



Higher Order Thinking Skills of Children Aged 4-6 Years in Early Language Learning Based on Lesson Study

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Abstract: This study aims to describe the higher order thinking skills of children aged 4-6 years in early language learning based on lesson study. The research method used descriptive qualitative. The subjects of this study were B group students of Telkom Preschool Ternate in 2020/2021 academic year. Data collection was carried out using direct observation, in-depth interviews and documentation that explored children's abilities of critical and creative thinking aspects. Data were analyzed which followed to the three main steps; data reduction, data presentation and verification, and concluding. The study found that early language learning based-on lesson study activities can stimulate children's abilities in critical aspect; 18 students (81.8%) answered questions and retold and 4 students (18.2%) are able to interpret stories. Meanwhile, in creative thinking aspects 10 students (45.5%) have criteria that often appear of completing assignments in the form of the work given by the teacher. The children identify the problem, giving various responses and comments; become active learner both collaboratively in completing sharing and jumping tasks on 'profession'.

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Introduction

In 21st century education, children should be able to see the connection between what they learn and the reality they see in their environment. Children should be able to use the tools they need to describe the real work environment so that they acquire the necessary skills at a high level as expected of them to face the challenges of the 21st century. Education refers to the challenges of the 21st century to prepare children become qualified human resources (Daryanto dan Syaiful Karim, 2017) (Sucipto, 2017) (Elyana et al., 2017). Based on the 2013 revised Early Childhood Curriculum, there are several substances in the implementation of learning by 21st-century skills, one of which is the application of higher-order thinking skill for early childhood applied with a scientific approach. This revision is intended to follow up on the character of early childhood learning in getting faster and more sophisticated following the times (Depdiknas, 2014). It is hope that learning is truly meaningful for students. One of the efforts can be developed is by implementing lesson study to build learning Community (LC) in the 21st century (Kuno, 2012) (Gunawan et al., 2015). Lesson study is a form of teacher professional development that is based on teacher collaboration and teacher community. The expression 'lesson study' is a literal translation from the Japanese word *Jugyokenky* where *Jugyo* means lesson and *Kenkyu* means to study or research. The translation can be misleading in a sense that lesson study is more than a study of lessons but rather is an investigation of teachers into their own practices through planning, conducting observing, and reflecting on research lessons (Suilleabhain, 2015) (Lukitasari et al.,



2020)(Susilo, 2013)(Mustadi, 2018)(Nurhayati & Damayanti, 2018). Early childhood institutions have carried out reforms in schools and also the learning process. The Ministry of Education and Culture of the Republic of Indonesia develops higher-order thinking skills (HOTS) as an effort by the government to improve the quality of student learning so that in the end the quality of graduates also increases. Student competencies that need to be possessed in HOTS include critical thinking, creative and innovative, communication skills, collaboration, and confidence. Lesson study is mostly done on student learning from elementary school to university students. The areas of early childhood development must be optimally developed include the development of behavior and the basic ability development. The field of development of behavior includes religious and moral values as well as socio-emotional. Areas of basic development include language, cognitive, and physical. One of the basic developments that will be developed in this research is the aspect of language development (Hastuti, 2017) (Nisa et al., 2018) (Wardani et al., 2020).

Language learning for early childhood is directed so that children are able to use and express their thoughts using words. explain that the skills that children must have included four language skills, namely listening or listening, speaking, writing, and reading. Languages skills will be acquired through the learning process or require development efforts. The process of language development, Vygotsky suggests language development is related to two cognitive reasons. First, children must use language to communicate or talk to other people. This ability is called external language skills and is the basis for the ability to communicate with oneself. This influence develops external language skills. Thus, this gives the assumption that language learning is one of the areas of development of basic abilities prepared by teachers to improve children's abilities and creativity according to their stage of development. By the competency standards in the field of basic ability development, that the basic competence of language is that children can listen, communicate orally, have a vocabulary and recognize the symbols that symbolize them for preparation for reading and writing. (Peri Syaprizal, 2019)(Khoerunnisa, 2021) (Arianto, 2018). Concerning higher-order thinking skills, children need an opportunity to be able to talk, discuss, formulate hypotheses, and synthesize. Therefore, learning in early childhood needs to be developed towards providing stimulation for children's language development such as discussions, creative stories, films, and so on(Daryanto dan Syaiful Karim, 2017).

