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HOW TO CREATE HIGH QUALITY TEACHING AND LEARNING IN THE DIGITAL ERA:

TEACHERS, STUDENTS AND PARENTS' PERSPECTIVES

HOW TO CREATE HIGH QUALITY TEACHING AND LEARNING IN THE DIGITAL ERA: Teachers, Students and Parents' Perspectives

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PREFACE

This edited volume brings together a collection of works by authors in the field of education. All the works included in this volume—I believe—touch on very important issues in the practice of teaching and learning. Depending on the authors' research interest and/or expertise, the issue raised in their works ranges from language teaching (Amilia & Astutik; Nuraini; Werdiningsih), mathematics education (Agustina), teacher professionalism/TPACK (Usman), early childhood education (Khoiriyah & Devanti), parental involvement in education (Suryaningrum), and the use of technology in instructional contexts (Nurkamilah). What unites these seemingly diverse, unrelated works is that all of them are situated within the context of educational practices in the digital age.

Since the outbreak of the COVID-19 pandemic, there have been growing interests among educational researchers and practitioners alike in discussing how technological tools and digital resources may be utilized to optimize educational practices in general and distance education in particular. This edited volume aims to contribute to such a timely discussion. Furthermore, each work included in this volume has specific purposes in mind in that it aims to discuss how educational practices that take place in certain instructional contexts influence students' cognition (Agustina; Nurkamilah), learning strategies (Khoiriyah & Devanti), literacy or foreign language skills (Amilia & Astutik; Nuraini; Werdiningsih), teacher professionalism (Usman), and parental involvement in education (Suryaningrum). Although some other works appear to have no direct relevance to the issue of educational practice in the digital age, they may still be considered relevant insofar that they provide insights into best practices that may be directly or indirectly applicable (with teacher's creativity) to instructional activities involving the use of technological tools and/or digital resources.

Upon reading the title of the works included in this volume, readers may immediately be aware that some of the works make a specific reference to the outbreak of the Covid-19 pandemic (e.g., Khoiriyah & Devanti; Suryaningrum). This is quite understandable given that the Covid-19 pandemic has not only disrupted virtually all aspects of social life but also has altered educational systems around the globe. That is, during the period of the Covid-19 pandemic, schools were forced to temporarily shut down and all educational activities were forced to migrate to online platforms by exerting technological tools and online digital resources. Hence, if there was ever a time to discuss how technological tools and digital resources may be utilized to optimize educational practices in general and distance education in particular, the time is indubitably now.

I hope that all the works included in this volume prove useful for those involved in educational practices, be they pre-service or in-service teachers.

Muhlisin Rasuki
Universitas Muhammadiyah Jember

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Chapter I

Semantics Contextual Learning

Fitri Amilia, Indri Astutik

A. Introduction

Teachers plan concepts of learning activities to achieve learning objectives. The selection of learning activities, learning media, materials, and other learning items demonstrates this. To accomplish the learning objectives, all teachers prepare all learning resources. The learning objectives in a semantics class, for example, are that students can 1) identify and 2) analyze different types of meanings (Amilia, 2022). Associative is one of the meanings examined in semantics. Associative refers to the meaning of a word that occurs owing to a link between the word and the external state of a language (Amilia & Anggraeni, 2018). Connotative, collocative, social, emotive, and reflective meanings are all examples of associative meaning (Mwihaki 2004). For example, the term dove is connected with devotion or fidelity, while the color red is associated with bravery. Why is it, exactly? The terms have associations with things outside of the language that are shaped by societal conventions and cultures. Thus, to assess students' comprehension, teachers must create an instrument as part of the assignment, such as a summary, a paper, or a brief article. Teachers will be able to determine the correctness and completeness of the students' comprehension based on the outcomes of the assignments.

The majority of teachers, according to the findings, do learning illustrations. They create lesson plans, instruct students, and analyze their progress. This is a semester-to-semester dynamic steady beat.

The observations, on the other hand, reveal some prevalent student issues. Students comprehended the topic, but not the purpose of learning it in the actual world. Students, for example, do not yet comprehend the role of these talents

after examining several languages. They will not utilize or teach other languages to their students once they become potential teachers.

The phenomenon is not limited to colleges; it also occurs in secondary institutions. According to the findings, senior high school students do not comprehend or profit from learning resources in schools. Anecdotal texts, for example, are examined in Indonesian classes. An anecdote is a collection of amusing or hilarious stories that carry criticism for the audience. Students do not realize the benefits in their daily life after understanding or even compiling the stories.

Non-contextual learning is most common in exact sciences like mathematics, physics, etc. A collection of articles, then, is put together to provide useful information. Contextual learning is defined as an approach that improves students' capacity to establish connections and learn functions, as well as their motivation to study (Ulya, Irawati, & Maulana, 2016). The contextual method is believed to be able to incorporate student-centered learning in a series of autonomous learning programs. According to research, contextual learning can improve students' active engagement and communication abilities (Suhartoyo, et al., 2020).

This phenomenon denotes learning issues that have an influence on education's meaning. Learning material is essentially a notion with no practical application that students in schools and colleges must grasp. The phenomenon is in direct opposition to the goal of education, which is to make knowledge useful (Johnson, 2002). In addition, ideas and knowledge that are connected with experiences will produce meaning. For example, to understand the conceptual meaning of the word mountain, students must know it in real life, so that students can easily mention the concept of the word mountain as an analysis of its meaning. Students whose daily lives are far from mountains, will have difficulty mentioning the concept of a mountain. This essence is mentioned in the concept of contextual teaching and learning.

This tendency is not limited to Indonesian-language content. Some course and lesson materials are taught, comprehended, and mastered, but the substance of doing so is restricted to paper and class. Students have not been able to use them in their daily lives.

Many research studies have previously focused their emphasis on contextual learning studies. Suryaman (2008) constructed Indonesian language textbooks, Amilia (2017) exhibited the construction of contextual texts for students in Jember, and Dewi and Primayana (2019) investigated the quality of students' comprehension utilizing contextual learning.

The implementation of contextual learning and students' responses to the technique in semantics class were the main differences between this study and the three prior investigations. Thus, the implementation process, its challenges, its assessment, and the students' responses to this contextual learning would all be known. The benefit of this study was the opportunity to interpret the usefulness of each item offered as a means of using the language in everyday life and as a resource for aspiring Indonesian language teachers in schools.

B. Method

Contextual learning is used to solve the problem of learning's meaninglessness in the previous lesson. The findings of the examination and reflection process had led to this meaninglessness. As a result, in the odd semester of 2022, contextual learning was applied to semantics class. Students were required to have semantic competency through the use of contextual learning. This skill is defined by the precision with which one chooses diction in spoken language, as well as the use of content of various sorts of meaning in poetry and writings. The participants in this study were 38 fourth-semester semantics students. The contextual learning process might serve as a platform for future learning in other courses.

The course would be recalled because of its utility in learning linguistic competency.

C. Discussion

1. The Application of Contextual Learning

The Process of Contextual Learning Application

This odd semester 2022 semantics course was an online learning course. The learning tool for the course was Zoom Meeting. Learning contracts or online learning guidelines were created to provide students with a productive learning experience. The students in the semantics class were required to turn on their cameras throughout class. Students who switched off their cameras would be dismissed from class, unless they had a poor signal. This rule has been shown to be quite effective. The rule forced students and the lecturer to engage because they were both in the same class for the same reason: to learn together.

Other lecturers on the FGD forum stated that the learning quality had decreased. This was evident in the learning activities and the results. The FGD forum decided that high online learning quality could be attained by incorporating real (face-to-face) learning rules (contracts) into online learning. In this aspect, cameras were instruments that allowed the two parties to share their attention. Furthermore, students were required to listen and pay attention to the discussion's progress, as well as take turns speaking. This regulation was implemented as the microphones were turned on and off as needed. Clothes that convey preparedness were used to signify readiness. Many students and lecturers continued to disregard this dress preparedness in this setting.

The reflection indicated that semantics course had implemented rules to achieve a good learning quality, high learning activities, and real learning experience. The illustration designated that the planning of semantics course could be used as a stepping point in developing students'

online interaction. Thus, online learning activities were meaningful and reliable.

Conceptual, lexical, denotation and connotation, synonym, antonym, homonym, associative, affective, and reflective meanings of words and phrases are among the semantics elements that were designed contextually. Concrete examples were utilized as students' experience in language activities and learning to transfer the function of comprehending the content of types of meaning. The practices were held by renewing the students' actions through a zoom meeting talk or dialogue.

Let us take an example in denotation and connotation discussion. The concept of denotation and connotation refers to meaning conformity in lexical/conceptual meaning, and the power of meaning taste of a word (Amilia & Anggraeni, 2018; Chaer, 2021; Parera, 2004). The concept of denotation and connotation is easy to understand and exemplify. However, in speaking and writing of language practices, the function of denotation and connotation is not quite understood. Through contextual learning, students translated the function of understanding the content. One of the examples was the activity of writing poems in Ramadan (fasting month). Students were assigned to write free sentences through chat box on zoom meeting.

Through the chat box, students wrote clauses and free sentences about Ramadan. Students might write clauses and sentences which contain denotation and connotation meanings. Below were the students' writing.

1) Ramadan bulan suci
2) Bulan penuh berkah
3) Bulan ampunan
4) Menahan lapar
5) Menahan haus
6) Menahan emosi
7) Mendapatkan pahala

From the seven clauses, students analyzed the clauses which have denotation and connotation. Then, the clauses were written to a poem below.

Ramadan

Selamat datang
Di bulan penuh berkah
Bulan ladang pahala
Bulan suci

Saat kita menahan diri
Menahan emosi
Menahan haus
Menahan lapar
(A student collaboration poem)

A flash poem could be composed in just 10 minutes. From the poem, students identified denotation and connotation stanzas. Then, they analyzed the beauty of the poem based on denotation and connotation theories of a poetry.

The results of the editing of the flash poem were as follows:

Ramadan

Selamat datang →**Ramadan itu**
Bulan suci → ↑Suci
Di bulan penuh berkah → ↓penuh berkah
Bulan ladang pahala →ladang pahala

Saatnya kita menahan diri → Mari menahan diri
Menahan emosi → Menahan emosi
Menahan haus → Menahan **dahaga**
Menahan lapar → Menahan lapar
(A student collaboration poem)

The above presentation illustrated that students were able to use their understanding of denotation and connotation concepts to edit their poem to produce a more beautiful poem.

After a flash editing, then, the lecturer presented the results of research studies discussing the denotation and connotation in poetries. One of them was a research article (Widianti, Mukhlis, Susanto, & Rivaldi, 2020) which signify that a unique poem conceives denotation and connotation to strengthen the depth of meaning of it. There was also a student's thesis which analyzes denotation and connotation of students' writing (A'yuni, 2020). Based on the examples and analyses, the benefit of understanding the concepts of denotation and connotation was the students had the whole concepts and used them in the language practices and language learning.

Based on the discussed poem, ramadan was the month when the course took place. The characteristic of contextual learning is that it is experienced and is in the environment of students, which is called as learning in real life setting (Kadir, 2013). This theme learning became the material in ramadan (fasting month) so that the students had a strong picture of ramadan because they were in the situation and condition of the month.

Contextual learning comprises seven components, i.e., constructivism, asking, inventing, learning society, modelling, reflection, a true assessment (Dimyati & Mudjiono, 1999; Johnson, 2007; Nurhadi, 2002). These seven components are the stepping points to develop students' thinking ability which is influenced by the meaning of learning (Tari & Rosana, 2019). The analyses of the seven components of semantics course were presented to exemplify that the course had been using contextual learning.

Constructivism is the combination of behaviorism and cognitivism learning theories. Constructivism is designed to make students understand the meaning of learning and to form a learning experience (Amineh & Asl, 2015). In this research, through discussions and examples of the use of the concepts of

denotation and connotation, students were able to understand the usefulness of the concept of material in writing collaborative poetry. Moreover, the discussion activities helped the students compose a flash poem and edit it to produce a more beautiful poem in the learning activities.

As a series of finding propositions of the learning material, asking questions is a learning process. Students have the flexibility or freedom to learn through asking questions, allowing them to achieve the meaning of learning (Amineh & Asl, 2015). Students had the opportunity to raise questions about the usage of the notion of learning denotation and connotation in collaborative poetry writing through a series of questions. There were two types of question-asking activities: asking fellow classmates or groups and asking the lecturer. It is believed that learning activities and critical thinking will improve as a result of this activity.

The learning community refers to the learning community in the classroom between students and teachers (Hobri, Septiawati, & Prihandoko, 2018). In semantic learning activities, the lecturer tried to revive the learning community with a grouping model. To gain significance and learning experiences, each member of the group learned individually with the group. The learning community worked together to ask questions, listen to, and help each other complete the learning exercise. As a result, the learning community serves as a starting point for the development of critical thinking skills.

The term learning community refers to the interaction between students and lecturers in the classroom (Hobri, Septiawati, & Prihandoko, 2018). The Lecturer used a grouping strategy to try to revitalize the learning community in semantic learning activities. To get significance and learning experiences, each member of the group learned individually with the group. The learning community's role was to inquire, listen, and assist one another in completing the entire learning process. As a result, the learning community served as a starting point for the development of critical thinking skills.

The implementation of learning integrates asking, finding, and learning community. Students raised questions in the learning community throughout activities and eventually discovered meaning for the topics being learned. Finding meaning of the learned concepts indicated that contextual learning succeeded to translate the meaning of learning for each individual of the students.

In semantic learning, modeling refers to the presentation of learning results in groups as well as the reinforcement of the lecturer's information. The students got learning experience in implementing the notion of learning denotation and connotation in collaborative poetry writing through modeling.

Reflection is a self-evaluation technique for determining the quality of current learning (Amineh & Asl, 2015). In this context, both the students and the lecturer performed the reflection activities. The students considered their dedication to study, their aptitude to learn, and their learning experience. Learning designs that generate a meaningful and engaging learning experience were measured through lecturer reflection. The lecturer, in this research, gave an oral reflection at the end of the class. The students were given the chance to reflect on their learning activities. Furthermore, the lecturer created a learning reflection questionnaire to collect information on student reactions to their learning activities.

Teachers' assessment came at the end of the semantic learning activities. An authentic assessment was conducted when contextual learning was used. The lecturer evaluated each student's progress based on the learning activities. The assessment considered not only the final product, but also the unique process of each student's individual learning experience.

Authentic assessment examines learning activities for grasping concepts and applying them to language skills and learning. Language skills and language learning are used in the real world to assess students' understanding of concepts. This semantic learning used three types of assessment methods:

performance assessment, portfolio assessment, and student self-assessment (Zahrok, 2009).

Students Response to Contextual Learning

Students had responded well to the implementation of contextual learning by discussing and promoting examples of how to apply the material in the learning activities. They said they had a greater understanding of semantic content and the importance of studying it as a foundation for establishing competency as future teachers.

Based on the learning activities, the following are the students' responses about the clarity of the examples provided.

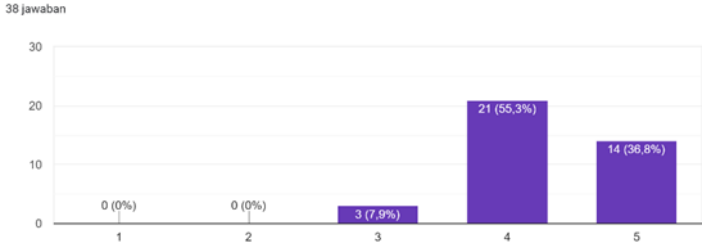

Diagram 1: The Clarity of Examples of the Learning Material in School

According to diagram 1, 7.9% of students thought it was pretty obvious, 55.3 % thought it was clear, and 36.8% thought it was extremely clear. Based on these responses, one of the pillars of learning Indonesian at schools, which was between good and very good, was the description of instances of semantic content. This can be seen in the description of how associative meaning material was used in the collaborative poetry writing process.

According to students, the quality of the lecturer's explanation influenced the clarity of instances of applying associative meaning content in poetry writing activities. The graphic below depicts student responses to the lecturer's explanation quality.

