Implementation of Project-Based Learning in the Pandemic COVID-19 at Kindergarten

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Abstract. The purpose of this study was to describe the implementation of Project Based Learning during the pandemic at Telkom Makassar Kindergarten. The type of research used is descriptive research. The research subjects in this study were two teachers of Telkom Makassar Kindergarten. Data collection techniques are observation, interviews, and documentation with data analysis techniques, namely data reduction, data presentation, and conclusions. The results showed that the implementation of Project Based Learning during the pandemic was carried out through craft project activities for market day carried out by teachers, namely starting with the stages of presenting problems, making plans, arranging schedules, monitoring project creation, conducting assessments, and conducting evaluations. When the project learning activities begin, students follow the instructions given by the teacher with enthusiasm. Project-based learning is a teaching and learning process that involves students working on a project to solve a problem, and the learning process for early childhood can solve problems so that children are helped and become skilled in solving various things. Children can also make decisions to solve problems. Get knowledge and information through the teacher so that children can be interested and interested in project learning. It is recommended to apply Project-based learning in the learning process during the pandemic and the new normal because it can create innovative, creative, and fun learning for children so that children remain happy and have good learning motivation.

Keywords: Childhood Education · Early Childhood · Learning Model · Project-based Learning

1 Introduction

Early childhood is a child who is at the age of zero to six years. This period is often called the golden age because children will quickly absorb all the information they get. Therefore, the activities given to children must optimize various aspects of development, namely cognitive, language, physical-motor, religious and moral values, art, and socio-emotional.

Choosing a kindergarten educational unit/institution that matches the child's characteristics can be quite challenging. Many factors should be considered before admitting a child to the education unit. Kindergarten is an educational institution that is categorized

as a preschool. Kindergarten is an early childhood education in preparing children to be ready for school to a higher level, namely Elementary School. A good kindergarten will help children develop optimally. Therefore, it is important for parents not to make the wrong choice in entering their children into kindergarten. Telkom Makassar Kindergarten, one of the educational institutions under the auspices of the Telkom Education Foundation, provides space for students to discover and develop their extraordinary intelligence potential precisely and directly. One of the project-based learning activities held at Telkom Makassar Kindergarten is market day. Market day is an entrepreneurial activity where children are taught how to market products to friends, teachers, or outsiders. This activity is usually in the form of a bazaar or market held by a school, but due to the pandemic, it is carried out online.

Early Childhood Education plays a vital and decisive role in the history of subsequent child development because early childhood education is the foundation of the child's personality. Children who get good guidance from an early age will be able to improve their health and physical and mental well-being, and of course, will have an impact on increasing learning achievement, work ethic, and productivity. Finally, children will be better able to be independent and optimize their potential [1]. Therefore, it employs a child-centered approach to learning (learning by doing). The Project Based Learning (PjBL) model is one of the creative learning models that instructors may implement in play activities to engage children more because it employs real-world issues with predetermined themes and subjects, after which experiments or research are conducted. For students to solve issues with suitable concepts, principles, and knowledge, real-world products may be produced following the students' ability.

PjBL is a learning paradigm that focuses pupils on the complicated challenges required for performing investigations and comprehending teachings via investigations [2]. This approach intends to help guide students in a collaborative project that incorporates many curriculum areas (materials), allowing students to study content (materials) in various relevant ways and to perform collaborative experiments. According to [3], PjBL is a learning approach that uses challenges to acquire and integrate new information based on experience and real-world activities. PjBL is developed for students to study and comprehend complicated topics. Subsequently, the project method is a kind of teaching in which students are presented with an issue addressed from multiple relevant perspectives to arrive at a thorough and meaningful answer [4]. This strategy enables students to assess a topic from their perspective based on their interests and abilities. Project-based learning is a learning approach that uses projects/activities as a learning instrument to develop attitude, knowledge, and skill capabilities [5]. This learning serves as a replacement for teacher-centered learning. The focus of this learning is on student activities that, once completed, can result in meaningful and valuable goods. In line with that, [6] suggests that project-based learning is a method that uses problems to collect and integrate new knowledge based on experience in actual activities.

The project-based learning approach influences young children's social behavior [7]. This approach to project-based learning offers numerous opportunities for children ages 5 to 6 to interact, collaborate with peers, and develop attitudes by adjusting to other peers. This demonstrates social behavior in sharing, caring, and working together. The study [8] results regarding the appropriate learning model to stimulate children's speaking

skills indicate Project Based Learning supported by big books because project learning is conducted in groups and uses big book media to stimulate children's speaking abilities. The problem investigated is the implementation of PjBL during the Pandemic Period at the Telkom Makassar Kindergarten. The objective is to determine the implementation of Project-based learning at Telkom Makassar Kindergarten during the pandemic.

