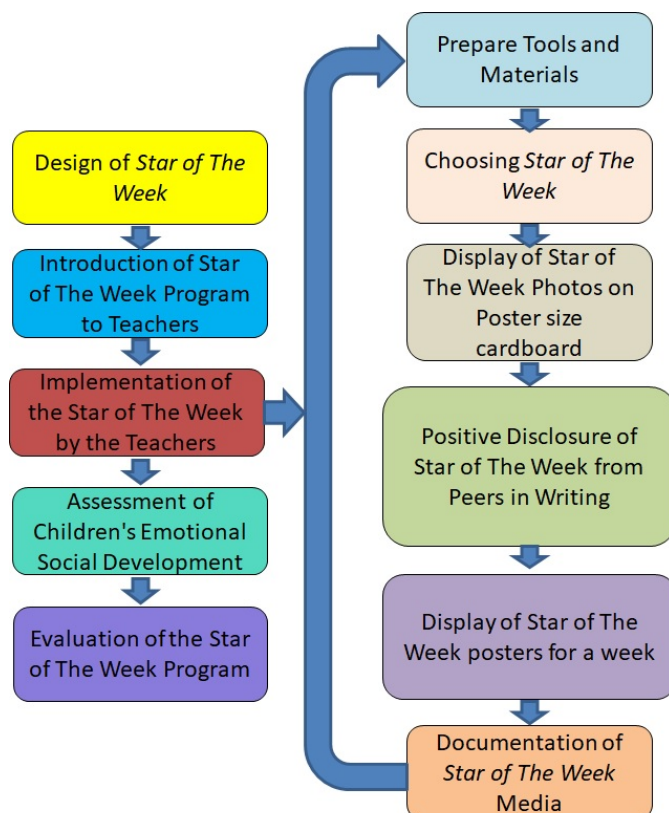

Figure 2. Flowchart of Star of The Week Program Implementation

4.1.3 *Development Stage*

After the defining and design, stages have been completed, the development stage is then carried out. At this stage, the validity test is carried out to determine the feasibility level of the program that has been designed. The validation process is carried out by several experts who are competent in their fields. The purpose of conducting a program validity test is to determine the extent to which the level of validity and authenticity of the Star of the Week Program can be applied to develop emotional and social early childhood. Validation aspects that are assessed in a program are material aspects, social-emotional development aspects and presentation aspects. The

following is the results of the researcher's description of the results of the validity test that the researcher has conducted (see table 1 for material aspect, table 2 for social-emotional content aspect, and see table 3 program presentation aspect).

Table 1. Results of the Material Aspect Validity Test

Aspect	Indicator	Grain	Initial Score	Symbol	Final Score	Symbol
Theory	Conformity with Curriculum	1	3	CB	4	B
		2	5	B	5	SB
	Suitability with the School Environment	3	4	B	4	B
		4	4	B	5	SB
	Suitability to Children's Needs	5	4	B	5	SB
		6	5	SB	5	SB
		7	4	B	4	B
	Conformity with the theory of child development	8	4	B	5	SB
		9	4	B	4	B
	amount		37		41	
	Average		4,1	B	4.56	SB
	Score Percentage		82.2%	B	91.1%	Valid

Table 2. Results of the Validity Test for Social Emotional Development

Aspect	Indicator	Grain	Initial Score	Symbol	Final Score	Symbol
Emotional Social Development	Social Development	1	4	B	4	B
		2	4	B	4	B
		3	5	SB	5	SB
		4	5	SB	5	SB
		5	4	B	4	B
		6	3	CB	5	SB
	Emotional Development	7	5	SB	5	SB
		8	4	B	4	B
		9	4	B	4	B
		1 0	5	SB	5	SB
		11	4	B	4	B
		12	3	CB	5	SB
		13	5	SB	5	SB
		14	5	SB	5	SB
		15	5	SB	5	SB
		16	4	B	4	B
		17	4	B	4	B
		18	4	B	4	B
	amount		77		81	
	Average		4.28		4.5	
	Score Percentage		85.56 %		90.00 %	Valid

Table 3. Results of Presentation Validity Test

Aspect	Indicator	Grain	Initial Score	Symbol	Final Score	Symbol
Presentation	According to Teacher Needs	1	4	B	5	SB
		2	4	B	5	SB
	In accordance with the Needs Children Age Early	3	4	B	4	B
		4	5	SB	5	SB
		5	4	B	5	SB
		6	3	CB	4	B
		7	4	B	4	B

		8	5	SB	5	SB
Presentation Systemat-ics		9	4	B	4	B
		10	4	B	5	SB
	amount		41		46	
	Average		4,1	B	4,6	SB
	Score Percentage		82%	B	92%	Valid

Having conducted the test, the validity of the program by the experts, subsequently conducted a test practical's implementation of the program by doing a test try limited to one class of Group B at TK Islam BukitTinggi. The results were obtained through questionnaires were distributed to teachers who do practice test program, a questionnaire to the child as well as the observation that the researchers did obtain no obstacles either by a teacher or child in carrying out the program (see table 4).

Table 4. Practical Results of Teacher's Questionnaire

Aspect	Indicator	Item-Number	R1	R2	R3	Average	Symbol
Theory	The *Star of the Week* learning model makes it easy for teachers to stimulate children's social intelligence	1	5	4	5	4.67	
	The *Star of the Week* learning model makes it easy for teachers to stimulate children's emotional intelligence	2	4	4	5	4.33	
	The *Star of the Week* learning model makes it easier for children to build peer relationships	3	5	5	5	5.00	
	The *Star of the Week* learning model increases children's enthusiasm for the learning process	4	4	5	5	4.67	
	The *Star of the Week* learning model fosters a positive learning climate	5	4	4	4	4.00	
Presentation	The *Star of the Week* learning model is easy for teachers to understand	6	4	4	5	4.33	
	The *Star of the Week* learning model is easy to apply	7	5	5	4	4.67	
	The media and teaching aids needed in the *Star of the Week* learning model can be obtained easily by the teacher	8	5	5	5	5.00	
	The *Star of the Week* learning model is easy for children to understand	9	4	4	5	4.33	
	The presentation time is in accordance with the allocation of learning time	10	4	4	4	4.00	
	amount	10	44	44	45	45.00	
	Average					4.5	
	Score Percentage					90%	Very Practical

Table 5 shows the results of the Observations of Teachers on Children in Program Implementation. It appears that a high percentage score explains that this program is suitable for use in early childhood classes.

Table 5. Results of Practical Observations of Teachers on Children in Program Implementation

Aspect	Indicator	Grain	R1	R2	R3	Average	Symbol
Theory	Children's ability in understanding the material presented	1	4	5	5	4.67	
	Children's ability to express positive feelings towards peers	1	4	4	5	4.33	
	The material provided is liked by the child	1	5	4	4	4.33	
	The material provided can motivate positive intrinsic children	1	5	5	4	4.67	
	The material provided can motivate positive extrinsic children	1	4	4	4	4.00	
Presentation	Media and learning tools are liked by children	1	4	4	4	4.00	
	Media and learning tools are easy for children to use	1	5	5	5	5.00	
	Children enthusiastic about the presentation of the program	1	5	5	4	4.67	
	The teacher's explanation of the procedure for implementing the Star of the Week Model can be understood by the child	1	5	4	4	4.33	
	Children can express their feelings verbally or in writing	1	4	4	5	4.33	
	amount	10	45	44	46	44.33	
	Average					4, 43	
	Score Percentage					88.67%	Very Practical

The final stage (see table 6) in the develops process is to see the effectiveness of the program by conducting limited trials. Trial is limited to doing for a few weeks, because the program is the Star of the Week is a treatment sustainable that due to all children. All children will get a turn as the star, the trial is the activities that were carried out one child per week is abbreviated into three children per week, so that from 18 children who exist in a group trial limited everything has to turn in a time of six weeks.

Table 6. Effectiveness Results

Aspect	Indicator	Grain	Average	Symbol
Emotional Social Development	The material provided can stimulate children's ability to appreciate the strengths of themselves and their peers	1	4.22	
		1	4.56	
	The material provided can stimulate children's desire to interact with peers	1	4.44	

Aspect	Indicator	Grain	Average	Symbol
	The activities carried out can minimize negative attitudes / perspectives towards their peers	1	4.72	
	The activities are carried out to foster an attitude of sportsmanship and patiently wait their turn	1	4.17	
		1	4.22	
	The activities carried out can improve children's ability to adapt to their environment	1	4.56	
	Activities undertaken can stimulate children's intrinsic and extrinsic motivation to behave positively	1	4.89	
		1	4.72	
	Activities undertaken to foster an attitude / positive outlook on themselves alone and peers	1	4.17	
		1	4.72	
	Activities carried out can increase the child's sense of care for others	1	4.22	
	Children are able to recognize the emotions of themselves and others	1	4.39	
		1	4.22	
	Children are able to control and express their own emotions	1	4.83	
		1	4.17	
	Children can express their feelings	1	4.39	
	The activities carried out can control the child's aggressive behavior	1	4.56	
	amount		80.17	
	Average		4.45	
	Score Percentage		89.08%	Effective

4.1.4 *Phase Dissemination*

Stage of the latter in the development program is the Star of the Week for the development of social emotional based relationship friend peer is the application program that has been developed and tested on a scale that is large. The dissemination stage was carried out in the same school but carried out in all 6 classes of Group B at the Islamic Excellent Kindergarten, Bukittinggi City, totaling 6 classes. The physical form of the star of the week program in class, can be a poster like in a figure 3. The poster in figure 3 shows that all classmates give awards in the form of stars and short writings with positive comments for children's attitudes in certain weeks.

Figure 3. Poster Star of the Week Program

4.2 Discussion

This research produces a program in which the design or design of the program developed is based on peer relationships and is in accordance with the stages and characteristics of early-childhood social-emotional development. The Researcher idea to develop this program originated from the concern of researchers about the lack of a special activity program for stimulating social-emotional development that specifies activities to improve the social emotional at early childhood.

Social-emotional competence as described as the result is reflected in the ability of children to engage with others and be able to express their feelings. Children who have not / are not stars are seen to be able to express their feelings about the star's personality through expressions of the superiority of a star such as good child stars. Stars love to share. Stars never shout, or stars like to smile. That means this program is in line with research (Lane & Shepley, 2019) which found that preschool children with and / or without special needs can learn to say the words of what they see, and practice social skills by commenting on peers, for example, Wow it's cool. According to Hernández et al., (2020) commenting activities are a form of early stimulation for emotional intelligence through communication.

In addition, the results of this study are also able to answer problems in preliminary research, where in initial observations on several occasions, the researcher found the behavior of children who withdrew from their peer groups. The inability of some children to socialize with their peers is motivated by obstacles in language development. Obstacles like this were also found in the study results (Conti-Ramsden et al., 2019) where one of the inhibiting factors for peer relationship is language interference.

So, through the disclosure of star's positive behavior as written on the Star of the Week poster paper, it is slowly being able to erode the barriers to language development. That means there are other developments that have also emerged in this research, namely the development of literacy. Literacy is generally defined as the ability to read and write and use spoken language (Fajriyah, 2018). The positive stigma that children attach to the star through the expressions written on the Star of the Week poster, is proven to be able to generate a positive sense of pride and self-esteem in children. Children feel proud of themselves, become confident and happy, are able to present themselves as pleasant, adaptable, and of course have positive self-esteem, because it is an individual's evaluation of himself positively or negatively (Santrock, 2012). This evaluation shows how individuals assess themselves and whether or not the abilities and successes they get are recognized. This assessment can be seen from their appreciation for their existence and meaning for what they are.

The Star of the Week program is seen as being able to meet one of the five human needs. Maslow's (1984) thinking emphasizes that every child has the right to meet their needs starting from basic needs, to get a sense of security, to be appreciated, recognized, received with love and affection, to shape their self-confidence, so that their self-actualization will be realized by developing themselves according to their interests and talents. On one occasion, researchers found intrinsic motivation in stars to behave in a positive way with their friends. When there was a small argument between the star and one of his friends, the star suddenly realized that one of his friend's expressions stated that he (star) "doesn't like to be pushy." This empirical fact proves the Morrison's (2012) statement about someone who respects himself will always protect himself from wrong and negative actions.

