

## STUDY ANALYSIS OF PARENTS' AND TEACHERS' PERCEPTIONS REGARDING THE COGNITIVE DEVELOPMENT OF EARLY CHILDREN IN THE AREAS OF READING, WRITING AND NUMERATION

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### Abstract

This research is motivated by the need to analyze the extent to which parents and teachers perceive early childhood cognitive development in the realm of reading, writing and numeracy. The purpose of this study is to describe how perceptions, practices, constraints, and things needed by parents and teachers in developing cognitive learning. Initial perceptions embedded in parents and teachers regarding children's cognitive development will be analyzed as needed and become initial research data for the development of cognitive learning models in the following year. The research was conducted in Bandar Lampung Kindergarten, Enggal District, with 17 teachers and 31 parents as subjects. The sampling technique was randomized. Data were collected through interviews and questionnaires. The research data were analyzed through qualitative and quantitative analysis. The results showed that the level of perception of parents and teachers about children's cognitive development was high, namely 28 people with an interval of 123-159. For the other 11 people, very high with an interval of 16-196, quite high as many as 9 people with an interval of 86-122 and no parents and teachers with low levels of perception. Based on the results of the study it can be concluded that the perception of parents and teachers about children's cognitive development generally reaches a high level, therefore this understanding can be used as an initial capital in the process of developing children's potential to be maximized.

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### Abstrak

Penelitian ini dilatarbelakangi oleh kebutuhan untuk menganalisis sejauh mana orang tua dan guru memandang perkembangan kognitif anak usia dini dalam ranah membaca, menulis dan numerasi. Tujuan penelitian ini adalah untuk mendeskripsikan bagaimana persepsi, praktik, kendala, dan hal-hal yang dibutuhkan oleh orang tua dan guru dalam mengembangkan pembelajaran kognitif. Persepsi awal yang tertanam pada orang tua dan guru mengenai perkembangan kognitif anak akan dianalisis sesuai kebutuhan dan menjadi data penelitian awal untuk pengembangan model pembelajaran kognitif di tahun berikutnya. Penelitian dilakukan di TK Bandar Lampung Kabupaten Enggal dengan 17 guru dan 31 orang tua sebagai subjek. Teknik pengambilan sampel dilakukan secara acak. Data dikumpulkan melalui wawancara dan kuesioner. Data penelitian dianalisis melalui analisis kualitatif dan kuantitatif. Hasil penelitian menunjukkan bahwa tingkat persepsi orang tua dan guru tentang perkembangan kognitif anak tergolong tinggi, yaitu 28 orang dengan interval 123-159. Untuk 11 orang lainnya, sangat tinggi dengan interval 16-196, cukup tinggi sebanyak 9 orang dengan interval 86-122 dan tidak ada orang tua dan guru dengan tingkat persepsi rendah. Berdasarkan hasil penelitian dapat disimpulkan bahwa persepsi orang tua dan guru tentang perkembangan kognitif anak umumnya mencapai tingkat yang tinggi, oleh karena itu pemahaman ini dapat dijadikan modal awal dalam proses pengembangan potensi anak agar dapat dimaksimalkan.