2 Methods

This study uses a qualitative approach that aims to describe the state of a phenomenon based on a research process and understanding with a methodology to investigate a social phenomenon and human problem [9]. The type of research used is descriptive qualitative, which aims to describe a symptom, event, and event happening now [9]. This research was conducted in Telkom Makassar Kindergarten. This location was chosen because it was driven by the desire to know the factors influencing the learning Project Based Learning at Telkom Makassar Kindergarten.

This study focuses on presenting a qualitative descriptive which is divided into six steps of Project-based learning implementation, namely: (1) presenting problems, (2) making plans, (3) arranging student scheduling, (4) monitoring the making of work implementation projects, (5) Conducting assessments, (6) Conducting evaluations. Project Based Learning in the era of the covid pandemic, social distancing restrictions or maintaining distance are applied, so this learning is carried out alternately or in 2 learning sessions. The research subject is group B's class teacher and the Kindergarten Telkom Makassar students.

Observation, interviews, and documentation were employed to obtain information for this study. The approach for analyzing data is qualitative data analysis, which consists of the following steps: data reduction, data presentation, conclusion drafting, and data verification. In this study, the researcher confirmed the accuracy of the data by triangulation, namely source and technical triangulation.

3 Results and Discussion

Project-based learning provides opportunities for students to analyze a problem from their student's point of view according to their interests and talents. The relationship with PjBL for children in Telkom Makassar Kindergarten is measured using project-based learning implementation indicators: presenting problems, making plans, arranging student scheduling, monitoring project creation, conducting assessments, and conducting evaluations.

3.1 Result of Preparation Stage

The results of observations made by researchers at Telkom Makassar Kindergarten on March 09 to August 30, 2022, to group B3 totaling 18, and group A totaling 11 people, the teacher can carry out an activity that motivates students to be involved in learning, as in the first activity was in making critical chains through what was conveyed by the

teacher, the second activity the teacher directed the children to make mask straps. The teacher motivates the child to make crafts using used materials and is adequately involved in the craft project.

An interview with one of the teachers from the B3 group said that "*By doing a craft project for market day. Crafts made using used materials so that children can be motivated to be directly involved in craft projects.*"

The teacher of group A also expressed this in the ongoing interview, which said that: "*Teachers can motivate students to want to be involved in learning activities, namely using when learning the teacher applies learning interspersed with singing, and playing while learning so that children do not bore to engage in learning activities.*"

So, it is safe to assume that a teacher's goal in presenting problems is to encourage students to participate in learning activities, such as using when learning. The teacher applies learning interspersed with singing and playing while learning to keep students from getting bored. The teacher does this so the students can participate in an activity designed to get them excited about participating in active learning.

3.2   Make a Plan

The observations made by researchers at Telkom Makassar Kindergarten on March 09 to August 30, 2022, to group B3 totaling 18 and group A totaling 11 people, the teacher makes a weekly lesson plan (RPPM), prepares learning media, provides examples of carrying out learning activities and providing opportunities for children to carry out activities that the teacher has given examples in front of the class, the teacher gives children the freedom to be creative and provide guidance if they experience obstacles.

The results of an interview with one of the teachers from group B3 said, "*Designing learning activities with group B teachers into the RPPM, which is described from the RPPH. Teachers also prepare learning media, and teachers provide examples of carrying out activities; teachers provide opportunities for students to observe and ask questions about the activities to be carried out. Teachers allow children to be creative and provide guidance if they experience obstacles.*"

This was also expressed by the teacher of group A in the ongoing interview, who said, "*The teacher makes a weekly lesson plan, prepares learning media, provides examples of learning activities, and provides opportunities for children to carry out activities that have been given examples. By the teacher in front of the class.*"

To sum up, the teacher creates a weekly lesson plan, prepares learning materials, models activities in front of the class, and gives students ample time and autonomy to practice what they have learned. The teacher does this so that the students' project-based learning goes smoothly and they can effectively plan and execute their projects. A step toward ensuring the long-term viability of an endeavor is coming to this conclusion through the planning process [10]. Teachers are pivotal in the educational process, especially regarding lesson preparation. Syllabus and lesson plans are two learning plans created to aid the classroom learning process through various instructional strategies, models, methods, and learning media.