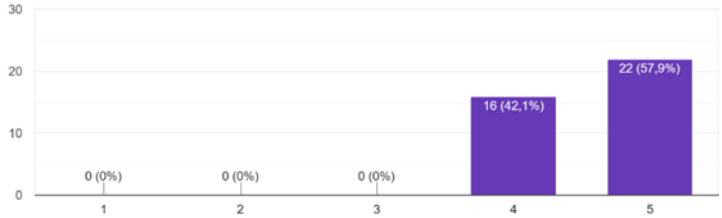

Diagram 2 The Quality of the Lecturer's Explanation

Diagram 2 indicates that the students' responses to the lecturer's explanation were excellent. Learning activities that, based on self-reflection, presented examples of the usage of semantic concerns in learning Indonesian language had never been done before. The absence of reasoning in semantic content research in connection to Indonesian language learning activities inspired this thought. Based on student reflections, this semester's learning was contextualized by examining the types of meaning of each material in order to develop the competency of future educators.

Reflection is a teacher's ongoing attempt to enhance the quality of their students' learning. Reflection, according to Moon (2000), is a strategy for assisting and strengthening learning. It is employed in educational growth and professional development. Furthermore, continuous reflection will assist teachers in improving the quality of student-centered learning. This is in line with Ewing, Waugh, and Smith's (2021) assertion that reflection transforms teachers into change agents for improving learning quality.

The implementation of learning in six meetings in 2022 received excellent results based on a mid-semester review conducted in collaboration with the students. As seen by the students' statements, they were able to comprehend the purposes and benefits of studying semantics in everyday life, whether as students or as future educators. The diagram below shows the students' responses.

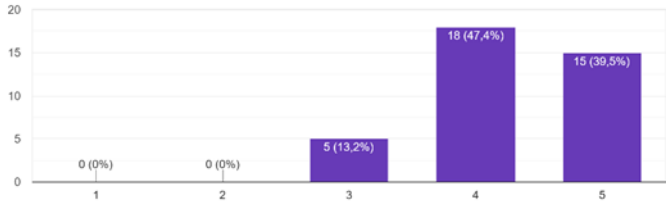

Diagram 3 The Quality of Semantic Content Understanding in Real Life

Diagram 3 indicates that most students were able to generate semantic meaning in everyday life. This could be observed qualitatively in the capacity to know the diction of the word to be used. In semantic studies, each word has meaning and power. The fit and robustness of the word notion are factors in speech and language selection.

D. Conclusion

Contextual learning is a student-centered approach to learning. This type of instruction can help students comprehend and apply concepts in the actual world. In this study, the enhancement of language competence and language learning competency was referred to as real life. Furthermore, contextual learning supports the creation of an independent curriculum by empowering students to translate the functions and advantages of learning concepts into their daily lives.

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Chapter II

Learning Strategies for Early Childhood Education During Covid-19 Pandemic

Khoiriyah, Yeni Mardiyana Devanti

A. Introduction

Since the end of 2019 people around the world, including Indonesia, have experienced abnormal conditions due to the Covid-19 pandemic. During the pandemic, there were many changes in various aspects of social life (Fahlefi, 2012; Meutia, 2020; Wijoyo, 2012). One of the impacts felt by almost all levels of society is in education field (Saleh, 2020). Before the pandemic, education is generally carried out face-to-face, but during the pandemic it is changed to distance learning through online networks, which are carried out from different places. This policy is taken by the Government and the community to anticipate the transmission of the Covid-19 outbreak. The online learning policy is enforced at all levels of education, without exception, from preschool education to higher education (Almarzooq et al, 2020; Widyawati, 2020).

Teaching and learning process can be carried out using online network that rely on information technology (Alan, 2021; Ujiti et al, 2021). There are a number of online communication service providers offering and marketing their products to support virtual meetings in the context of teaching and learning. There are some services that have been used by the community or educational groups for the implementation of online learning, for example; Zoom Meeting, Google Meet, Google Classroom, Microsoft Team, Team Link, Whatsapp, and so on.

The application of online learning certainly causes changes and consequences, both positive and negative. However, the changes that occur in emergency situations can lead to valuable lessons for the development of civilization,

especially in education. This also happened to early childhood education (Meutia, 2020; Ujiti et al, 2021, Widyawati, 2020).

In early childhood education, changes are felt and must be faced with adaptation as a result of these circumstances. The parties who feel the change are students, parents, and teachers (Pramling, 2020). Because of the emergency and limitations, many teachers find it is difficult to maintain their teaching and learning process (Dyal & Tiko, 2020; Ford et al, 2021; O'Keeffe & McNally, 2020). The teaching and learning process under normal circumstances is carried out directly (offline), so that learning aspects can be achieved, namely cognitive, affective, and psychomotor aspects. However, the pandemic has forced learning to be turned into online learning, to connect teachers and students from far apart.

Learning strategies for early childhood are designed to enable students to interact and engage in activities with fellow students, individually and collectively (Ahdar, 2021; Hewi, & Asnawati, 2021; O'Keeffe & McNally, 2020). These designed activities can be in the form of playing. Playing as the main activity for children intended to lay the foundations for the development of attitudes, knowledge, and skills, as well as to foster creativity needed by students in order to adapt to their environment. Moreover, it is crucial to support the growth and development of children in the next phase. Learning for early childhood students is designed as a learning activity that is adapted to the children's age level. Therefore, it must be accompanied by the development of an appropriate curriculum. In this case, the curriculum is a set of learning plans prepared by educators by presenting learning experiences to children through playing. The intended teaching and learning strategy is more emphasized so that students take part in active learning, which is also accompanied by teachers (O'Keeffe & McNally, 2020; Widyawati, 2020). In this case, teachers as facilitators help students to achieve ease and smooth learning.

In early childhood education, playing is the dominant learning activities. Here the teacher prepares learning

materials and chooses the strategies used in the activities (Suyadi, 2020). Furthermore, Sujiono & Sujiono (2011) state that in early childhood learning, the efforts of curriculum development concretely contain children's learning experiences through play. The learning given to early childhood is based on the potential and developmental tasks achieved in the context of mastering children's competencies. According to Novan, Ardy, & Wiyani (2016), teaching and learning for early childhood students must be adjusted to their age, in other words the teaching and learning process must be in accordance with the students age. Moreover, it has to be attractive and can stimulate students to follow so that the competence of students can be achieved.

During the pandemic, the government as the party authorized to enforce online learning therefore teachers are required to use special strategies so that teaching and learning for early childhood students run effectively. This study was conducted to explore more deeply about the online learning strategies carried out during the pandemic. The objectives can be stated as follows: To describe teaching and learning strategies for early childhood students during the pandemic, and To describe the implementation of teaching and learning process for early childhood students during the pandemic.

B. Method

Qualitative approach is used in this study. Here, the researcher acts as the main instrument. In addition to collecting data and then analyzing the data obtained, the researcher is also directly involved in all stages of the research process. This study is set in a natural setting, so the data is presented as what is found in the field. The research results are presented descriptively using words and sentences to describe the state of the object. In this qualitative approach, the process becomes more important than the result. The formulation of the problem is determined as the focus of the research while inductive pattern is used in data analysis. Such methods and approaches were chosen by referring to Moleong (2002:48).

The respondents were 10 teachers and 10 student parents of TK ABA 4 Mangli Jember. Data was collected through interview. In connection with the policy of limiting direct interaction, interviews were conducted using phone and WhatsApp application. Secondary data was obtained from both printed and online sources, including journal, articles and books. The analysis was carried out using an interactive analysis model which included data collection, data reduction, data display, and conclusions.

C. Discussion

Teaching and Learning Process during Pandemic

The data in this study was taken from the implementation of teaching and learning process during the pandemic at TK Aisyiyah 4 Mangli Jember, which was obtained using online communication methods, student home visits, and through limited face-to-face meetings. Face-to-face activities as occurs in normal times were replaced with learning through online networks in accordance with the Government's policy which prohibits face-to-face meetings. Teaching and learning process was carried out using application agreed by the educational institution and parents.

1) Online Teaching and Learning Strategy

a) WhatsApp

The implementation of online learning at TK Aisyiyah used WhatsApp application with the consideration that most of the parents had the application. The following are the steps in teaching and learning process using WhatsApp application; first, the teacher creates a WA group that was used for communication and learning facilities. Second, the teacher wrote messages in the form of learning materials and assignments that would be used by students and their parents to study. Third, parents uploaded assignments in the form of photos to report the results of the activity that have been done by students.

The teaching learning process carried out through WhatsApp turns out to be growing in variety. In the beginning, teachers and parents only communicated through writing, then it developed using voice notes. This development was certainly welcomed by the students, who previously could only listen when their parents read a message from their teacher, now they could hear directly the voice of the teacher who was greeting and giving information and giving instructions for the tasks to be done. The implementation of this strategy was increasingly diverse until then using video calls. By using video calls, students were more enthusiastic to study. However, it turned out that there was a problem where video calls can only facilitate 4-8 students even though in one group there were 12-15 students.

b) Zoom and Google Meet

Zoom and Google Meet applications had been used by teachers in the implementation of online learning but only for a few times. Teaching and Learning process using Zoom and Google Meet applications did make some students happier, this could be seen at the meeting, the students were more enthusiastic and happy because they could see their teacher and friends. However, for most students, this was not the case because parents did not have supporting devices, namely laptops, or phones that were completed with the application needed. It also caused by busy parents so that they could not accompany their children. In addition teachers also experienced problems with IT mastery, both in operating or preparing media in teaching and learning process. Teachers were not used to make videos or PPT with applications as a means of teaching materials. Apart from the obstacles mentioned above, there was an important factor that often hinders learning, it is the unstable signal.

Figure 1. Screenshot of virtual teaching and learning process

Communication using online networks for early childhood learning is not easy, due to several factors (Alan, 2021; Ford et al, 2021; O'Keeffe & McNally, 2021). There are several things that must be considered by educators or institutions before making a choice, both related to parental background, location where they live, and the condition of students. This must be considered because the learning process involves all parties, teachers, parents, and students. In teaching and learning process, teachers and parents are required to be able to operate applications on devices used in the activities. Along with the variety of alternatives used in learning activities, many media can be chosen. During the process media has an important function, so it must be suitable with students' needs and circumstances (Alan, 2021; Dayal & Tiko, 2021).

Teaching learning during pandemic is an unusual situation, because it is necessary to build good relationships and cooperation between all parties, namely teachers, parents, and students (Khadijah & Gusman, 2020). Each performs its role, such as a teacher as an activity planner and assessor of learning outcomes, while parents act as mentors at home must follow the development of the teaching learning process (Hewi & Asnawati, 2020). In these circumstances, teachers are required to work more creatively in preparing lesson plans, which include teaching materials, methods, making lesson plan, learning implementation, and the assessment system

used. Teachers' creativity is expected to generate interest and stimulate students' enthusiasm in learning process (Fahrina et al., 2020). In addition to the creativity required, teachers must also always pay attention to important things related to learning, including the students' family condition (Jalal, 2020).

In online learning, that is carried out remotely, the teacher must make preparations, including teaching and learning tools, media and applications. Other things that must also be prepared are schedules and learning strategies. The internet network is something that must get special attention, because a weak or less stable internet network can interfere the effectiveness of teaching and learning process so that students less interested in online learning (Ayuni et al, 2020; Dini, 2021; Wulandari & Purwanta, 2020).

2) Home Visit Strategy

Home visits or visiting students' homes is one of the learning strategies during the pandemic. It is attended by students individually or group of students who live close together in certain area. During the teaching and learning process teachers and students had to apply health protocols, including social distancing and no crowds, however the teaching learning process must be running well. This learning strategy for early childhood was more effective and suitable than learning through networks. By using this strategy, students were more enthusiastic about learning because they could meet their teacher directly; in addition, they were encouraged to have competition with their friends during the study. Here, the teacher of each class visited the students according to their class. However, the duration of learning time was not like learning at school, which means that the teacher limited the time so that all of students could be visited according to the schedule that had been made and agreed by the principal.

Below are several stages in home visits teaching and learning strategy during the pandemic at TK Aisyiyah 4 Mangli.

1) By holding a zoom meeting teacher announced to student parents that the teaching and learning process would be carried out using home visit strategy; 2) in the meeting the teacher explained about the implementation of Home visit learning strategy and the duration (it took an hour of each); 3) recording students' home location. Because home visit learning strategy are divided into two type, namely individual and group therefore the teacher needed information about students' home location.; 4) The teacher arranged the time and place to do home visit ; 5) the teacher asked student parents who did not agree and who agreed with the strategy. Furthermore, if there was no objection, finally, the teacher made home visit schedules, included the activity that would be done during the visit.

Figure 2. Screenshot of students' activity video

As stated above that there were two types of home visit strategy at TK Aisyiyah 4 Mangli, namely individual home visits and group home visits. The first type was individual home visits. It was implemented when the student home was far from the others, so they could not gather in one house with other friends. There were some obstacles experienced by teachers during the individual home visits. When the teacher came to visit a student individually, the student felt uncomfortable and even afraid to meet the teacher in person, because the meetings before had been conducted online. Student also felt

unhappy when the teacher came because they could not play with their friends.

Figure 3. A teacher conducts a group home visit

The second type was a group home visit, it was carried out because the houses between students were close and some were side by side so that teaching learning process could be carried out in one house consisting of about 3-4 students. This type of home visits learning was more efficient since it was easier for the teacher to deliver the material in limited time. Students felt happier because they could gather with their friends and were more enthusiastic about learning.

Parents were also happy with the implementation of home visit teaching and learning strategy, because their children could do face-to-face learning even though they were not at school. It gave students the same experience as a face-to-face study in school, even though the time and place were different. Parents also conveyed to the teacher that it helped them a lot to deal with their children in studying. The teacher invited individual home visit participants who wish to join and participate in group home visits. By the policy the parents felt happy and calm, the students were also enthusiastic after knowing that they were allowed to take part in a group home visit at one of their friends' homes.

Below are the advantages and disadvantages of Home visit teaching learning strategy. The advantages of this strategy are: 1) students can interact directly with friends and teachers, besides they can train their social skills during the interaction with friends and teachers; 2) With this strategy parents no longer need internet access, but teachers still need it to deliver material from the internet.

The disadvantages of this strategy are; 1) teachers need more time and energy, because they have to visit students' homes, 2) students cannot take lessons every day, because the teacher carries out learning in rotation from one cluster to another cluster.

Limited Face-to-face Teaching and Learning Strategy

The implementation of the Limited Face-to-Face Teaching and Learning Strategy took place after Jember Regency was declared to be at level 1 of COVID-19 pandemic, it meant that the pandemic condition had subsided. Therefore, teaching and learning process can be carried out directly or face-to-face at TK Aisyiyah 4 Mangli with very strict health protocols. Students had to already wear masks when they entered the school gate, then the teacher told them not to shake hands, not to play, and directly entered the classroom after washing their hands. Students who attended school were divided into two groups in order to implement physical distancing. Learning materials could not be fully implemented due to the limited time. However the parents were still happy with this limited face-to-face teaching learning process. One of the parents stated "Alhamdulillah, we are relieved because the children are able to study at school, the children already miss the teacher and their friends, even though it is not completely normal as the condition before pandemic" (interview with Aftar's mother).

D. Conclusion

Based on the explanation and analysis above, the teaching and learning process carried out by TK Aisyiyah 4 Mangli during Covid-19 pandemic was using distance learning strategies; online and offline teaching and learning strategy. Online learning was carried out through social media, namely WhatsApp Groups (text messages, voice notes and video calls), Google Meet and Zoom applications. Meanwhile, offline learning were carried out through home visits and Limited Face-to-face Teaching and Learning Strategy. In home visit strategy, students were divided into groups of 4 or 5 students, each group was visited by the teacher once in a week. In limited face-to-face teaching and learning strategy, the process of teaching and learning was carried out in schools with a limited number of students in an hour or 60 minutes for each meeting. Among these strategies, the most favored by parents was limited face-to-face teaching and learning strategy. The following are the percentage of calculation; limited face-to-face teaching and learning strategy (70%), home visits strategy (20%) and online strategy (10%).