This research also produces extrinsic motivation in each child to bring up behavior that allows him to be accepted and liked by his peers. When children see a star being valued through their positive behaviors, other children who have not / are not stars are motivated to behave positively as well, with the hope that when they turn to being stars, their other friends will rate them positively as well as they will assess their children positively. Who is currently a star? That means, there is a behavior bias that encourages children to repeat the behavior again. This award-giving strategy is also illustrated in research (Moberly et al., 2014; Wilson & Corpus, 2001) in where early-childhood teachers tend to give rewards to motivate their students.

What needs to be underlined is that in this activity, children are prohibited from expressing negative star behaviors. However, in this case, the researcher has other aims and objectives of developing this program. If the negative behavior of the star is also expressed in this activity, it is feared that it will cause negative emotions will lead to aggressive behavior can lead to violence (Ramani et al., 2010). Negative emotions from frustration and anger can underlie aggression and violence. Another impact of violence can interfere with emotional development, so that children who have emotional disorders are at risk of being rejected by peers (Kim & Cicchetti, 2010).

The positive behavior that is expressed is proven to be indirectly embedded in the child, so that behavior is manifested in the child's daily actions. The positive attitude of other children towards the star also makes the star feel that his friend is good at him, all friends except his existence. Of course, this makes children feel attached to one another. This attachment has a positive effect on the child's social and emotional development. The results show that attachment, and self-esteem has a positive effect on children's ability to socialize. This means that peer motivation is the driving force in which direction a child will determine his actions, and as a selector of good or bad deeds can cause him to be accepted or rejected by his peers.

Early-childhood teachers need to know active and fun learning strategies according to the developmental stages and characteristics of early childhood. This is so that the critical period of children's development can be passed perfectly. McCormac and Snyder (2019) in their research also revealed that social-emotional learning proved to have benefits and is considered the best exercise in helping students apply the knowledge, attitudes, and skills needed to understand and manage emotions. The benefits of social-emotional learning for children, they are able to maintain cooperative relationships. Children can make responsible decisions, manage strong emotions, communicate clearly and assertively. Help children effectively solve problems, understand feelings in themselves and others and children have empathy for others.

The results shown in this study, that the materials in the Star of the Week Program show that early-childhood social-emotional competence can be optimized and needs to be strengthened through program integration into the curriculum. Early-childhood educators need to strengthen the design and implementation of their curriculum with a focus on social-emotional learning to support children's socialization processes while narrowing the social status gap (Yang et al., 2019). Children who develop warm and positive relationships with their peers and kindergarten teachers, are more enthusiastic about learning, more positive about coming to school, are more confident, and produce joyful achievements in the classroom.

5 CONCLUSION

The Star of the Week program is a peer-to-peer relationship-based program, which is considered to be an alternative for teachers in efforts to develop socio-emotional competencies in early childhood. The simplicity and ease of application as well as the cost savings in the media provision have been recognized based on the results of their validity, practicality and effectiveness. The Star of the Week program is also able to represent child-centered learning activities and is expected to be a pioneer for observers of early childhood development, to create similar programs that can be applied to early childhood education institutions. The implication of this research is to expect the presence of new products that attract children's interests and are able to develop social emotions for their welfare and success in the future.

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Children's independence Skills Analysis at Low Socioeconomic Environment

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ABSTRACT: Research suggests that child independence is more popular in countries with greater wealth and a higher percentage of the educated population. Various research implications expect children's independence and compliance to increase over time in developing countries. This study aims to describe the independence of early childhood who comes from low-income families or at low socio-economic environment. Using quantitative descriptive, data collection techniques are carried out through a questionnaire. The study population was 30 respondents from the ECE institution who were included in the list of low-income families in 2018, using an area sampling technique. Overall, the teacher stated that all indicators of dependence on children from low-income families had reached the high category, which was 75%. The implication of further research is that aspects of independence in physical abilities, self-confidence, responsibility, discipline, sociability, sharing, and independence in terms of emotional control in early childhood can develop better in a low socio-economic environment.

Keywords: *Early Childhood, Independence skills, low-socioeconomic environment*

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1 INTRODUCTION

Independence in early childhood when completing self-care routines such as getting ready for school or studying throughout the morning, as well as participating in individual activities for long periods of time, are important life-long impact skills (Jimenez-Gomez et al., 2020). Early year is a very strategic time for development in the aspect of independence in the next age (Havighurst et al., 2010). Independence is one of the items that must be generated by habit, and the presence of parents plays an important role in cultivating the independence of their children because most of the time a child in a day is with his parents, particularly (Amini, 2018). When the environment has an important role in building children's independence, the conditions and roles of various family backgrounds in early childhood education become a question, does the independence of children with low-income and high-income family backgrounds affect this?

Some study showed that there was a link between stunting and social independence deficiency. An earlier research also found that stunted kids had a lower social-emotional score (Nahar et al., 2020). The performance ratio of social independence skills in children who were not stunted had a higher performance ratio compared to stunted children (Meylia et al., 2020). Park and Lau's (2016) study found that child independence was more common for the national level in countries with higher income and a higher percentage of the educated population; personal socio-economic status at the individual level rather than national socio-economic characteristics predicts the priority of individual parents towards the independence of children; higher social class estimates a higher likelihood of superiority. Sometimes the weakness of children's independence arises because parents from low-income groups do not have many opportunities to meet children's needs and often have negative parenting styles. Research shows children who do not have this kind of parenting can develop good self-regulation and independence (Julian et al., 2019).

According to data from the Central Statistics Agency of Pekanbaru City in 2019 (BPS, 2019), the poverty line in the city of Pekanbaru during the period 2001-2010 experienced an increase, namely in 2001 the poor population in Pekanbaru City amounted to 38,200 people until 2010 amounted to 52,700 people. In 2011 the poverty line of Pekanbaru City was recorded at 326,705 or an increase of 6.73% from 2010. Next from the same source the percentage of poor households in the City of Pekanbaru in the almost poor category (potential to be poor) was 51,69%, poor category 3 7, 31 %, and very poor category is 1, 01 % of the total number of poor households in Pekanbaru City. From these data it is clear that the poverty rate in Pekanbaru City is increasing every year. As a result, the dropout rate according to the Central Statistics Agency of Pekanbaru City is increasing. It can be concluded that poverty is one of the obstacles in education.

However, in fact, sometimes there is a phenomenon of the formation of independence in children with low-income families, due to the busyness of parents earning a living forcing children to become more independent in taking care of themselves. Meanwhile, children with high-income families tend to place caregivers around the children and make children less trained in independence. To fill this gap, this study aims to determine the independence of children aged 5-6 years in Riau Province from low-income families. This study determines children's independence through indicators of physical abilities, self-confidence, responsibility, discipline, social, sharing and controlling emotions.

2 THEORITICAL STUDY

The capacity of the child to develop independence, such as eating or cleaning their toys, was social independence (Meylia et al., 2020). Independence skills in children are life skills that need to be instilled from an early age through well-designed programs (Kaya & Deniz, 2020). In terms of social skills, it was found that most preschoolers had adequate cooperation, engagement and independence skills, although few were those with a lack of such skills (Charilaos et al., 2018). Self-regulation refers to the ability to monitor one's own thoughts, reactions, and actions when interacting with internal and external stimuli and rejecting dominant responses to participate in goal-directed behavior, this is related to one's independence (Bridgett et al., 2015).

This self-regulatory capacity is also associated with several positive children's outcomes simultaneously and longitudinally, including social maturity (Blair & Raver, 2015) school preparation (Eisenberg et al., 2010), independence and positive adaptation (Blair & Diamond, 2008). A study suggests that in preschool children in low-income households, the capacity to self-regulate is correlated with social maturity (Lengua et al., 2015) and early childhood school achievement (Schmitt et al., 2014).

Compared to their wealthier counterparts, children in low-income families are at risk of bad performance in these environments, and one of the hypothesized pathway is self-regulation (Evans & Kim, 2013). It can also be especially relevant for children living in poverty to promote self-regulatory skills early in childhood (Buckner et al., 2009). It is generally understood that parenting shapes the production of self-regulation by young children (Bridgett et al., 2015), but it may also be important to moderate the effect of parenting on self-regulation. Based on the criteria for the poor families by the Pekanbaru city government, family boundaries said to be of low socioeconomic status are those that meet the following criteria: Parent education level: max. High school, Income level: below Pekanbaru city minimum wage (Rp. 2,100,000) and Type of residence: Semi-permanent house, rent, and adjusted to the facts of the field.

3 METHOD

This research is a descriptive study using a quantitative approach. Research is focused on the condition of natural objects, where researchers as a key instrument and emphasize meaning rather than generalization. This research was conducted from January to June 2020 in Kindergarten Negeri 5 and Ikhlas Rumbai Coastal Kindergarten with the characteristics of child respondents who come from marginalized environments. Sampling in this study was carried out using area sampling techniques, through two area determinations, namely suburban and urban areas in Pekanbaru. Respondents are children aged 4-6 years, 12 women and eight men who come from low-income families. Data collection used a research instrument in the form of a questionnaire, with 30 item questions to reveal the independence of children in 20 selected low-income families. Data collection was carried out in the following stages: Checking the completeness of the data entry instruments received from the research sample, making data processing tables, scoring and counting the number of respondents' answers and entering them into the processing table, and analyzing the data that has been obtained.

The data analysis technique used in this research is descriptive quantitative, this illustrates that the actions taken can lead to improvements, improvements, and changes for the better. The data analysis on the questionnaire was processed using a percentage formula. After the data has been determined the assessment criteria for each data obtained refer to the limitations, the grouping of data processing criteria is as follows (see table 1).

Table 1. Variable Data Processing Criteria

Percent	Category
81-100%	Very high
61-80%	High
41-60%	Average
21-40%	Low
0-20%	Very low

The description of the scores in the assessment criteria is very high for the maximum of children's independence and very low for the minimum level of independence of children who come from low-income families.

4 RESULT AND DISCUSSION

4.1 *Result*

The following are the results of the description of the condition of the children who were the subjects of the study.

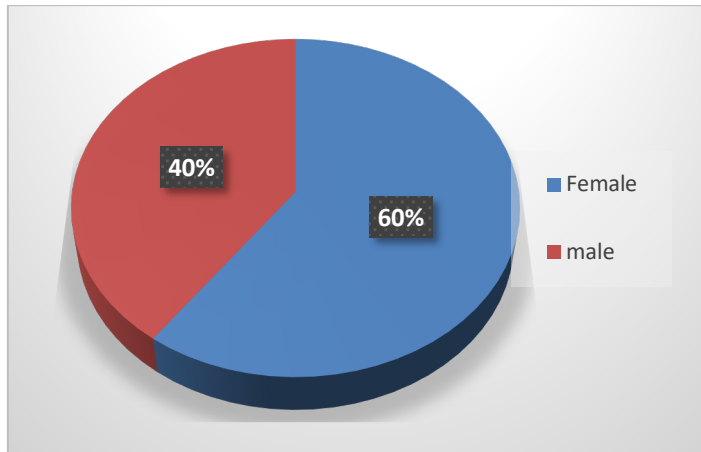#### 4.1.1 *Description of Number of Research Subjects*

 Figure 1. Sex

From the figure 1 there are 60% of girls, 40% of male students with low economic status who come from various kindergarten and ECE institution in Pekanbaru. Based on the results of the questionnaire, it is known that the parents' income from students who are the object of research starts from under Rp. 1,000,000, 00 to Rp. 3,000,000.00. 8 people have income below 1 million-rupiah, 8 people have income 1-2 million rupiah, and 4 people have income 2-3 million rupiah.
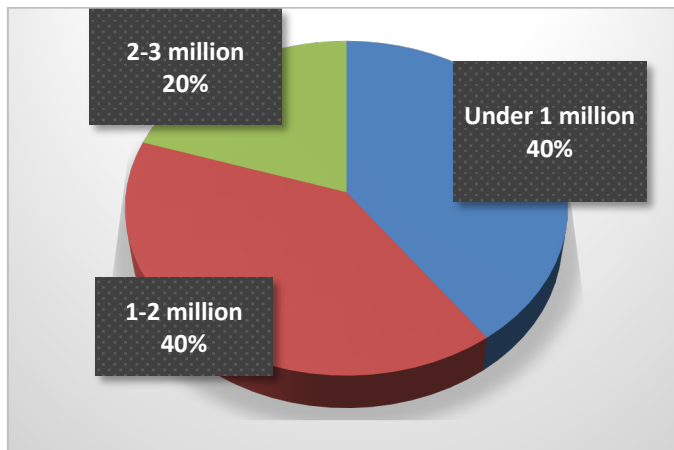
Figure 2. Parents Income

From the figure 2 there are 40% the parents Income who earn below 1 million rupiah, 40% earn 1-2 million rupiah and 20% earn 2-3 million rupiah.