This is also supported by observations in the implementation of lesson study conducted in Telkom Preschool. There still many students need great attention and the students have a very high curiosity. On the the 'market day' sub theme 'profession' with the group collaborative learning model showing that language skills in children are different in each group that shared by the teacher. This can be seen when the teacher asks questions, there are only a few children who only listen and receive information without going through activities, observing, analyzing, and concluding the activities they do at the end of the lesson so that children's critical thinking skills are not maximally honed. Aside from that, the learning activities seem monotonous because they are still dominated by the teacher that the teacher gives explanations and the children only listen without any activities to stimulate children to actively think, and explore in learning activities. One of the solutions offered that can help kindergarten teachers to be able to present interesting and fun language learning is teachers must be able to explore abilities by training high-order thinking skills to the students, because the main characteristics of higher-order thinking skills are critical and creative, therefore it is very important to train higher-order thinking skills in early childhood. In connection with the above, the aims of this study is to describe the higher-order thinking



skills of children aged 5-6 years in lesson study-based of language learning at Telkom Preschool Ternate.

Research Method

This type of research uses a qualitative approach with a descriptive research type design (Flick, 2012) describe the higher-order thinking skills of children based lesson study in Telkom Preschool Ternate. The subjects were students aged 5-6 years consisting of 24 students and one group B teacher in 2020/2021 academic year using purposive sampling with consideration: a) research subjects are directly involved in learning activities, b) the subjects who control the problem, have data, and are willing to provide information. The researcher used the observation sheet in the form of a checklist, interview methods and the documentation collected is the 2013 early childhood curriculum, weekly lesson plan and daily lesson plan, lesson design, video recording, and assessment of learning outcomes for group B students concerning the implementation of activities providing stimulation for early childhood language learning related to high-order thinking skills of early childhood. The technique used is qualitative data analysis with the following steps: data reduction, data presentation and verification, and concluding. In carrying out this step, the researcher took steps, namely triangulation and member check (Huberman & Miles, 2012) (Miles et al., 2014).

Results and Discussion

In this study, researchers focused on one of the most important characters developed by teachers and students in developing critical thinking skills. Based on the analysis performed bases lesson study activities on each aspect of critical and creative thinking ability, two characteristics are found. Characteristic of thinking on aspect that students understand the teacher direction and objective of problems given through storytelling activities, describe their own story "experiences to the market" and "fruits and vegetables in detail and giving solution solutions. Students also able to complete various play activities, including: coloring pictures of mustard greens, decorating pencil cases and making kolase. Thus, it is a process of deep and broad thinking skills that involve critical and creative processing of information in dealing with and solving complex problems and involving skills in analyzing, evaluating, and creating.

1) Higher Order Thinking Skills in Early Language Learning based on Lesson Study-Activities

Collaborative learning occurs where each student's interaction with other students during learning process has been going smoothly and as expected. The appreciation made by the model teacher during the opening activity was quite able to make students enthusiastic in learning and began to focus on the message conveyed by the teacher. The reinforcement of the material provided by the model teacher can attract the attention of children to listen to the contents of the story conveyed by the teacher in the ongoing learning process related to the experience of going to the market. At the beginning of the learning activity, the model teacher began to divide the group with an explanation of each activity to be carried out. Students begin to pay attention well enough so that they can easily understand every given game activity, including coloring mustard greens, decorating pencil cases and collages. In group activities, it was seen that some students were active and focused their attention on the teacher and their friends, in addition, some participants were also less active by chatting with their friends and their attention was easily broken when their friends disturbed them. For those who are less active, the model teacher motivates to stay enthusiastic in completing their

to the front of his classmate and told his experience of going to the market with his mother. Jag was also able to name the objects he found in the market, including fruit, fish and vegetables. Jag also often responds and responds well to the stories conveyed by the teacher. Meanwhile, his other friend, Gin, told about his experience in the market, Gin was very expressive in telling his experience of going to the market with his mother riding a motorcycle. But he did not mention the object he encountered while shopping at the market with his mother. Meanwhile, Em, the rest of the group is not as expressive as Gin when it comes to responding to the teacher's story. He is not attentive and does not focus when the teacher asks him to share his own experience.