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Chapter III

Analysis of parental engagement During the Covid-19 Pandemic

Christine Wulandari Suryaningrum, Syahrul Mubaroq

A. Introduction

The impact of COVID-19 in Indonesia occurs in several fields including economic, social, health, tourism and education. This is consistent with the statement that COVID 19 adversely affects the economic, social, psychological, physiological and educational contexts [1]. Changes in learning patterns during the Covid19 pandemic occurred at all levels of education, both formal and informal, from Kindergarten (TK), Elementary School (SD) to higher education using distance/online learning by involving parents as mentors [2] . The implications for the design and evaluation of distance/online learning orientation and preparing students for online learning readiness are discussed towards future design and implementation [3] . The implementation of online learning uses a lot of internet networks in the implementation of the learning process. This is consistent with [4], which states that online learning leverages the development of information and communication technologies used to support the acquisition and development of knowledge from multiple different locations. With distance/online learning, students can study anytime and anywhere.

The results of the study [5] show that digital learning can be a good alternative to teaching and learning activities during the pandemic. Online learning allows students to interact and communicate with teachers by using several types of applications including Google classroom, whatsapp , telephone , zoom meeting or by using the whatsapp group . This learning innovation is used to overcome polemics in the field of education as a varied learning medium [6] . Use of online platforms such as Zoom (zoomnow.net), Google Meetings and

Blockboards (blackboard.com) which are available on mobile, laptop and computer platforms to obtain information, references and improve presentations are very effective media. Online learning that students use to follow lessons through platforms, allows students to learn outside the classroom, discuss and play together simultaneously [7] . Learning evaluation is also done online. Many schools conduct online tests and announce the results of the exercises that students do at home [8] .

Distance/online teaching and learning is an experience of implementing learning that has never been done before so that most educators and students do not have experience in implementing online learning [9] . Students carry out the learning process at home to provide experiences for students to learn more meaningfully. Learning by experience which is designed so that students have a lot of mathematical experience during elementary school is very useful and important for students to develop their knowledge at the level of higher education [10] . The results of the study [11] stated that parental satisfaction has been observed during the three phases of parents claiming to have difficulties in providing some online homeschooling and taking a long time to master and prepare the learning tools. In addition to being managers in the family, parents are required to be able to become teachers to be able to replace teachers in schools [12] .

During a pandemic, parents play a very important role in the online learning process. Without parental support and involvement, the learning goals planned for online will not be achieved. Of course, there are various obstacles and problems that teachers, students and parents feel as well when conducting the online teaching and learning process. The biggest problems or obstacles are felt by parents who do not have sufficient education, lack of skills and understanding of the use of technology, device limitations, and unsupported internet networks [13], [14].

From the background above, the role of parents during the COVID-19 pandemic has become more and more complex.

Parents do not only play a role in the family, but parents play a very important role in children's activities in the community. This study aims to analyze the role of parents during the pandemic. This research is important to do to classify the role of parents so that they can contribute to providing insight to parents to accompany children to study at home, maintain health and increase children's spiritual knowledge.

B. Method

This study uses a survey research design with a descriptive-qualitative type of research. The approach in this study is a type of research with a qualitative approach with the aim of describing places, phenomena, events, and conversations that are not easy to analyze with statistics [15] . This study is comprehensive and detailed in the sense that it interprets what researchers hear, see, record, and understand, and attempts to complicate the problem under study. [16] . The sampling technique used is purposive sampling with the intent and purpose of researchers getting subjects who are willing and able to provide information based on their experience and knowledge so as to ensure the quality of research data to answer research questions [17] .

The research subjects were selected by 234 parents from several districts in East Java. The data collected is the role and problems of parents during the pandemic, which is the most relevant source of qualitative data. The instrument used is a questionnaire containing questions [18] which are addressed to parents regarding their roles and problems during the pandemic. Data analysis was carried out by transcribing data, analyzing data, reducing, analyzing and reflecting continuously on the data, conducting interviews by giving analytical questions to complete the data and taking field notes while conducting research [19] .

C. Discussion

From the results of the research data, information on the role of parents during the COVID-19 pandemic was categorized into several fields, namely education, health, social, economic and spiritual. This study classifies the role of parents during the COVID-19 pandemic into three areas, namely education, health and spirituality. The following discusses in detail the role of parents during the pandemic in each field.

The role of parents in education

Parents play an important role in education. In short, it acts as a mentor, trainer, maintainer, developer, and caregiver to achieve learning goals. In online learning, parents replace the role of teacher. That is, it teaches and explains the materials that need to be learned according to the schedule given by the school teacher. The results of this survey data support the findings [20] that when learning online, parents need to be able to educate, teach, and teach their children when learning from home, and need to replace roles. And the character of the teacher. The role of parents is crucial to achieving learning goals online by patiently guiding and supervising children in learning activities that take place from home.

When teachers learn through Google or Zoom meetings, parents supervise their sons and daughters to participate in learning activities and allow them to focus on the materials presented by the teacher. [21] stated that when conducting online learning activities from home, children need parental support and supervision for online learning activities to proceed as expected and smoothly. After a zoom meeting, if learning is difficult without affecting the child's learning process, parents need to assist the child in the learning process. As a tutor or accompanying teacher, parents need to learn from the comforts of their home and patiently teach their children to manage and supervise them with the materials and assignments provided by online teachers. In addition, parents

help their children understand what they need to do, and at the end of the lesson they help their children look back and reflect on the activities performed.

Parents who work as civil servants or citizens need to plan activities with their children in order to carry out learning activities. Parents always motivate their children to engage in learning activities and understand their learning styles so that they can learn according to their own style and they can learn comfortably without feeling pressure. increase. [22] The discovery that parents need to understand their child's learning methods or styles in order for their children to learn according to their learning style. Supporting children's learning at home through creative ideas for children. Therefore, parents need to be more creative and innovative to create a comfortable learning environment so that their children do not get bored. When a child gets bored, parents invite the child to learn and play. In education and learning activities, we will establish facilities that can effectively support children's learning from home so that they can not only learn at school but also learn. [23] In order to carry out learning, parents must coordinate and facilitate the activities required for the learning process.

As a companion for children during online school, parents become a bridge for information about children's learning at home. This is in accordance with the results of Research [24] which states that teachers, parents, and the school must be able to work together so that they can become a bridge that connects information from schools to implement appropriate learning strategies. Parents can always work with teachers, educate, guide, build character, control children so that they remain productive and active in learning during the covid period. Parents must always monitor children's development in learning by always actively connecting and communicating with their children's school teachers to get reports on their children's school progress. According to [25] parents must establish communication and relationships with teachers to support the achievement of learning activities

In online learning, parents assist children in utilizing information technology. Parents always supervise and control the use of cellphones in online learning. pay attention to children in activities at home because during this pandemic, children tend to use gadgets more for the reason of studying. Children always use gadgets sometimes not to study so that the use of gadgets in a day can take more time than study time. This opinion is in accordance with research [26] which shows that in online learning the challenge for parents is to guide, supervise and accompany children during the learning process from home because children often abuse the use of gadgets used to view videos or other content outside of learning. sometimes abused by children.

The role of parents in health

Parents are the main guard who play an important role in maintaining the health of the family. Parents always make sure that the indoor environment is clean and virus-free. The role of parents is to educate their children about the pandemic to do all activities at home to avoid spreading the virus and not to pass the virus on to others. [27] Parents giving lessons to children who do not understand well about circulating diseases must stay at home, do all activities at home so as not to be infected, infected and spread, spread the epidemic and always adhere to the application, set an example and remind each family member to maintain good hygiene and respect health protocols so that children feel at home with healthy living in the family. Parents should be active and creative in providing information about covid 19 where children should wear masks, wash their hands often and use hand sanitizer.

Parents always protect their children from the virus and teach them to adapt to new habits. [28] In the Age of the New Normal, children are faced with new habits that change those practiced in the Age of Normal. In the home, facilities for health protocols are provided, namely hand washing devices at the door, masks and hand sanitizer for children when there are activities outside the home. [29] To stay healthy, it is necessary

to respect hygiene procedures and equip medical equipment such as masks, faucets for hand washing, hand soap, hand sanitizer and tools to spray viruses.

To prevent from corona virus, parents should maintain a healthy lifestyle by providing good nutrition, providing enough 4 healthy foods and perfect for their nutritional needs, namely protein, vitamins, encouraging children Light exercise every day and meet enough nutrition and nutrition for children. . make drinks. Herbal drink to maintain children's health and immunity. [30] Implement a lifestyle by paying attention to nutrition in food so that children develop physically and psychologically according to age. When one of the family members is sick, it is imperative for the parents to be able to become a doctor or medical worker to accommodate the patient's condition. Parents need to quickly find medicine, vitamins and provide more nutritious food, give male medicine. [31] When taking care of a sick child, parents should prepare vitamins, medicines, and food containing nutrients that can support the health of the child and create a comfortable play area for the child. If the pain in two days does not improve, take the child to the doctor immediately for more intensive immediate treatment.

The role of parents in the spiritual field

During a pandemic, parents are not only physically stimulating, but also mentally stimulated by upholding religious values. Parents teach their children something supernatural or unreal. Parents convince children that corona virus exists, the virus is God's creation. [32] The corona virus that causes the pandemic is a creation of Allah that we must all believe in. Parents always guide and remind children to always pray before leaving the house to avoid spreading the virus. According to [33], parents should teach and familiarize their children with always praying to avoid exposure to the virus. Meanwhile, [34] states that in order to prevent the spread of the virus and its spread, we must seek refuge with Allah by praying

Parents should be a role models for their children in the sense that parents set an example for their children to always carry out worship, pray before carrying out activities, care for neighbors who are sick with the corona virus and also care about environmental cleanliness. Parents also instill honesty in the use of time, namely time to study, worship, play with friends and play on cellphones. These findings are consistent with research [35] which states that one of the roles of parents and teachers is as a role model or example or role model for children in having a good personality and behavior. Examples of good attitudes and personalities include honesty, tolerance with others, discipline in carrying out activities, being responsible for the assigned tasks, being religious, and caring for others and the environment.

D. Conclusion

The role of parents during the COVID 19 pandemic can be divided into three areas: education, health and spirituality. In the field of education, parents play an important role as mentors, educators, trainers, developers and caregivers to achieve their learning goals. In acting as a substitute teacher, parents accompany and explain the material, teach children patiently, learn according to their own style, and understand their learning style so that they do not feel pressured. Makes you feel comfortable while learning. Parents constantly monitor and control mobile phone usage through online learning.

In the field of health, parents are the main security guards who play an important role in maintaining the health of the family. Parents need to use health protocols by wearing masks, washing hands frequently, using hand sanitizers, getting children to exercise lightly, and using everything to adapt their children to new habits. There is a need to actively and creatively provide education about Covid 19 at home activities and maintaining a healthy lifestyle. energy. Parents need to be able to become a healthcare professional that responds to the condition of a sick person.

In the spiritual field, parents become role models for their children in the sense that parents set an example for their children to do positive activities. Parents teach children something supernatural or unreal, convince children that the corona virus exists, the virus is God's creation and guide and remind children to always pray before doing activities,

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Chapter IV

Investigating Critical Thinking in Asynchronous Discussion Forums

Nurkamilah

A. Introduction

Research in online interactions still needs to be done to determine cognitive processes that arise, both in the process of understanding construction, language construction and critical thinking skills. Basically, Darabi, et al. (2011) found a cognitive process in four different asynchronous discussion strategies, structured, scaffolded, debate, and role play. This cognitive process is indicated by the four cognitive phases of Park (2009) namely triggering events, exploration, integration, and resolution. The four asynchronous discussion strategies presented show different results on cognitive processes. In a structured strategy, triggering events are high, but low resolution. In the scaffolded, high-resolution, debate and role-playing strategies, the cognitive phase is dominated by exploration and integration. This implies that to be involved cognitively, students need to take the right perspective according to the scenario or discussion context so that it can trigger critical thinking competencies. In other words, there must be a student's self-awareness effort to understand the context of the discussion in order to generate effective cognitive processes.

Asynchronous discussion forum (ADF) is quite common in learning nowadays as online learning environment has been introduced from the primary level of education to higher education. The use of this type of online learning feature in higher education has grown dramatically in the past few decades (Al-Husban, 2020), because some studies have proven its being an effective alternative media to help students construct their understanding from the conventional class forms that have a more flexible nature which allows them to

learn according to their own pace (Gerosa, Filippo, Pimentel, Fuks, & Lucena, 2010; Loncar, Barrett, & Liu, 2014). Richardson and Ice (2010) added that the discussion forum is an extension of traditional learning that promotes dialogue, knowledge construction, and critical thinking. Such notion somehow has brought the concern how such feature could enhance student's critical thinking.

There is limited studies that examine critical thinking in the interactions that occur in asynchronous discussions. To find out the existence of a critical thinking process, it is necessary to have an appropriate measuring instrument that can prove the process. One review study (Hall R. A., 2015) emphasizes that even though the discussion media has now switched to online, the critical thinking process is still considered important. She revealed that one of the weaknesses of online discussion that many find is the ability to think at a higher level. That most of the research states that online learning has the potential to develop and improve critical thinking and deep learning skills. More recently, a case study investigating critical thinking indicators of postings on asynchronous discussion forum revealed that some indicators have emerged and unveiled that the participants have acquired essential critical thinking skills (Al-Husban, 2020). The study, however, noted that the students still needed to focus on achieving higher order thinking skills.

To create a critical thinking process, it takes more than a 'question' but a 'problem' that can be seen contextually (Darabi, Arrastia, Nelson, Cornille, & Liang, 2011). The critical thinking process must be able to become a medium of connecting between formally obtained material and its implementation in the real world. In other words, instructors must be able to find problems and find questioning strategies to be able to direct students to be able to see contextually at their respective experiences or environments. However, the process will be difficult to see clearly in the results, because it requires a gradual and in-depth investigation.

Table 1. Indicators of Bloom's Taxonomy

Level	Description
Remembering	Recalling of specific learned content, including facts, methods, and theories.
Understanding	Giving his/her interpretations towards certain concepts using his/her prior knowledge without understanding full implications.
Applying	Making simulations or examples to a new settings of the concepts learned.
Analyzing	Breaking down the learned materials or concepts into smaller parts that can help clarify the concepts, relationships, comparisons, and contrasts.
Evaluating	Giving judgments or value of the learned material, or giving recommendations or critics of the material or topics being discussed
Creating	Expressing benefits or uses of the learned materials as well as providing a new arrangement, as well as poses a new solution to a problem

Adapted from O'Riordan, Millard, & Schulz (2020)

This study aims to investigate the process of critical thinking as indicated by the presence of Bloom's Taxonomy cognitive processes in a threaded online discussion forum. According to Bloom, critical thinking as one of the highest cognitive levels is one of the key aspects in achieving learning autonomy. The students' posts were examined through the indicators of each of thinking level as seen in Table 1.

B. Method

The case study aimed to investigate the process of critical thinking as indicated by the presence of Bloom's Taxonomy cognitive processes in a threaded online discussion forum. As a form of discourse analysis, the study is expected to be able to unveil how online discussion forums could increase

the collaborative interaction among learners (Heigham & Croker, 2009).

The study involved 38 higher education students of English education department who were taking a course of Information Technology for ELT Media. This course was given to the second-year students of Universitas Muhammadiyah Jember, Indonesia. The students' interaction in an asynchronous online discussion forum was investigated using the e-learning platform of the university, called estudy.unmuhjember.ac.id.

The students were divided into seven (7) smaller groups with different English mastery. Before the discussion was started, the students were given two meetings of preparation for understanding the features offered in the online platforms.

The techniques were implemented following three stages of procedure. First, all posts or comments in the Forums were gathered. Second, the posts were classified as comments which later were analysed for the presence of cognitive process. This led to the reveal of critical thiking processes. Furthermore, the data were analysed in two stages. First, the data were analysed during the process of data collection. In this stage, all posts or forums were checked for irrelevant posts or posts with very few or zero responses. Only forums which have responses from the assigned group members were analysed. Second the data analysis was done after the data collection. In this stage, three other steps were implemented, such as data reduction, data display, and conclusion drawing (Miles & Huberman, 1994). This procedure was implemented repetitively. It means that the researcher can return to previous stages when certain data needed more exploration.

