



# Enhancing Early Childhood Learning through Effective Communication in Beyond Centers and Circle Time Activities

Samihah Hilyati <sup>a</sup>, Rusijono <sup>a</sup>, Andi Mariono <sup>a</sup>  
and Fajar Arianto <sup>a\*</sup>

<sup>a</sup> Education Technology, Surabaya State University, Indonesia.

## Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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## ABSTRACT

**Aims:** This study aims to analyze the improvement of early childhood learning through effective communication in Beyond Centers and Circle Time activities on children's cognitive and language development.

**Study Design:** The research used quantitative research with a quasi-experimental research design.

**Place and Duration of Study:** The research sample was from children of Khodijah Kindergarten Wonorejo, Wonokromo and Pandegiling Surabaya. This research was conducted between February and March 2024.

\*Corresponding author: E-mail: [fajararianto@unesa.ac.id](mailto:fajararianto@unesa.ac.id);

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**Methodology:** The study sample consisted of 60 children, 30 children in the experimental group and 30 children in the control group. The 10 children in each group were representative of the three kindergartens used in the study. Data collection used tests to test cognitive development and performance to test children's language development. Data analysis used homogeneity test, normality test, and t test.

**Results:** The results of the analysis obtained a value of  $0.029 < 0.050$  which indicates a significant increase in effective communication in early childhood in Beyond Centers and Circle Time learning on cognitive development and the results of the analysis obtained a value of  $0.003 < 0.050$  which indicates a significant increase in effective communication in early childhood in Beyond Centers and Circle Time learning on child language development. Structured communication during Beyond Centers and Circle Time activities has improved children's cognitive and language skills for the better. In particular, children were able to show better attention during learning activities, improve peer interactions, and engage themselves in learning activities, all due to the role of effective communication during these learning activities.

**Conclusion:** It was found that increasing effective communication in early childhood learning in Beyond Centers and Circle Time learning can affect early childhood cognitive and language development. Suggestions for future researchers, the hope is to continue research related to Beyond Centers and Circle Time learning, it could be that this learning could have other benefits in early childhood skills or knowledge. Or it can be applied in early childhood education institutions in other areas because the problems in each educational institution must be different. And it can also be a source of reference or new information for further research that explores this learning or related to effective communication in early childhood learning.

*Keywords: Effective communication; cognitive development; language development.*

## 1. INTRODUCTION

For children's growth and development, early childhood education is crucial. Children in this age group have the capacity for intellect and rapidly developing foundational behaviors. Children can be given the proper stimulus to develop the nine intelligences they possess from birth through this schooling. When it comes to giving kids the proper stimulus to maximize their brain and intellect development, early childhood education is crucial. The reason why early infancy is sometimes referred to as "the golden age" is that children have the most capacity for learning throughout this time of life. Children can acquire potential intellect and abilities that will benefit them later in life if they receive a quality education throughout this time. Consequently, it's critical that educators and parents recognize the value of early childhood education for children. The belief that early childhood education is crucial to implementing as a foundation for the construction of a full human personality—that is, for the formation of noble character, intelligence, cheerfulness, skill, and devotion to God Almighty—supports this. Early childhood education might begin in family education or at home [1]. A coaching effort aimed at children from birth to six years old, early childhood education is a level of education preceding basic education. It is accomplished by providing

educational stimuli to support physical and spiritual growth and development so that children are prepared to enter further education [2]. According to research on the significance of early childhood education for child development, children go through a "golden period" between the ages of one and six, during which they start to become sensitive to different stimuli. During the sensitive phase, children's physical and psychological development reaches a mature stage, making them capable of responding to environmental stimuli. Every child has a unique sensitive time and has a different rate of growth and development. Additionally, during this time, early childhood cognitive, language, motor, and socioemotional development are all beginning to take shape [3].