4.1.2 *Overview of Research Results*

The study consists of one variable, namely the independence of children aged early from families of low social economic status in the city of Pekanbaru. Based on the data processing that has been done, then the data can be analyzed by the research questions have been raised is how the independence of children aged early from families of low social economic status in the city of Pekanbaru. The description of the results of the study are as follows (see figure 3).
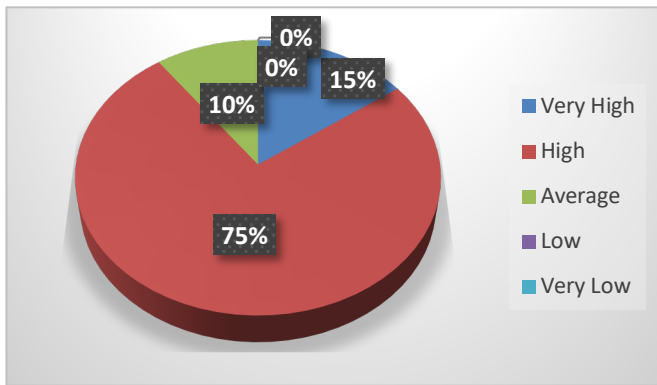
Figure 3. The Independence of Children from Low-Income Families

Overall, from all indicators, the independence of children from poor families is already in the high category, with 75% of teachers saying that children are independent. There are no children who are not independent.

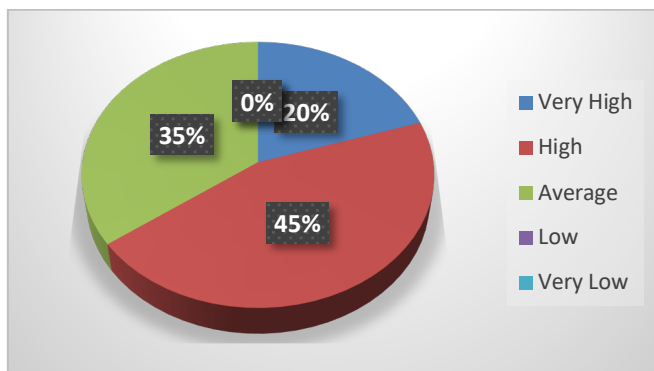#### 4.1.2.1 Indicators of Independence in the Aspect of Physical Ability

Figure 4. Physical abilities

From the figure 4, it can be seen that most children have high physical abilities which is as much as 45% of teachers say that children can go to the toilet alone, brush their own teeth, and wear shoes and can feed themselves

4.1.2.2 Indicators of Independence on the Aspect of Confidence
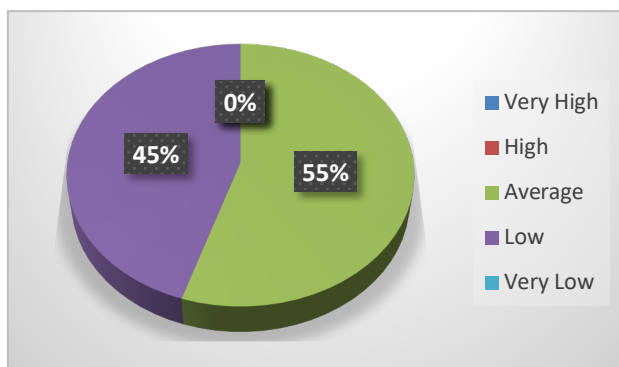

Figure 5. Self Confidence

From the figure 5, it can be seen that most children (55%) have a value average independence aspect of self-confidence. Children do their own work, dare to ask if they do not understand, are not afraid to go to school alone, and can be left at school.

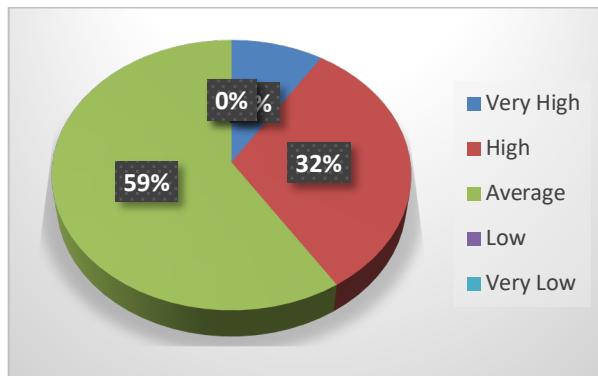### 4.1.2.3   Indicators of Independence in Responsible Aspects

Figure 6. Responsible Aspects

From the figure 6, it can be seen that most children are already independent in the aspect of responsibility, 32% of children are already in the high category.

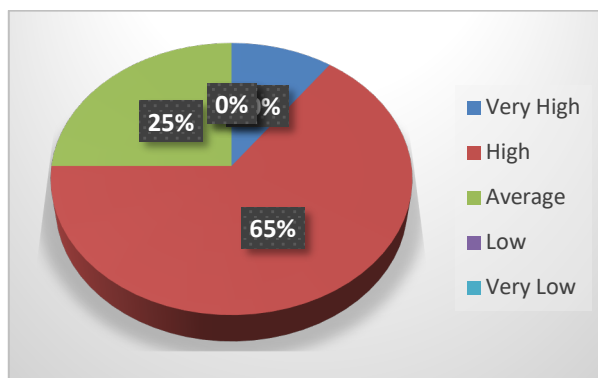### 4.1.2.4   Indicators of Independence in Disciplinary Aspects

Figure 7. Disciplinary

From the figure 7, it can be seen that 65% have a good habit on disciplinary. Most teachers answer that children do not go to school late, throw trash in their place, obey the rules at school, and always sit neatly when studying.

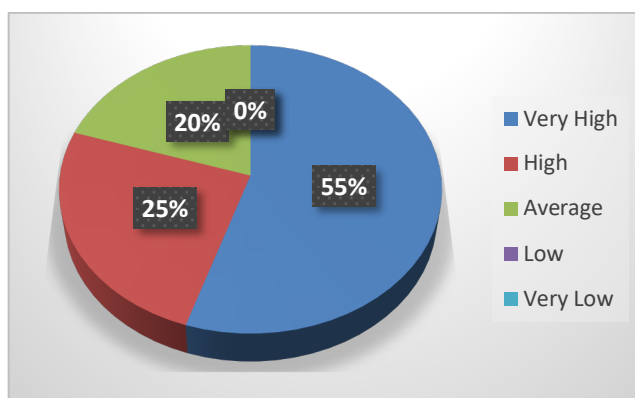### 4.1.2.5   Indicators of Independence in the Social Aspect

Figure 8. Social Aspect

From the figure 8, it can be seen that most children already have quite a high degree of independence, most of which are 55% of children in the very high category.

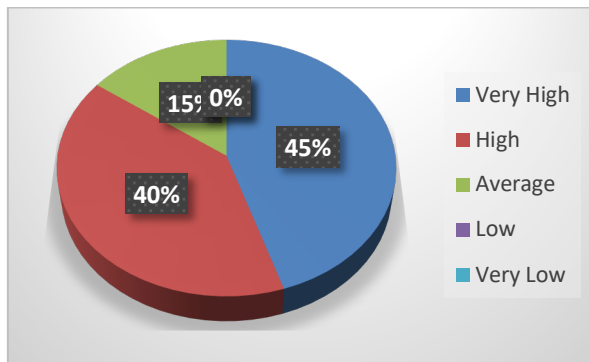### 4.1.2.6 Indicators of Independence in Mutual Sharing Aspects

Figure 9. Mutual Sharing

The independence of children in the aspect of sharing is largely already high, 45% of children are already in the very high category.

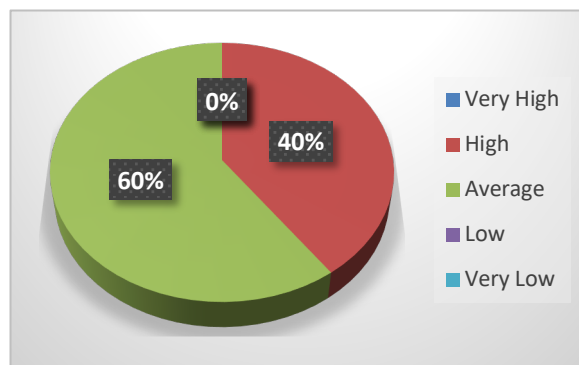### 4.1.2.7 Indicators of Independence in Aspects of Controlling Emotion

Figure 10. Controlling Emotions

From the figure 10, it can be seen that most children already have quite a high in controlling emotion aspects, most of which are 60% of children in the very high category.

4.2 *Discussion*

Independence of children in aspects of controlling emotions 60% of children are independent and able to control emotions. The teacher says that the child does not shout when scolded, the child does not cry when he wants something, the child does not get angry when his friend mocked and did not shout when disturbed by his friend. Based on research findings show that in general many children are still having difficulty in developing good relationships with others. Emotions and social processes are a series of processes for children to acquire knowledge, attitudes, and skills to recognize and manage their emotions, set and achieve positive goals, show concern and care for others, build and maintain positive relationships, make decisions, take responsibility responsible, and handle interpersonal situations effectively. The facts from the results of the research on high self-reliance in children are related to positive parenting that may occur accidentally due to coercive circumstances. Positive parenting is another fact that relates to essential social skills. Appropriate upbringing and, in particular, greater participation of mothers in family routines has been found to correlate with children's cooperative attitudes, self-control behavior and generally greater social skills. Therefore, the concrete results of Charilaos et al., (2018) research clarify that the understanding of strong emotions and supportive parenting can foster children's independence.

This is in line with the results of this study which found only 3% of all child respondents who did not have problems in managing emotions. However, this ability is strongly influenced by the environment, is not permanent, can change at any time. In addition, caregivers or parent help their children successfully deal with negative arousal under challenging circumstances by reading the signals of their children, predicting changes, redirecting focus and/or listening to the needs of their children in a timely way. In the sense of a caregiving partnership, children learn how to exercise these talents. Over time, these interactions of co-regulation help children develop self-directed mechanisms to control their own thoughts and attitudes while experiencing difficulties (Brophy-Herb et al., 2012).

The findings of the study on independence in disciplinary aspects, in children with low-income families in Pekanbaru, it was found that the children's independence was quite high. This is related to a simple life which forces parents to encourage children to be more independent due to the inability to serve children's needs or not being able to hire caregivers. This is in line with research findings regarding inhibitory control abilities and the abilities to shift focus from the desired object are some of the previously developed self-regulating abilities found in infancy (Cirino et al., 2018). Children whose mothers have a more constructive influence, with positive involvement, instruction, and strengthening children's obedience has a positive impact on parenting with the growth of children's independence, a sense of responsibility, and social skills.