C. Result

Seven forums created by 7 groups were investigated. It was found that most groups have posted double discussion forums but only one of them had responses. Each group was given the freedom to decide the topic within the theme of the 21st century learning skills which they would like to discuss in

the forum. The seven topics of every forum can be seen in Table 2.

Table 2 Discussion Topics

No.	Group	Topic	Total Responses	Total Students
1	A	Social media for learning	19	5
2	B	Website usage for one of the media information implementation	9	6
3	C	The best way to ultilize media and information literacy	7	6
4	D	Using app study for learning	27	5
5	E	Media and infromation literacy is essential for education	7	5
6	F	Using EdPuzzle to transfer the knowledge for students in online or offline class	13	5
7	G	Media and information literacy for teaching and learning purposes.	11	6

The study obtained 7 asynchronous discussion forums as presented in Table 2. It can be seen that the number of responses varies widely because asynchronous discussions are held without any minimum and maximum limits, while the number of group members is fixed. As for the frequency of responses of each member in the discussion, each member of every group posted different amount of responses (Table 3). Apart from the frequency of responses, the researcher also knows that the length and shortness of the sentences in the responses also need to be considered. In one single comment, for example, may have 2 different types of cognitive levels, which will show different results. Each member of every group is written in code.

Tabel 3. Number of Responses Posted by Group Members

Group	Member Codes	Number of Posts
A	A1	2
	A2	3
	A3	5
	A4	1
	A5	7
B	B1	1
	B2	1
	B3	1
	B4	1
	B5	3
	B6	3
C	C1	2
	C2	2
	C3	1
	C4	1
	C5	1
	C6	1
D	D1	4
	D2	4
	D3	11
	D4	3
	D5	6
E	E1	1
	E2	1
	E3	0
	E4	3
	E5	3
F	F1	1
	F2	4
	F3	5
	F4	2
	F5	2
G	G1	4
	G2	1
	G3	5
	G4	1
	G5	0
	G6	1

Based on the descriptions in Table 3, variations in the total number of responses in each forum are caused by different numbers of responses uploaded by each member. There were 2 groups (E and G) where one member did not respond. The two students are two students who are not active in lectures so there is a possibility that the information may not be effectively conveyed to students. Therefore, it is obtained 7 group discussion forums with a total of 93 responses uploaded by 36 students.

Levels of Student's Critical Thinking in Asynchronous Discussion

Obtained 7 discussion forums were analyzed in this study. From each forum, students' critical thinking levels were analyzed according to their uploads or responses in asynchronous discussions based on the cognitive level of Bloom's Taxonomy. It is known that of the 93 responses made, there are 106 types of comments that are at different cognitive levels. This means, in one upload there can be more than one cognitive level. From the overall responses, all cognitive levels were found, starting from Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Thus, it is known that the three higher order thinking skills are found, namely the skills to analyze, evaluate and create. All of these levels are found based on the descriptions in Table 3.1. The following is a snippet of each level along with an explanation.

The first level is the Remembering cognitive level. This includes low-level thinking skills. The indicator is in the student's response to mention the material they have learned. Students only repeat or rewrite the material they have read. For example, student F3 wrote in her response
“3 Reasons to use EdPuzzle in the classroom:

> Given the increasing importance of assessment in education, the quizzing feature of EdPuzzle provides teachers with the potential to create tests and assess

pupils through digital technology (e.g. iPad); helping to reduce the time devoted to marking and tracking.

Possibly EdPuzzles best feature is the fact that it enables educators to add their own voiceovers and audio notes to existing educational videos already online, this allows for lesson customisation and time saved making original video clips!

EdPuzzle has its own inbuilt LMS functions, educators can track learners progress on lessons and reset the lessons again if they aren't happy that certain students didn't fully comprehend" F3- Using Edpuzzle

This excerpt is analysed to belong to the Remembering level because the student simply copied materials related to EdPuzzle. This response or post required very limited critical thinking process, therefore may not be considered as critical thinking.

There are 18 posts (16%) in total which reflect the Remembering level. This level is considered the lowest order thinking skill since students are not required to reflect the material to his or her understanding.

The second level, namely Understanding, is characterized by an interpretation of the meaning of the knowledge being learned. In this case, students will try to explain the material again with their own understanding but do not give examples of its application, as shown in the following excerpt.

"Yes, I use the Learn English Grammar application. Because this application is perfect for studying or reviewing the grammar lessons we want to learn. This application also contains interesting questions and exercises that are easy to understand, there is also audio that helps us to better understand what is being discussed. We can also hone our pronunciation, which really helps us to learn grammar better. The explanation

> is also explained from beginning to end, maybe this is suitable for those who don't want to be complicated opening books if you want to learn, you can immediately open this application via cellphone." B6 - Website usage for one of the media information implementation

The study found 43 posts or 38 % of all posts that can be categorized into Understanding level. Students' posts mostly attempt to describe certain concept using their own understanding. Sometimes the students use examples which help them clarify what they mean.

The third cognitive level, *Applying*, is what appears a lot in the data. The indicator is in the form of the student's ability to provide responses that contain forms of real application that are relevant to the material obtained or the form of questions that seek to obtain this information. The study found 28 posts (24.7%) categorized in the Applying level. An example of students' posts that belongs to this level can be seen in the excerpt below.

> "Since all of you guys agreed, how about ya'll? maybe you have any other apps or webs that help you in learning English? or even maybe for our future teaching purposes? :D" B5 - Website usage for one of the media information implementation.

The Applying level is still considered lower order thinking skill. However, to reflect this skill, students should process the concept of the material they learn into their experiences and apply this into certain situations in their life. In teaching critical thinking, making students implement certain concept into daily life situations is a process of creating critical thinking (Darabi, Arrastia, Nelson, Cornille, & Liang, 2011). Therefore, regardless of its being lower order thinking skill, the Applying level is important in the construct of critical thinking.

The next cognitive level is Analyzing. This is one of the higher order thinking skills. It can be seen by students' efforts

to study or break down material learned to be derived into simpler concepts so that the relationship between these concepts can be seen. In this study, 11 posts (9.7%) have been found which belong to the Analyzing level. One example of the posts can be seen in the following excerpt.

> "…But another interesting thing is if you check its website--Grammarly.com, you will find some other amazing features, like a plagiarism checker, English learning materials, etc., moreover, it's easy to use for everyone. I think its overall program and developments are very great for teaching and learning (mostly learning) purposes."
>
> B5 - Website usage for one of the media information implementation

The students in the study showed the Analyzing skill by trying to look deeper into certain topic or material and breaking it down into the advantages and disadvantages, or benefits and challenges. Doing comparison and contrast can be assumed to be one way to introduce analytical thinking skills to students.

The fifth cognitive level found in this study is evaluating. In this case, it is known that students provide an assessment of the material by showing their weaknesses and strengths and what needs to be worked on. The study found 5 posts or 4.4% which satisfy the category of Evaluating level. See the following excerpt for example.

> "I agree and also dissagree with that system.
>
> [I agree because] we can control all the student activities but for dissagree there is no privacy ptotector for the student. because there is a cips in their uniform. perhaps, they go to bathroom all of their privacy can show on the teacher program.

> [I also disagree] with that system because if the student itchy,didgety,or poor setup so the electrodes don't have good contact affecting, the signal.dispite the chances for false reading teachers told us the head for have forced students to become more disciplined and this system make the parents who were unclear about where the data ended up and did not seem to care too much, and this system can not use in indonesia because the goverment must spend much money." G1 - Media and Information Literacy for Teaching and Learning Purposes

To satisfy this level, students write what they feel about certain concept, material, or topic. Then, they describe why they feel in such a way. Some posts also try to pose a question which lead to unveiling judgment or evaluation of the topic being discussed, like in the following excerpt.

> "What if the social media used by the lecturer cannot make students understand the material that has been explained? what should the lecturer do, whereas we cannot do face-to-face." D4 - Using App Study for Learning

The last level was *Creating*. At this level, students provide comments that show themselves providing an assessment and show an effort to find new findings from the assessment. However, the study found only 1 upload showing this level. The post can be seen in the following excerpt.

> ""We need more quotas to access the literature we want to access." that's true, but with the help of a quota from the government that will help us a lot. In addition, free wi-fi can be accessed in places such as restaurants and cafes." C2 - The Best Way to Utilize Media and Information Literacy

In the post, the student refers to one problem and proposes a simple solution to the problem. Although it seems

simple, it is the final stage of critical thinking, where students provide a solution to a certain problem.

Based on the data presented as obtained from the asynchronous discussion, most students still have not been able to achieve higher-order thinking skills. However, the results achieved were somehow satisfactory, considering that from those uploaded by students who were still at a low level of thinking, they had been able to understand the material correctly and were involved in the discussion. At the level of thinking, for example, most students try to find benefits from the material they learn so that it is useful for their lives, which is necessary for practicing critical thinking. The data also showed 17 posts have been categorized into the higher order thinking skills.

D. Discussion

The study has found that the asynchronous discussion forums may promote critical thinking, if seen using the Bloom's Taxonomy approach. It is clarified in the findings that most students are struggling to achieve the higher order thinking levels. Some associated factors to this issue include students' struggles in speaking out their voices (Alagozlu, 2007), limited teacher's contribution in providing scaffolding questions (Mustika, Nurkamto, & Suparno, 2020), and not being familiar with the topic discussed (Tathahira, 2020). The first reason is commonly found in various contexts of learning. The student's struggle is related to their socio-cultural background as Indonesian students. Alagozly (2007) highlighted in his research that the Turkish EFL students did not feel comfortable to add their comments because, as he assumed, it reflects how they have been educated until university. While in this study, this may be the result of the nurture of the culture or social background of the students. As eastern people, they have been taught to respect other people's opinion. Respecting, in this case, might have been translated differently as 'accepting it at once'. Teaching critical thinking in order to help students with this socio-cultural struggle, teachers should consider giving adequate practices to make them aware of the differences.

Secondly, Mustika et al. (2020) have assessed the significance of teacher's questioning strategy in building critical thinking process in students. The study found the contributions of teacher's questioning to the student's critical thinking. In the study, teachers used questions which lead to certain cognitive levels by Bloom's Taxonomy. Other studies also emphasized the importance of teacher's questioning strategies in scaffolding students' critical thinking (Kurniawati & Fitriati, 2017; Ashadi & Lubis, 2017). In the present study, the researcher did not pose particular questions intended to help students post their comments and feedback. Instead, a specific instruction was given and preparation in prior to the activity were given. This finding, therefore, should be reflected that in the case of online learning, giving leading questions, in addition to instruction, are necessary to improve the result of student's critical thinking.

Finally, the study found that students' unfamiliarity to the topic may become the reason that they have limited insight towards the topics. Tathahira (2017) has specifically mentioned that students might struggle so hard when asked to comment on a topic which they have limited information about. However, in this study, the students have been asked to decide the topic of their own within certain boundary (that is under the 21st century learning skills theme). However, the all forums investigated still show most posts within the lower thinking levels. This could be assumed that students only read a few resources before writing their comments. This can become an important message for teachers of online learning to provide compulsory readings for students so that they can become more well-read.

E. Conclusion

The study has found that of the 106 posts, 18 were in the remembering level, 43 were in the understanding level, 28 were in the applying level, 11 were in the analyzing level, 5 were in the evaluating level, and 1 was in the creating level. It reflects that most of the posts have not reached the higher order thinking skills, but students have been known to make attempts to get into the process of critical thinking.

There are several factors which may cause the phenomenon to occur, namely students' struggles in speaking out their voices, limited teacher's contribution in providing scaffolding questions, and not being familiar with the topic discussed. These factors are related to internal and external issues, such as students' social and cultural background, teacher's exposures to critical thinking questions and activities, as well as students' limited readings. In online learning, providing more exposures to students and motivation to learn independently could be the least teachers can do to promote critical thinking.

There are several limitations of this study, such as less controlled group of participants and not rigorous data analysis. Therefore it is expected that future studies on this topic conduct a study that include content analysis in order to see deeper into the language construction so that it can reflect students' critical thinking better.

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Chapter V

Talk for Writing: the art of combining speaking and writing

Indah Werdiningsih

A. Introduction

Is there a connection between speaking and writing skills? Writing and speaking skills are categorized as productive skills because they involve the production of words, phrases, sentences, and paragraphs; however, each follows a unique mode of expression (Astawa et al., 2017; Golkova & Hubackova, 2014; Hossain, 2015). Although the two are substantially similar, speaking skills follow normative features of an informal style that are absent in the written form of text production. Yes, the two have a strong correlation. Writing is indeed a representation of spoken utterance.

Students in SMP Negeri 03 Silo are dealing with writing problems: difficulties in exploring and developing ideas, translating and organizing words, lacking vocabulary, and spelling and grammar errors especially in the use of tenses. The eight-graders consisted of 26 students, 12 males and 14 females. The school set the score 75 for the minimum passing grade, and only 50% of students pass the criteria. The students are EFL (English as a Foreign Language) Learners, and they are not familiar with the use of English in their daily activities. Most of the students communicate in English only when they are at school. These students are very rarely exposed to speaking and writing. Usually, the teacher teaches using a textbook, the lesson is teacher-oriented: teacher explains the material in the textbook and asks students to do some assignments or homework.

In order to write well, students need to focus not only on the mechanisms but also on sociability and creativity (Hodges, 2017). The relation between these two skills link to the area of cognitive and affective learning: motivation and interests affect one's skill (Shawer et al., 2008). For years, efforts have been made to help students improve their writing skills through the

use of technology and various methods and approaches. Talk for Writing is one of the approaches which can be considered as the latest innovation, one that requires teachers to expose their students into different text genres by "talking the text": talking at more frequent intervals about certain topics (Baisov, 2021).

Talk to support writing is used in three different ways: for metacognitive purposes, for oral rehearsal, and to generate ideas (Fisher et al., 2010). Metacognitive is "an awareness of our own cognitive process in the thinking and learning activities or knowing about what we know" (Gordon & Braun, 1985). This means that the process of metacognitive is needed to acknowledge and to manage information and actualize it into productive skills: speaking and writing. Teachers and students will not be able to conduct a speaking activity in class without properly planning activities with metacognitive processes in it (C. Goh, 2016). These processes help students to perform tasks better in a more instructed, directed way (C. C. M. Goh, 2014). To improve writing, oral rehearsal can support actualizing students' ideas. The oral rehearsal can be done in an interview with the teacher, in a conversation with partners or in a focused group discussion under the supervision of a teacher (Fisher et al., 2010; Myhill & Jones, 2009). It's usually performed before, during, and after writing (Myhill, 2009; Naka & Naoi, 1995) to generate ideas, to shape ideas, to reflect and to evaluate essays. It is important to "write aloud" to rehearse students' writing (Bogard & McMackin, 2012). Oral rehearsal can be recorded and used as a reference for individuals to write a better essay.

In order to successfully implement these purposes, teachers need a well-planned method and in-class activities. Students can collaborate and work in groups to elaborate their ideas about a topic or say what they want into words. This approach is simple, accessible, and effective for both students and educators (Strong, 2020). Previous studies (Fisher et al., 2010; Strong, 2020) did not really expose specifically how Talk for Writing can improve students' writing ability, and this research aims to investigate the ways.

B. Method

For that matter, the action research method is used to improve writing through Talk for Writing. Action research is a cyclical process (Drummond & Themessl-Huber, 2007; Fletcher & Beringer, 2009; Henning et al., 2021; Hirsch et al., 2000; Kagan et al., 2006; Stringer, 2008) that includes the stages of Plan, Act, Reflect, Learn (Nazari, 2021; Swann, 2002). Planning the action means to find out what to do during the action research and how to do it. Researchers should prepare everything well from preliminary study, pretest, school survey, student observation, choosing the material based on the school curriculum, designing the lesson plan, the method, the instrument, and others. After planning the action, the implementation is done based on the lesson plan. Researchers take action and carry out plans for the teaching and learning activities in the cyclical process of action research. After the implementation, reflection needs to be done to look back on what happened and to find out what went well and/or what went wrong during the action. Based on the reflection, the researchers then decide whether to continue or to stop the action. The cyclical process of the action research can be seen in Figure 1.