3.3 Arrange Student Scheduling

The teacher overcomes project-based learning activities based on what children will carry out projects, such for example making mask straps, key chains, and tissue holders from used materials for market day. The teachers from group B2 said, "*Teachers handle project-based learning activities based on what projects the children will do, such as a market day. First, the teacher carries out the problems or challenges proposed to students and then designs the activity process. Then students and teachers are jointly responsible for solving problems. Then the teacher conducts an assessment, and finally, the teacher evaluates the students*".

The teacher of group A also expressed this in the ongoing interview, said that: "*Teachers overcome project-based learning activities based on what projects the children will do, such as before the market day activities the children are taught to make mask straps and critical chains and sell it on the activity. First, the teacher creates a challenge that will be posed to students and then designs the activity process. Then students and teachers are jointly responsible for solving problems. Then the teacher conducts an assessment, and finally, the teacher evaluates the students*".

Therefore, it can be concluded that teachers overcome project-based learning activities, such as before market day activities, children are taught to make mask straps and key chains and sell them at the activity on 22 March 2022. First, the teacher carries out the problems or challenges proposed to students and then designs the activity process. Then students and teachers are jointly responsible for solving problems. Then the teacher conducts an assessment, and finally, the teacher evaluates the students. This is done so that teachers can cope with project learning activities.

3.4 Monitor the Making of Work Implementation Projects

The results of observations made by researchers at Telkom Makassar Kindergarten on March 9 to August 30, 2022, to group B3 totaling 18 and group A, totaling 11 people, the teacher pays attention to the children working and guides the activation process if there are children who If the teacher needs help, the teacher guides and directs the child in order to solve the obstacles experienced by the child.

The teacher of group A also expressed this in the ongoing interview, saying, "*Teachers provide assistance or are monitored during activities such as making mask straps or key chains because children use materials that require supervision from the teacher, such as wax glue.*"

The observations and interviews show that teachers aid or are monitored during activities such as making mask straps or key chains because children use materials that require supervision from the teacher, such as wax glue. This is done by the teacher so that the teacher can be responsible for monitoring the activities of students while completing the Project to find out the project implementation progress and anticipate obstacles students face. This is supported by the opinion in line with the steps of the project-based learning model that children must make a project implementation schedule agreed upon with the teacher [11]. Students propose the stages of project work by setting a reference that will be reported at each class meeting. So, with the activities in scheduling activities, teachers and children at Telkom Makassar Kindergarten together turn on every activity that is passed to make it more interesting.

3.5   Conduct an Assessment

The results of observations made by researchers at Telkom Makassar Kindergarten on March 9 to August 30, 2022, to group B3 totaling 18 and group A totaling 11 people, the teacher observes and provides assessments to children during activities such as the procedures for children to do activities, how children work together, communicate with, when children solve problems, find creative ideas during activities, and take small notes.

The results of an interview with one of the teachers from group B3 said that: "*The teacher observes children during activities such as the procedures for children to carry out activities, how children work together, communicate with, when children solve problems, find creative ideas during activities, and make little notes.*"

Based on the results of observations and interviews, it can be concluded that the teacher observes children's activities during the activity and determines the extent to which the child can do it without the teacher's assistance or with the teacher's assistance, as well as how healthy children work together and communicate. If he can already do it without assistance from the teacher, the child's fine motor skills have developed well. If not, the teacher must continue to train the child's development until he can do it independently. For this reason, direct observation of the child's development requires the teacher's supervision and evaluation. The learning method is a learning paradigm with phases of planning, implementation, and evaluation to achieve learning objectives. So, with the assessment, the teacher can determine how the child's ability to perform activities and development has progressed [12].

3.6   Conduct Evaluation

The results of observations made by researchers at Telkom Makassar Kindergarten on December 9, 2021, to January 09, 2022, to group B3 totaling 18 and group A totaling 11 people, the teacher evaluates children's activities by seeing whether the activities that children have carried out can make he does well without the help of a teacher/friend or with the help of a teacher/friend.

The interview with one of the teachers from group B3 said, "The teacher evaluates by making small notes which are then transferred to daily assessments according to activity indicators. *"The teacher of group A also expressed this in the ongoing interview, who said, "The teacher evaluates the children's activities by seeing whether the activities that the child has carried out he can do well without the help of the teacher/friends. The teacher then guides the underdeveloped or underdeveloped child so that the child does not feel that the activity he is doing feels very difficult*."