Figure 3. Model Teacher Starts the Class by Showing Teaching Media to the Students

In the teaching and learning, watermelon group namely Sof, Pan and Vic who were very enthusiastic about telling stories. Sofi told the teacher that she went to the market with her sister. Sof bought tomatoes. He also mentioned that he had shopped at the mall and bought fruits and clothes at the mall. Pan is very specific in telling stories about his experiences, such as when he went to the Kota Baru market, Panj saw someone selling children's clothes, fish sellers, yellow rice, there was a speedboat temporarily parked at the market and then Panj told about his experience riding a speedboat. Vicky said that in the market there were durians and bought vegetables with his mother, while their group friend Keysha did not seem to respond well to her experience. Meanwhile, in the Kankung group, there were two Qe and Aq students who seemed happy and quite enthusiastic about listening to the teacher during the activity about "the experience of going to the market", they were able to respond specifically to their experience in the market and the ability to respond to stories that began to develop. During the question and answer process, Qe was quite active in asking questions during class learning activities. Their friend Fia, it seems that she doesn't show a happy face during the initial activity of listening to the model teacher's story and is less enthusiastic so she doesn't understand the answer given by the teacher because she talks more with her friend If and during group activities Fia also likes to chat with her friend Aq. In the Bayam group, Ifa and Dias were full of enthusiasm in telling stories with the model teacher. But Hanna and Bagir are the opposite. comment what he understands. In Kol's group, there are two students, Husna and Afika, who are very expressive. and one student from the group was absent, namely Alfatir. In this group, when the initial learning activities began, Afika paid attention to the teacher's story but did not respond well. The three of them began to understand the activity of telling stories about "the experience of going to the market", being unable to interpret stories and only answering teacher questions. Afika only answered one or two words, for example "there is rica". Meanwhile, Rayyan's group friend was not as

usual in learning activities. Rayyan looks quiet and daydreaming a lot. When the teacher asked Rayyan, he would only answer with a nod of his head. In Apple's group, Reihan, Galang, Ala and Adis were quite able to listen to stories about the 'experience of going to the market' well, Galang was able to respond to the teacher's stories even though he often didn't focus because he was busy telling stories with his friend Reihan in the group. Galang and Ala seem cheerful and enthusiastic in playing activities compared to their two friends, Reihan and Adis. All four of them have the ability to ask and respond to stories that are starting to develop and are also active in answering questions given by the teacher about the experience of going to the market. Based on the critical thinking aspect as described in figure 3 shows 18 students or 81.8% of students answered questions and retold. 4 students or 18.2% students have criteria that often appear in the aspect of being able to interpret stories.