Figure 1. The Action Learning Cycle (Revans, 1980)

The researcher first made a plan to do steps for the action. Recount and Narrative were chosen as the text genres and the researcher planned to teach in three meetings for each cycle. The method used is pair work, Focus Group Discussion and interview-led storytelling. Next was to choose the topics; including the setting, the people/characters, the orientation of the story, and the events. The researcher then took actions by carrying out the lesson plan that had been made. During teaching, teachers should recognize and understand the characteristics of the students. After teaching, a reflection process was done to answer the questions about what happened during the action, what went wrong, and what went well. The last step was to learn the causes of why the action succeeded or failed, and continue to go back to plan the next action if the cycle did not go so well.

The study was conducted in SMP Negeri 3 Silo, located in 2 Ranggi St, Garahan Silo, Jember, East Java. This school has a population of 18 teachers and 405 students. Class VIII E was chosen as the research subject because its writing score is lowest among other classes in SMP Negeri Silo. Class VIII E has 26 students consisting of 12 males and 14 females. The school sets the minimum passing grade at 75, so the actions are considered success if the average score is ≥ 75 and more than 75% of students get above 75 in their writing test. The researcher obtained the data from writing tests and observation of field notes. To make sure that the instruments are valid and reliable, content validity is used. The test was constructed based on the curriculum, and test items' reliability are checked using Alpha formula. The coefficient of the reliability of the test instrument is 0.708, which means that the reliability of the test was high and the items of the test were reliable. The test results were analyzed from calculating the average score and its total percentage.

C. Discussion

For cycle 1, the researcher implemented the action in three meetings, 80 minutes each. In meeting 1, the class started

with the teacher sharing a story about her past experiences during a holiday. She then asked the students whether they have experienced the same thing, and asked them to share stories about their holidays with their partner. During the pair work, students have to ask questions to their partner, write it down, and submit the report. In meeting 2, the teacher split students into groups, gave them a topic, asked questions to the group members, wrote a summary of the discussion, and submitted the report. In meeting 3, students were given an example of Recount text and the teacher provided an explanation about its generic structure. The teacher then gave back students' work from the previous two meetings and asked them to rewrite their report in the form of recount text. In meeting 1 to 2, the teacher observed students' activeness and participation during classroom hours by using field notes. Meeting 4 was designed for students to conduct the writing test. The test results were analyzed using the writing rubric (Figure 2).

	0 (Nothing)	1 (Little Evidence)	2 (Some Evidence)	3 (Evidence Somewhat Adequate)	4 (Evidence Adequate)	5 (Proficient)
ORGANIZATION	Only a few words or phrases are written, there is no beginning or end	Student writes words/phrases which demonstrate a beginning & some related concepts	Student writes sentences or [paragraphs which introduce and summarize the topic	Student writes sentences or paragraphs which introduce and summarize the topic using a few transition words (first, next, then)	Student writes sentences or paragraphs which introduce and summarize the topic with appropriate transitions	Student demonstrates clear sequencing and proficiency appropriate for their grade level state standards
MECHANICS (Spelling, grammar, etc.)	Writing is not comprehensible—little or no punctuation is used and nearly all words are misspelled	Writing includes some mechanics (subject/verb agreement), but still demonstrates little punctuation and uses invented spelling	Writing includes invented spelling, but is now demonstrates correct ending punctuation, capital letters, and subject/verb agreement, etc.	Writing still includes spelling errors, but now demonstrates correct use of adjectives and adverbs descriptive phrases, with appropriate middle (commas, quotation marks) and ending punctuation	Writing is nearly free of spelling errors, most grammar is correct with some, but few errors still evident—exhibits correct use of most parts of speech (prepositional phrases) and colons and semi-colons	Writing demonstrates clear and concise knowledge of mechanics and makes few to no errors, according to state standards, including correct use of apostrophes
SENTENCE STRUCTURE	No complete sentences—only words or phrases	Very few complete sentences	Most sentences are complete, but very simple	Almost all sentences are complete with some complex sentences used	Sentences are complete and vary in length and structure, active—passive voice used in appropriate structure	Sentence and paragraph structure demonstrate grade level competency
VOCABULARY	Vocabulary is mostly incomprehensible	Vocabulary begins to relate to proper syntax and the topic	Vocabulary is basic, some descriptive words are used and does relate to the topic and syntax	Vocabulary is clear, but still simple, with some use of figurative language	Vocabulary is near grade level, with idioms, similes, metaphors and other figurative language used	Vocabulary always relates to the syntax and is appropriate for grade level

Figure 2. Writing Rubric (Hirai et al., 2013)

Students' average scores in a range of 1-5 for each indicator are 3.76 for Grammar, 3.5 for Vocabulary, 3.96 for Mechanism, and 3.92 for Organization (Diagram 1).

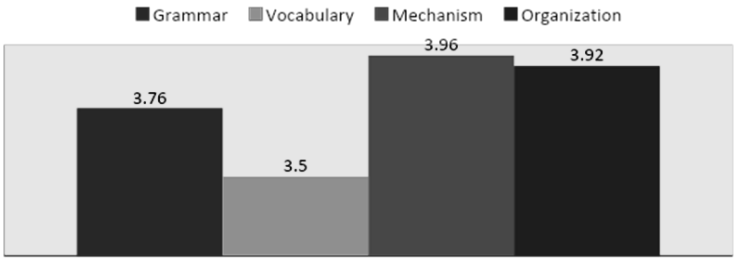


Diagram 1. Average score for each indicator in Cycle 1

Students' average score is 76.1 and only 18 out of 26 students (69.23%) got ≥ 75 (Diagram 2).

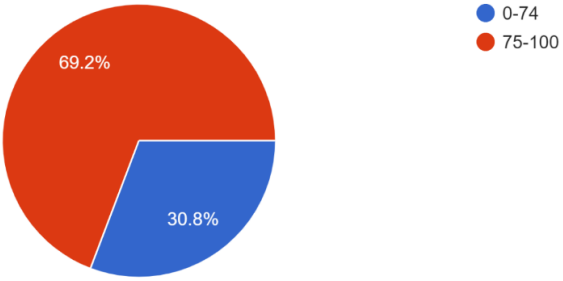


Diagram 2. Students' Writing Score in Cycle 1

Compared to the pre-test result which was done earlier before the action (Diagram 3), the test result in Cycle 1 was actually improved. It went from 70.3 to 76.1 for the average score and 42.3% to 69.2% for the number of students' who got ≥ 75.

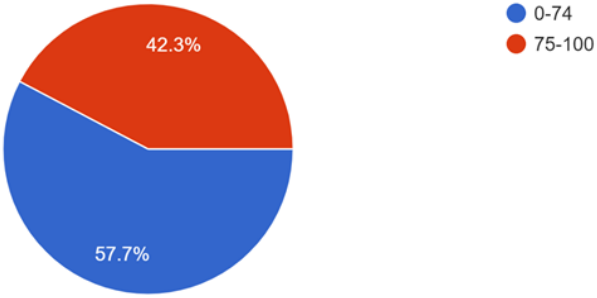


Diagram 3. Students' Writing Score in Pretest

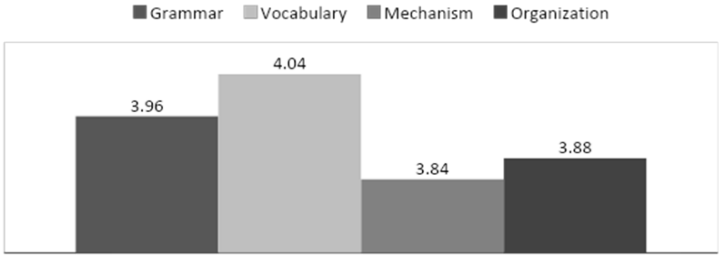
Referring to the Criteria of Success, the test results of Cycle 1 are not yet successful. The average score had exceeded 75 but the percentage was still below 75%. This means that the cycle continues to Cycle 2.

There are several possible reasons why students' scores are improving but not enough students passed the minimum standard score. The teacher had directed and prompted students to make moves for writing the text through the group works and discussions which actually involved them in Talk for Writing (Dockrell et al., 2015; Styles & Bradshaw, 2015; VanDerHeide, 2018). However, not all students are used to speaking with partners and/or in groups and writing essays, and with the different characteristics and skills, it was difficult for them to adjust and catch up with the progress their classmates had made. The observation for cycle 1 showed that there were problems during the teaching and learning process. Some students were experiencing anxiety and not feeling confident while speaking in groups. Some others were having difficulties translating Indonesian words into English. These are in line with some previous studies on the analysis of students' problems in writing text (Astuti et al., 2020; Nurkholijah & Hafizh, 2020; F. P. Sari et al., 2013; M. K. Sari, 2017; Sayukti & Kurniawan, 2018). Most of the students were passively participating during the lesson and they did not speak much. This problem occurred because students rarely write and speak in English (Al-buainain, 2009; Ananda et al., 2014; Ansari & Neupane, 2009; Jichun, 2015). This could become one of the reasons for the failure of cycle 1.

In cycle 2, some changes and adjustments were made based on the reflection done in cycle 1. The teacher used a different text genre–Narrative text and added storytelling in the learning process. In meeting 1, the teacher asked students about their favorite fairy tales, and asked some questions related to the plot, setting, theme, complication arising in the story, and the resolution of the problems. The teacher then divided them into groups and gave a project to retell their favorite stories. In meeting 2, the groups presented their storytelling and then observed and wrote down moral stories

and important information from other groups' projects. In meeting 3, students were given an example of Narrative text and the teacher provided an explanation about its generic structure. Students then wrote a narrative story based on the project that their group has done in meeting 2. Cycle 2 test was conducted in meeting 4. The data analysis and the reflection were done after the second writing test. Based on the calculation, students' average scores in a range of 1-5 for each indicator are 3.96 for Grammar, 4.04 for Vocabulary, 3.84 for Mechanism, and 3.88 for Organization (Diagram 4)

Diagram 4. Average score for each indicator in Cycle 2



The average score was 79 and the percentage of students who got ≥ 75 was 96.2% (Diagram 5).

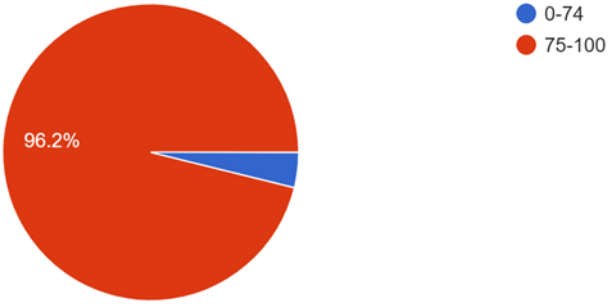


Diagram 5. Students' Writing Score in Cycle 2

Based on Diagram 5, we can see that the average score has already improved and the number of students who got ≥ 75 is near 100%. This means that it met the requirements for

the Criteria of Success and the cycle was successfully implemented. Action research stopped in cycle 2.

Learning from failure in cycle 1, changes in teaching and learning activities have been made in cycle 2. Students were exposed to more discussions and new text genres, and required to observe and express their ideas in both spoken and written form. Those who did not actively participate in cycle 1 became more involved in the group discussion in cycle 2. Time triggers learning (Bloom, 1974; Mulder et al., 2013; Norberg et al., 2011; Romero & Barberà, 2011) and students are getting used to practicing speaking and writing by building the habit in the classroom. Students are also actively engaged in the process of learning due to the collaboration in the project given by the teacher which is done with their pairs and groups (Werdiningsih, 2022). This made them motivated because when they learn in a community, they have self-efficacy, greater responsibility, and are taken charge for their actions (Djoub, 2017a, 2017b; Werdiningsih & Ainul Mardiyah, 2019). When students are motivated, it encourages them to have learners' autonomy and be involved in their own learning (Hilliard & Kargbo, 2017). At this point, teachers should prepare methods and approaches that suit their students best (Dolmans et al., 2005). In writing, the suitable and most practical one is Talk for Writing. Speaking differs from writing (Sperling, 1996) but the two skills are inseparable and closely related to each other. When one is fluent in speaking, it helps to express their ideas in writing as writing is the personification of spoken utterances (Halpern et al., 1982; Ramey, 2013)

In short, below are the progress of the action research from pre-test, cycle 1, to cycle 2. The results for action research are presented in the following tables:

Table 1. Results in Pretest

The Data Results	**Pretest**
The mean score of writing test	69.5
The percentage of the students who scored ≥ 75	42.35%

Table 2. Results in Cycle 1

The Data Results	**Cycle 1**
The mean score of writing test	76.1
The percentage of the students who scored ≥ 75	69.23%

Table 3. Results in Cycle 2

The Data Results	**Cycle 1**
The mean score of writing test	79
The percentage of the students who scored ≥ 75	96.26%

We can see from Table 1 to 3 that there are some significant differences and improvements in the writing score. The teacher had directed and prompted students to make moves for writing the text through the group works and discussions which actually involved them in Talk for Writing. In cycle 2, some changes and adjustments were made based on the reflection done in cycle 1. The teacher exposed students to a different text genre–Narrative text and added storytelling in the learning process. This one also helps to improve the process of writing because students are definitely motivated to talk about their favorite story or fairy tales. It encourages them to speak up just like when the teacher asked them to tell their partner about their experiences in the past. The ideas are flowing in spoken utterances, and students can reshape their ideas into written form more easily than without oral rehearsal (Myhill & Jones, 2009; Naka & Naoi, 1995). It leads to the conclusion that to be able to speak fluently and to write well, students need to feel comfortable and confident, and teacher as a facilitator and a motivator have to create a fun learning environment (Werdiningsih, 2022) where students are free to express themselves. In addition, proper approach and learning methods used in the classroom is also crucial because students come from different backgrounds and with different needs and characteristics.

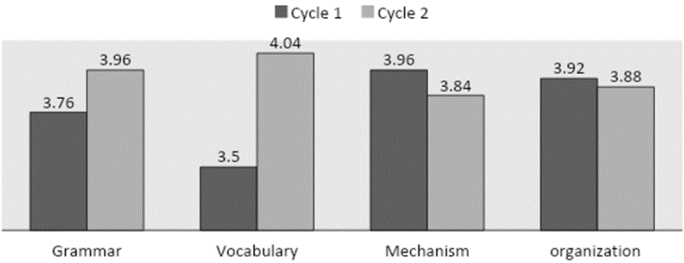


Diagram 6. Comparison for each indicator from Cycle 1 to Cycle 2

In Diagram 6, the comparison for each indicator from Cycle 1 to Cycle 2 shows an improvement in grammar and vocabulary but students' mechanism and organization are decreasing a little even though the average score is higher than in Cycle 1. The point is, students' abilities in writing are getting better. The decrease in writing indicators do not really indicate failure in cycle 2 as the average score and the number of students who got ≥75 are higher in number. The decrease in the score of mechanism and organization was probably caused by the differences of score given by the reviewer 1 and reviewer 2. In providing the score for the writing test, this study uses 2 reviewers in order to not make the score subjective or come only from one point of view as it is stated in some studies (Neuwirth et al., 1994; Pullen, 2018; Smagorinsky, 1994).

From the data analysis and the comparison results, it come to conclusion that the use of Talk for Writing approach can help increase students' writing ability by developing the confidence to offer ideas and then reshape them in the light of other contributions (Davies & Meissel, 2016; Englert et al., 1992; Jang, 2007), in this case, speaking to writing.

D. Conclusion

Talk for Writing is able to improve the ability in writing by building students' ideas in spoken utterances during their interaction in group discussion and collaboration with fellow students and teachers and reshape those ideas in writing

essays. In this approach, students are expected to speak and to write well. Teachers have a very important role in directing students and to prepare the right method, topics, and instruments used during the actions. Teachers also need to understand the characteristics of their students and make sure that students meet their needs. Different characters need different treatment. Students who have courage and confidence will gain self-efficacy and motivation that will help them in designing learners' autonomy and generate ideas in both speaking and writing. More introverted students are going to need more guidance and assistance from their teachers or learning partners.