**Kata Kunci :** Persepsi Guru dan Orang Tua, Perkembangan Kognitif, Membaca, Menulis, Numerasi

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## Introduction

Early age is an important period for children to grow and develop more rapidly in the early years of life. This period is a fundamental period for children's lives, so it is often called the golden age. Providing early education to children will have a positive influence on the child's growth and development process. Development is a stage of change that occurs progressively in a child's life span (Anderson-McNamee, 2010). Educators, both parents and teachers, need to support the provision of stimulation so that young children can reach their developmental potential (Britto et al., 2017). There are several things that must be taken into account when studying child development, including the maturation process, especially the maturation of cognitive functions, learning processes, and innateness or talents. Students are seen as subjects who have potential and have a central position in the learning process. Learning activities carried out by students and become habits are the quality of learning that is usually carried out, both in the classroom and outside the classroom. The world of children is a world of creativity, where children need space, guided thinking and emotional space, adequate and are the three great potentials that children or students have (Asrori, 2020; Masganti. et.al 2016; Nurjan, 2016). "One of the main goals of education is to develop potential and educate individuals better, as Human Resources (HR) who have good education, have high creativity, broad knowledge, good personality, independence and become more responsible individuals in every actions taken" (Kisno et al., 2022). The results of studies described by White, 1994 and Bloom, 1971 show that children's cognitive development reaches 50% when the child is 4 years old, 80% when the child is 8 years old and reaches 100% even when the child is 18 years old. Based on this research, we can see that the largest percentage contribution is when children are at an early age, namely the age range 0-8 years. Therefore, at this time the role of parents and teachers as educators determines optimal child development (Crumb, 1983).

Several aspects of cognitive ability that are the greatest hope for parents and teachers are that children are good at reading, writing and arithmetic (calistung) at preschool age. schools (Pramudyani & Sugito, 2014; Pratiwi, 2015; Wulansuci & Kurniati, 2019). This is based more on the calistung test carried out. This is practiced in several formal education institutions in Indonesia as a prerequisite for entering elementary school, so parents really want their children to be able to enroll at an early age. In fact, in the concept of cognitive development, (Piaget, 1964) it is explained that pre-school children are still in the pre-operational stage. This stage is a preparatory stage towards concrete logical operations, so that at this time preschool children cannot think in a structured manner like children in the concrete operational phase. However, parents and teachers' ignorance regarding the concept of child growth and development makes calistung a basic cognitive practice that every child must master.

Basically, cognitive development is not only based on cognitive abilities, but more on how to increase children's ability to explore the surrounding environment (Piaget, 1964). Several studies illustrate that interactions between parents and children influence children's cognitive development, as well as with teachers and students. When teachers plan to engage students in oral interactions, and create a framework, it can help guide their support for their students' work and language development (Walqui & Heritage, 2018). The success of children's cognitive abilities is more focused on understanding and interaction in the family context where children grow and develop. One activity that can hone their growth and development is the involvement of children or students in collaborative drawing activities which can form a distributed socio-cognitive system, which consists of students, the images they make, and their communicative actions and embodiment in the images. Another aim is to explore the role that collaborative drawing plays in shaping socio-cognitive interactions among children or students (De Andrade et al., 2022). In this case, child behavior management skills are needed that are designed to replace harsh or inconsistent forms of discipline that are often observed among families with a history of child maltreatment (Skoranski et al., 2022). For this reason, in order to develop children's cognitive abilities perfectly, of course parents and teachers as educators need to have a mature understanding of children's development. The perceptions embedded in parents and teachers about children's cognitive development will differ according to their own level of education, this was explained by Moussaoui and Braster (2011) in their research on perceptions and practices of children's cognitive development in Morocco. When this context is understood, it turns out that it is not only in terms of differences in educational level, continued Leseman, et.al (1995) explaining that differences in perception are also influenced by socio-economic and socio-cultural class such as ethnicity. This strategy does not allow for in-depth exploration of the cognitions and practices of parents with diverse cultural and ethnic backgrounds. An open and less restrictive approach would be more appropriate (el Moussaoui & Braster, 2011).

This research study explores the understanding or perception of parents and teachers regarding children's cognitive development in the areas of reading, writing and numeracy. The initial perceptions embedded in parents and teachers regarding children's cognitive development constitute initial research data as a basis for developing cognitive learning models in the following year.

Cognitive development is the development of the mind. The mind is the thinking part of the brain, the part used for understanding, reasoning, knowledge, and comprehension. A child's mind begins to be active from birth, day after day throughout its growth. Development of children's minds, such as: (1) learning about people, (2) learning about things, (3) learning about new abilities, (4) gaining lots of memories, and (5) gaining lots of experiences. Throughout the

development of a child's mind, children will become smarter (Susanto, 2014). The stages of cognitive development formulated by Piaget (1976) are related to brain growth. Piaget (1976) also stated that intelligence is a form of balance which is a tendency of all cognitive structures. All intellectual activities are carried out with one goal in mind, namely to produce balance or a harmonious relationship between a person's thought processes and their environment. In his book *The Child and Reality*, Piaget (1976) explains four stages of cognitive development, namely (1) sensorimotor (0-2 years), preoperational (2-7 years), concrete operations (7-12 years), and formal operations (12 years and above).

