Research Article

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The Effect Learning Community on Collaboration Skills in Early Childhood

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ARTICLE INFO	ABSTRACT
	This study aims to identify the effect of learning community on collaboration skills in early childhood. The research method used quasi-experimental design, the research location was in kindergarten. The research subjects consisted of 70 early childhood divided into two groups, experimental and control groups. Data collection techniques through observation and tests, data analysis used normality test, homogeneity test and independent sample t test. The results showed that the Sig value of collaboration in the experimental group was 0.00 ($p \leq 0.05$), the mean learning community in the experimental group was better at 84.29 compared to the learning outcomes of the control group at 78.43It can be concluded that learning community has an effect on early childhood collaboration skills. **Keywords:** learning community, collaboration skills, early childhood.

Introduction

Education in Indonesia is always evolving to get the best results. The government has implemented several changes, including adjusting the circumstances, conditions, time, and the needs and characteristics of students. Curriculum innovation is one of them. According to the Indonesian Minister of Education and Culture, Merdeka Curriculum is an independent learning program designed to improve the quality of learning and have a positive impact on various aspects of life. Starting from the physical, mental, and spiritual aspects within the scope of education (Kemendikbud, 2022). The government's policy of creating and introducing an merdeka curriculum is considered very appropriate to overcome problems related to the learning process that occurred during the COVID-19 pandemic in Indonesia (Hasim, 2020). The merdeka curriculum is a curriculum with diverse intra-curricular learning that will be optimized so that students have sufficient time to explore concepts and strengthen competencies. Teachers have the flexibility to choose a variety of learning tools so that learning can be adapted to students' learning needs and interests (Rizaldi & Fatimah, 2022). The utilization of merdeka curriculum is based on efforts to create a quality educational climate so that it can produce a generation that is ready to adapt to the times (Priantini et al., 2022).

The Merdeka Curriculum has several advantages, including the following: simpler and deeper because it focuses on developing students' competencies gradually; Schools have the authority to develop and manage curriculum and learning by the characteristics of educational units and students; More relevant and interactive where students are allowed to more actively explore actual issues, such as health, environment, and other issues(Sholeh, 2024a). This is a form of the government effort to improve the quality of education in the twenty-first century, which is following the demands of twenty-first-century abilities such as critical thinking skills, problem-solving, communication skills, and collaboration skills. In order to adapt to the changes in the 21st century, several skills that individuals must possess. In addition to skills such as communication, critical thinking, and creativity, which were considered essential in the past, new skills comprise of such as collaborating, keeping up with information technology innovations with advancements in information technology, and having technological literacy in order to adapt and use them appropriately (Özer & Kuloğlu, 2023). Education for 21st century skills aims to equip students with the necessary knowledge and skills should they encounter unexpected situations in their daily lives (Duygu, 2023). 21st century skills emerged due to technological development, globalization, and rapidly changing labor market conditions. Basic skills such as

reading, writing, and math are sought to have new skills such as problem solving, critical thinking, communication, collaboration, creativity, digital literacy, and cultural awareness. These skills are considered essential for increasing individual productivity, supporting global cooperation, and capitalizing on opportunities provided by digital technologies (Yurt, 2023).

The concept of freedom of learning is understood as freedom of play in Early Childhood Education. The Director General of Teachers and Education Personnel of the Ministry of Education and Culture in the seminar "Physical Motoric Stimulation of Early Childhood" said that freedom of learning in the context of early childhood education means freedom of play (Kemendikbud, 2020). Based on the explanation above, early childhood activities must be designed to meet the needs of children who are still in the play stage. Play is not only how young children spend their time, but also how they learn. Every type of early childhood play activity has a good impact on the development of all aspects of children (Pupung & Lestariningrum, 2018). Children's participation in play can enhance their socio-emotional development, as in play children gain the ability to negotiate with their peers, learn to cooperate and increase sensitivity to the needs and feelings of others(Efendi & Sholeh, 2023). Can learn to use language as a tool to communicate with others. Supports in stimulating creative thinking and imagination, as children feel free to try new and alternative ways as they play (Altun, 2018).