In this 21st Century, teachers of course must improve themselves by upgrading their methods of teaching, one of which is to use 21 Century Learning Design and methods that focus on student-centered learning. There are technologies that we can use to create a more fun learning environment so that students can feel better and learn better. In the near future, fellow researchers are suggested to conduct studies on speaking and writing skills which are ICT-based, like writing essays in blog or websites, or even in social media.

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Chapter VI

Profile of Student Mental Model on Two-Dimentional Figure

Lady Agustina

A. Introduction

Ability in learning mathematics in education today is an important requirement (Rahayu, 2018). The thinking process occurs during the process of learning mathematics, because people are said to think when they do mental activities and people who study mathematics must do mental activities (Hudojo, 2005). In thinking, people will construct relationships between parts of recorded information as meanings. Mathematics learning is associated with good mathematical thinking so that it allows students to create their own mathematical concepts and relationships (Sangpom, et al, 2016). Learning mathematics should be able to motivate students to effectively improve their learning abilities based on student-centered learning.

Learning mathematics must have a basic concept of the concept first, learning concepts is not easy compared to learning things that are facts and algorithms in learning mathematics because the concept starts from the most basic things (Simbolon, 2019). Knowing the thinking process of students when solving math problems is very important for teachers. Teachers must understand how students think and how students process incoming information so that teachers can guide and direct if students have difficulties. By knowing students' thinking processes, teachers can track where students' mistakes are and the causes of these errors.

According to Mudrika (2016) mathematics teachers must not only teach students how to solve problems but also to learn mathematics through solving these problems by developing mathematical thinking skills. In the process of mathematical thinking, a person will experience a process of constructing knowledge on himself which is a result of

understanding mathematical concepts developed through the formation of mental objects and the relationship between these mental objects. The mental model explains how each person's mind is used to describe and explain a phenomenon when studying nature (Jansoon 2009). Students' mental models are built based on experiences, interpretations and explanations when learning mathematics. Mental models will later develop according to their needs in making assumptions and solving problems in learning mathematics.

Students can carry out the mathematical thinking process that is needed is to have mathematical ability and try to develop it, one way to develop it is by the process of forming mental models (Baltaci, 2016). The formation of a complete and good student mental model is an important role of a teacher as a student educator during the teaching and learning process in the classroom. The teacher's teaching strategy and the making of teacher's teaching materials will greatly affect the development of the students' mental models. According to Duffy (2012), the concept of mental models was first put forward by Craik (1943), the mind builds small-scale models of reality that are used to anticipate events, reasons and to base explanations.

Some researchers argue about mental models, Zimet (2017) mental models are cognitive structures in the form of processes or properties of producing a product. Mental models also have several important functions, namely helping to store data and carry out strategies to get a result. According to Turk (2016), mental models are internal representations of cognitive processes, someone who is a psychological representation of real and imaginary situations. Mental models can be formed in people who understand and express events in everyday life. In their thinking, mental models are internal representations of the actual situation in a person's thinking to understand something. According to Ozgan (2013), mental models are internal representations as analogies to situations that serve to account for their reasoning when they try to understand discourse and when they try to explain and predict behavior in everyday life. Than an analysis of mental models

can provide us with very valuable information, knowing the mindset and learning process of students.

There are two reasons why mental models are interesting to study. First, because mental models play a role in influencing cognitive function in a person and second, mental models can provide valuable information for educational researchers about the composition of concepts possessed by students (Laliyo, 2011). A person's conceptual change may involve enrichment or revision of the current conceptual structure to accommodate new knowledge. During the process of conceptual change, students often develop their own alternative conceptions of culturally defined formal models (which are considered the ultimate goal), and their attempts to incorporate new information into their conceptual structures and provide an insight into how they think about these concepts.

Mental models initially only had three categories (levels), namely initial, synthetic and formal. Research related to mathematics about mental models, namely from Bofferding which examines mental models can provide an overview of how students can process the information that has been given by the teacher in solving integer problems so that teachers can find out students' difficulties and even misconceptions that students usually have. Then Bofferding (2014) identified five categories (levels) of mental models, namely initial (initial), transition I, synthetic, transition II and formal. How students process what is in their minds is very important starting from the beginning / early. The introduction of an early mathematical material concept shows that mental model profiles are very necessary, especially those related to everyday problems. Examples of basic mathematics material that is usually taught to elementary level students is the subject of two-dimentional figures. This is because students at the elementary school level are already able to know about the properties of two-dimentional figures, kinds of two-dimentional figures, how to draw two-dimentional figures with perfect shapes and also understand the formula for each two-dimentional figure and its use (Juliawati, 2019).

Two-dimentional figures are part of learning geometry and it is very important to introduce them to students from the start (Ozcan & Bal, 2017). Geometry is one of the important materials in mathematics in schools (Sunardi, 2000). The system of geometry and understanding of space combined with the number system becomes the basis for learning mathematics and learning mathematics at an advanced level (Kennedy, 2008). Geometry also pays attention to concepts, how to solve problems, and applications (Kristanti, 2014). Learning geometry must start by getting to know the most basic geometrics such as drawing, playing with geometric shapes, and naming geometric shapes (Browning, 2008). Two-dimentional figures are two-dimentional figures that have two dimensions, namely length and width but do not have height and thickness (Prakoso, 2019). Two-dimentional figures in this study were divided into three groups, namely triangles, rectangles and circles. A triangle is a two-dimentional figure bounded by three sides and three angles. A quadrilateral is a polygon bounded by four sides and four angles (Alexander, 2011; Africk, 2013). A circle is the set of all points on a plane that have the same distance from a certain point which can be called the center of the circle, while the distance from the center point to each point is called the radius or radius (Liptak, 2021).

B. Method

Research Approach

The approach in this study uses a qualitative approach, which is in accordance with the characteristics of qualitative research, namely as follows, namely the natural environment, the researcher as the main instrument, various data sources, inductive data analysis, various meanings from all participants, developing research designs , a theoretical perspective, is interpretive, and has a holistic view (Creswell, 2012).

Research subject

The subjects in this study were students of class VI Madrasah Ibtidaiyah Al Kawtsar, totaling 25 students. Subjects

were chosen because they had obtained material about two-dimentional figures. Of the 25 students will be grouped according to the level of each mental model. From each mental model level group, one subject who has good communication skills will be selected to be able to reveal the profile of each mental model level on the flat material so that the objectives of this study can be achieved.

Data collection technique

The data obtained in this study were in the form of data from the test results of the questions that had been given and transcripts of researchers' interviews with research subjects. In data collection, the instrument used was the researcher, cognitive test questions, which consisted of 2 questions about two-dimentional figures, recording tools and interview guidelines. In this case the researcher acts as the main instrument because the researcher is directly involved in the research process, namely as data collectors and data analyzers (Moleong, 2006). While the data collection techniques in this study were observations when working on questions, interviews on selected subjects and documentation.

The data analysis process begins by examining the results of all existing data from various sources, namely the results of written tests and transcripts of interviews with students. Then the students' answers will be given a score for the quality of students' answers according to the mental model leveling assessment indicators. So that a mental model profile is obtained from each level of the mental model on the flat material.

C. Discussion

Data collection begins with selecting student answers that match the mental model leveling indicators. To make it easier for researchers to analyze the profile of students' mental models on the flat-shaped material, each subject is given their respective initials, namely S1 for subject 1 which represents the initial mental model level, S2 for subject 2 which represents the level of transition mental model I, S3 for subject 3 which

represents a synthetic mental model, S4 for the 4th subject which represents the level of the transitional mental model II and S5 for the 5th subject which represents the level of a formal mental model. The following are indicators of mental model leveling that are used as a reference by researchers.

Table 1. Mental Model Assessment Indicators According to Park & Light (2009)

Type/Level	Assessment criteria
1 (Inisial Mental Model)	Students are unable to answer with the concepts that exist within themselves or cannot describe them and are scientifically unacceptable because they do not have any concepts
2 (Intermediate 1 Mental Model/ transisi I)	Students are able to answer correctly with the concepts that are in themselves with models that are starting to be formed and the explanations become scientific closer to the truth
3 (Intermediate 2 Mental Model/ Sintetis)	Students are able to answer correctly with the concepts that exist within themselves with models that are starting to be formed where the explanations are partially correct and become scientifically closer to the truth
4 (Intermediate 3 Mental Model/ Transisi II)	Students are able to answer correctly and provide explanations correctly, in addition to being able to provide scientifically correct answers, they can be accepted scientifically closer to the truth
5 (Target Mental Model/ Formal)	Students are able to answer correctly and provide an explanation correctly, in addition to being able to give correct answers, the concept of a quadrilateral is scientifically acceptable and the structure described is also correct

From the indicators above, 5 students were selected who would be the subject at each level of the mental model

whose profile would be seen. The following answers from S1 represent the subject at the initial level.

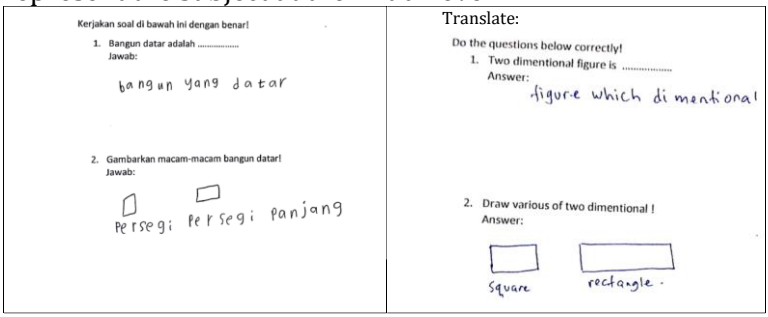

Figure 1. Subject Answer 1

Based on the picture above, the answer S1 is obtained from the questions given by the researcher. It can be seen that the subject still does not understand the meaning of a perfect flat wake, the subject only answers that a flat wake is a flat wake. From the results of the interview, it was found that the subject did not understand the true meaning of flat wake. The subject is still confused to find the right statement so the subject only answers according to what is in his mind. For question no 2, the subject only drew two two-dimentional figures, namely a square and a rectangle. During the interview the subject only stated that only these two shapes were in his mind.

It can be concluded that the profile of the mental model that is owned is in accordance with the specified indicators, namely the subject cannot answer the question with the concepts that exist in him so that the subject does not understand the concept of flat wake. The subject cannot describe correctly and perfectly what is in his self-concept related to two-dimentional figures.

Furthermore, the answer from S2 which represent the level of transition I mental model will be presented in the picture.

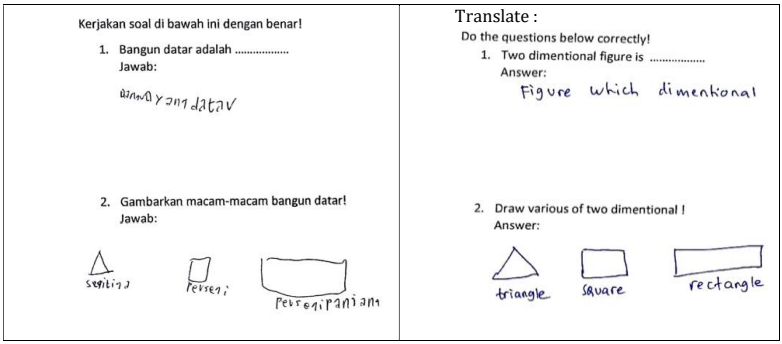

Figure 2. Subject Answer 2

Based on the picture above, the answers written by subject 2 were obtained from the questions given by the researcher. It can be seen that for question no. 1, the same as before, the subject only answered that a flat wake is a flat wake. From the results of the interview, it was found that the subject had not been able to fully express the meaning of flat wake. Even though from the results of the interview, the subject also mentioned about the large of the wake only when writing answer the subject forgot about it. For question no 2, the subject draws three shapes, namely a triangle, a square and a rectangle. During the interview, the subject only knew about the two-dimentional figures, namely the three shapes.

From the answers above, it can be concluded that the subject was able to correctly answer a few concepts of flat wake according to what he had in mind. The mental model profile is slightly formed from the concept of a flat wake that the subject has. In the interview the subject was able to describe a little about what was in his mind the concept of flat wake.

Furthermore, the answer from S3 which represents the level of a sintetis mental model can be seen in the following picture.

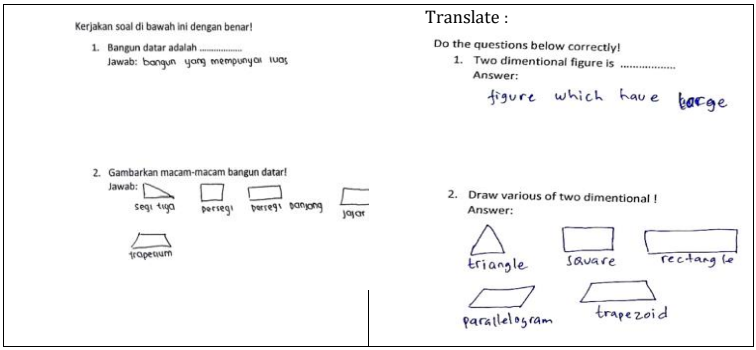

Figure 3. Subject Answer 3

Based on the picture above, the answer to the third subject can be obtained from the questions given by the researcher. From question no 1, the subject answered that a two-dimentional figure is a shape that has a large. In contrast to the previous subject's answer, from the interview results, it was found that the subject had begun to understand a little about the concept of flat wake. So that the subject can answer that the two-dimentional figure is a shape that has a large because he remembers that the two-dimentional figure has a formula that is used to find its large. From question no 2, the subject drew five two-dimentional figures, namely triangles, squares, rectangles, jajargejang and trapezium. When asked at the time of the interview, the subject only drew five figures, because the subject only remembered the picture. For another picture, the subject answered forgot.

From the answers above, it can be concluded that the subject has begun to understand the concept of two-dimentional figures and can also draw or mention examples of two-dimentional figures from triangles and a few quadrilateral families. The mental model profile that is formed is close to the truth although it is still not perfect.

Furthermore, the answer from S4 which represents the level of transition I mental model can be seen from the following picture:

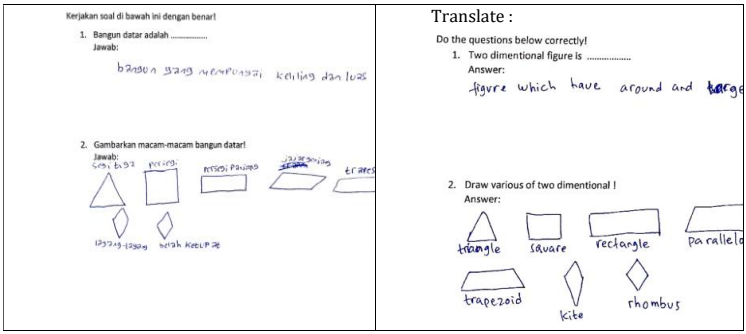

Figure 4. Subject Answer 4

Based on the picture above, the answers to subject 4 were obtained from the questions given by the researcher. For question no. 1, the subject was able to answer that a two-dimentional figure is a shape that has around and a large. When asked by the researcher in the interview, the subject answered so because considering that the shape can be found using a formula for its around and large. When asked about one of the perimeters and larges of the one under it, the subject could answer correctly. For question no 2, the subject draws seven shapes, namely triangles, squares, rectangles, parallelograms, trapezoids, kites and rhombuses. When asked in an interview by the researcher whether there were other two-dimentional figures, the subject answered nothing.

From the answers above, it can be concluded that the subject was able to answer correctly and was able to describe the concept of a flat wake that was in his mind even though it was almost perfect. The answers submitted by the subject have been accepted as true even though there are a bit lacking.

Next, the last one is the answer from S5 which represents the level of the formal mental model.