Apart from Piaget, basic cognitive theory was also formulated by a Russian development expert known as Lev Vygotsky. Vygotsky (1978) believed that social interaction with other people encourages the formation of new ideas and enriches children's intellectual development, especially cognitive. In his work, Vygotsky emphasized the role of social interaction and instruction. He proposed that constructivism does not precede socialization, but rather that formal structures and social relationships always lead to the development of mental functions (Huitt, 2000). Social interaction plays an important role in learning because through social interaction people learn from each other (Fogarty, 1999). In this case it can be concluded that Vygotsky's (1978) cognitive theory emphasizes that cognitive development emerges in a socio-cultural context (Vygotsky, 2019).

There are several factors that influence cognitive development as explained by Santrock (2009), including the following: 1) Heredity factors: The theory of heredity or nativism, which was pioneered by the philosopher Schopenhauer, argues that humans are born with certain potential that cannot be achieved, influenced by the environment. . It is also said that the level of intelligence is determined from the moment the child is born. Psychologists Lehrin, Lindzey, and Spuhier (in Santrock, 2009) argue that 75-80% of intelligence levels are inherited or hereditary; 2) Environmental factors. Environmental theory or empiricism was pioneered by John Locke. This theory states that humans are born in a pure state like white paper that is still clean without the slightest writing or stain. According to John Locke, human development is largely determined by the environment. Based on Locke's opinion, the level of intelligence is largely determined by experience and knowledge obtained from the environment; 3) Maturity factor. Each organ (physical and psychological) can be said to be mature if it has achieved the ability to carry out its respective functions. Maturity is closely related to chronological age (calendar age); 4) Formation factors are all circumstances outside a person that influence the development of intelligence. Formation can be divided into intentional formation (formal school) and unintentional formation (environmental influence). So humans use intelligence to maintain life or in the form of self-adjustment; 5) Interest and talent factors: Interest directs actions towards goals and is an impetus to do more and do better. Talent is defined as

innate ability, as potential that still needs to be developed and trained in order to be realized; 6) Freedom Factor, is the freedom of humans to think divergently (spread out), which means that humans choose certain methods in solving problems, they are also free to choose problems according to their needs.

Starting from the general description of the phases of cognitive development proposed by Piaget (1976), it can be seen that the cognitive development of PAUD children is in the preoperational phase which includes three aspects, namely symbolic thinking, egocentric thinking and intuitive thinking. Meanwhile, Susanto, 2014 (Susanto, 2014) explains that cognitive development is directed at aspects of developing auditory abilities (sounds or the child's sense of hearing), visual (vision, observation, attention, response and perception of the child towards the surrounding environment), tactile (development of texture/ sense of touch), kinesthetic (fluency of hand movements/hand skills or fine motor skills that influence cognitive development), arithmetic (mastery of state or initial counting concepts), geometry (development of concepts of shape and size), and early science (experimentation or demonstration as an approach scientific).

Perception is the process of someone giving meaning to the information they receive based on the reality of the object they perceive (Baharuddin, 2015). Meanwhile, according to Solso et al (2008) perception is a process that involves a high level of cognition in interpreting information. Perception as a person's acceptance or perspective to interpret an object also has an underlying theory. The theory is 1) constructive perception. They state that the theory of constructive perception is based on the assumption that during perception, we form and test hypotheses related to perception based on what we know. According to this theory, when humans perceive an object they see, they will give meaning to that object based on the knowledge or experience they have previously had. So one human being and another human being may have different meanings depending on the experiences they have had; 2) Direct perception (direct perception). The way humans give meaning to the objects they see is influenced by several things, one of which is the environment. Through the environment, humans will gain a lot of knowledge and experience. Apart from knowledge and experience, the environment will also help humans themselves to give meaning to the objects they see in the future.