The reality shows that there is still a gap in understanding in the community about the importance of play activities in early childhood. Society understands that early childhood education is an activity that only focuses on reading, writing, and arithmetic without paying attention to other aspects of development(Minarti et al., 2024). Parents and teachers often direct children to learning that tends to be academic. Early childhood education is seen as limited to reading, writing, and arithmetic(Sholeh, 2024). However, it is different from the science of early childhood education which must further strengthen aspects of its development through play activities. This points to the need for wider socialization and a better understanding of how play is the primary medium of early childhood learning.

Misconceptions regarding the purpose of early childhood stimulation lead parents and teachers to believe that they are the ones who encourage children to be able to read on their own (Solichah et al., 2022). But admittedly, reading, writing, and arithmetic are associated with academically oriented learning and even negate the concept of play for early childhood, as if play and learning are two separate and inseparable concepts (Lutfatulatifah & Yuliyanto, 2017). Teachers and parents can implement various ways to improve early childhood development, one of which is through learning community(Sholeh & Fathurro'uf, 2024).

Learning community (CoL) can be applied to early childhood because it has compatibility with the learning function in early childhood. The functions of learning in early childhood include: developing all abilities possessed by children according to their stage of development, introducing rules and instilling discipline in children, and providing opportunities for children to enjoy their playing time (Fadlillah, 2016). The findings of previous research prove that teachers who use the learning community model get various experiences so that teachers can continue to improve the quality of learning (Sari et al., 2018). Likewise, the results of other studies show that the learning community model can improve the competence, attitude, and psychomotor abilities of natural science students at Pakuan University (Setyaningsih, 2018).

Based on this explanation, it can be concluded that learning outcomes with the learning community model are obtained from the results of collaboration with others. Learning outcomes are obtained from sharing between students, groups, and students who already understand to students who still do not understand. Collaboration is one of the characteristics that need to be applied in learning in early childhood because collaboration skills are one of the skills that must be optimized in early childhood. Collaboration means the ability to work with others to the level of suppressing individual personality and prioritizing group spirit so that children have an attitude in carrying out activities together with their peers, the attitude of collaboration can increase the spirit of learning together in groups (Hurlock, 1987). The word "collaboration" means working together and occurs when one or more people work cooperatively to complete a project/task or to develop an idea or process. So, collaboration occurs when two or more people work together to achieve a common goal that benefits the team or group (Dhanapañño & Sutheejariyawattana, 2022). Collaboration has human relationships as its main principle. To do collaborative work, one must develop the skills of building and managing relationships (Jesus & Silveira, 2022).

Collaboration skills in early childhood can be stimulated through a variety of fun activities and habituation that are carried out continuously. This shows an understanding that learning in early childhood should be done with an approach appropriate to their developmental characteristics. Unlike previous studies that conducted learning community activities on teachers and students, in this study, the learning community model was aimed at grade B early childhood (Ages 5-6 years) to optimize their collaboration skills. The application of the CoL model at this age level shows awareness of the importance of collaboration and the active involvement of kindergarten students in the learning process. In this study, what will be studied is the effect of learning community on collaboration skills aimed at early childhood.

Literature riview

Learning community

Learning community are defined as groups of individuals engaged in collaborative learning and reflective practices engaged in transformative learning. In the context of communities of practice, community-based learning involves the process of becoming full participants in socio-cultural practices. Thus, individuals learn through shared practice with community members who are more experienced, knowledgeable and insightful and can share with each other in the hope that the outcome will be that all members have a shared understanding, expertise and skills that can be improved. Learning community should foster a sense of connection and shared passion, as well as a deepening of knowledge gained from ongoing interaction in learning activities. The pattern of knowledge development can be continuous, cyclical and changing between members (Fontainha et al., 2015). Learning community is a mechanism of academic and social assimilation that enables meaningful experiences for students (Hurtado et al., 2020).

There are many advantages that learning communities offer in learning activities. There are six principles defined by Boyer as the cornerstones of the learning community: (1) It is a community with an educational purpose where members work together to strengthen teaching and learning. (2) It is an open community where freedom of expression is protected and affirmed. (3) A just community where the sanctity of the person is respected and diversity is sought. (3) A disciplined community where each individual accepts their responsibility to the group and clear governance procedures guide behavior for the common good. (4) A caring community where the well-being of each member is supported and where service to others is encouraged. (5) A community that celebrates heritage and rituals that affirm tradition and change (Willits & Brennan, 2016). Learning community is characterized by common academic and social tools to help students become more integrated learners, build community, and become more connected to institutional resources. These tools are intended to support the growth of intellectual abilities and to strengthen social relationships among students using cooperative learning techniques (Baier et al., 2019). Learning community participation addresses deficiencies in learning activities by providing a strong network of support that can serve as a reinforcement or springboard for student self-efficacy and achievement (Virtue et al., 2019). Learning communities offer by facilitating knowledge acquisition by emphasizing students into learning experiences and processes of collaboration and active engagement actively, which results in good social knowledge construction (Jaiswal et al., 2021).