It is necessary to review the requirements for early childhood education today in order to train and develop each kid individually as early as feasible. In addition, the demands of the twenty-first century necessitate the possession of the four "Cs" Creativity, Critical Thinking and Problem Solving, Communication, and Collaboration at least four times. The 4C abilities are essential for enabling creative work and lifetime learning [4]. 4C skills are critical, creative, innovative thinking activities as well as collaboration and communication activities in solving simple problems in everyday life [5]. This

is supported by the opinion of Draper & Wood who explain that early childhood education, as one of the basic education institutions, must also be prepared to respond to the challenges of the times, needing to make changes in both curriculum and learning [6]. Children studying at the primary level must develop a wide range of skills (hard and soft skills) in order to adapt to the changes taking place around them.

But in order to attain these 21st century talents, all of that needs a foundation because, logically, developing these skills separately in early infancy cannot optimize its potential. The necessity of constant, intense communication from the individuals who are closest to them, such as parents and instructors, in order to support and enhance their learning. Effective communication between parents and teachers can be established in early life by practicing strong communication skills. Communication is crucial in early childhood education to support kids' development of academic skills and self-assurance [7]. One type of communication that is often used in interactions in early childhood education classrooms is formal or informal face-to-face oral communication [8]. Oral communication can involve speech patterns that develop into useful communication techniques to establish and preserve relationships between students and teachers, allowing interactions to flow smoothly and help students meet learning objectives.

In early childhood education, teachers and students must communicate effectively with the same meaning and comprehension. When parents or teachers are there to support the development of these skills in their children in a variety of ways, a child may solve problems more readily and handle different life situations more effectively. This demonstrates how crucial it is for parents and teachers to communicate well with young children. Youngsters learn to communicate through cognition, emotion, and information expression [9]. Parenting by parents greatly influences children's cognitive development [10]. Effective communication between teachers and students must pay attention to aspects of clarity, accuracy, context, flow, and culture. So that communication can run effectively when these five aspects are well met [11]. In early childhood education, communication refers to the interaction that develops between teachers and students. During the learning process, children will always communicate with teachers by sending signals or information so that there can be feedback

between the two parties. Children and educators can have closer, more meaningful relationships when there is effective communication between them. Children also feel happier and more valuable when they receive emotional support [12].

In addition, the communication style used in the teaching and learning process has a big impact on kids' cognitive development. Early childhood cognitive processes are visible and have strong connections to various academic fields. Children's comprehension of things learned through interactions with their surroundings is a component of their cognitive development. The cognitive development of children is intimately linked to their ability to see, know, understand, memorize, assess, solve problems, and make decisions [13]. Complex reasoning, problem solving, and thinking are all part of cognitive talents. This cognitive development is very significant for children. The Swiss psychologist and philosopher Jean Piaget is the main authority on children's cognitive development. [14].

In early childhood, cognitive development is very important to get attention and stimulation for them because it is closely related to other aspects of development [15], such as aspects of language and psychosocial development [16]. If a separate part of cognitive is well developed, then other aspects of development will also develop optimally. Various important factors determine optimal cognitive development, according to Setyaningrum [17] found that cognitive development is related to learning. The role of parents in the learning and playing process can also have an impact on optimizing cognitive development in children [18]. In early childhood education facilities, instruction is typically given face-to-face in classroom settings. This is due to the fact that early childhood education still necessitates direct teacher leadership, with teachers serving as the process' executor and mentor in the classroom [19]. Children who learn in-person in the classroom not only benefit from convenience in the learning process but also have greater options for activities to choose from, which can further promote the development of the children's cognitive abilities [20].

Language development is a necessary component of early childhood development from the standpoint of cognitive development. In actuality, a lot of young kids still struggle to

understand or retain the work instructions that parents and instructors offer them. It is important to take into account language reception or language used as guidance while interacting with young children. As a result, it's critical to focus on early language development in order to help children become accustomed to obtaining information in a variety of languages while still receiving complete instruction from parents and teachers. Early childhood language development is crucial since it's during this time that children's capacity to comprehend, use, and communicate through language develops at a rapid rate [21]. Early childhood education has the main function of developing all aspects of child development, including cognitive, language, physical (gross motor and fine motor), social, and emotional development [22].