The most important finding is the result of children's independence in sharing with friends. It is quite surprising when this sharing attitude comes from children with low-income families. Logically, children from this environment should have difficulty sharing, because they themselves are always in need. However, field findings suggest different things, these children have quite high independent values in the aspect of sharing. This may grow from imitating the attitudes of adults in their environment. Children's attitude factors are known as factors that can change the way of parenting, which is marked by the character of the child (Ellis et al., 2011). Several studies have shown that the influence of children such as race (Rhoades et al., 2011), moderates the relationship, between parenting and executive activities with respect to executive functions, a construct related to self-regulation (Fay-Stammbach et al., 2014).

5 CONCLUSION

The independence of children from poor families is in the high category, where as many as 75% of teachers stated that the children were independent: (1) most children have high physical abilities which is as much as 45% of teachers say that children can go to the toilet alone, brush their own teeth, and wear shoes and can feed themselves, (2) 55% that most children have a fairly high independence aspect of self-confidence, (3) that most children are already independent in the aspect of responsibility, namely 59%, 32% of children are already in the high category, (4) No child is undisciplined. Most teachers answer that children do not go to school late, throw trash in their place, (5) that most children already have quite a high degree of independence, most of which are 55% of children in the very high category, (6) children in the aspect of sharing is largely already high, 45% of children are already in the very high category, and (7) most children already have quite a high in controlling emotion aspects, most of which are 60% of children in the very high category. The results of this study are expected to become a reference for related parties, especially the world of education to pay attention to children who come from poor families in order to stay in school and maintain their independence.

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Mother's Perspective About Using the Gadget Safeness for Children

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ABSTRACT: The rapid development of technology makes it easier for mothers to provide stimulation related to growth and development using gadgets. However, parental knowledge is needed about the safe limits of using a gadget in early childhood. This study aims to determine the perspective and behavior of mothers about the use of gadgets in toddlers. The method used is quantitative research with a cross-sectional approach. The participants of this study were thirty-one mothers who have early childhood and who are empowering family welfare. The inclusion criteria were mothers who agreed to be respondents, the exclusion criteria for mothers who did not have gadgets. This study uses a questionnaire measurement instrument for data collection. Data analysis was performed univariate and bivariate using the chi-square test. The results of the study concluded that the mother's knowledge regarding the safety of using a gadget was still lacking, with a value of around 54.8%, while the mother's behavior related to the same thing was better, which was around 58.1%. The relationship test shows that there is a strong enough relationship between maternal knowledge and maternal behavior in introducing or using gadgets in toddlers.

Keywords: Early Childhood, Mother Perspective, Gadget Safeness

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1 INTRODUCTION

Today's digital devices have become an important part of everyday life, especially millennial. So that parents and children become gadget fans, and sometimes parents cannot prevent children from being intensely involved with gadgets. Digital devices these include electronic games, home computers, handheld devices, and different types of gadgets. Sundus's (2017) research exposes the positive and negative impact of gadgets on children. His research report concludes with recommendations for further study of better understanding of more problems in children by increasing the influence of gadget. Increasing numbers of children are using various technologies and digital devices (Jones & Park, 2015), and in younger children. Parents report the use of new technology by their children even at the age of one (Mifsud & Petrova, 2017). Mobile devices are prevalent among children between the ages of one to eight with a large number of young children playing with smart phones and tablets at home and have been little to say about the various factors that influence the use of technology in family settings (Plowman et al., 2012).

It is important to consider the online actions of young children in order to understand parenting in the modern age, since the behaviors that children participate in with digital technology will contribute to various kinds of consequences. Findings relating to harmful interactions and consequences and suggest that the usage of children's technologies may be connected to material risks (e.g., viewing images unsuitable for children), communication risks from strangers, and action risks such as online aggression (Sonia Livingstone et al., 2017). The emerging reality of the use of digital media by young children has prompted parents to balance the dangers and benefits of the material their children may experience online. Smahelova et al., (2017) results study has demonstrated that parental mediation is a complex mechanism that parents and children co-construct according to context.

Parents play an important role in influencing children's interactions with digital devices (Marsh et al., 2017). A broad accumulation of information on all facets of parental mediation is needed in order to achieve a better understanding of the challenges faced by parents in integrating their role in reducing and avoiding the negative impacts of the use of gadget by children, on the one hand, with that of offering them the digital provided by digital media, on the other (Zaman & Mifsud, 2017). Previous findings with Marsh et al., (2017); Plowman et al., (2012) have shown that Internet literacy is developed in young children early on (0-8), and they learn at home through technology. Plowman et al., (2012) concluded that the ways in which infants, family and technologies communicate help children understand the environment, teaching arrangements, and the role of technology in daily life. In fact, this has led to increased concern that the lack of technological, vital and social skills of young children may pose a danger (Livingstone et al., 2011). Based on the current phenomenon of using gadgets in children, as well as various solutions, this study aims to determine the perspective and behavior of mothers about the use of gadgets in toddlers.

2 THEORITICAL STUDY

Parents provide their children with an important role model, first, through their own viewing practices and interests, and secondly, through the acquisition of such gadgets and technology in the home setting. It is crucial to consider the difference in the media usage of young children at home, since early media exposures are necessary for the formation of preferences, cultures, and potential media behaviors of the child (Nikken, 2017). Parental interest in children's media use is a significant factor in driving the positive consequences of media use on children and controlling for the harmful effects of gadgets on children (Connell et al., 2015; Nikken & de Haan, 2015; Rasmussen et al., 2016). However, the participation of parents in using gadgets for young children varies from household to household. This is based on factors such as the demographic patterns of children and parents, parents' perceptions of the role of gadgets for children, and the experiences of parents and children with the use of media, technology and media applications (Cingel & Krcmar, 2013; Nevski & Siibak, 2016). It shows different challenges in implementing safety rules for using gadgets in early childhood.

It is important to look at the family atmosphere in order to gain more insight into the difference of media use of young children, since it is one of the most important pedagogical contexts for how children come to value the role of a gadget (Piotrowski, 2017). In this sense, much information has been gained over the years on the role of the parent for digital devices use by children. Parental instruction, herein, consists of multiple practices by which parents actively manage and govern the usage of the gadget by their children or any technique that parents use to influence, track or view children's media content (Nikken, 2017). However, speaking of Bandura (1977) social cognitive principles, which postulates that children adapt from and imitate relevant role models, parental mediation can often include unwanted actions that can also affect the child. This means that parents can show role models for their children without realizing it by picking up and finding these digital devices at home and setting up a new technological environment for the child.

In reality, Lauricella et al., (2015) observed that the parent's own use of multiple electronic technologies predicted the time spent on screen media, in particular television and laptops, and to a lesser degree smart phones and tablets, by their children aged 0-8 years. The concept of parents about the benefits and harms of advertising content and technology will determine how much and what media children can access (Lauricella et al., 2015). Several studies have shown a relationship between children's gadget use and mediation techniques for parents (Nevski & Siibak, 2016; Nikken & de Haan, 2015; Vaala, 2014). Children's television usage is often constrained and confined in households where parents are critical of the media (Cingel & Krcmar, 2013). Thus, parents of lower-use households would be more pessimistic about the media and more effectively apply stringent mediation on the media use of their offspring. On the other hand, Livingstone et al., (2015) indicated that parents who are very appropriate users of media technology themselves are less restrictive of the usage of media by their offspring, because, therefore, they cannot limit their own use of media.

Haines et al., (2013) observed that parents who think both about gadgets both for their children's enjoyment and for their parents' personal benefit as well, make children have greater online access in their bedrooms, and become higher media consumers. Therefore, it is possible that parents who have positive perceptions of digital media come from communities that are more widely used. These parents, who are enthusiastic about new media and technology, are also more likely to share media with their children (Lauricella et al., 2015). Parents in households who use gadgets more often feel more competent in implementing gadget use with their children. In addition, because parents are more familiar with computers and games, they are more tech-savvy and more likely to use their own media (Appel, 2012), this can increase the likelihood of parents sharing media with children or letting children use the media by themselves. Parents are also expected to be more proficient in educating families when families use gadgets a lot, compared to families who don't have gadgets.

3 METHOD

This research is a quantitative research with the cross-sectional approach. This research aims to identify the knowledge and behavior of the use of safe gadgets in mothers who have children under five and to analyze the relationship between the knowledge of mothers with the behavior / use of gadgets in their toddlers. This research was conducted through stages, namely data collection, classification, data processing / analysis and formulating conclusions. This research was conducted for two months, April-May 2017. The research location was conducted in Karangpucung Village, which is part of the South Purwokerto region in Banyumas Regency.

The variables in this study are the knowledge and behavior of mothers of toddlers about the use of safe gadgets in children under five. Mother's knowledge includes things that are understood by mothers related to what to do when introducing and using gadgets that are safe for toddlers such as when introducing gadgets according to the age of the child, when playing with children is permitted, mentoring the use of gadgets in children. The behaviors of using gadgets are things that mothers do when introducing / using gadgets to their toddlers.

3.1 *Participant*

The population of this research is all mothers with children under five in Karang Pucung, South Purwokerto. The samples in this study were mothers of toddlers who were active in the management of Dasawisma PKK (ten houses in family welfare program) in Karang Pucung Sub-District, South Purwokerto. Inclusion criteria are mothers of children under five who are willing to be respondents. Exclusion criteria are mothers who do not have gadgets such as smart phones, tablets and laptops.

The ethic of the research was conducted was that mothers were offered to volunteer to become respondents and then stated their willingness and filling out on the questionnaire sheets which were distributed to mothers of children under five. Data collection was obtained through a questionnaire that was distributed to research respondents so that answers were obtained from respondents regarding maternal knowledge and behavior.

3.2 *Research Instrument*

The instrument used in this study was a questionnaire containing questions about gadget knowledge, functions and benefits for toddlers. This instrument also measures the role played by mothers in introducing gadget functions to children, and the supervision carried out by mothers under five in using gadgets to children under five. This questionnaire uses a content validity approach for gadget usage behavior. It shows the extent of the question, assignment or items in a test or instruments are able to represent the overall and proportional behavior of the sample subjected to the test them. The meaning of the test is valid if the test items reflect the entire content or material that is tested. To find out whether the test is valid or not, you must conduct through reviewing the test grid to ensure that the test questions already represent or reflect the whole content or material that should be mastered proportionally. Therefore, the content validity of a test has no magnitude statistically calculated, but it is understood that the test is valid based on a review of the test grid. Hence, validity content is actually based on logical analysis, does not constitute a validity coefficient that is calculated statistically. The validity test carried out in this study is to use the construct validity test. From the results of the Knowledge validity test, there are seven valid questions in a question about knowledge, whereas there are 3. Invalid questions we change the sentence order so that the sentence of the question can be more easily understood by the respondent. The reliability test results of the knowledge questionnaire obtained by Cronbach alpha value of 0.604.

3.3 *Data Analysis*

Univariate data analysis was performed by describing the distribution and percentage of each variable. Bivariate analysis was carried out to determine whether there was a relationship between the variables of knowledge and the behavior of the use of safe gadgets in toddler mothers. The correlation test used in this study is a chi-square-square test.

4 RESULT AND DISCUSSION

4.1 *Result*

Table 1 shows the characteristics of the respondents which represent having children, work, and equipment used at home. The total number of participants is 31 people, with 3 kinds of job criteria, three kinds of digital devices used at home.

Table 1. Respondent Characteristics of mother

No.	Variable	n	%
1	Mother Age		
	a. 20-30 years	9	29
	b. 31-40 years	27	71
2	Toddler Age		

	a. < 4 years	14	45%
	b. 4-5 years	17	55%
3	Mother Jobs		
	a. Seller	1	3,25
	b. Teacher	1	3,25
	c. Housewife	27	27
4.	Gadget Ownership		
	a. Smart phone	23	74
	b. tablet	3	10
	c. laptop	5	16
	Amount	31	100

From the table 1, as much as 74% mothers use smartphone as gadgets used. Table 2 shows the distribution of the amount of the mother's perspective on the safety of using gadgets for children and the habits of using gadgets by mothers, both for themselves and for their children.