Learning community in learning is very helpful for learners in increasing social interaction, scientific discussion, knowledge exchange, collaboration, story exchange and many other benefits. Learning community has a positive relationship with student engagement and is positively associated with learning outcomes, so learning community can indirectly relate to student learning. may be indirectly related to student learning (Kern & Kingsbury, 2019). Learning community is usually built to bring students together collaboratively through common academic and/or social experiences around a goal or question (Varty, 2021). Learning community is characterized by common features that bring students together through related studies and/or through frequent interactions, both socially and intellectually (Gonzales et al., 2022).

Collaboration Skill

Collaboration is a personal interaction and lifestyle where individuals take responsibility for their actions, including learning and respecting the abilities and contributions of their peers. Collaboration is a skill that aims to develop group intelligence in terms of helping, suggesting, accepting, and negotiating through interaction with others mediated by technology (Brown, 2015). Collaboration as a partnership/relationship in problem solving is key to achieving highly effective learning processes. It includes the skills of effective communication, mutual respect, trust, giving and receiving feedback, decision-making, and conflict management (Nurwidodo et al., 2023). Collaborative skills are very important, because they can accelerate group work, various students with diverse backgrounds and different skills work together to achieve one big purpose by utilizing their talents (Naila, 2020). Collaborative skills are needed for policymakers and the rest of society to prevent and address environmental problems (Collins et al., 2019).

Collaboration skills have many characteristics and benefits in a group. Collaboration skills include: (1) giving and receiving feedback from peers or other team members to perform the same task. (2) sharing roles and good ideas with others. (3) recognizing the skills, experience, creativity, and contributions of others. (4) listening to and acknowledging others' feelings, concerns, opinions, and ideas. (5) expanding on the ideas of a colleague or team member. (6) expressing personal opinions and areas of disagreement tactfully. (7) listening patiently to others in conflict situations. (8) defining problems in a non-threatening way. (9) supporting group decisions (Priyono & Sinurat, 2020). Collaboration skills also have a positive impact on social change and behavior change during the learning process (Rasyid & Khoirunnisa, 2021). Collaborative skills need to be possessed by students in a learning process because it is useful to support learning achievement (Lu'luilmaknun et al., 2021). The ongoing development of information and communication technology accompanied by the development of the times, of course, collaborative skills are needed for students, to train cooperation between them in the learning process which is expected to provide a skill that can be used when working in their institutions each day. Collaboration is one of the skills that today's students must have to be ready when entering the workforce; today's students are also required to collaborate within the school environment and with the global community

(Pratiwi et al., 2020). Collaboration is the skill to work together synergistically and adapt in a variety of roles and responsibilities. Working productively with others prioritizes empathy and respect for different perspectives, each individual involved can complement each other's strengths and weaknesses (Ernawati & Sari, 2022). Collaborative skills are considered important and needed in almost all areas of life (Sajidan et al., 2023).

Method

The research method used is a quasi-experimental design. The term quasi-experimental refers to a research strategy that includes a control group but does not fully function in controlling for various variables (Sugiyono, 2013). Because researchers could not build new classes for this study, existing classes in the school were used as research subjects. Researchers did not use randomization in either the experimental or control groups. The nature of quasi-experimental research findings is better suited to be applied in real-world learning (Creswell, 2014). Researchers did not use random sampling in this study because it could have an impact on school schedules. Existing subjects adapt to the existing classroom environment. As a result, this study is quasi-experimental (Fraenkel et al., 2012).

The study included 70 early childhood children aged 5 to 6 years. The research was conducted at the kindergarten "Aisyiyah Bustanul Athfal Wage Taman Sidoarjo" on Taruna Street No. IX B Kav. 298. The subjects will be separated into two groups, one group without intervention and one group with intervention.