Early language development should take place in settings where kids may participate fully, see real-world examples, have opportunities and responsibilities, practice speaking and estimating, and receive appropriate feedback from adults. Youngsters must witness and hear peers and adults using appropriate language in everyday contexts. Giving kids the chance and responsibility to use their language is also important. The belief that language is crucial, particularly for young children in early childhood education, supports this. This is because children who use language well are able to express their needs and wants. This is crucial for the development of young children [23]. Another example is when children learn to compare, sort, count, estimate, classify, measure, and even share explanations with others in their learning activities, the process of these skills going into math, language, and technology is expected to happen in the early childhood world. [24].

Apart from the school setting, which is beneficial for young children's language development due to the role of teachers in enhancing their language skills, the home setting also plays a part in fostering children's language development through the involvement of parents. The justification that the home environment is crucial for children's language development lends credence to this [25,26]. Therefore, the way parents and kids interact is crucial to maximizing a child's language development during the first five years of life. Therefore, parental involvement at home is necessary to stimulate children's language development. Parents and teachers both play a complimentary role in enhancing

children's language development at home and at school.

The problem's findings, which were based on early field observations in three kindergartens, revealed that early childhood learning still requires improvement in children's communication, that each child's cognitive development is still uneven, and that each child's language development is still limited by differences in social communication in their immediate environment. Consequently, it demonstrates how important communication is in the early years of a child's life because of the positive effects it has on social relationships with parents and teachers as well as the child's own growth and development. mainly in enhancing kids' cognitive development, which is essential for advancing their academic. Early childhood cognitive development will be hampered by ineffective communication, which will lower learning results. Conversely, poor communication will impede children's language development and make it harder for them to communicate in the early years. This includes talking, sharing stories, asking questions, and other means of sending messages to others.

Thus, with the aid of Beyond Centers and Circle Time learning—which teaches children to concentrate their activities in particular centers or areas to maximize all children's intellect, including nine multiple intelligences—effective communication on the parts of educators and parents is required. Every learning center or region has distinct learning goals and is made to help kids become more intelligent in a variety of ways, including social, emotional, cognitive, motor, and more. In every center, children are allowed to select the activities that best fit their interests and developmental stage.

The knowledge and comprehension this research offers about teaching young children through good communication is greatly beneficial, and it is reinforced by its application to Beyond Centers and Circle Time activities. This learning exercise offers engaging activities, facilitates communication between kids and parents or teachers, effectively meets learning objectives, fosters good classroom behavior, introduces fresh ideas into the curriculum, and much more. It can also be utilized as a potential means of enhancing the standard of early childhood education. Thus, this study is a great resource for knowledge or the most recent reference when it comes to raising the standard of early

childhood education and fostering the development of early childhood skills and abilities.

According to the justification given above, the purpose of this study is to ascertain how early childhood cognitive and linguistic development is impacted by good communication in learning beyond centers and circle time.

## 2. LITERATURE REVIEW

### 2.1 Effective Communication

According to this definition, communication ought to be purposeful and transformative. The process of conveying and comprehending information from one person to another is known as communication. Since it enables people to stay in touch with one another, understand themselves, and anticipate others' reactions to situations, communication is also seen as the foundation of social connections [27]. Communication is the process of conveying a statement, idea, or information by one person to another. communication comes from the Latin term 'communes', which means broad, and hence communication involves sharing the same experience with individuals [28]. Communication is defined as the sharing of ideas, sentiments, intentions, expectations, perceptions, or commands between two or more individuals by voice, writing, gestures, or other methods [29]. Communication is an act by which a person known as the sender provides information to another person known as the receiver based on that person's needs, wants, knowledge, opinions and perceptions [30]. Communication is very important in building relationships by communicating with others.

The goal of communication is to affect other people's beliefs, attitudes, or behaviors. When someone communicates intentionally, they do it with the objective of reaching a particular outcome. The message may be given in the form of directions, knowledge, viewpoints, or other declarations. There are several ways to intentionally communicate, including written, spoken, and electronic media. Furthermore, change must also be brought about through communication. An successful communication strategy will motivate someone to succeed, and someone with strong communication skills has the ability to influence others [31].