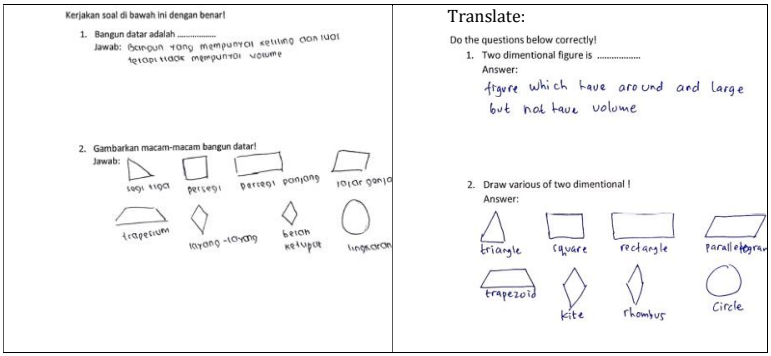

Figure 5. Subject Answer 5

Based on the picture above, the answers from subject 5 were obtained from the questions given by the researcher. For question number 1, the subject answered that a two-dimentional figure is a shape that has around and large but does not have a volume. From the results of interviews by researchers, the subject was able to describe what a flat wake looks like so that the subject can answer perfectly what a two-dimentional figure is. Then for question number 2, the subject can describe all two-dimentional figures, namely there are eight shapes including triangles, squares, rectangles, parallelograms, trapezoids, kites, rhombuses and circles. When interviewed, the subject mentioned perfectly all two-dimentional figures from the triangle family, quadrilateral family and circle.

From the answers above, it can be concluded that the subject was able to answer correctly and was able to describe the answers perfectly. And what is in the concept of the subject can be accepted as true according to the actual concept of two-dimentional figure.

D. Conclusion

The profile of the student's mental model is very important for us as educators to know, because by knowing the profile of the student's mental model, an educator can understand the level of concepts that exist in his students. The

mental model has several functions including allowing students to store data in students' brain memory and have strategies to get maximum results according to the profile of the mental model they have. Students with an initial level mental model profile are not able to store the concepts they have in themselves, so they cannot find strategies to get good results from what they are doing. Likewise with the profiles of other levels, students have different levels in storing the concept of two-dimentional figures in each of them. The most tempura in storing the two-dimentional figure concept is at the level profile of the formal mental model so that students with this level profile of the formal mental model can find strategies to get the best/maximum results on other concepts.

The mental model profile is the level or level of a person's thought process. Mental models can be formed with people who can understand and conceptualize events in the real world. In their minds, a mental model is an internal representation of the actual situation in which people think to understand something. According to Ozcan (2013), a mental model is a person's internal representation that acts as a structural analogy to a situation or process. The role of mental models is to be responsible for reasoning both (situation and process) when they try to understand a discourse and when they try to explain and predict behavior in the real world. Thus an analysis of mental models can provide us with very valuable information, understanding students' feelings and learning processes.

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Chapter VII

Storytelling to Assist Young Children Alphabet Recognition in their Emergent Reading.

Kristi Nuraini

A. Introduction

Early childhood education can be a good place for young children to start to learn about reading. Parents, teachers, and caregivers can do some ways to promote reading in early years. They can prepare print rich environment such as by having labels, children books, signs, authentic pictures and literacy activities to get young children familiar with prints through book sharing or storytelling activities, reading the labels on the child's favorite snacks or story books between parents and children at home; teacher and children at school and caregivers and children at day care center. These will inevitably help young children with the experience to read (Jackman 2012). Parents, teachers and caregivers can help young children get the meaning of the activities though interactions they built during the activities and scaffold things to mediate children to understand more easily (Isbell 2002; MacDonald and Figueredo 2010). That interaction can be built when children are having conversation with their parents, teachers, care givers or other children as they talk and listen to each other; just like learning to read. Learning to read is learning see, learning to listen; and learning to communicate (Brewer 2007). Book can serve these experiences by letting the young children seeing how we hold it; how we read and sound out the printed words and make them comprehend those words through interactions with them. And storytelling is one way to get young children experienced with the book and the prints, actions and demonstrations through activities such as play, experimentation, and cooperation or working together with peers or adults, which is the teacher, have enormous power to assist the students in understanding the abstract concepts (Fram, and Kim, 2008; Hill et al., 2005). In short, teaching

children requires the presence of natural and active participation of children during the learning.

Talking about active participation in learning, it leads us to interactions during learning. As adults to facilitate learning for young children, good rapport with young children needs to be build. It will help to build their confident in the learning. Having story telling is one way to build the interaction with them. During the storytelling activities, adults, the teachers are engaging with the children as they read the story and asking some comprehension questions to the children. Hill et al (2005) and Mc Drury and Alterio (2003) mention that to move from what is known to what needs to be known, a child needs support and assistance. Having interactions with them is considered as a good opportunity to assist the child. The idea is similar the finding in National Research Council (2000) which states as children entering their formal education; they come up wih their own background knowledge, confictions, and concepts. They constructed their existing knowledge to develop their a new one through their active involvement and engagement in their learning. National Research Council (2000) also states that constructivist teachers are perpared to to design lessons which promote children to explore, examine, and discover new things in their learning. The National Research Council (NRC), 2000 adds that children have their own routes to experience meaningful learning in constructing new knowwledge when presented with active learning experience. They live in varied cultural backgrounds which in turn also varied in ways of shaping their generations by involving them in a lot of explorations and experimentations in their learning. Another important factor in learning is motivation as stated by Carl and Deborah (2012) that contextual learning process which is in the level of the learners' ability and is designed to meet their social cultural activities can help to create more meaningful, motivating and enjoyable learning for children.

Related to the creating meaningful, motivating and enjoyable learning for children, Fran and Kim (2008) mentioned about the roles of teachers. They urged that

teachers have significant roles in creating motivating and encouraging yet enjoyable learning environment by setting the classrooms and activities which respect learner's socio-cultural background. They also added that attentions given to the children is of the great advantage toward child's learning motivation. In addition, Purnel, Ali, Begum, and Carter et al.(2007) proposed that culturally resonsive teachers who create culturally responsive learning environment for children can raise the child's success in learning. This learning environment is able to encourage children to learn for it represent parts of their home culture where they found to be comfortable for learning. Purnel et al noted that even not all children's home culture were represented, it has helped them to feel secure and confortable to learn in the classroom. Furthermore Purnel at al (2007) added that integrating arts in the lessons helps to promote more meaningful thoughts between the lessons and the culture whch eventually promote more understanding in their cultural identity. Similar idea also mentioned by Campbell, Torr, and Cologon (2014) as they stated that in the early childhood settings, language-rich environment is key to having overall quality, including children's interaction around picture books and dramatic play. They also added that in a language-rich environment, can help children to increase their alphabet knowledge.

Findings of Pullen and Justice (2003, Fiorentino and Howe (2004), Masburn et al (2008), Lane and Allen (2010) suggest that children's phonological awareness, print awareness, and oral language skills will support children literacy development. One way to do it is through the use of narrative (Fram and Kim, 2008; Cunningham, Zibulskyand Callahan, 2009). The narratives can be from the stories exposed to them. Storytelling can be defined as one powerful and meaningful way a teacher can communicate with children using narrative forms by utilizing props, vocalization, body language and facial expression to help children in comprehension (Bryant (2009) and Jackman (2012). This helps children learn language from the simplest formation and gradually moves to more and more complex ones (Kaderavek,

Gillam, Ukrinetz, Justice, and Eisenberg et al., 2004). Miller (2000) views emergent literacy as an attitude and principle of developoing children's literacy competence. He considers this as an ongoing process of learning where a child develops perspective that print carries meaning. In addition, Speaker, Taylor, and Kamen (2004); Mathes and Gray (2007) urged that Emergent literacy skills which cover alphabet knowledge, awareness of phonics and phonemics, directions of prints, concepts about prints and its meaning, and understanding that story has its components are developed through storytelling.

Rooted from emergent literacy, emergent reading helps young children preparing their later reading skills. Therefore, parents, teachers, and caregivers are advised to help young children with their emergent reading. Some ways can be taken into account to promote the emergent reading in young children. One way to promote this is through read aloud activities, in which can be done through story telling. Reading them a story can help children with their phonemic awareness and lead them to recognize the alphabetical sound (Trostle-Brand and Donato, 2001). This statement is also supported by the National Early Literacy Panel (NELP, 2008) and Morrow (2005) that phonemic awareness is the essential prerequisite in children emergent reading. For these reasons, adults, especially parents, teachers, and caregivers are encouraged to support their children's awareness on phonemes which is the basis for their emergent reading. Similar to the aforementioned findings, Martinez, Roser, and Dooley (2003) added that children are trying to make their world become sensible, and reading aloud can satisfy their need. The more children read aloud to, the more they are experienced with the texts in reading. This can be the motivation for them in their later reading when they start to formally study at school. One of the ways to familiarize young children to read aloud activities is through storytelling.

Emergent literacy skills cover alphabet knowledge, awareness of phonics and phonemics, directions of prints, concepts about prints and its meaning, and understanding that story has its components. These skills are developed through

storytelling (Speaker, Taylor, and Kamen, 2004). Alphabet knowledge cannot be separated from phonological awareness as they recognize the sound of the symbol in the form of alphabet. Even before he learns the letters of the alphabet, a child can say the sounds in his language. When he can hear the sounds in a word and tell where the sound takes place in the word, he is developing pre-reading skills (Schuele and Boudreau, 2008). To avoid troubles for children in their later reading and literacy skills, children should acquire higher level of phonological awareness, such as how to separate sounds in words and blend the sounds of alphabets to create words (Schuele & Boudreau, 2008) in the early years of their learning. They suggest that early introduction toward phonological skills needs to be given at the early moment when children are at the beginning of kindergarten. This was supported by Wilson and Lonigan (2010) who suggest that one of the strongest predictors for the children later academics success; therefore, it is advised to let the children know it earlier

As one crucial element of emergent reading, alphabet recognition is defined as the ability to recognize and name the letter of the alphabet (Mason, 1984). This covers This includes recognizing and recalling the shapes or forms of letters, identifying lower and upper-case letters, and recognizing letters in isolation and within printed words even when they appear in different font sizes. The alphabet recognition consists of five stages or phases (Ehri and McCormic, 1998). The first is pre-alphabetic phase in which children have only little to no knowledge of alphabetical system. In this phase, they have limited knowledge of letters and do not understand that phonemes (letter sounds) are mapped onto graphemes (letter shapes). This phase is commonly called as logographic as they rely on visual cues or prompts.

The second is partial-alphabetic phase. In this phase, Children cannot decode words or analogize because they do not have a full working knowledge of the alphabetic code, especially the vowels. They do not know hard sounds of g and k, lack knowledge of letter clusters (i.e. ch and th) because they do not understand that graphemes or sound symbols can have

more than one letter to symbolize a phoneme, and cannot decode or analogize because unable to recognize some similar patterns in words.

Third is full alphabetic phase. During this phase, children have a working knowledge of the grapheme- phoneme relationship. Reading behaviors characteristic of the students at this phase are working knowledge of phonemic awareness, reading words by sight decoding, and analogizing because they are able to see spelling patterns in words, decoding slowly in beginning of phase but will increase with reading practice, and the reading practice will foster the growth of sight vocabulary.

The fourth is consolidated – alphabetic phase. This phase is often called as orthographic phase because reading focuses on spelling patterns. At this level, word learning matures into these traits of readers; (1) students learn letter chunk that will help them with decoding, sight word learning, and fluency, (2) sight word vocabularies further develop, (3) organize different words in memory according to their spelling patterns, (4) decoding ability grows to a higher level, thus children are able to decode real and non-words.

The last phase, the fifth is automatic phases. In this phase Children have developed a range of strategies to code an unfamiliar word; therefore, their full attention is no longer on the shape of letters or on the length of words but is on the meaning of text. They are reading to learn.

Uncover the advantages of storytelling for young children in promoting their emergent literacy; the researcher is keen on having a careful study on finding out how can storytelling help young children to develop their early reading skills at preschool phase in kindergarten, especially in the alphabet knowledge.

B. Method

This study applied both, qualitative and quantitative research methods. The qualitative method was done through observation and interview. The observation was done in three weeks duration for seven meetings in total. One of the aims during the observation was to find out students' alphabetical

knowledge which covered alphabet recognition. The interview was held to find information about the students' profile, the use of English in the classroom, and classroom's activities during the teaching and learning process. The quantitative method was done through test taken by the students during the research to find out the progression they have made during the research. The test taken was Letter Naming Fluency Test (LNF). In this test, a child was presented with a page of letters arranged in a random order and asked to name as many letters as they can. The child will be given 1 minute to produce as many letters name as he/she can, and the score is the number of letters names correctly in 1 minute. If they do not know the letter, they will be told what letter it is.

The study was conducted at a Private Kindergarten, Jember, East Java, Indonesia. This school was a national plus school which used English as a means of communication in everyday activities. The school has two classes of K-1 level, K-1 Pear and K-1 Lime. Each of the classes consisted of 13 students and two teachers. The researcher decided to take this school as the place where she conducted the research because this school used English as the means of communication. And she took only one class of K-1 level that was K-1 Lime. This class consisted of 13 students; 5 female and 8 male students with the age range between 4 to 5 years old.

C. Discussion

In order to find out the condition of the students in the classrooms and the use of storytelling in the teaching and learning process, the researcher took preliminary study through observation and interview.

During the observations, the researcher found some significant results on the students' alphabetical knowledge.

Category	Indicators	Findings			
		Always	Often	Rarely	Never

Ss' alphabetical knowledge	Ss are able to identify the upper case letters of the alphabet			√	
	Ss are not able to identify the lower case letters of the alphabet			√	
	Ss are not able to identify the upper case letters of the alphabet		√		
	Ss are able to identify lower case letters of the alphabet		√		

This category has one main element to be observed, it was the students' alphabet recognition. This element is the point of the language art subject in the class. It was found out that the students were mostly good at recognizing the alphabet, but they sometimes failed to distinguish between the letter *'b'* and *'d'*. The alphabets presented during the lessons were the lower-case letters. They were not exposed too much on the upper-case letters. To sum up, the students were good enough at recognizing the alphabets, even though they recognize mostly for the lower-case letters.

In the interview, the researcher conducted semi-structured one. It was held mostly after the teaching and learning process. The interview was carried out to answer the questions related to the student's profile, ages, and language used by the students. In addition, the interview was also done to get the information on how the storytelling activities were done in the school. During the interview, the researcher recorded the conversation and took some notes on the teacher's responses.

The first question was related to the length of periods the students have been studying in the school. It was revealed that most of the students in K-1 Lime have been studying in the school since they were in the preschool level at about 2 years of age. Therefore, their exposure in English is quite good; they were able to speak fluently and their vocabulary is also adequate to accommodate them to communicate with their teachers and peers. It can be seen from the extract of the teacher statement *"…since they were in 2 years old*" (T1, M1))

However, some students were in the school when they got to K-1 level at about 4 years of age. These students found to be having problems with their communication, as stated by the teacher *"…her English is still mixed mostly with Bahasa Indonesia…"* (T1, M1).

Since the language of instructions is English, they were obliged to always use English whenever they communicate in the school, either to the teacher or other students. The teachers

informed that at first these students were having Bahasa Indonesia when talking to their teachers and friends, but the teachers and other students always reminded them to speak English and always answered the questions also in English as stated in the extract, *"… teachers have to remind her to always use English …"* (T1, M1). Another extract also informed similar idea that teachers and students always reminded each other to always use English at school.*"...simply reminded their friends to use English…"* (T2, M1).

After few months, they started to communicate using English even though in a very simple sentences. The extract of the interview below gives us clearer information *"… teachers, students and all staffs must use English, even only simple one ..."* (T2, M1).

The second question related to the average ages of the students. It was found out that their ages were between 4 to 5 years old. 12 out of 13 students were 4 years old and only one student was 5. These extracts show clear information *"…mostly 4 years old, except Angel, she is already 5…"* (T2, M2) and "… one student is 5 years old." (T2, M2).