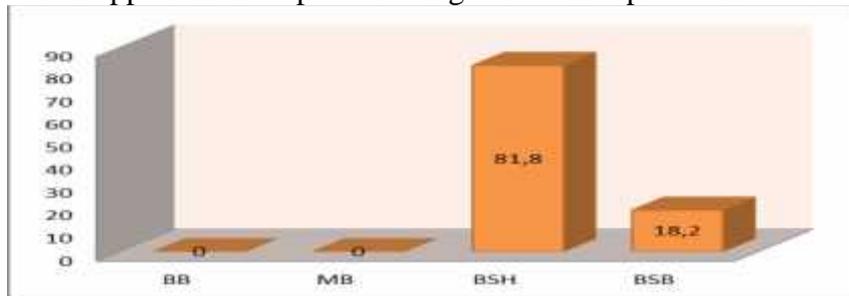


Figure 4. The Result on Students' Storytelling Activities

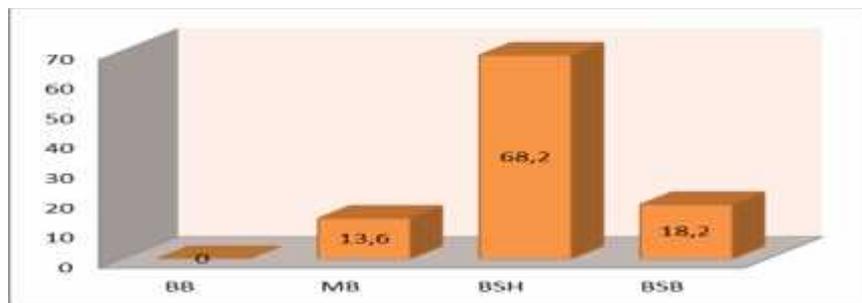


Figure 5. The Results of Students' Evaluation



Figure 6. Class Discussion of Students' Work

b) Aspects of Creative Thinking

In mangga group, Jag seemed meticulous in completing the activities of coloring mustard greens, decorating pencil cases and making kolase. He also often teases and annoys his group mates, Gina, during coloring and kolase activities. At certain times Bagas will help Gina complete her coloring activity by lending her a green colored pencil. The watermelon group, Sofi and Panji have high motivation and be careful in completing various play activities, including: coloring pictures of mustard greens, decorating pencil cases and making

kolase. Students worksheet and kolase activity given by the teacher were able to be completed very neatly compared to other groups. Panji and Sofi also with good listening skills were able to explain to their friend Keysha during the activity of sticking the pencil case, the pencil holder that resembled Keysha's "cat" was upside down and Panji swiftly told him to fix it. Meanwhile in the Kankung group, teacher assistance was given to Aqib during the activity of decorating pencil case because his work was upside down. In coloring the mustard greens, Qeis completed his worksheet faster than Aqib and Fia. Besides, spinach group, Dias, often protested against Ifa's behavior in coloring activity. Hanna and Bagir are motivated and enthusiastic in learning and also still lacking, because during the mustard greens coloring activity, when Dias started coloring his worksheet, Hanna was still chatting in his seat with Bagir about "washing your hands because your hands are dirty", Bagir seemed less independent in completing coloring worksheets and making collages because he still asked Master about the color of the vegetables to be colored. This group lacks accuracy in completing the activities of coloring mustard greens, decorating pencil cases and making collages, but the collaboration that occurs in this group is good. In the cabbage group, During coloring, decorating and collage activities, Afika patiently waited for her turn and paid close attention to her two friends in the group, Husna and Rayyan. Often Afika will ask the teacher's opinion about the work he has made. And in the apple group, Reihan, Galang, Ala and Adis cooperate with their closest friends in completing the tasks given by the teacher, but not with Adis who has a quiet character and does not like to tell stories with his three friends in individual activities when coloring pictures of mustard greens and decorating pencil case, for collage activities Adis wants to collaborate with the three in groups. Based on the creative thinking aspect as described in figure 6, it shows that there are 10 students or 45.5% of students who have criteria that often appear in the aspect of completing assignments in the form of the work given by the teacher.

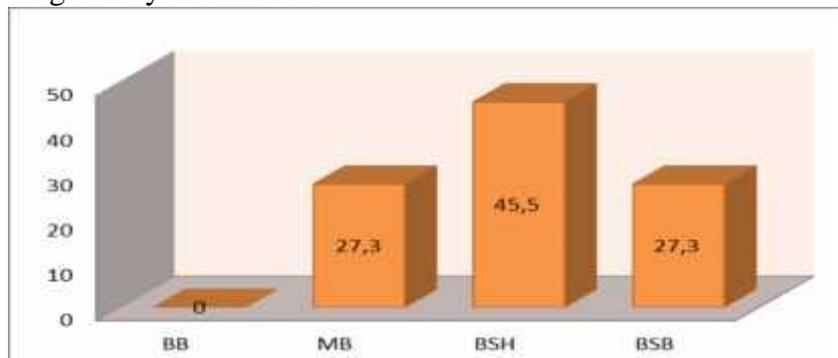


Figure 7. The Results of Students' on Completing Assignments



Figure 8. Children Create Ideas in Kolase Activities

Thus, group B who implemented language learning using HOTS in addition to the model teacher had provided some challenging questions, of course the model teacher used