The sharing of thoughts, sentiments, and information between parties is the essence of effective communication. As a result, there is a shift in mindset that fosters positive communication between the sender and the recipient [32,33,34]. Effective communication is a two-way process that involves sending and receiving relevant information among team members [35]. The purpose of effective communication is actually to make it easier to understand the messages conveyed between the informer and the recipient of the information so that the language used by the informer is clearer and more complete, and can be understood and understood properly by the recipient of the information [36]. The function of effective communication is to build relationships and mutual understanding with others [37]. Effective communication in schools is absolutely necessary considering that everything that is done must be agreed upon in deliberation [38,39].

There are two categories of communication: nonverbal communication and verbal communication. Words, phrases, and dialogue are all used in verbal communication. It entails using language to interact with people and transmit messages. Contrarily, nonverbal communication entails the use of gestures, eye contact, facial expressions, and body language. It also involves communicating ideas through touch and gestures. The manner in which parents and children communicate will have an impact on how the child's mentality and psychology grow. Both spoken and nonverbal elements of the communication process are used to mediate between teachers and students [40]. The explanation that communication involves both verbal and nonverbal cues lends credence to this. Both are crucial since effective office environments can also be ensured by verbal and nonverbal communication. Facial expressions, posture, and gestures are all part of this communication. An individual can also communicate their sentiments and emotions nonverbally. Our emotions and sentiments toward other people are an aspect of nonverbal communication [30].

### 2.2 Cognitive Development

The ability to acquire reason or reasonable capacities is referred to as cognitive understanding. Cognitive theory is concerned with methods and endeavors to maximize a person's capacity for reason. Cognitive

development in children includes the progressive acquisition of skills like logic, memory, and attention. These skills are necessary for kids to digest information, learn how to assess, examine, recall, contrast, and comprehend cause-and-effect relationships. Children's thinking and learning skills can be enhanced with the right instruction and training. The highest function of the brain is cognitive (or psychological). These skills include communicating, learning, thinking, understanding, and spatial orientation. The growth of memory and attention determines the development of cognitive ability [41].

According to Piaget, children and adolescents go through various phases of cognitive development. Sensory-motor (0–2 years), pre-operational (2–7), operational (7–11 years), and formal operational (11–adult) are some of these stages. Preschoolers actively participate in their own cognitive development, particularly when it comes to comprehending, elucidating, organizing, manipulating, building, and forecasting. As children progress from one developmental stage to the next, their cognitive capacities undergo qualitative changes [42]. Piaget also believed that cognitive development is a continuous process and all children, even in the context of different environments and cultural diversity around the world, have the same sequence of cognitive development [43].

Three significant developments take place throughout the sensorimotor stage, according to Piaget's hypothesis. Children can speak in short, coherent sentences by the time they are two years old, and by the time they are eighteen months old, they can speak in a restricted vocabulary. Second, children begin to mimic others when they reach the end of the sensorimotor stage. Reproducing a model's actions that one has previously observed is known as delayed imitation. In the final stage, kids conceptualize and depict symbols on their own [44]. An important concept of Piaget's theory of cognitive development is the steady progression from one stage to another. Piaget views cognitive growth as progressive change. Growth varies from person to person. Piaget assumes that it follows a fixed sequence [45].

The American Psychological Association defines cognitive development as "the skills involved in performing tasks related to perception, learning, memory, understanding, consciousness, reasoning, judgment, intuition, and language." It

is a broad concept that encompasses the maturation of a wide range of abilities [46]. Cognitive growth encompasses a wide range of intricate mental skills. This method monitors how children's learning, reasoning, memory, problem-solving, and knowledge representation grow. The classic developmental milestones of thinking, language, and understanding in children especially those from affluent backgrounds determine the optimal level of cognitive growth [47]. Cognitive development focuses on thinking skills, including learning, problem solving, rationality and memory. The development of cognitive skills is directly related to the development of other skills, namely: communication, motor, social, emotional, and adaptive skills [48]. In other words, an individual's cognitive abilities will increase gradually from birth through the child's interaction with their environment.