Perception occurs through a systematic process of an object or stimulus target and is then received by the senses, where each individual becomes aware of the object they receive, after the brain processes the stimulus. According to Kotler (1995) someone can have different perceptions of the same object because there are 3 processes, namely: selective distortion, selective interference, and selective memory. If someone's perception is different, the resulting behavior and attitude patterns will be different. This is because someone experiences the process of

receiving, organizing and interpreting or translating different objects, resulting in different views.

Perception is related to a person's ability to interpret the objects they see. Whether or not someone interprets an object is certainly influenced by several factors. Moussaoui and Braster (2011) state that one of the factors causing differences in perception is the level of education (el Moussaoui & Braster, 2011). Leseman et al (1995) also explained that apart from educational level, these differences were motivated by socio-economic class and socio-cultural factors such as ethnicity. Furthermore, several other studies also confirm that factors that influence a person's perception include family social status, environmental culture, intelligence, educational achievement, and a person's work performance (J. Brooks-Gunn et al., 1997; Jeanne Brooks-Gunn & Duncan, 1997; Deary & Der, 2005)

The cognitive process is not only understood as a child's ability to read, write and count but also various aspects that include problem solving. In connection with this, Piaget (Susanto, 2014) believes that educators, both parents and teachers, are important to develop children's cognitive abilities, this is based on (1) so that children are able to develop their perceptual powers based on what children see, hear and feel so that children have complete and comprehensive understanding, (2) so that children are able to train their memory and develop their thinking so they can connect one event with another, (3) so that children are able to understand symbols in the world around them and carry out reasoning, both naturally and through processes scientific. , (4) so that children are able to solve the life problems they face.

Kartadinata (2003) in his research stated that the development of a child's brain structure continues to develop after birth. A number of studies have shown that experiences from an early age, imagination that occurs, language heard, books shown, will also form brain networks (Susanto, 2014). Through cognitive development, the function of the mind can be used quickly and precisely to overcome situations and solve problems. Therefore, to realize optimal cognitive development, adults around children must provide various activities where children can explore the environment (Piaget, 1976). This will be realized if parents and teachers have a mature perception of children's cognitive development.

Findings from several studies confirm a significant relationship between a person's perception of family social status, neighborhood culture, intelligence, educational achievement, and job performance (Aytur & Hughes, 2008; J. Brooks-Gunn et al., 1997; Jeanne Brooks-Gunn & Duncan, 1997; Deary & Der, 2005; The perceptions of educators, both parents and teachers, will vary according to the understanding formed from the various factors mentioned. The treatment given to children will be in accordance with the perceptions they have. If the perceptions



embedded in parents and teachers are not in accordance with the concept of child development, then the treatment or activities given to children are also not in accordance with their development. Through this research, the perceptions of parents and teachers as educators are explored and clarified, these results are used as a bridge in designing children's cognitive development models. Through cognitive development, children will easily solve every problem they face. Therefore, seriousness is needed in improving children's cognitive development efforts from an early age so that an intelligent and superior generation can be realized. This research has added value and differences from previous research, namely in the analysis of perceptions conveyed to teachers and parents, especially in the aspects of reading, writing and numeracy. The most important finding from this research is the change in parents' and teachers' perceptions of early childhood cognitive development and the factors that influence these perceptions. Teachers and parents previously felt that reading, writing and arithmetic were the end result of preschool education or before entering elementary school, after knowing and understanding that the cognitive process of early childhood is not only reading, writing and arithmetic, this perception became one of the elements. The importance and success factors of new knowledge are formed from learning and experience. In this case, teachers and parents also have the opportunity to design good learning for their children to reveal perceptions and various dimensions.