The next issue to find out was about the home language of the students. Even the school is using English as a means of communication; it doesn't mean that the students are having English as their home language. Most of them have Bahasa Indonesia or even the local language use at home. These has caused the students' exposure of English become varied. Some of the students who have their parents speak in English at home; assist the students to have a better exposure in the use of English. Their vocabulary and pronunciation are better compared to those who did not use English at home. The extracts of the interview with the class teacher below give more apparent information about it *"… their parents were using English at home too …"* (T1, M1), *"… some students have their parents speak English at home …"* (T1, M1). *"… their parents speak English at home …"* (T2, M1).

As they entered the school, they must use English as a means of communication, and they are trained to do it in the daily basis for the teachers and the other students use English at school. And these low students exposure are trained to be able to always use English whenever they communicate during the school hours. The interview extract illustrated the idea "… *teachers, students and all staffs must use English, even only simple one."* (T2, M1).

The reasons of using English as the language of instructions have become the next point to find out. It revealed that the use of English as the language of instructions mainly because the school adopted the Cambridge Curriculum for the teaching and learning activities. This means that from the very beginning level, the students were trained to use English as they move to higher level levels, they were assigned to have English as their language of communication, as stated in the interview extract, *"… since they were in 2 years old … they have been exposed to English ever since the day."* (T1, M1) and *"… they were taught and communicated using English"* …" (T1, M1).

The teachers and staffs were also obliged to speak in English to the students, as stated in the interview extract *"… teachers, students and all staffs must use English, even only simple one."* (T2, M1). The aims of having this were to get the students, teachers, and staffs familiar with English, as stated *"… to get all people especially students to be familiar with English." (T1, M1), and used to using English in the communication during school time, as the statement from the teacher, "… at the school environment, we must speak to them using English too."* (T1, M1). In addition, the school aimed to train them to be effective English users, as the statement from the teachers that *"…. when we teach in the classroom, we use English."* (T1, M1) and *"… simply reminded their friends to use English."* (T2, M1). The extracts of the interview transcript also give information that English is used all day during the school time. Both teachers and students were not allowed to use other language but English. English was used as the only language in the school.

All the activities were instructed in English. As the researcher has found that during the teaching and learning process, the class she sat in has three different subjects in a day, and each of the subjects utilized English as the language of instructions. The subjects included math and science, language art, and mandarin. For other subjects, they also use English as the language of instructions. It is supported by the teacher's statement, *"…the teachers use English as the language of instruction during the learning process."* (T2, M2).

The last and most important question the researcher asked was about storytelling. It revealed that the storytelling was one of the extracurricular activities done after school. It was regularly done every once a week and it was an optional activity for students to follow. It was proven from the teacher's statement, *"… one of which is storytelling. It is held every once a week."* (T2, M3).

However, during the lessons, teachers also used storytelling in conducting the teaching and learning process. It was a simple storytelling to get the students to the topic of the lessons as one of the teacher stated*," We did use storytelling in the teaching, but just the simple one…"* (T2, M3). The teacher also found it helpful using simple storytelling in presenting the material in the lessons as the teacher also stated, *"I found it easier to get thee students to the topic of discussion when I use storytelling …"* (T2, M3). However, they did not use adequate aids to help the students to understand the concept. It is shown from the statements, *" … I give them like illustration…."* (T2, M3), *"… I asked them some questions related to the topic, I draw some simple picture on the board about the topic…"* (T2, M3), or *"…I wrote something on the board…"* (T2, M3).

From the interview, it can be underlined that the use of English in the school is a compulsory. Even outside the class hours, the teachers and students are assigned to communicate and interact in English. The obligation has become lighter with number of children who were familiar with English in their home interaction. Regarding the use of story telling in the school, the

teachers also stated that it has become a regular activity done by the school every once a week as the extracurricular activities. During the learning process, teachers often used storytelling to build the learning context to ease them in connecting the learning goal to the students' background knowledge and then link it with the target of learning. However, the used of prompts and media to help students' understanding were still minimum.

Discovering the results of the preliminary study, the researcher considered to take some actions to obtain the desired better results. She planned 4 meetings to help students with their problems. She chose The Hungry Caterpillar as the story to share with the students. During the meetings, the researcher told the story and pasted the flashcards about the days of the week and food the caterpillar ate each day onto the whiteboard so that the students were able to see what has been told in the story. It was done to give them help in recognizing the alphabets from the beginning letter of the words and also understanding the vocabulary used in the story. The researcher created activities to recall about the phonic sounds and alphabets which they have learned in the language art subject they have with their class teacher. Here, the researcher asked questions on the phonic sounds which represented the beginning sound of the words. Also, she reminded the students about the letter of the alphabets in the beginning of the words. The students then replied by saying the word which has the beginning sound of the required phonic sound; they also showed the flashcards representing the desired word. It was found out that they had a lot of fun during the activities. In addition, it was also helping them to comprehend the story better. Figure 1 below showed the situation during the learning process.

Figure 1. Students were posting the stackable flashcards as the media in storytelling activities during the class

The results of the observations during need analyses showed that the students were having problems with the recognition of the upper-case letters and some lower-case letter such as b, d, p and q. For this reason, the researcher held three tests of alphabetical knowledge called as Letter Naming Fluency. In Letter Naming Fluency, students were presented with a page of upper- and lower- case letters arranged in a random order and asked to name as many letters name as they can. They were given 1 minute to produce as many letters name as they can. Finally, they were scored based on the number of letters they were able to name. The LNF test was done for three times. The first two tests were done in cycle 1, in meeting 1 and 2. The results of the test are presented below.

LNF_1		
N	Valid	13
	Missing	0
Mean		55.6923
Std. Deviation		1.15786E1
Minimum		39.00
Maximum		70.00
Percentiles	1	39.0000

Table 2. Mean Score LNF Test 1

Table2 revealed that the mean score of the test of 13 students was 55.692 with the minimum score of 39 and maximum score of 70. It means that in the first test of LNF, the students were able to name approximately 55.692 letters out of 110 letters of the alphabet within 1 minute duration. In other words, they were able to mention about a half of the whole alphabets presented in the test.

LNF 2 N	Valid	13
	Missing	0
Mean		63.3077
Std. Deviation		1.09193
Minimum		45.00
Maximum		79.00
Percentiles	1	45.0000

Table 3. Mean Score LNF Test 2

Table 3 represented the mean score for the second LNF test. In this test, the students were able to name approximately 63.308 letters out of 110 letters of the alphabet within 1 minute. It raised 7.614 points from the previous test result which was only 55.692 letters within 1 minute. The minimum letters named were also increasing from 39 letters to 45 letters and the maximum letters named were from 70 to 79 letters per minute. The maximum letters named were increasing at some points, which were 9 extra letters from the previous one. Therefore, the researcher decided to take one more test to have a better improvement in the alphabet recognition. However, from these results, it was proven that the storytelling activities can help the students with their letter knowledge.

The third LNF test was taken in the last meeting of the research. In LNF test, students were again presented with a page

of upper- and lower- case letters arranged in a random order and asked to name as many letters name as they can in 1 minute. In the previous cycle, cycle 1, the students were able to mention 63.308 letters out of 11o letters presented on the task sheet. The least number of letters mentioned in one minute were 45 letters and the maximum number of letters mentioned was 79 letters. In cycle 2, they have made a good progression. Table 4 below will show us the progress that they have made.

LNF 3 N	Valid	13
	Missing	0
Mean		67.8462
Std. Deviation		1.46108E1
Minimum		50.00
Maximum		90.00
Percentiles	1	50.0000

Table 4. Mean Score of LNF Test 3

In the third LNF test in table 4, it shows that the students were able to increase their fluency by naming 67. 846 letters out of 110 letters of the alphabet within 1 minute. It shows 4. 539 points higher than the previous LNF test. In this test, the lowest and the highest number of letter named within 1 minute were also increasing to 50 and 90 letters per minute. The graph below shows clearer differences in mean scores of LNF test 1, 2 and 3.

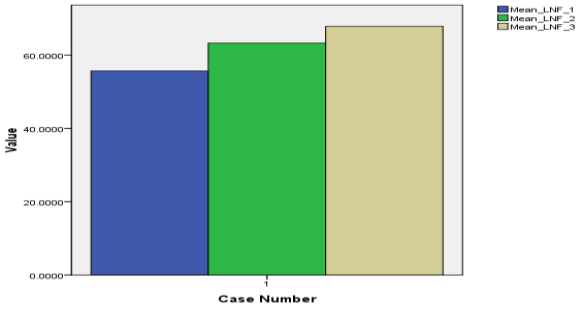

Figure 5. Graph on the progression of LNF

From the graph in figure 5, it can be inferred that the mean score from LNF test 1 until test 3, the students have made gradual progression with their fluency in recognizing the letters in the alphabet. We could see from the increasing mean scores from LNF test 1, 2 and 3. Even the progression was not too high but it has been proven that the storytelling helps students with their alphabet recognition and it was evidenced that they were able to mention more letters within one minute from time to time. More importantly, they enjoyed the activities.

To see more clearly on the progression of the LNF the students have made during four meetings, the table in figure 6 will show us.

Score	Meeting 1 to 3		Meeting 4
	LNF 1	LNF 2	LNF 3
Mean	55.692	63.307	67.846
Minimum Letters	39	45	50
Maximum Letters	70	79	90

Figure 6. The table on the progression of LNF

From the table in figure 6, it is seen that the mean scores from LNF test 1 to 3 have been gradually increasing from 55.692 in test 1 become 63.307 in test 2 in cycle 1 and finally become 67.846 in test 3 in cycle 2. It shows increasing point of 7.614 from test 1 to test 2 and 4.539 point higher from test 2 to test 3. It can also be seen from the minimum and maximum number of letters the students were able to recognize during the tests. That is with minimum of 39 to 45 and finally 50 letters in a minute from test 1 to test 3. While the maximum of 70 to 79 and finally 90 letters in a minute from test 1 to test 3.

The aim of this research is to figure out how can storytelling help young children with their alphabet recognition in their emergent reading. The research followed the procedures proposed by Kemmis and Mc. Taggart (1989) in which the researcher started her research with a preliminary study to see the implementation of storytelling in the learning process to find

out what she could do to achieve the desired goal of the research. She did a preliminary study to find out the problem, plan, implement the plan and observe to know how it work, and finally reflect the results of the implementation to find out whether the plan has been effective or not to solve the problems raised.

The problems were discovered in the preliminary study from the observation and interview done by the researcher. In the preliminary study it was found that the storytelling activities done in the class were not effective enough to help young children to cope with their problems especially in recognizing the alphabet due to the lack of media and methods provided for the activities. For this reason, the researcher implemented different way of presenting and activating storytelling during the learning process. She employed more aids to help the students with the story comprehension as well as providing them with more enjoyable and meaningful engagement during the interaction taken in telling the story (Bryant, 2009) and Jackman ,2012). Having good communication with the students as the audience during the storytelling activities helped the researcher to build better understanding which helped her to adjust the language level during the process. This is one of the good characteristics of a good storyteller (Bryant ,2009 and Trosle-Brand and Donato, 2001). Having good communication also helped young children get the meaning of the activities though interactions they built during the communication they have with the teacher when teacher scaffolded things to mediate children to understand more easily (Isbell 2002; MacDonald and Figueredo 2010).

Besides, it also helped the students to be more confident to take part during the activity which will build non-threatening environment in learning by creating meaningful, motivating and enjoyable learning for children (Fran and Kim, 2008). The non-threatening environment will also motivate students to be actively taking part in the learning which will lead them to success in learning (Purnel, Ali, Begum, and Carter et al.,2007).

Familiarity with the print has proven to help young children with their ability to recognize letter in the alphabet as Pullen and Justice (2003, Fiorentino and Howe (2004), Masburn et al (2008), Lane and Allen (2010) have in their finding that print awareness, one of which is facilitated through storytelling activities with the children, will support their literacy development. Fram and Kim(2008); Cunningham, Zibulskyand Callahan (2009) even strengthen the idea that one way to familiarize children with literacy is through storytelling they have been exposed to. From the storytelling, children are exposed to letters-words-sentences which with they started to recognize its form, sound and meaning when they are arranged in words to create a story (Kaderavek, Gillam, Ukrinetz, Justice, and Eisenberg et al., 2004).

The findings showed that storytelling also promotes young children in their literacy skills, one of which is alphabet knowledge or alphabet recognition (Speaker, Taylor, and Kamen (2004); Mathes and Gray 2007). As the children recognized the initial letter of a word presented in the story, it helped them to recognize the alphabetical symbol as the smallest unit to form a sound and meaning. When they were listening and identifying the sound of a letter, they began to recognize the symbol to represent the sound and the letter to produce the sound and then named it with a letter name. After four meetings of continuous recalling using storytelling activities, they have shown improvement in their alphabet recognition as the progression they have made with their Letter Naming Fluency (LNF) Tests (test 1, 2, and 3). They were able to mention more letters in both lower and upper-case letters. They have shown improvement in the number of letters they were able to name that is from 50 to 90 letters per minute. It means the students have been able to gradually increase the number of letters they were able to mention the least from 30 to 45 and finally 50 letters per minute. While the highest from 70 to 79 and finally reach 90 letters per minute. It was evidenced that familiarity of printed letter with the help of pictures in storytelling activities can help young children in their

emergent literacy phase (Jackman, 2012), especially in helping them with alphabet recognition. Even it was only the initial letter of the words, children have got positive environment as they begun to identify the beginning letter of the words or vocabulary found in the story. Moreover, during the learning activities, they had a lot of fun as they matched the name of fruit the caterpillar ate every day. This is in line with the findings of Carl and Deborah (2012) that social cultural activities can help to create more meaningful, motivating and enjoyable learning for children. Storytelling made these happened; through storytelling activities children are interacting and communicating in a meaningful way as they gradually learn to comprehend the story from the words and vocabulary presented in the story.

Related to the phase of alphabet knowledge, the students can be categorized into the pre-alphabetic or logographic phase in which they still have minimum knowledge of alphabet and rely mostly on the pictures associated in the story (Ehri and McCormic, 1998). However, their ability to recognize letters in the alphabet has been steeply increased after four meetings of the intensive use of storytelling activities by providing stackable flashcards to help students recognize word meaning. Therefore, during the learning, students were actively experimenting the use of stackable flashcards as their participation when recognizing the initial letter of the vocabulary represented in the flashcards. This is supported by National Research Council (2000), that through experimentation in learning, children motivation will also increase. This will lead them to be more ready for their initial reading readiness in the up coming education level.

D. Conclusion

As one tool to help children in learning language, storytelling activities has assisted children in gaining their alphabetical knowledge as they.

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Nurkamilah, or Mila for short, is very fond of learning English since she was a primary student. Her obsession towards English went on until she earned her Master's degree in English Language Teaching from Universitas Negeri Malang. From 2017, she has been a registered lecturer at English Language Education Study Program, Universitas Muhammadiyah Jember and has started publishing her research reports since then. Her current interest is the use of technology in English language teaching, particularly which enhances learner autonomy. She has published three research papers so far under this topic and has another publication awaiting, including the chapter in this book. She believes that learner autonomy is a key contributor for life-long learning, the ultimate goal of education.

HOW TO CREATE HIGH QUALITY TEACHING AND LEARNING IN THE DIGITAL ERA:

TEACHERS, STUDENTS AND PARENTS' PERSPECTIVES

'How to Create High Quality Teaching and Learning in Digital Era: Teachers', Students' and Parents' Perspectives' presents a collection of works by authors in the field of education, like from the field of language teaching, mathematics education, early childhood education, TPACK, parental involvement, and the use of technology. The book was especially written during the outbreak of the COVID-19 where classes were moved to online classes. This extreme change has led to different reactions from all elements of education; students, teachers, and parents. Some common reactions observed by the works in this edited book include hesitation, skepticism, puzzlement, but some reacted positively, with excitement and enthusiasm. Indonesia has experienced a period with massive online courses and classes during the two years of pandemic. Despite the initial shock, Indonesia has proved to survive and made this a golden period in which many innovative teaching ideas were created. Indonesia has also accelerated its adaptation of technology to teaching during this time. This book is therefore presented to you to discuss how technology is integrated in education from different perspectives.

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