Early cognitive development includes the growth of reasoning, focus, memory, and problem-solving skills, all of which aid in a child's ability to make sense of the world [49]. The ability of the kid to think in terms of receiving, processing, and understanding information is intimately linked to the cognitive development element. Children between the ages of four and five have cognitive abilities that include sorting numbers up to ten, recognizing some numbers and letters, and being able to count and feel four or more items [50]. According to a different viewpoint, children's cognitive development is crucial for their learning since it may be used to create more efficient teaching strategies by knowing how they think and learn [51].

### 2.3 Language Development

Children's language development includes their capacity to represent ideas and emotions and communicate meaning to others in both receptive and expressive ways [52]. The process of developing language is intricate and depends on a number of mechanisms, some of which are internal to the child (such as the ability to share attention and learn linguistic patterns) and others of which are external to the child (such as the environment in which language is learned), and these mechanisms interact with one another [53].

Early language development and communication are intimately linked. Early childhood language development began the moment the child was born. It is more difficult than learning spoken language, which comes naturally. Along with

their knowledge, children's language development moves from a simple to a more complicated level. Language acquisition is the process of learning a language from birth to age five in order to communicate with others. Furthermore, language helps us express our intentions, elicit emotions, plan and guide the future, and coordinate and construct social activities [54]. Knowing the phases of a child's language development is intended to help teachers recognize the demands and methods that a youngster is developing. Young children pick up adult language through interactions with adults. Adults take charge and react by encouraging, modeling, listening, and comprehending [55].

The objective of early language development is to enable young children to communicate by being able to express themselves in simple language in an appropriate manner. As a result, language development—particularly oral language development—is a crucial component of how children build their foundational skills. The primary means by which people communicate with one another is language. When communicating with youngsters, it's important to grasp the context in which they wish to express themselves and help them expand their vocabulary. One of the numerous settings in which language is acquired is the classroom, and going to school helps kids' language development. To help students reach their communicative objectives, schools offer a conversational setting where they can practice a variety of language skills, including analyzing, reflecting, reasoning, and justifying. Schools offer a rich setting for language acquisition as a result. A physical language learning setting with lots of elements that can be used as playthings or resources that promote creativity and problem-solving [56]. Thus, schools are expected to be a place to improve children's language even better with full guidance and supervision from teachers.

Youngsters pick up language through talks, questioning, and storytelling with the adults in their environment. A child's vocabulary increases at a faster rate the more languages they hear. Since most of a child's language development patterns emerge from conversational exchanges and/or dialogue with other people, language development becomes one of the domains in which conduct is formed in children. Furthermore, it is anticipated that these activities will provide children with language models, broaden their expressive vocabulary, and inspire

them to connect with people and in social situations. This is due to the fact that language development is inextricably linked to societal context [57].

### **3. MATERIAL AND METHODS/ EXPERIMENTAL METHODOLOGY**

#### **3.1 Research Design**

This study uses experimental research with a quantitative methodology. A quasi-experimental experiment was carried out as part of the experimental research. The purpose of the quasi-experiment is to determine if the independent and dependent variables are causally related. To put it plainly, the goal of this pseudo-experimental research is to examine the independent variable's relationship to the dependent variable. The dependent variable is a child's language and cognitive development, while the independent variable is effective communication.

The nonequivalent pretest-posttest control group design is the type of quasi-experimental design that is being used. This design evaluates the two groups' differences empirically. The two groups—the divided control and experimental groups—are ones that naturally come together, like in classrooms, and can be tested using a pretest. One group can then receive treatment under the researcher's supervision, and the other can be tested again using a posttest after receiving the treatment. The directness of the study, which includes testing the dependent variable both before and after the intervention with the independent variable, is an advantage of the pretest and posttest research design [58]. The researcher used the school's current classes as research subjects because they could not be created specifically for this study. Randomization was not used by the researcher in the experimental or control groups. The results of quasi-experimental research lend themselves well to practical implementation in real-world education. Because random sampling may affect school timetables, the researchers did not employ it in this study. The current courses were modified to fit the current classroom setup.