## Method

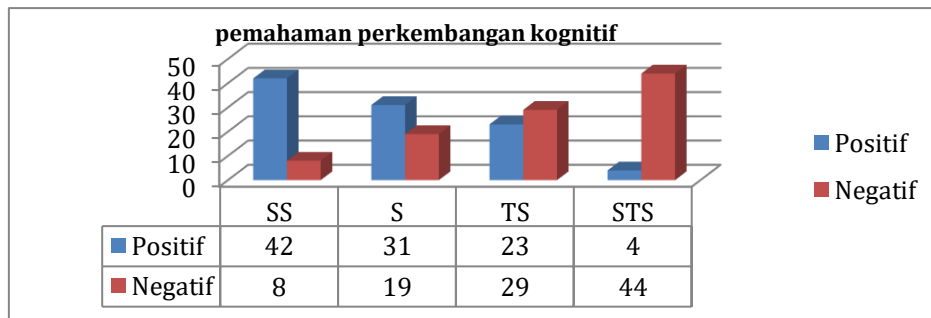
This research uses descriptive analysis methods to provide an overview and explanation of the perceptions of educators, namely teachers and parents, regarding the cognitive development of early childhood. The approach taken is quantitative and qualitative. The research was conducted in 4 kindergartens in Bandar Lampung, Enggal Regency, namely Anak Sawit Kindergarten, Pertiwi Provincial Kindergarten, SD II Kindergarten, and Al Amin Islamic Kindergarten. The subjects in this research were 17 teachers and 31 parents of students. The sampling technique is simple random sampling. Data was collected through questionnaires and interviews. The questionnaire used was a Likert scale consisting of four answer choices. This statement is in the form of aspects of understanding or views of teachers and parents as educators regarding the cognitive development of early childhood. This instrument consists of 49 statement items. Each statement consists of 4 options for implementing the guidelines (strongly agree, agree, disagree, and strongly disagree). Questionnaires and interviews were obtained by referring to Piaget's theory regarding understanding cognitive development, cognitive development activities in children, obstacles to cognitive development, as well as the needs of teachers and parents in developing children's cognitive development. The data analysis used is quantitative descriptive analysis with percentages and descriptive qualitative

analysis which describes parents' understanding and views regarding the cognitive development of early childhood.

### Result and Discussion

The screening component of parents' and teachers' perceptions of early childhood cognitive development is based on the research objectives to be achieved, namely the components of understanding cognitive development, activities in developing children's cognitive development, obstacles to cognitive development, and needs in developing children's cognitive abilities. The results of screening parents' and teachers' perceptions of early childhood cognitive development regarding the components of understanding cognitive development can be explained as follows.

In the component of understanding cognitive development, an average of 42% of respondents answered Strongly Agree (SS); 31% agree; 23% Disagree (TS); and 4% Strongly Disagree (STS) on positive statements. Thus, the percentage of respondents who answered SS and S was 73% and respondents who answered TS and STS was 27%. Meanwhile, negative statements were obtained by 8% of the total respondents who answered SS; 19% answered S; 29% answered TS, and 44% STS. So the total number of respondents who answered SS and S in negative statements was 27% and 73% of respondents who answered TS and STS. This percentage shows parents' and teachers' perceptions of the high understanding component of cognitive development. For greater clarity, the description is summarized in the following graphic.



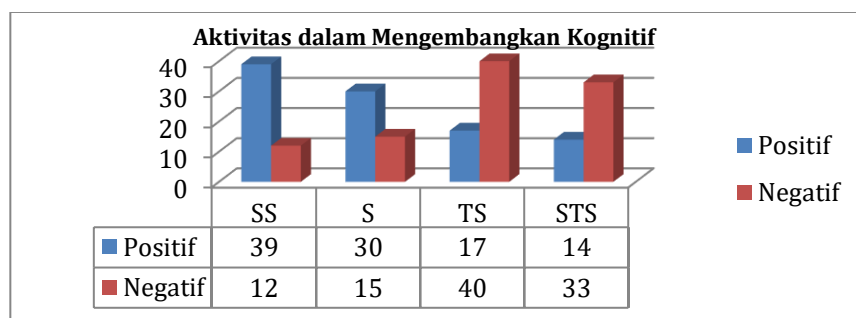
Grafik 1. Perceptions of the understanding components of cognitive development

Based on the results of interviews with several respondents, it can also be concluded that almost all respondents understand cognitive development in children. However, some respondents only limited cognitive development to reading, writing and arithmetic. For some parents, the most basic and expected thing in a child's development is that the child can read, write and count.