strategies to develop HOTS in their classroom learning, including: collaborative language learning with the theme "market day" by providing a variety of play activities that provide opportunities for repetition, elaboration, organization, and metacognition, learning occurs is child-centred, during the initial learning activities carried out with the model teacher and students there was a process of exploring knowledge and practice in learning with this theme, teachers or students generate various questions, new approaches and obtain answers that have not been studied before during conversation activities, providing direct feedback regarding the progress of students when completing sharing tasks and jumping tasks in a group, learning uses small group discussions and cooperative learning in storytelling activities with the theme 'market day' and activities in learning involves share tasks and jumping task including coloring pictures of mustard greens and decorating pencil cases and collage activities to challenge the wishes of students, model teachers motivate students to work on sharing tasks and jumping task and provide feedback on the work of students.

Discussion

Six aspects of development in a child develop rapidly at an early age which is the golden age. This is a stage and of course the age that children go through, and at an early age it becomes a potential time in the learning process. This is because the development of the brain at this age reaches almost 80%. Language is one aspect of development that develops rapidly at an early age. According to Logan in Khoerunnisa (2021), the intensive period of language development is the first 3 years, when the brain is developing and heading for the maturation process. For a child's life in the future, language skills are a very important aspect. Currently in the era of global communication which of course uses language as a medium of communication. All sources of knowledge and information are mediated by language. When children's language skills are hampered, of course, it is feared that children's access to knowledge and information will also be hampered. Thus, language skills as early as possible must be developed. Children who have problems with expressive language skills, of course, they will have difficulty in learning activities and feel frustrated because they cannot express ideas well. If not addressed since childhood, it will continue into adulthood and academic abilities will experience problems.

As explained that early childhood are students who still need great attention and very high curiosity. The teacher here is a field in exploring children's abilities by practicing higher-order thinking skills to students. Basically higher order thinking skills it can be applied to various disciplines and language learning for early childhood is one of them (Peri Syaprizal, 2019) (Samad et al., 2020). Lesson study-based in language learning carried out through activities can attract the attention of students and help focus on playing activities in group B Telkom preschool. In this lesson study activity, children's language learning using storytelling activities is also adjusted to the themes discussed at each meeting according to the interests and interests of children and also adapted to the development of children aged 5-6 years (Gayatri et al., 2015) (Susilo, 2013) (Aliah, 2014) (Building, 2013). Likewise, when the model teacher conducts question and answer activities with children about "experiences to the market" and "fruits and vegetables", it appears that children can provide various responses and comments. This of course also raises curiosity to learn to color vegetable pictures, decorate pencil cases and collages in group learning until the learning ends, classes that implement learning using HOTS other than the teacher providing or provoking challenging questions, it is necessary to develop a strategy for HOTS, the following are some strategies according to King (Zein & Maielfi, 2020) (Yunita et al., 2019) that can be used in the classroom: a). learning that provides opportunities for repetition, elaboration,



organization, and metacognition, b). Learning that is specifically student-centered, c). The presentation is no more than fifteen minutes and is adjusted between the process of exploring knowledge and practice in learning, d). Teachers or students generate questions, new problems, and new approaches and obtain answers that have not been studied before, e). Providing direct, specific feedback, and informing students' progress, f). Learning using small group discussions, peer tutoring, and cooperative learning, g). Activities in learning involve tasks that challenge students' desires, teachers motivate students to do assignments and provide feedback on student work results.

Conclusion

Study concluded that in learning early language based on lesson study activities on 'market day' need ability to think critically and creatively. Both model teacher and B group students expected to understand its characteristics carried out through learning uses small group discussions and collaborative learning in storytelling activities. In question and answer activities, students can provide various responses and comments. This of course also raises curiosity to learn to color vegetable pictures, decorate pencil cases and making kolase in group until the lesson ends, being confidence to answer or tell the experience of going to the market in front of the class and willing to listen and pay attention to other people who are speak.

Recommendation

It is necessary to have an enthusiastic attitude and a strong desire from the teachers to carry out lesson study activities that stimulate higher order thinking skills from an early age. This activity should be carried out continuously in order to get maximum results so that improvements in teaching methods can be realized.

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