#### **3.2 Research Subject**

60 kindergarten students served as the study's subjects. They were split into two groups: 30

students in the experimental group and 30 students in the control group. Ten distinct kids from each of the three kindergartens—Khodijah Wonorejo Kindergarten, Wonokromo Kindergarten, and Pandegiling Kindergarten—make up each group. While the control group used standard learning methods, the experimental group used Beyond Centers and Circle Time learning.

### 3.3 Data Collection and Data Analysis Techniques

Performance and accomplishment exams were used to gather data for this investigation. The experimental and control groups were given achievement and performance tests. Children's cognitive and language development were assessed by tests that were administered to them. The obtained data is next subjected to tests for normality, homogeneity, and t (independent sample t test). According to the normality test interpretation, the data is normally distributed if the computed data is greater than 0.05. Regarding the homogeneity test interpretation, the data is homogeneity if the count is more than 0.05. According to the interpretation of the t test, an effect or effectiveness exists if the sig value is less than 0.050, and the other way around.

## 4. RESULTS

### 4.1 Cognitive Development Analysis Results

The following are details of the results of data analysis of students' cognitive development after

learning, starting with the results of the normality test.

From the results of Table 1, it can be seen that the normality test with Kolmogorov-Smirnov shows a significant value (Sig) of 0.305 and 0.467 greater than 0.05. So it can be concluded that the data from both groups are normally distributed. Then in Table 2 the results of the homogeneity test can be seen that the Sig value. 0.103 is greater than 0.05, it can be concluded that the cognitive development data after learning in both groups is statistically homogeneous.

Based on Table 3, shows the sig. (2-tailed) of 0.029 <0.050, meaning that increasing effective communication in early childhood in learning beyond centers and circle time has an impact on early childhood cognitive development.

### 4.2 Language Development Analysis Results

The following are details of the results of the normality and homogeneity tests of the language development posttest that have been tested.

From the results of Table 4, it can be seen that the normality test with Kolmogorov-Smirnov shows a significant value (Sig) of 0.272 and 0.298 greater than 0.05. So it can be concluded that the data from both groups are normally distributed. Then in Table 5 the results of the homogeneity test can be seen that the Sig value. 0.544 is greater than 0.05, it can be concluded that the language development data after learning in both groups is statistically homogeneous.

**Table 1. Cognitive development posttest normality test results**

One-Sample Kolmogorov-Smirnov Test			
		E	C
N		30	30
Normal Parameters <sup>a,b</sup>	Mean	66.50	62.33
	Std. Deviation	6.318	7.958
Most Extreme Differences	Absolute	.177	.155
	Positive	.127	.155
	Negative	-.177	-.132
Kolmogorov-Smirnov Z		.969	.849
Asymp. Sig. (2-tailed)		.305	.467

a. Test distribution is Normal.  
b. Calculated from data.



**Table 2. Results of homogeneity test of posttest of cognitive development**

<b>Test of Homogeneity of Variances</b>			
<b>Posttest_Cognitive_Development</b>			
<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
2.749	1	58	.103

**Table 3. Independent sampe test results posttest cognitive development**

<b>Group Statistics</b>					
	<b>Class</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Posttest_Cognitive_Developmxent	Experiment	30	66.50	6.318	1.153
	Control	30	62.33	7.958	1.453

  

<b>Independent Samples Test</b>				
		<b>Posttest_Cognitive_Development Equal variances assumed</b>	<b>Posttest_Cognitive_Development Equal variances not assumed</b>	
Levene's Test for Equality of Variances	F	2.749		
	Sig.	.103		
t-test for Equality of Means	t	2.246	2.246	
	df	58	55.162	
	Sig. (2-tailed)	.029	.029	
	Mean Difference	4.167	4.167	
	Std. Error Difference	1.855	1.855	
	95% Confidence Interval of the Difference	Lower	.453	.449
		Upper	7.880	7.884

**Table 4. Normality test results of language development**

<b>One-Sample Kolmogorov-Smirnov Test</b>			
		<b>C</b>	<b>E</b>
N		30	30
Normal Parameters <sup>a,b</sup>	Mean	61.07	67.50
	Std. Deviation	8.670	7.399
Most Extreme Differences	Absolute	.182	.178
	Positive	.182	.132
	Negative	-.113	-.178
Kolmogorov-Smirnov Z		.998	.975
Asymp. Sig. (2-tailed)		.272	.298
a. Test distribution is Normal.			
b. Calculated from data.			