The data in graph 2 shows the perceptions of parents and teachers regarding children's cognitive development regarding the activity components in cognitive development, obtained on average by 39% of respondents who answered SS; 30% answered S; 17% answered TS; and 14% answered the STS with a positive



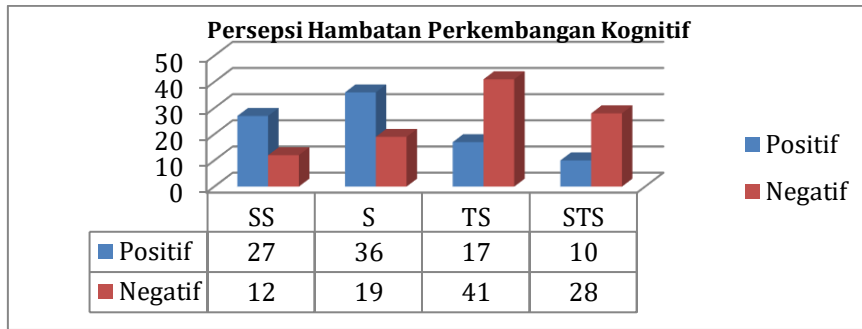
statement. Thus, the percentage of respondents who answered SS and S was 69% and respondents who answered TS and STS was 31%. Meanwhile, negative statements were obtained by 12% of the total respondents who answered SS; 15% answered S; 40% answered TS, and 33% STS. So the total number of respondents who answered SS and S in negative statements was 27% and 73% of respondents who answered TS and STS. This percentage shows parents' and teachers' perceptions of the high understanding component of cognitive development.



Grafik 2. Perception of activity components in developing cognitive

Based on the results of interviews with several respondents, the average respondent answered that the activities most often carried out in developing children's cognitive development were teaching children to read, write and count (calistung). Parents hope that their children can be selected to enter elementary school. Therefore, this aspect of cognitive development is emphasized by parents and teachers for children. Apart from calistung activities, several parents also said that the activities they often do at home are inviting their children to sing and say the names of animals or fruits. In contrast to parents, the activities carried out by teachers at school in the context of children's cognitive development are more focused and have many aspects. This is based more because the teacher refers to the existing 2013 curriculum standards,

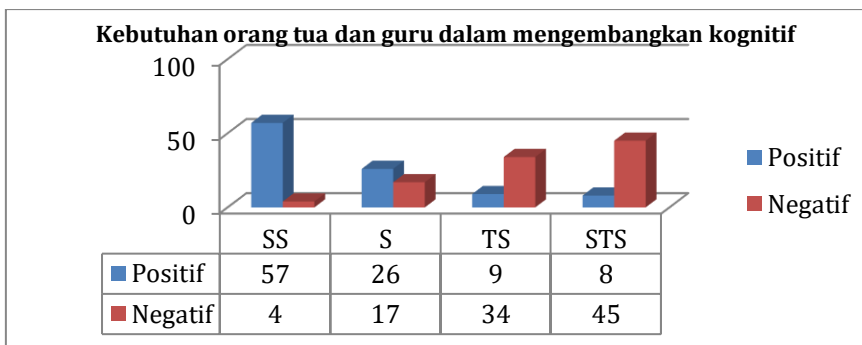
The percentage of survey results regarding parents' and teachers' perceptions of early childhood cognitive development regarding the components of obstacles faced in cognitive development obtained an average of 27% of respondents who answered SS; 36% answered S; 17% answered TS; and 10% answered the STS with a positive statement. Thus, the percentage of respondents who answered SS and S was 63% and respondents who answered TS and STS was 27%. Meanwhile, negative statements were obtained by 12% of the total respondents who answered SS; 19% answered S; 41% answered TS, and 28% STS. So the total number of respondents who answered SS and S in negative statements was 31% and respondents who answered TS and STS was 69%. This percentage shows that parents' and teachers' perceptions of the components of the obstacles they face are high. The results of data processing can be seen in graph 3 below.