Table 2 Distribution Perspective and gadget Usage Behaviour

No.	Variable	n	%
1	Perspective of Gadget Usage		
	a. Less	17	54,8
	b. Well	14	45,2
2	Gadget Usage Behaviour		
	a. Less	13	41,9%
	b. Well	18	58,1%
	Amount	50	100,0

In table 2, the results showed that the behavior of the introduction / use of mother gadget is included in both categories. Mother still limits the use of gadgets to childhood, such as the use of gadgets less than 30 minutes a day. Mothers introduce gadgets to childhood. From the age of over 4 years, at the age of less than 4 years, mothers have not introduced gadgets to childhood.

Table 3 shows the results of the use of data analysis regarding the relationship of the mother's perspective regarding the safety of using gadgets for children in the habit of using gadgets for children.

Table 3 Relationship perspective of Gadget Usage and Gadget Usage Behaviour

Perspective of Gadget Usage	Gadget Usage Behaviour				Amount		p value
	Less		Well				
	n	%	n	%	n	%	
Less	10	58,8	7	41,2	31	100,0	
Well	3	21,4	11	78,6	31	100,0	0,036

The less gadget usage behavior of mothers, comparison of mother's perspective between those who have well knowledge and less of a greater percentage of mothers who have a less level of knowledge than mothers who have well knowledge of 21.4% (see table 3). The results of statistical tests to determine the relationship between the perspective of Gadget Usage and Gadget Usage Behavior. Based on Table 3, it is known that the statistical test results to determine the relationship between the perspective of gadget usage and gadget usage behavior. The test results obtained p-value 0.036 (p <0.05). The results of this study indicate that there is a significant relationship between perspective of gadget usage and gadget usage behavior. This relationship shows the better the mother's perspective in knowledge of the safety of using gadgets for children, the better the behavior of mothers in using gadgets both for themselves and for their children.

4.2 *Discussion*

The findings show that the number of mothers who are well-behaved in using gadgets for their children is higher than those who do not have the habit of using gadgets less well. Some 58% still limit the use of gadgets for childhood, such as using gadgets for less than 30 minutes a day. However, this is inversely proportional to the mother's perspective regarding the safety of using gadgets for children. The results show that the mother's perspective is still not good for knowledge about the safety of using gadgets for children. However, the results of statistical analysis in looking for relationships, the findings are that there is a significant relationship which shows that the better the mother's perspective in knowledge of the safety of using gadgets for children, the better the behavior of mothers in using gadgets both for themselves and for their children.

Parents provide their children with important role models through the practice of using gadgets and such technology in the home environment. Recent research shows three ways parents use gadgets that affect the safety of using gadgets in children. First, by examining the suitability between parent and child time spent by high, low, and medium families, the result is a high number of gadget users and a very large use with various types of electronic and print media. Second, by examining how household, parent and child characteristics differ for these families in absolute terms; and third, by exploring the distinctive relative characteristics of these four family types. It is very important to consider differences in children's media use at home, because early media exposure is necessary for the formation of children's media preferences, culture, and potential behavior.

Based on this opinion, shows how important it is to build a culture of knowledge about gadget safety not only for mothers, but all adults around children. However, the results of this study, which show that many parents limit the use of gadgets to their children, and the data show that mothers' lack of knowledge on the safety of using gadgets has shown a quite sad phenomenon. Parents limit the use of gadgets to children not based on their knowledge of the safety of using gadgets, but rather not knowing how to use or maximize the use of gadgets in children. This is in line with Appel's (2012) research, which states that parents who use gadgets more often feel more competent in implementing gadget use with their children. In addition, because parents are more familiar with computers and games, they are more tech-savvy, tend to use media, and are more willing to introduce technology media to children from an early age. Recent research also states that the use of media by young children demands a mediating role from parents to keep up with the times (Troseth et al., 2017).

The researchers concluded that the research finding that shows a contradiction between the value of the mother's perspective on knowledge of the safety of using gadgets in children with the value of the behavior of using gadgets is a phenomenon in developing countries. Information that reaches parents is the dangers and dependence of children on gadgets that make parents afraid and tend to put excessive limits on the use of gadgets. However, excessive fear of parents makes children who are digital experts lose the opportunity to develop their skills in the field of digital technology. Children will have a hard time dealing with artificial intelligence. The importance of digital skills in parental mediation, however, could exacerbate the very inequalities that certainly explain observed differences in digital skills for parents or children. Parents who are more fearful or less skilled (or whose child is less skilled) reduce both the online opportunities of the child and their chance to develop resilience by reducing their exposure to adversity (Livingstone et al., 2017). In the meantime, more qualified children and parents are likely to be freer to explore and benefit from online and digital devices opportunities, while at the same time building resilience to harm by meeting a degree of online risk. Therefore, recommend not only that digital skills be taken care of in future parental knowledge research, but also that parental knowledge be taken care of in future digital inclusion and exclusion research.

The degree to which families make use of media devices is often correlated, as predicted, with the capacity of the child to manage these digital media, at least in a cognitive context. Children have a lower understanding of how to operate the gadget as parents make less use of the gadget and what drawbacks can occur. It is too early to conclude that the gadget consumption of the parent functions as a direct example of the use of gadget by young children and thus an improvement in understanding how to manage gadget content (Nikken, 2017). However, these findings

suggest that a child's willingness to understand how gadgets work is a significant influence even at a very early age and is often linked to the extent to which their parents use gadgets other than the child's own media exposure. In comparison, lower class parents still lack confidence in applying their children's knowledge of gadget usage. Further analysis of the relationship between parental familiarity with the content of new gadgets, new ability to use their gadgets, and their capacity to limit children's gadget use, suggests a harmonious relationship. When parents themselves are less familiar with modern gadgets, helping their child with new technology new become more difficult for them.

The results of this study are expected to open the eyes of the government or related agencies in order to educate parents, especially mothers, who have a lot of interactions with early childhood at home. In order to meet the needs of parents in various types of knowledge related to gadgets or other digital devices, so that parents able to balance the use of gadgets at home and able to protect children from the bad effects of digital devices.

5 CONCLUSION

The research findings show that there is a relationship between the mother's perspective on the safety of using gadgets and the behavior in using gadgets for children, so that there is a tendency for maternal knowledge to be in line with the behavior of using gadgets. The most important outcome is the mother's understanding of gadget use in childhood. Mothers must understand the functions and benefits of using gadgets for children, but in providing assistance in the use of gadgets for children, parents must limit usage time and pay attention to the appropriateness of the content introduced. The implication of this research is that it is necessary to disseminate information to childhood mothers regarding the approach to using gadgets in childhood, because this information will provide direction to mothers in providing efforts to introduce gadgets in childhood.

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Early Discipline Behavior: Read aloud Story with Big Book Media

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ABSTRACT: Disciplinary behavior increases children's responsibility and self-control skills by encouraging mental, emotional and social growth. This behavior is also related to school readiness and future academic achievement. This study aims to look at read aloud with the media of large books in improving disciplinary behavior during early childhood. Participants were 20 children aged 5-6 years. By using qualitative methods as a classroom action research, data collection was carried out by observation, field notes, and documentation. The results of pre-cycle data showed that the discipline behavior of children increased to 42.6%. In the first cycle of intervention learning with ledger media, the percentage of children's discipline behavior increased to 67.05%, and in the second cycle, it increased again to 80.05%. Field notes found an increase in disciplinary behavior because children liked the media which was not like books in general. However, another key to successful behavior of the big book media story. Another important finding is the teacher's ability to tell stories to students or read books in a style that fascinates children. The hope of this intervention is that children can express ideas, insights, and be able to apply disciplinary behavior in their environment.

Keywords: *Early Discipline Behavior, Read aloud, Big Book Media*

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1 INTRODUCTION

Early childhood climate classroom is one of the most dynamic and critical problem's teachers may face because pre-school classes are increasingly overwhelming teachers. Disharmonious classroom activities are trying to be handled in the United States in order to be accepted by the public as one of the top three problems facing public schools. How teachers are involved and deal with these disciplinary problems has the most impact on the socio-emotional well-being of children and their classroom environment (Galini & Kostas, 2014). Due to the increasing number of young children entering childcare centers, early childhood teachers now face more developmental management challenges (Iraklis, 2020). Class discipline is a multi-dimensional theory, according to Zachos et al., (2016), where consensus has not been reached. This is perhaps not surprising because, based on different teacher approaches, definitions will take different positive or negative forms. Iraklis (2020) states that teachers are free to choose from a variety of strategies and methods. Various techniques underlie disciplinary learning, the extent to which the purpose of disciplinary relationships is to secure order or to teach values associated with some of the variables controlling their application. So, in some circumstances, teachers are unable to discipline the classroom the way they want.

Early childhood education that upholds character values in everyday life and shapes children's character (Turuini et.al., 2018). This is considered important because it will have an impact on the psychology and resilience of children in adulthood. The character values that need to be built from an early age are discipline. Guidance is needed in shaping disciplinary behavior from children to show orderly behavior and follow rules (Aulina, 2013). Cultivating this disciplined behavior provides benefits such as a sense of security, comfort, confidence to make children independent. In addition, this disciplinary behavior makes it easier for children to interact in their environment both in the family environment and in the community. Efforts to instill disciplined behavior in children requires the right method. Septyanigrum and Mas'udah (2015) on the method of storytelling in children aged 5-6 years, show that storytelling methods affect children's discipline and can be used to instill honesty, courage, loyalty, and friendliness. Discipline behavior can help children interact in everyday life.

The results of research conducted by Martha et al., (2012) on disciplinary behavior of children who are able to comply with rules because teachers communicate with children and talk about mutually agreed-upon rules. In addition, discipline can be built through storytelling and habituation methods (Andriana et al., 2017). Appropriate methods, and interesting media are also needed to support the development of children's disciplinary behavior. The use of picture books on improving disciplinary behavior shows effective results Eagle (2012). Using ledger media with the theme of obeying the rules to highlight the character of honesty is proven to be able to build children's character. Ledger media is one type of image media that can provide exemplary character learning in the story (Turan & Ulutas, 2016).

Based on preliminary research with observations and interviews conducted on children aged 5-6 years at Harapan Bunda 1 Kindergarten Palembang, it was found that out of 20 children, there were 14 children (80%) who showed undisciplined behavior. For example, lack of manners when eating, talk too much, shout and walk around when others are sitting. The children also do not throw garbage in the place, and sometimes want to overtake their friends when they are waiting in line or waiting for their turn. In addition, 60% of children are late in coming to school for reasons of difficulty getting up early, or children talk a lot so that the assignment given by the teacher is not complete. While playing and working on assignments, children leave toys and equipment without being tidied up.

Children must also repeatedly be reminded by the teacher to tidy up their toys, and also children like to interrupt the conversations of teachers and other friends. The fact that learning activities using worksheets, drill and practice methods often cause children to get bored and create chaos. When the child's response is bored and does not emphasize learning activities, the teacher sometime punishes children without consequences and is inconsistent in giving praise and warning to children. Teachers in the process of learning activities still use the old manual with discussion material and fun learning media that do not vary. This has attracted the attention of researchers to

conduct action research and cure bad habits of discipline in children with media that are attractive to children and effective for learning purposes. Based on the results of literature analysis and preliminary research observations, the researcher did a retrace using a modified big book media with the lift of a flap method to improve children's discipline and the aspects behavior that are studied include showing obedience, order, and orderly behavior. So, this study aims to improve disciplinary behavior in children aged 5-6 years by telling stories using large books.

2 THEORITICAL STUDY

2.1 *Disciplinary Behavior*

The central element of disciplinary awareness is based on the "Brain Condition Model" of the curriculum. According to this conceptualization, in order to successfully learn self-regulation, children must feel protected and respected (Bailey, 2015). The current curriculum shows that for successful problem solving and learning, self-regulation is essential. In addition, Conscious Discipline highlights the importance of developing an environment in the classroom where children feel comfortable and can interact with others socially so that they can develop the skills needed for self-regulation to participate in academic activities (Bailey, 2015). In addition to fostering feelings of protection and emotional attachment, the curriculum was developed by the inventor of Conscious Discipline so that children learn adequate self-regulation skills by studying the example's adults present to them. In addition, the purpose of the curriculum is for teachers to learn how to handle their own emotions, feelings and behaviors efficiently so that they can teach students these skills (Bailey, 2015). Conscious Discipline aims to give children active knowledge of their feelings with the scaffolding of their teachers in order to prevent impulsive actions and to engage in higher-order problem-solving skills, which are important components of executive function (Anderson et al., 2020).