**Table 5. Results of homogeneity test for language development**

<b>Test of Homogeneity of Variances</b>			
<b>Posttest_Language_Development</b>			
<b>Levene Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
.372	1	58	.544

Based on Table 6, shows the value of communication in learning beyond centers and circle time on early childhood language development. Sig. (2-tailed) of 0.003 <0.050, meaning that there is a significant effect of effective

**Table 6. Independent T test results of language development posttest**

<b>Group Statistics</b>					
	<b>Class</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Posttest_Language_Development	Experiment	30	67.50	7.399	1.351
	Control	30	61.07	8.670	1.583
<b>Independent Samples Test</b>					
			<b>Posttest_Language_Development</b>		
			<b>Equal variances assumed</b>	<b>Equal variances not assumed</b>	
Levene's Test for Equality of Variances		F	.372		
		Sig.	.544		
t-test for Equality of Means		t	3.092		3.092
		df	58		56.601
		Sig. (2-tailed)	.003		.003
		Mean Difference	6.433		6.433
		Std. Error Difference	2.081		2.081
	95% Confidence Interval of the Difference	Lower	2.268		2.266
		Upper	10.599		10.601

## 5. DISCUSSION

### 5.1 Cognitive Development Analysis Results

Based on the results of data analysis, it is found that effective communication in learning beyond centers and circle time affects early childhood cognitive development. These results have in common with previous research that parental communication patterns are very influential on early childhood cognition [59]. Other research explains that parents' interpersonal communication patterns on children's cognitive development show that effective relationships between parents and children can affect children's cognitive development [60].

Effective communication in early childhood has a positive influence on cognitive development. Communication can affect children's cognitive development because communication skills, such as articulating thoughts, listening, and using various media, affect a person's cognitive abilities. Communication skills can be assessed through aspects of expression, evaluation, response, and negotiation that show good cognition [61].

According to the analysis of the discussion above, parents can play a significant role in their children's cognitive development. However, this role is universal since teachers can also play a significant role in helping children develop cognitively in the classroom. As a result, both play a critical role in the early years of enhancing children's cognitive development and maintaining it throughout all stages of academic and physical growth. Another aspect is that academics are actively investigating the possibility of a model or learning strategy that can support early childhood development, and the outcomes also show promise. Thus, the choice of instructional strategies or models can likewise contribute to children's.

Effective communication is a good way of communicating because the message conveyed by the adults around them will be the same as the message received by the child. Effective communication is also a way of communicating in interacting with others by giving and receiving expressively and responsively. Children learn how to communicate effectively by imitating or interacting with parents as the first model for children. Effective communication between parents and children can strengthen children's closeness with parents, improve children's language and thinking skills, improve children's

communication and socialization skills, and increase children's self-confidence [62].

Cognitive development plays a major role in children's learning success. This is because part of the learning activity is always related to the process of remembering and thinking which will affect children in entering the beginning of formal education [63]. Effective communication is a form of positive communication as a means of realizing the effectiveness and efficiency of learning. Effective communication is closely related to the delivery of positive words both by teachers and children. actually the delivery of positive words can provide a sense of security and comfort for children. the comfort and safety of early childhood is needed in facilitating and maximizing the learning process. Whether or not the effective communication process in early childhood learning depends on the teacher's skills and creativity in language processing, so that the pattern of good mutual relations between teachers and children is maximally established because children become open and do not burden children [64].

Based on studies that demonstrate how Beyond Centers and Circle Time learning benefit children's cognitive development through the use of effective communication. Researchers believe there are still many elements, tools, media, or other things that can benefit children's cognitive development, thus it is believed that additional aspects beyond those revealed in this study can help children's cognitive growth even more. Of course, the most crucial thing right now is to continue having productive conversations with kids and to make the first steps toward bettering their cognitive abilities, as this will help them academically as they move on to the next level. It is hoped that more research on this topic of early childhood cognitive development would shed light on these predictions.