Grafik 3. Perceptions about the components of obstacles faced in developing children's cognitive development

Based on the results of interviews, several obstacles faced by parents and teachers in developing children's cognitive development are as follows; 1) children feel bored and do not want to study with their parents; 2) children have difficulty understanding what is being taught; 3) parents don't have much time to teach their children; 4) teachers as educators in schools find it difficult to organize student learning; 5) parents and teachers feel impatient in teaching children; 6) Parents and teachers feel that children are slow in thinking and less responsive when learning.

Furthermore, the data in graph 4 shows the perceptions of parents and teachers regarding children's cognitive development regarding the components of needs in developing children's cognitive development, obtained on average by 57% of respondents who answered SS; 26% answered S; 9% answered TS; and 8% answered the STS with a positive statement. Thus, the percentage of respondents who answered SS and S was 83% and respondents who answered TS and STS was 17%. Meanwhile, negative statements were obtained by 4% of the total respondents who answered SS; 17% answered S; 34% answered TS, and 45% STS. So the total number of respondents who answered SS and S in negative statements was 21% and respondents who answered TS and STS was 79%. This percentage shows that parents' and teachers' perceptions of the components of need in developing children's cognitive development are very high.



Grafik 3. Perceptions of parents and teachers regarding the cognitive development of early childhood regarding the components of parents' and teachers' needs in cognitive development

Based on the results of the interview, several things that parents and teachers need in developing children's cognitive development include; 1) facilities in the school environment must support the achievement of cognitive development; 2) economic factors, this is necessary for parents' efforts to fulfill children's nutrition as brain food; 3) relevant and innovative learning methods and media as an effort to stimulate children's interest in learning.

To determine the level of perception of parents and teachers regarding children's overall cognitive development, it is explained in the following table.

Tabel 3. Classification of Parent and Teacher Perception Levels

<b>Level of perception of parents and teachers</b>	<b>Interval Skor</b>	<b>f</b>	<b>%</b>
Very High	160 - 196	11	23
High	123 - 159	28	58
High Enough	86 - 122	9	19
Low	49 - 85	0	0
Jumlah		48	100

The data in the table shows that the number of parents and teachers with a very high level of perception regarding early childhood cognitive development is 11 people, a high level of perception is 28 people, a fairly high level of perception is 9 people, and there are no parents and teachers with low level of perception. Thus, parents' and teachers' perceptions of children's cognitive development are generally in the high classification.

The results of research on parents' and teachers' perceptions of children's cognitive development show that the average parent's view of children's cognitive development is high. Through this view, it will be easier for adults around them to develop children's cognitive abilities. The high perception of parents and teachers is caused by several factors including the educational level of parents and teachers which is also quite high, the average last level of education for parents and teachers in this study is Strata 1. environmental culture, intelligence, educational achievement and job attainment (Deary et al, 2005; Duncan & Brooks-Gunn, 1997; The perceptions of educators, both parents and teachers, will vary according to the understanding formed from the various factors mentioned.

Although the overall level of perception of parents and teachers is high, on some items, namely the understanding component of cognitive development, there are still some parents who think that playing does not provide benefits for children's cognitive development. One of them is in the tenth item with the statement "children should learn a lot rather than play". Some parents are more likely to fill in the statement with the Strongly Agree option. In fact, playing can improve children's cognitive development, by playing children will recognize soft, smooth, rough, or rigid surfaces, obtain information, and hone children's sensitivity. Vygotsky (1978) also suggests that play is an activity that can make

children learn how to develop intellectually and socially. (how to develop by gathering and developing intellectually). Each child builds their own knowledge of experiences and active interactions with the environment and culture in which they live through play. Thus, playing can stimulate, build and hone cognitive abilities.