Teachers using the Mindful Discipline curriculum, for example, are encouraged to mark the emotions of their own heirs verbally, use techniques to control emotions (such as deep breathing), and discuss problem-solving methods in class so that students develop effective strategies for managing their own actions. This teacher modeling can help students build techniques for emotional management by presenting blueprints for internal speaking habits that promote self-awareness, which in turn can reinforce children's disciplinary behavior (Bailey, 2015). Therefore, it is important to provide various teaching materials or media to develop various learning models that can improve children's character, especially disciplinary behavior. A quasi-experimental study found that children who studied in a class with Conscious Discipline reported a much greater reduction in problem externalizing behavior relative to peers in a supervised classroom (Hoffman et al., 2005).

The application of disciplinary behavior in children is done through habituation. Habit needs to be instilled from early childhood and cannot be done by force. During the preschool period, children do not really understand what attitudes are acceptable, the teacher's job is to educate or guide children so that they can be accepted by their environment. While in the classroom during learning activities, the teacher must not force the child to teach disciplined behavior. The main point of discipline is rules (Moberly et al., 2014). Therefore, teachers and children need to agree in determining and making rules that apply in class.

Discipline is voluntary behavior (without coercion) that shows the regularity of applicable regulations (Aulina, 2013). Discipline also regulates behavior, self-control, and mental attitudes. The code of ethics that needs to be applied in this discipline must be applied in everyday life. When children have disciplined behavior, they have a habit of following and applying the rules that are made together. Thus, discipline is a person's ability to follow applicable rules that reflect obedience, regularity and regularity to the various provisions given in accordance with age development without reward that can be applied in a child's daily life. Discipline behavior provides positive benefits for children. When children have disciplined behavior, they can follow rules without coercion that come from their own desires (Longstreth et.al, 2015). Besides that, it can also from behavior following the rules that apply in the child's environment. Teachers as role models for

children need to follow and maintain behavior (Ho et al., 2017). If the teacher reflects disciplined behavior and the child follows every rule in class, this will have an impact on the learning process before and after classroom activities are carried out.

2.2 *Read Aloud Story and Storytelling Using the Big Book Media*

In modern schools, reading aloud in the classroom is known to be one of the most widely successful literacy techniques, offering young learners a wide spectrum of literacy skills. Research shows that incidental learning of new words used in stories is facilitated by the practice of reading aloud to children. The more than children are read to, the more the language gains more substance (Penno et al., 2002). In addition to these early vocabulary learning advantages (Farrant & Zubrick, 2012), reading aloud facilitates enhanced exposure to words, helping young people learn important developing literacy skills that encourage greater growth in reading, including phonological awareness and word recognition.

As such, it is unsurprising that more recent research associates reading aloud with cognitive growth in a spectrum of literacy learning (Mol & Bus, 2011), expanding beyond reading ability, including a positive impact on numeracy outcomes (Kalb, G., & van Ours, 2014). Read-aloud programs may facilitate the enhancement of struggling learners at risk of reading problems, benefiting from children's language, phonological awareness, printing concepts, understanding and vocabulary results (Swanson et al., 2011). The improvement of decoding skills and the promotion of reading comprehension in speakers of English as an Additional Language have both been correlated with read-aloud. An analysis of the report on encouraging autonomous silent reading skills in failing learners shows that learners benefit from providing a fluent reading model and, obviously, the most successful way to achieve this is to provide an adult has the model where possible (Chard et al., 2002, p. 404). Struggling teenage children also benefit from exposure to reading aloud in the classroom with significant reading comprehension (Westbrook et al., 2019).

Read-aloud to kids will promote good reading attitudes. Latest study has shown that teachers are considered by their pupils to be reading models as they read aloud to their children with speech and emotional engagement (Margaret Kristin Merga, 2015). Children usually continue to love being read to middle school (Clark & Andreasen, 2014) and beyond, while reading aloud is frequently limited beyond the early years of school (Margaret Kristin Merga, 2017). When asked about the social forces that make them avid readers, older readers frequently equate reading aloud with developing a continued love of books and reading and a lifelong reading identity (Margaret K. Merga, 2017). Exposure to reading aloud will lead to greater interest in and involvement of students in silent reading (Pegg & Bartelheim, 2011).

Reading aloud at school is therefore invaluable for the opportunity it brings to children inside the household who are not read to. If these children may undergo other ways of helpful and rich experiments in oral literacy, it is nevertheless, significant that more than a quarter of primary school-aged children are not read at home (Ledger & Merga, 2018). In the school setting, teachers ought to ensure that children gain daily exposure to this experience. Reading aloud is not generally a hallmark in mainstream schools, considering the importance of reading aloud as an important pedagogical element. Current data shows that most kids are often only heard by their teachers, with only 3.4 percent of kids reported being read by their teachers every day ((Ledger & Merga, 2018).

A large-format book with large-print texts and illustrations Colville-hall & Oconnor, (2006) is defined as a big book. The same argumentation notes Brown (1970) that the big book is a book with large prints and vivid drawings that helps the teacher to share a good story with the whole classroom. The use of large books in students' reading experiences will enhance the creativity of students and reflect on reading. There are many important features to a good large book learning experience. Large books are (1) short stories that quickly engage the attention of learners. (2) have a sequence of rhyme that children note and understand. (3) large books that help develop context. (4) include repeated phrases and a controlled vocabulary that helps with vocabulary learning. (5) include a basic yet entertaining plot line, and (6) contain comedy components. The use of big books as a teaching tool helps elementary school students learn English, especially in the

interpretation of a reading text. In comparison, the use of large books could also help the instructor draw the interest of students and expose students to new words (Mahayanti et al., 2017).

3 METHOD

The research used action research method. The research design in which this action describes the spiral Kemmis and McTaggart (1988) model includes (1) change plans, (2) action and observation of the change planning process, (3) process and consequence reflection, (4) re-planning, (5) action (6) reflection. This research was conducted at Harapan Bunda 1 Kindergarten Palembang. The implementation of this research was carried out in the odd semester of the 2019/2020 school year. Participants in this study were amounting to 20 children aged 5-6 years.

3.1 Instrument

Discipline is a life that has a broad scope, in general discipline is a part of mental and character training so that all one's actions are in accordance with the prevailing order. Discipline needs to be applied to children as early as possible. Because discipline is very important to change the behavior of children who were originally undisciplined to become disciplined. In this study, the instrument used to measure children's disciplinary behavior is an indicator of adjustment from three aspects. The collection of instrument data can be seen in table 1.

Table 1. Disciplinary Instrument Grid

No	Aspect	Indicator	Item	Amount
1	Obedience	Obey the rules	3,8,9	3
		Carry out orders well	10,11,12	3
		Able to carry out and complete assigned tasks	1,2,7	3
2	Regularity	Put the object back in place	13,14	2
		Tidying up again after use	15,16,20	3
3.	Order	Patiently waiting for their turn in activities	17,4,6	3
		Follow activities in an orderly manner	19,18,5	3
			Total	20

3.1.1 Procedure

Researchers collaborate with class teachers, observe and reflect to be able to determine the increase in the success of children's disciplinary behavior by telling stories using big book media in each cycle. Before storytelling activities using the big book media, the teacher makes plans by preparing media with eight different themes to be used in the learning process. After completing the planning, the teacher plans to read aloud activities with the children by making a collective agreement. After completing the regulations, the teacher starts the activity by telling stories using the big book media with the themes that have been prepared, namely: (1) Shinta and Tina are good at tidying up toys. (2) Ando who likes to wake up early. (3) Rahma and Aulia tidying up stationery. (4) Zaniel, and Ando happy to tidy up the cutlery. (5) Audy and Kirana are neatly lined up. (6) Zaniel and Kirana who patiently waiting their turn. (7) Zaniel and Audy were happy to listen to Mother Guu's orders. Furthermore, the teacher observes the children to see an increase in behavior in the process before, during and after storytelling activities using big book media. The teacher reflects on seeing the child's behavior that has not improved so that it can be corrected again with the results of the assessment sheet on indicators of disciplinary behavior including obedience, regularity and order. Big book learning media to improve children's disciplinary behavior with eight different titles, the appearance of the book can be seen in figure 1.

Figure 1. Big Book Media with Eight Different Tittle

3.2 *Data Analysis*

Researchers analyzed all findings about the process of improving disciplinary behavior in children aged 5-6 years by telling stories using big book media. There are two ways to analyze the data, namely qualitative and quantitative data analysis. Qualitative data analysis activities were carried out interactively and continued until completion, so that the data was saturated. Activities in data analysis are data reduction, data presentation, and drawing conclusions or verification (Milles; & Huberman, 2014). Quantitative data analysis uses the calculation of the percentage increase in children's disciplinary behavior before and after taking action using the big book media.

4 RESULT AND DISCUSSION

4.1 *Result*

Pre-cycle data were obtained from observation, interviews, and documentation during the pre-cycle. The initial assessment was carried out in February 2019. During the pre-cycle implementation, researchers encountered problems with children's disciplinary behavior. There are children who have not shown obedience, order, and order during class, and children who do not put toys in place. There are children who can't wait for their turn to wash their hands, who don't come on time. Furthermore, children who like to criticize when the teacher is explaining, do not tidy up stationery, patiently wait for their turn, tidy up cutlery, and line up neatly in every activity. Many children have low discipline behavior. One of the reasons for the low level of discipline in children is that teachers dominate classroom activities and only use the lecture method and rarely use media in every learning process that takes place. So that it makes children grow up and become less interested in the learning process.

The learning implementation that will be carried out in improving disciplinary behavior in cycle 1 will be carried out in December 2019. The results of the researchers' observations show that during storytelling activities, the use of big book media is according to plan, but there are still some children who must always be reminded to comply with the regulations in class, reminded to come to school on time, patiently wait their turn, listen to the teacher's orders. In addition to the process of observing the implementation of activities, researchers also made observations on all children. Observations made by researchers were made on field notes and used as an assessment of each activity carried out. Based on the results of data analysis in the first cycle the percentage of yield reached 67.05% and increased again in the second cycle to 80.05%. This proves the increase in children's discipline behavior increases. Ledger media is one of the media choices that can be used to improve the discipline behavior of children aged 5-6 years.

In the cycle II (see table 2), the average disciplinary behavior of children has increased by 70 points (in a percentage of 75.75%). Children become accustomed to being disciplined, obeying the rules of storytelling, coming to school on time, tidying up toys after use, throwing trash in their place, tidying up cutlery, tidying stationery, patiently waiting their turn to wash hands, and doing activities, lining up neatly, tidying up tables and chairs after use, tidy up the bag. The results of the analysis of this study indicate that storytelling using the big book media can improve the discipline behavior of children aged 5-6 years. This can be seen from the three aspects and 20 items that the researcher will use, including aspects of compliance, regularity and order.