## **5.2 Language Development Analysis Results**

Based on the results of data analysis, it is found that communication is effective in learning beyond centers and circle time on early childhood language development. These results have similarities with previous research. The results showed that there was an effect of effective communication in center learning on language development in early childhood. This is in accordance with the opinion Musrifah [65] which states that effective communication can

affect language development in early childhood. The results of other studies state that there is an influence of communication (nonverbal parents) on children's language development [66]. The results of other studies mention the existence of effective communication has a positive effect on children's language skills [67].

The results of this study and the results of the discussion above show some similarities, but there are also differences, with the conclusion being that human interaction in nonverbal communication contributes more to children's language development. On the other hand, this study's findings indicate that the use of Beyond Centers and Circle Time learning, which is done in class with teachers present, improved early childhood language development. Thus, it can be concluded that parents and instructors can enhance the development of early childhood language by selecting the proper learning model or technique.

Effective communication can train good use of nonverbal language (36). Effective communication can be done if you have effective language skills, speak in a language that is easy to understand, the ability and willingness to listen to what children express, understand, children's feelings, as well as attitudes and behaviors that can be a model for children. If this is done, the child will undoubtedly feel comfortable, protected, appreciated, cared for and can develop optimally according to their potential [68]. Children's early vocabulary development has a significant influence on their academic performance over their lifetime [69]. Consequently, language development is crucial and requires instructors' or parents' careful attention. Early language development in children occurs naturally. We refer to this process as language acquisition. Children acquire experiences through interaction with their surroundings that aid in the development of their language [70]. and will carry on growing as the child matures, with the environment in which the youngster communicates indirectly contributing to the language he learns. Parents who communicate well with their children should be able to comfort them with a variety of creative stimuli as part of their education. Effective parent-child communication requires a number of factors, including: speaking freely, listening intently, utilizing your statements to reflect the child's ideas and feelings, refraining from using the words "don't" or "don't," using my words to express thoughts or feelings, speaking at eye

level, using kind words, and using words that are good [71]. Children need to communicate in order to develop their social-emotional intelligence, language, cognitive abilities, self-confidence, ability to learn from their surroundings, ability to differentiate between right and wrong, ability to form family relationships, ability to solve problems, and ability to acknowledge the existence of God [72].

According to the study's findings, which demonstrate how important good communication is to Beyond Centers and Circle Time learning, children's language development is positively impacted. It is hoped that additional factors beyond those identified in this study will help children's language development to flourish even more, as researchers think there are still a plethora of other factors that can enhance language from an early age. Language development in early childhood is crucial because children are highly perceptive and repeat what they hear verbatim, without pre-filtering words for good or bad. It is intended that by carrying out additional study on early childhood development, more light would be shed on these expectations.

## 6. CONCLUSION

Early childhood language development and cognitive development are influenced by Beyond Centers and Circle Time learning, according to study findings and discussions about enhancing early childhood communication. The findings of the hypothesis test conducted on the data analysis of the language development of the children support this, with the value of Sig. (2-tailed) of  $0.029 < 0.050$  indicating that improving early childhood communication effectiveness in learning beyond centers and circle time has an effect on early childhood cognitive development. Additionally, the hypothesis test results on the data analysis of the language development of the children indicate a value of Sig. (2-tailed) of  $0.003 < 0.050$ , indicating that improving early childhood language development through effective communication in learning beyond centers and circle time.

It is hoped that future scholars will be able to carry out more research on the benefits of learning beyond centers and circle time. It is possible that this type of learning can improve early childhood knowledge and skills. Because the issues in every educational institution must be unique, it can also be applied to early

childhood education institutions in other contexts. Additionally, it might serve as a source of fresh data or references for future studies that examine this learning or other topics linked to early childhood learning and successful communication.

## DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI and text-to-image generators have been used during writing or editing of manuscripts.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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