The conclusion that can be drawn from the observations and interviews is that the teacher evaluates the child's activities by determining whether they can be completed successfully without the assistance of the teacher/friend. If the child cannot, the teacher guides the underdeveloped student so that the activity does not appear too challenging. Therefore, an evaluation is conducted so that teachers can determine which children have developed and which have not. When evaluating each other's development, analyzing the assessment outcomes is a means of gauging adherence to standards [13]. Students provide feedback on their level of comprehension, which is considered in developing the subsequent instructional strategy. Thus, the evaluation enables the instructor to determine which students have improved and which have not in each activity.

4   Conclusion

Project-based learning at Telkom Makassar Kindergarten involves presenting problems, making plans, scheduling, monitoring work implementation projects, assessing, and evaluating. Project-based learning, in which students work on a project to solve a problem, can help young children learn to solve problems. The teacher can help children make decisions to learn and be interested in project learning. Teachers can use project-based learning in play activities to make learning fun, creative, and innovative for children during the pandemic. Even with daily learning, project-based learning can be implemented. Online and offline project activities should be chosen more creatively by teachers.

References

1. I. M. W. Jagantara and P. B. Adnyana, 'Pengaruh Model Pembelajaran Berbasis Proyek (Project Based Learning) Terhadap Hasil Belajar Biologi Ditinjau Dari Gaya Belajar Siswa Sma', vol. 4, p. 13, 2014.
2. R. Rusman and I. Abdulhak, 'Curriculum Implementation at Kindergarten A Study on "Best Practices" Done by Kindergarten Teachers in Planning, Implementing, and Evaluating the Curriculum', in *Proceedings of the 1st International Conference on Innovation in Education (ICoIE 2018)*, Padang, Indonesia, 2019. doi: https://doi.org/10.2991/icoie-18.2019.46.
3. M. Daryanto, *Model pembelajaran inovatif*. Yogyakarta: gava media, 2012.
4. T. Sugihartono, A. Sutisyana, and S. Sugiyanto, 'Produktivitas Lembar Kerja Peserta Didik (LKPD) Pjok Dengan Penerapan Model Projek Base Learning Pada Prodi Penjas FKIP UNIB', *Kinestetik*, vol. 4, no. 1, pp. 63–72, Mar. 2020, doi: https://doi.org/10.33369/jk.v4i1.10407.
5. M. Fathurrohman, *Model-model pembelajaran inovatif alternatif desain pembelajaran yang menyenangkan*. Yogyakarta: Ar-Ruzz Media, 2015.
6. A. K. Aryani and H. Suwono, 'Peningkatan Hasil Belajar Peserta Didik Melalui Pembelajaran Berbasis Proyek Dengan Peer Assessment Pada Konsep Klasifikasi Makhluk Hidup', p. 8.
7. F. S. Ningrum, R. Safrina, and T. Sumadi, 'Peran Pembelajaran Musik melalui Project Based Learning terhadap Perilaku Sosial Anak Usia 5-6 Tahun', *J. Obsesi J. Pendidik. Anak Usia Dini*, vol. 6, no. 2, pp. 704–718, Jun. 2021, doi: https://doi.org/10.31004/obsesi.v6i2.1559.
8. M. A. Setyastuti, 'Pengaruh project based learning berbantuan big book terhadap kemampuan berbicara kelompok B TK Al-Muhajirin Malang', Universitas Negeri Malang, Malang, 2019.
9. J. Noor, *Metodologi penelitian, skripsi, tesis, disertasi dan karya ilmiah*. Jakarta: Kencana, 2012.
10. B. A. Fanggidae, 'Pentingnya perencanaan pembelajaran untuk mencapai pembelajaran yang efektif', Universitas Pelita Harapan, Jakarta, 2019.
11. A. Y. Sari, 'Implementasi Pembelajaran Project Based Learning Untuk Anak Usia Dini', *Motoric*, vol. 1, no. 1, p. 10, Apr. 2018, doi: https://doi.org/10.31090/paudmotoric.v1i1.547.
12. E. Widiasworo, *Strategi dan metode mengajar siswa di luar kelas (outdoor learning) secara aktif, kreatif, inspiratif, dan komunikatif*. Yogyakarta: Ar-Ruzz Media, 2017.
13. A. Rosiana, 'Steam Project Based Learning Untuk Mengembangkan Sikap Percaya Diri Anak Usia Dini', Universitas Pendidikan Indonesia, Bandung, 2020.