Table 2. Pre-cycle, Cycle I, Cycle II

No	Name	Pre-cycle	Cycle I	Cycle II
1	AC	40	71	82
2	AF	41	72	81
3	AP	40	73	79
4	BP	39	66	84
5	DK	40	61	83
6	FI	39	65	79
7	IFAH	41	63	84
8	ARM	40	64	70
9	MAFM	39	65	90
10	MAAH	58	85	92
11	MKAH	58	82	91
12	NDA	58	83	91
13	NPK	40	59	81
14	RKO	40	69	83
15	MSS	40	60	79
16	SAY	40	60	78
17	TO	39	61	62
18	VAP	40	60	83
19	ZKR	41	62	65
20	RA	39	60	63

Figure 2 shows the results of observations made by researchers to assess the improvement of children's disciplinary behavior from pre-cycle, cycle I and cycle II, as evidenced by the results of the second cycle of children showing better disciplinary behavior. From the results of the analysis showed that cycle II experienced a better improvement than cycle I.
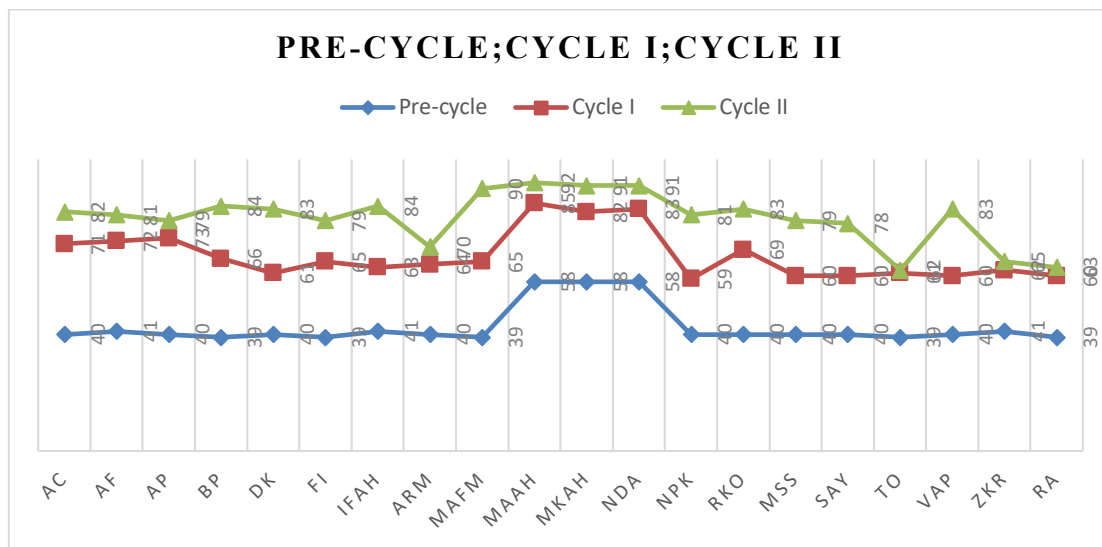

Figure 2. 1.1 Pre-cycle - Cycle I - Cycle I

4.2 *Discussion*

Efforts to foster disciplinary behavior in early childhood must be carried out by providing interesting learning and media. This is because using attractive media can make children more enthusiastic about the learning process. The implementation of research that has been carried out by researchers can show that in the learning process, using storytelling media can improve children's disciplinary behavior and can be applied in children's daily lives. Teachers and educators should pay attention to the effects of storytelling and design more environmental storytelling projects for children for this purpose (Yılmaz et al., 2020). In social life, the rules of discipline regulate behavior in developing adherence to the rules and regulations which must be based on the encouragement and will that come from within the child. So that discipline is exercised in obeying the rules of good and bad without reward.

Giving action by telling stories using the big book media is a form of fun activity for children to stimulate optimally children's disciplinary behavior. Like children tidying up stationery after use, tidying up toys after use, throwing trash in their place, arriving on time, queuing neatly, waiting patiently for their turn, listening to teacher orders, and tidying up cutlery. Storytelling activities using ledger media are not only to improve children's disciplinary behavior but also to build children's lifestyles for the better. In line with recent research, which remains the definition of classroom management, it moves away from traditional definitions rooted in strict discipline and excessive teacher control to become learning that focuses on creating a positive learning environment. Each component focuses on why and how teachers can meet the needs of all students to create learning environments that proactively engage them while reducing behavioral problems in the classroom (Davis, 2017).

The application of storytelling using ledger media has a positive impact because children become very enthusiastic, excited, pouring ideas or ideas into the learning process. In the process of telling the story, the teacher is the key to the success of delivering messages from the ledger media. The optimal preparation of the teacher makes reading aloud to be meaningful in the hearts and minds of children, in addition to large pictures and letters that can hypnotize children. Teachers do not need to impose punishment on children who are disorderly, teachers who have a good strategy will have more abilities to use learning media such as the big book. In line with the results of Aksoy's (2020) research, it is revealed that preschool teachers generally follow various suitable techniques to create a warm learning atmosphere in their class. It was reported that the behavioral change-based disciplinary approach was mainly used, and that the educational and communication approaches were partially successful, while the assertive disciplinary approach was rarely used. It is recommended that teachers disciplinary methods and techniques for dealing with difficult activities should be positively reinforced by encouraging preschool teachers' awareness, skills and perspectives in classroom management.

4.3 *Limitation*

During the research process, researchers have made every effort. However, of course there are shortcomings in the ongoing process, namely, the limitations of the researcher in documenting both with photos and videos during the activity, and the limited time for the researcher in conducting minimal research.

5 CONCLUSION

The use of big book media can improve children's disciplinary behavior. The application of storytelling using big book media can have an impact because using big book media that has a large image and writing size makes children enthusiastic, excited, expressing their ideas and ideas in the learning process. The process of implementing storytelling uses big book media, where the teacher invites children to tell stories according to the theme that the teacher will arrive at in the learning process. The teacher told the story to improve children's disciplinary behavior, namely: tidying up toys, tidying up tables and chairs, disposing of trash in their place, coming to school on time, tidying up stationery after learning. Based on the description previously explained, the

approach through the big book media can be applied to the learning process of children's disciplinary behavior. Based on the theory and concepts put forward by the researcher, the hypothesis in this study is that the use of big book media can improve the discipline behavior of children aged 5-6 years in Harapan Bunda 1 Kindergarten Palembang. Every implementation of the process of learning activities for children must be done repeatedly.

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Parenting E-book: Coping Early Childhood Education Problems During Learning from Home

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ABSTRACT: During COVID-19, early-childhood school closings led to higher levels of stress in parents when compared to childless adults. In addition, lack of time to prepare, as well as mental-health problems, worry, and stress in parenting, may have hampered parents' ability to support their children's educational needs. The research aims to solve the problem of early childhood parenting during learning from home and improve the quality of early childhood parenting. The research method uses the research and development stage of the Borg & Gall model. Participants are mothers who have children aged 5-6 years. The data collection technique was done through expert validation and effectiveness testing with a quasi-experimental design. The data analysis used paired t-test statistical analysis. The findings show that the validity of the results of the material expert's test is 96%, and the media expert's test is 94% in the very good category. The effectiveness test based on the pre-test and post-test results showed that Sig. (2-tailed) <0,05 (α), which means that the parenting e-book media significantly increases mothers' understanding of parenting well-being practices in early childhood. The implications of this multimedia-based anyflip e-book can be downloaded via gadgets, android, laptop, practical, easy to read and repeated to accompany childcare activities from home.

Keywords: *Anyflip E-book, Early Childhood, Parenting*

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1 INTRODUCTION

The coronavirus (COVID-19) has spread worldwide and has had a significant public health effect. Since the discovery of COVID-19, numerous public policy initiatives have been made to control the virus, which could have unintended long-term harmful effects on children and families. For example, in many nations, schools are currently closed to slow down the transmission of COVID-19. According to the United Nations Educational, Science and Cultural Organization (UNESCO, 2020), school closures have impacted more than 1,05 billion students (60.5% of total enrolled learners) in 106 countries attending preschool, primary, and secondary schools. In response, teacher have been modifying their programs so that when living at home, children can engage in distance learning. The readiness of schools to have distance learning, however, relies on the school and family support available, which can worsen school inequalities (Tran et al., 2020) (Tran et al., 2020). Learning at home with younger children means that parental support is needed. This abrupt transition to distance learning and the difficulties it poses are a matter of concern because these shifts can increase the possibility of parents feeling parental tension and parental burnout without adequate care for parents, which can adversely affect children in turn (Griffith, 2020). Children are also at increased risk of screen time overuse during class suspension, which can be harmful to their development (Bruni et al., 2015; de Jong et al., 2013).

The efforts of teachers with parents to deliver learning programs at home, with the conditions for the beginning of the COVID-19 pandemic where parents were required to deliver or control educational programs at home because of the cessation of direct learning and the closure of schools, had many negative impacts, such as learning lost son. Many schools have turned to online resources to promote home teaching with hands-on instructional experiences, but this is not going well, most schools are taking poorly planned steps during COVID-19, and the solutions are very poor (Nuñez et al., 2020). The minimum pressure of at-home schooling requires adult oversight at periods when children may normally have been super-vised by a teacher in school buildings was an obstacle in the move to at-home education. Learning from home in many ways, requires increased commitment from parents to ensure that children recognize and complete instructional programs (Lee et al., 2021).

Lau and Lee (2020) stated in their study that during the pandemic, many children face difficulties in carrying out distance learning activities at home, with the main difficulties being the child's lack of desire to learn, and the disadvantages associated with the home environment. They cannot complete study assignments independently. During school closings, more parents who did not master or own online learning tools became unhappy with distance learning. To improve children's learning when schools are closed, parents want deeper online learning and want more teaching assistance from teachers, flexible school schedules and government subsidies. The use of electronic equipment without parental mediation often occurs during learning from home. The results further illustrate the need for schools to focus through integrating learning models by including a combination of online and off-line school assignments and assisting parents in navigating children's screen time. Likewise, the results from the survey conducted by Dong et al., (2020) showed that parents had an unfavourable view of the principles and advantages of online learning and liked in person learning. This is due to the limitations of online learning, self-regulation of young children, and their lack of time and technical skills to facilitate online learning for children. The hardships brought about by the COVID-19 pandemic leave them suffering and more vulnerable to learning from home. His findings also show that the introduction of online schools is inconvenient and frightening for families during the pandemic.

Based on the learning problems of early childhood during the pandemic, this study concluded that parenting skills are needed in accompanying children's learning at home when schools are closed. The study aims to create new innovations in parenting, by making e-book learning media for early childhood parenting through the use of the anyflip application. Anyflip is easy to use by early childhood users or parents. This application is integrated with gadgets, android, laptop. Early childhood parenting e-book can be used individually and in groups. In this study, researchers developed a parenting e-book for early childhood, which contains indicators and activities of children with parents at home on aspects of health and nutrition, education, care, protection and child welfare. The innovation and development of this e-book model are an effort to facilitate

parents to gain access to information and knowledge to support the Indonesian government program in implementing an integrative holistic early childhood education.

2 THEORITICAL STUDY

Early childhood parenting is an integrated service for health and nutrition, education, care, protection and welfare for early childhood. In the aspect of fulfilling nutrition, mothers have a very important role in assisting, selecting ingredients, and making food for their children. Early childhood parenting in international journals is called the whole childcare approach. Rosen et al., (2020) overall child models improve collaboration between health and education systems to serve children well, including: (1) prevention focus on health promotion, (2) family context, children who are cared for in a family context healthy, community, and school, (3) relationship-based, open communication and building trust, whether we can work together well to ensure the optimal well-being of every child, (4) participatory, creating health must be a collaborative process, actively encouraging participation and make children take control of their own health.

Gerber et al., (2020) state that the American Bar Association has made efforts in the legal advocacy movement to improve the welfare of children and quality parents. Latin children in the United States from immigrant families, get low care and early childhood education services, e-books are one source of information for the progress of their children's education. Paredes et al., (2020) explain that family home care providers use family vocabulary to describe the roles, jobs, and assistance they provide to early childhood. Caregivers also teach mothers to care for their children. The role of mother's parenting is the child's first source of information. The role of mothers is the ability to nurture, educate, and grow and develop the values of their children's personality, understand children's egocentric attitudes, stimulate all aspects of child development (Thomas et al., 2019). Based on this opinion, parenting is a comprehensive stimulation in early childhood.