The following activities with the learning community model are aimed at early childhood (aged 5-6 years) in this study. 1) The teacher divides students into groups based on their type of learning style (visual, auditory, and kinesthetic learning styles). 2) The teacher explains the learning activities to be carried out. 3) Teachers and students prepare the necessary media and resources. 4) Students participate in group-based learning activities. The cognitive capacities of early childhood (5-6 years) in this study are as follows: The teacher discusses the activities to be carried out; Students work in groups; and Students work on activity sheets individually.

The data of this study was collected using observations and tests. The data were described using univariate descriptive data analysis that included standard deviation, variance, and mean. Variables tied to early childhood collaboration skills (ages 5-6 years) were described using pretest and posttest result data.

Table 1. Early Childhood Collaboration Skills Instrument (Age 5-6 years)

No	Indicator	Score	Criteria	Description
1.	Children are used to being cooperative with their friends	4	Developing very well	If children are used to being cooperative with their friends when learning activities are going well.
		3	Develop in accordance hope	If children are used to being cooperative with their friends when learning activities are taking place, but sometimes with the teacher's direction.
		2	Starting to develop	If the child is used to being cooperative with his friends when the activity takes place, but sometimes with the teacher's direction and does not complete the group assignment until it is finished.
		1	Not yet developed	If children are not used to being cooperative with their friends when learning activities are in progress and do not complete group assignments to completion.
2.	Children are used to completing tasks together in groups	4	Developing very well	If the child is used to completing tasks with the group well.
		3	Develop in accordance hope	If the child is used to completing assignments in a group but sometimes with the teacher's direction.
		2	Starting to develop	If the child is used to completing assignments as a group, but sometimes with the teacher's direction and does not complete the group assignment to completion.
		1	Not yet developed	If the child is not used to completing tasks with a group well.

Result

To determine the effect learning community by testing the results of posttest data obtained during the study. From the data, hypothesis testing will then be seen using the normality test, homogeneity test and t-test, using the SPSS Statistics application. The results of the posttest data normality test are described in table 2.

Table 2. Output Normality Test

One-Sample Kolmogorov-Smirnov Test		Posttest_Experimental	Posttest_Control
N		35	35
Normal Parameters[a,,b]	Mean	84.29	78.43
	Std. Deviation	6.767	6.036
Most Extreme Differences	Absolute	.199	.172
	Positive	.115	.172
	Negative	-.199	-.146
Kolmogorov-Smirnov Z		1.178	1.018
Asymp. Sig. (2-tailed)		.124	.251
a. Test distribution is Normal.			
b. Calculated from data.			

Based on Table 2, the data distribution is normal. This can be seen at the posttest significance levels, Experimental Posttest got 0.124 and Control Posttest got 0.251, more significant than 5% significance or > 0.05.

Table 3. Output Homogenity Test

Test of Homogeneity of Variances			
Posttest			
Levene Statistic	df1	df2	Sig.
.165	1	68	.686

Based on Table 3, the data distribution is homogen. This can be seen at the posttest significance levels, both groups got 0.686, more significant than 5% significance or > 0.05. After all data qualify for normal distribution and homogeneity. The results of posttest data analysis are presented in Table 4.

Table 4. Output Independent Sample T Test

Independent Samples Test			Posttest	
			Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances		F	.165	
		Sig.	.686	
t-test for Equality of Means		df	68	67.128
		t	3.821	3.821
		Sig. (2-tailed)	.000	.000
		Mean Difference	5.857	5.857
		Std. Error Difference	1.533	1.533
	95% Confidence Interval of the Difference	Lower	2.799	2.798
		Upper	8.916	8.916

Based on Table 4, data testing through the independent sample t test obtained a significance value of 0.00 <0.05, meaning that there is a significant effect, so that the application of learning community has an effect on collaboration skills in early childhood.

Table 5. Mean Between Groups

Group Statistics				
	Groups		N	Mean
Posttest	Experimental		35	84.29
	Control		35	78.43

Based on Table 5, shows that the mean learning community in the experimental group was better at 84.29 compared to the learning outcomes of the control group at 78.43.

Discussion

This study shows that learning community affects early childhood collaboration skills. Learning community supports early childhood to collaborate with peers. Members of the learning community work together by sharing ideas and experiences. Early childhood collaborates in problem-solving and supports each other in overcoming challenges.