Furthermore, inaccurate perceptions also occur in the eleventh item, namely "Children must get good grades at school". Parents' and teachers' demands for their children to get good grades at school are the most popular choice with the Strongly Agree checklist. Based on the results of the parent and teacher perception questionnaire, cognitive is defined as the skill to get the best grades at school. In fact, cognitive does not talk about values, but more about how children can solve and solve problems, about how children can explore the environment. Contiveness is the development of thinking. Development of children's minds, such as: (1) learning about people, (2) learning about things, (3) learning about new abilities, (4) gaining lots of memories, and (5) gaining lots of experiences.

From the results of processing questionnaires and structured interviews, information was obtained regarding the perceptions formed in the understanding of parents and teachers, especially during the learning process. In fact, in Piaget's (1964) concept of cognitive development, it is explained that kindergarten children are still in the pre-operational stage. This stage is the preparation stage for concrete logical operations, so that currently kindergarten children cannot think in a structured manner like children in the concrete operational phase. Therefore, the practice of learning to read, write and count should not be emphasized in kindergarten children. Pre-operational age children are limited to recognizing and playing with letters or numbers.

Relatedly, that: "Teacher task design also reveals dimensions of the various semiotic domains involved in school writing, institutional domains, disciplinary domains, and semiotic domains connected to discourse communities outside the school" (Dagsland et al., 2023).

Parents and teachers must always provide assistance in every learning activity until they have a good perception according to their children's growth and development and characteristics. Without clear instructions, students will perceive a learning activity as a burden, and can cause them to get lost and fail in teaching such active and regular writing activities as they develop. In this process, interaction between students and teachers is very important, the teaching experience for teachers and their students becomes more interesting, students like it when a teacher explains the complexity of concepts and tasks, the teacher's focus on technical teaching skills and limited work time crafts also becomes less losing is important to avoid problems in learning (Törmälä & Kulju, 2022; Yahia & Egbert, 2023; Yin et al., 2023)

From these results, researchers recommend that teachers and parents know their children better and improve the perceptions of parents and teachers about early childhood cognitive development and assist them in achieving their potential optimally by providing guidance and the widest possible opportunity for early childhood to explore all their interests and talents to be creative without demanding and forcing them to be able to read, write and count/numerate. Previous research has stated that early childhood in the learning process adheres to the principle of playing while learning, the portion of playing is more than learning. However, every game always has learning that can stimulate and improve gross motor and fine motor. So learning must be packaged in a fun way.

This study certainly has limitations, such as the limited number of samples used, limited data collection methods, and other factors such as the influence of research or this study may not cover globally or broadly. For this reason, further research needs to be conducted regarding these limitations or other factors from this study that have not been revealed.

## **Conclusion**

Changes in parents' and teachers' perceptions of early childhood cognitive development and the factors that influence these perceptions are very important findings in this study. Teachers and parents previously felt that reading, writing and counting were the end result of preschool education or before entering primary school, after knowing and understanding that early childhood cognitive processes are not only reading, writing and counting, then this perception becomes one of the important elements and success factors of new knowledge formed from learning and experience.

Teachers and parents have the opportunity to design good learning for their children to express perceptions and various dimensions. Different views or perceptions of teachers and parents towards early childhood cognitive development especially in the aspects of reading, writing and numeracy can be minimized when both have the same understanding. The process of receiving perceptions and the factors behind them become the basis for teachers and parents towards their students.

Differences in perceptions held by parents and teachers, of course, the treatment given to children will also be different according to the perceptions that are instilled. Perceptions that have been formed since the beginning will influence parents and teachers in making decisions to provide aspects and types of stimulation of cognitive development in children. The study of parents' and teachers' perceptions of cognitive development is based on the understanding that children really need the involvement of parents and teachers in the process of developing children's potential according to their development. Awareness in building the perception that children do not have the obligation to be competent in

the realm of reading, writing and numeracy as desired by parents is very important. According to the results of the research and discussion, the perception of parents and teachers about children's cognitive development reached a high category level.

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