Digital book or e-book Troseth and Strouse (2017) explain that e-books have two characteristics, namely: (1) e-books is digital, (2) e-books require special reading tools. Electronic books have various formats, namely pdf or portable document formats that are opened with an acrobat reader program, html which is opened by browsing or search, and excel. This research uses the pdf format. Evans et al., (2017) explained that e-books for parents are practical, inexpensive, and can be used to guide their child's stimulation activities. Parents' perspectives and practices on digital and online learning at home at the start of the covid-19 pandemic that parents support the use of digital devices (Dong et al., 2020). Parents are positive for the use of computers and e-book media. Parents believe that children must acquire valuable technical skills, develop children's learning, language, self-expression and social competences. The e-book helps parents learn parenting practice guides for their children studying online during lock down as a unique lesson in time and place. Technology and digital media are seen by children in the US and other countries as a central part of their identity (Mourlam et al., 2020). This is because the availability of technology increases along with the times in their lives since childhood. Children take advantage of technology to study for about two hours each day. Through digital technology, parents and children have greater access to self-expression and strengthen relationships with friends and family members, as well as studying educational TV programs, games, e-books, and other developmentally appropriate uses in formal educational settings. E-books are one of the learning media that children are interested in because they are easily accessible. Using e-books follows the design pattern on the story board. Based on some of the theoretical studies above, the e-book provides benefits to make it easier for parents to guide children to learn from home (Fry, 2020).

3 METHOD

This study uses research and product development methods using the Borg and Gall (2007) model stages. Research participants involved in testing the effectiveness of the e-book parenting model were 161 mothers with children aged 5-6 years that attend kindergarten and carry out learning from home during the Covid-19 pandemic in Banten Province. The data collection technique

was carried out by survey using google form, then the data were analyzed using statistical calculations using paired t-test.

3.1 *Procedure*

The model development steps are carried out in ten stages (see figure 1) Research and data collection; e-book theory study, early-childhood parenting theory study, needs analysis and indicators of learning activities for early childhood care activities. 2) Product design planning; Storyboard design contains early childhood parenting. Use of anyflip book publishing platform application, arrangement of instrument grid for material experts, media experts, effectiveness testing instruments. 3) Initial product development; download the anyflip application, log in and fill in the e-book needs to be developed, determine learning objectives for the content of the e-book, compile material descriptions, prepare tools and materials to be used. 4) Initial field trials; validation of material experts, media experts, analysis of test results from material experts on format, language, graphic media, and programming. 5) Revised trial results. 6) Main product trial: e-book trial on 30 mothers of children aged 5-6 years, analysis of trial results, and improvement of an e-book. 7) Product improvement; It includes activities that have been summarized at the initial product development stage or pre-production and affixing image decorations according to the theme of the activity. 8) Large-scale trials: e-book trial on 161 mothers with children aged 5-6 years, analysis of trial results, and editing to double-check the content and design of the e-book. 9) revised e-book final product. 10) Dissemination and implementation of the final e-book product.
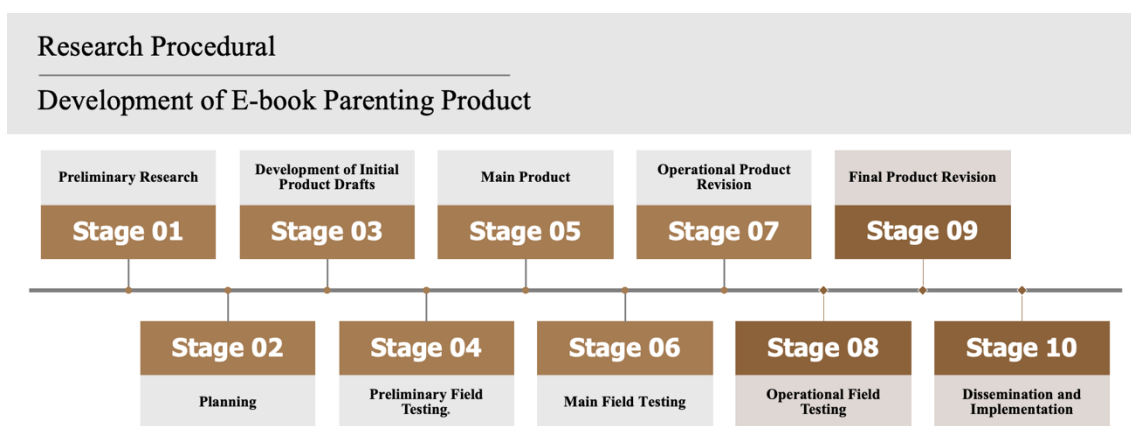

Figure 1. Research Procedural E-book Parenting Product

4 RESULT AND DISCUSSION

This research produces an e-book media product on early childhood parenting to improve mother's understanding of the growth and development of children aged 5-6.

4.1 *Result*

4.1.1 *Final Product*

The final product revision or product improvement that is being developed, namely the e-book of early childhood parenting. Revisions based on respondent input: 1) editing to double-check the content and design of the e-book, 2) revision of deficiencies in the content and design so that it is in accordance with user needs, 3) the e-book is designed to be used individually and in groups. It is hoped that the use of this parenting e-book media can help mothers accompany their children to learn from home. The success of parenting is the occurrence of changes in the cognitive, affective, and psychomotor aspects of early childhood. After the final product, revision has been completed, the dissemination stage (see figure 2).

Figure 2. Early Childhood Parenting e-book (https://www.canva.com)

4.1.2 *Product Effectiveness Test Results*

Researchers conducted large-scale field trials or e-book adaptation feasibility tests with 161 study subjects having children aged 5-6 years. The research data are in the form of material content and the practicality of using the e-book. The content of the parenting e-book shows the results, 140 respondents or 86% said it was very good. The suitability of the material composition with the aspects of early childhood development and development, 156 respondents or 97% said it was very good. The content of parenting material, 157 respondents or 98% said it was very good. The relationship between themes, sub themes, sub themes and activities, 161 respondents or 100% stated it was very good. Clarity of material and indicators of learning objectives, 158 respondents or 98% stated very well. Selection of activities according to the setting of the home environment, 130 respondents or 80% said it was very good. Practicality: ease of use of the e-book, 161 respondents or 100% said it was very good. The ease of bringing in 161 respondents or 100% stated very well. Efficiency because the product does not use paper, 150 respondents or 93% said it was very good. Product can be used repeatedly, 158 respondents or 98% said it was very good. Based on respondent data on a scale of 5 or 96%, it shows that the content to the e-book media is very suitable to be used as a guide for parents in parenting children aged 5-6 years during the pandemic.

4.2 *Discussion*

For quality development, the e-book on early childhood parenting finds it very important to use content experts. This e-book is deemed by media analysts to be very safe for use. The mother's reaction showed that the material and how to use it were really good. The creation of this e-book involves patience and thoroughness from pre-production (stages 1 and 2), production (stages 3 to 8), and post-production (stages 9, 10). In the development of story boards, the pre-production method for exploring easy and open access software also involves visualization. This stage is the longest since the contents of the e-book covering health and nutrition practices, education, treatment, security and well-being must be planned. The production of time duration settings, screen displays, how to operate also requires input from respondents, for example, the login and logout process, readability of activities that must be carried out by parents and children at home, repairing tools, materials for the e-book model. For post-production, the accuracy of the content and early childhood experiences, completeness of images, and proper decoration need to be edited.

Product discussion of health and nutrition services, based on the online survey from Banerjee et al., (2019), that the impact of the Covid-19 pandemic which resulted in decreased family food security as many as 36% of respondents admitted that they had reduced their food portions due to financial shortages. It is hoped that the early childhood care e-book would guide parents to provide children with local nutritious food and herbal health care. Parents must maintain children's nutrition, especially vitamins, iron, zinc, iodine, children's diet, standard nutrition. Parents also take care of the child's health, cleanliness of the child's body and environment. The steps of preventive care that parents should take are to preserve the infant's immunity. Efforts to provide nutritious meals, pick vegetables, build lists of recipes, make delicious snacks from local food ingredients, and deliver a diverse menu of organic, new or quality side dishes.

Parenting services, this e-book provides an explanation of authoritarian, permissive, and democratic parenting patterns through concrete examples of stimulating child development. Language development, children show interest in books. Mothers play an active role in encouraging, guiding their children to love reading. Mothers must actively encourage that love of reading is the goal of education for their children. The characteristics of children who are interested in picture books (Ebert, 2020). The characteristics of picture books are alphabet books. Each letter of the alphabet is associated with an illustrator object starting with a capital letter, a playbook. Play books use a way of presenting content that directs children to understand text, can explore the concepts of numbers, rhymes, and storylines, concept books. The mother teaches the children the concept of storylines, colors, shapes and sizes, picture books without words. The mother teaches the child to recognize the main idea and understand the story, picture story books. The mother teaches the child to be able to understand and relate the contents of the story about the character in the book with the child's daily life experience.

Research data on aspects of language develop optimally. Parents have promoted language through parental involvement by caring for children, communicating, volunteering, studying at home, making decisions, and working with families / communities, Cognitive development the child can build an object. Mothers must stimulate children's ability to create objects offline and online. It is based on Piaget's concepts of assimilation, accommodation, schema and equilibrium. In this equilibrium process, children are able to distinguish objects based on their functions and uses motor (Webster et al., 2019) has optimally developed. Children can already use large muscles such as sitting, holding, running, kicking, climbing trees, and climbing stairs. Parents stimulate gross motor movements by playing ball, jumping rope, playing marbles. Development of fine motor skills, namely the activity of wearing and taking off your own clothes. Mothers stimulated fine motion, independence, and cognitive by playing with dolls, household utensils, eating utensils, washing hands, brushing teeth, wearing pants, clothes and drawing lines. Based on these conditions, the maturation of brain function is influenced by genetic factors and parenting styles. Mothers must provide a learning environment through opportunities, practice, repeated and varied experiences. Mothers must be able to foster self-confidence in children and train children to be responsible.

Social development is the achievement of maturity in social relations as a learning process to adapt to the norms, morals and traditions of the group to become one unit and communicate and collaborate with each other (Morawska et al., 2019). The social sophistication of children will

contribute to the success of children in forming social relationships through becoming more autonomous and professional. The Social development of children is greatly influenced by the process of parenting parents who continue to provide examples to children in applying these norms in their daily life. Safety and welfare services are closely related to children's emotional social development. Parenting e-books enhance parents' ability to keep children happy at home and learning from home. Emotional development is a complex reaction that connects one level of activity function with changes in depth, accompanied by strong feelings, or accompanied by affective states. Parents should understand the emotional characteristics of early childhood, which are volatile, and react strongly to situations that give rise to pleasure. The stimulation of emotional development that can be exemplified by the mother is to be an example and the child to imitate, the mother provides a friendly and communicative learning environment at home through various games. Mothers must be able to facilitate the uniqueness and needs of children's emotional development. Finally, parents are expected to be able to teach children self-reports as notes to help children continue to control their emotions.

4.3 *Product Limitations*

This development research has been tried to the maximum in accordance with the abilities of the researchers, of course there are still some limitations that must be acknowledged. These limitations include: 1) the e-book media product is still far from perfect, 2) the content of this e-book still needs to be developed and refined according to the learning environment of early childhood.

5 CONCLUSION

Based on the results from this study, it can be concluded that the e-book of early-childhood care has a significant impact. The advantages of this e-book are, small file size, easy to process, to distribute, to track and fast content, and to access and copy. In addition, this e-book has increased the ability of parenting to early childhood in health and nutrition services so that the child's immune system, height and weight can grow according to their age. Education, the limited learning facilities at home through e-books, containing self-help activities, routine activities, and playing can inspire parents to assist children to learn from home. Parenting, an e-book containing an explanation of authoritarian, permissive, and democratic parenting patterns that results in maintaining emotional stability for parents as long as children learn from home. Safety and well-being, during the Covid-19 pandemic, early childhood experienced a lot of violence because parents were not ready to guide children to learn from e-books, giving understanding to parents to educate children with love, the uniqueness and needs of children, as well as learning style's child. Home becomes a fun school for children, and mothers are able to accompany them with sincerity, patience and good knowledge.

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