In this learning, early childhood experiences the development of social skills, communication skills, self-confidence, and improved problem-solving skills. Learning community is implemented through cooperation and interaction with peers, where early childhood learns to listen, share, and respect the opinions of others. Early childhood communication skills improve during the process of working together, where they learn to value ideas, help each other, and solve problems together. Learning community is very flexible to express various problems that will be discussed in class, as well as a learning partner to provide critical suggestions in the learning process carried out by students. The learning community was chosen in order to develop students' ideas and exchange ideas and opinions with peers in one group (Zunarni et al., 2022). Learning community can occur if there is active, effective, and communicative interaction between educators and students or between students and other students. The learning process will run significantly if done in learning groups. There will be sharing problems, sharing information, sharing experience, and sharing problem solving (Franscy & Siahaan, 2023).

The learning community in early childhood recognizes that the best way to learn is by active engagement and following interests and experiences with strong relationships with adults who pay attention to it. This can encourage their social-emotional development, as well as prepare them for lifelong learning. Learning community facilitates a collaborative and inclusive environment between early childhood, teachers, and parents in support of improved child learning and development. So that the learning process does not only occur in the classroom but takes place at home or in the surrounding environment. A collaborative and inclusive environment within the learning community allows early childhood to actively participate in its learning (Dyson et al., 2021). Children gain freedom in exploring and experimentaling in their environment, and the position of the teacher as a facilitator. Parental support in sharing knowledge, experience, and interests with teachers can help with relevant and engaging learning experiences for early childhood.

Learning community supports the development of early childhood collaboration skills; this follows Vygotsky's theory that early childhood development is influenced by social interactions and experiences from the environment. Zone Proximal Development from Vygotsky explains that children can learn with the help and support of peers and adults (Irshad et al., 2021). Social interaction, and cooperation in learning, children actively participate with peers and adults in acquiring new knowledge and skills. Bandura with his social cognitive theory argues the importance of interaction between cognitive, social, and environmental in individual development (Schunk & DiBenedetto, 2020). In the process of this interaction, children observe and imitate other people's behavior which has an impact on the processing of new knowledge, skills, and attitudes. Learning community is accustoming early childhood to collaborate with others through sharing experiences. The results of previous studies have shown that a learning community is an alternative to sharing knowledge (Faozi et al., 2020). Group-based learning has unique things related to the learning process because group members can collaborate in sharing experiences, solving problems, self-reflection that often expresses opinions in one group, and learning activities become more (Sigurdardóttir, 2010; Winanti et al., 2019). Based on this explanation, it can be concluded that learning community is an alternative to sharing knowledge between group members to collaborate in sharing experiences, solving problems, and creating learning activities to be more effective. Based on the explanation above, it can be concluded that in early childhood who follow the learning community as a learning model, their collaboration skills can be optimally stimulated because in learning activities they collaborate with friends.

Conclusion

Based on the research findings, it can be concluded that the application of the learning community model in early childhood (aged 5-6 years) has a significant positive effect on the development of collaboration skills. Through quasi-experimentals conducted in kindergarten "Aisyiyah Bustanul Athfal Wage Taman Sidoarjo," the results showed that early childhood children involved in learning using learning community experienced a marked improvement in social skills and collaboration. Concrete steps in implementing learning community, such as the division of students based on their learning styles, explanation of activities by teachers, preparation of media and resources, and active participation of students in group activities, have a positive impact on early childhood collaboration skills. The results of data analysis showed the mean learning community in the experimental group was better at 84.29 compared to the learning outcomes of the control group at 78.43. The importance of social interaction and cooperation in learning is seen in improving early childhood communication skills during the learning community process. Children not only learn to listen and share ideas but also develop the ability to work together to solve problems with their peers. It contributes positively to the

holistic development of early childhood, creating a learning environment that stimulates their cognitive, social, and emotional development.

Thus, the conclusions of this study provide a strong basis for recommending the use of the learning community model in the context of early childhood education. The implementation of learning community not only supports academic development but also contributes positively to the development of social skills and collaboration of children in the learning process. The next step could be to involve more schools and teachers in implementing learning community, taking into account the unique context of each school to improve learning effectiveness.

Acknowledgment

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