



---

## The Cognitive Style and Attachment on Early Childhood Speech Skills

Beryana Evridawati<sup>1</sup>

Yufiarti<sup>2</sup>

Elindra Yetti<sup>3</sup>

*Universitas Negeri Jakarta, Indonesia<sup>1,2,3</sup>*

DOI: <https://doi.org/10.21009/JPUD.141.03>

Accepted: February 15<sup>th</sup>2020. Approved: March 4<sup>th</sup>2020. Published: 30<sup>th</sup> April 2020

**ABSTRACT:** Concurrently with the rapid development in digital society, the demand for communication skills was clear in childhood. Early childhood education needs to pay attention to children's speech skills development. This study aims to determine the effect of cognitive style and attachment on the ability to speak in early childhood speech development. The method used is a 2 x 2 factorial comparison design which is divided into two groups namely independent and dependent fields involving 138 samples. Research findings about differences in the ability to speak early childhood who have independent field cognitive style and children who have field dependent cognitive style in groups of children with high attachment obtained (A2B1), obtained Q count = 9.39 and Q table (0.05; 4: 10) = 4, 33. 4). Differences in the ability to speak early childhood who have an independent field cognitive style and children who have a field dependent cognitive style in groups of children with low attachment obtained (A2B2), obtained Q count = 4.39 and Q table (0.05; 4: 10) = 4, 33. It show that early children who have independent field cognitive style have higher speech skills scores than early children who have field dependent cognitive style while early children who are independent field cognitive style with low attachment have lower speech skills scores than early childhood the field dependent cognitive style with low attachment.

**Keywords:** *Cognitive style and Attachment, Early Childhood, Speech Skills*

---

<sup>1</sup> Corresponding Author:  
beryanaevidawati@gmail.com  
Universitas Negeri Jakarta

## 1 INTRODUCTION

As a communication tool, language is an introduction when the environment tries to stimulate all aspects of child development. Communication and speech and language skills development have been on the research agenda for a long time. With regard to heredity and environment, about the relationship between thought and language and experience for meaningful thinking. At present two researchers (Piaget and Vygotsky) still influence views on child development and language in preschool in many countries (Brodin & Renblad, 2019). Piaget emphasized sensation and experience by focusing on cognitive models and mental structures driven by inherited capacities while Vygotsky focused on learning and zone of proximal development (ZPD). He highlighted the socio-cultural context and emphasized that adults play a supportive role in social interaction. Evans and Jones (2007) have in the Editorial section collected 14 articles about speech, namely speaking and listening skills. The text includes theoretical and pedagogical aspects and an emphasis on language acquisition, language learning in different cultural settings and aspects of second language learning.

Platokhina, Samarina, and Abashina (2016), there are several important backgrounds for the process of speaking right in early childhood including speech maturity, emotional and auditory reactions to adult speech, understanding of speech for early childhood, the ability to distinguish between shapes, colors, sizes, sounds, and the sense of touch, objects, levels of attention, perception, memory and development of definite thought, active imitation of adult speech. In the research results of McLeod, Harrison, & Wang (2019) it is known that the ability to speak and language in early childhood can affect academic achievement in school. This was revealed in their longitudinal study of children 4-5 years and 6-7 years between children who were identified as developing with children who had problems with speech and language concern (SLC) which after look back when the children are 8 to 12 years. Machado (2012, p. 90), stated, 4-5 years has a vocabulary of more than 1,500 words using sentences of five to six (or more) words may use impact, shock, and forbidden words may use words of violence argues, convinces, and question correctness, knows address and phone number can retell main facts or happenings in stories using adult like speech.

Many children in preschool have speech and language disorders and poor communication development, and the need for support is very broad. Brodin and Renblad (2019) conducts research to find out whether and how to read aloud and storytelling can improve children's communication development. Eleven city preschools with 23 units of children (573 children) participated. The results showed that reading aloud and storytelling were used continuously, and staff believed that would help children to develop their communication both about speech and concept development. Staff prioritize literacy in preschool and have knowledge of how to use reading aloud and storytelling to support children's communication.

Emerging evidence suggests that general processes, including working memory, can contribute to a reduction in the production skills of speaking in young children. Waring, Liow, Eadie, and Dodd (2019) studies compare short-term phonological abilities (pSTM) and phonological working memory (pWM) of 50 children of English language skills between 3; 6 and 5; 11 with typical speech production skills and standard consonant true score scores (PCC) of 12 and above ( $n = 22$ ) and speech production skills with standard PCC scores between 8 and 11 ( $n = 28$ ). This research contributes to emerging evidence that shows the relationship between pSTM, pWM, and speech, but whether memory affects speech or speech affects memory needs requires further research.

According to the concept of Vygotsky with the concept of a proximal development zone where the child masters a concept because he gets help or guidance from an adult. The involvement of the environment in children's learning in the form of assistance to the child when performing oral and non-verbal tasks that cannot be done by the child alone so that the environment will interact with the child. This interaction can stimulate various aspects of child development and including language. Based on the geographical location of the City of Tangerang Selatan which is directly adjacent to the City of South Jakarta, DKI Jakarta, there are quite a lot of parents who work in DKI Jakarta and surrounding areas. They leave their children while they are working in additional family supervision (grandparents / siblings) of the child or caregiver, etc. With the limited interaction between parents and their children due to parents working or for other reasons, then parents

can replace this time with an emphasis on quality time when with children, so as to maintain the attachment between parents and the child. With this attachment, the interaction between parent and child continues to be awakened so that the child continues to get stimulation from his parents. Children who have independent and field dependent cognitive styles are what they have been born with. To find out whether the cognitive style of the child and the attachment of parents to the child will affect the ability to speak early childhood, it is planned to carry out this research. The novelty of the research to be carried out is to examine how the ability to speak early childhood who has cognitive style (field independent and field dependent) with a high or low attachment, and how the influence of cognitive style and attachment to the ability to speak early childhood, remembering to date These researchers have not found other studies linking cognitive style and attachment to the ability of speak of early childhood.

## 2 THEORITICAL STUDY

### 2.1 *Early Childhood Speech Skills*

Modern education situation in Russia shows that the number of children with developmental problems, including speech disorders in primary school, is increasing. Primary education began to focus on training and adaptation problems of senior pre-schoolers with speech disorders, preschool speech skills and full formation readiness for school. Language is human expression communication with which to share ideas, information, emotions, and beliefs. Usually developing children learn the basics of language and speech in the toddler-preschool era. Language and speaking skills serve an important role in learning and social relations. Delay in the first development of language and speaking skills, which is prevalent in the population, can affect several fields of activity. Factor analysis has shown that senior pre-schoolers with speech disorders are characterized by cognitive development and intellectual readiness for schools consisting of two factors: an understanding of quantitative and qualitative relationships as an important part of intellectual preparedness for schools and general awareness about vocabulary (Nussipzhanova et al., 2017).

According to Pudjaningsih (2013) language development in kindergarten is based on several theories, namely nativism, behavioristic, cognitive, pragmatic, and interactionist. Cognitive and language skills are assumed to occur simultaneously. A child born with the ability to learn languages, express language, and interact with their environment which includes imitation, reinforcement, reward and social roles. The interactionist experts explain that various factors such as social, linguistic, maturity, biological, and cognitive; influence each other, interact and modify one another, so that it influences the development of individual languages. Learning through play can improve language skills. Infants and young children develop knowledge about the world around them through listening and speaking. Because language is fundamentally embedded in children's daily relationships and experiences, adults play an important role in facilitating children's language development and literacy by providing language-rich environments, interactions and opportunities. Mahabbati, (2013) argues that language acquisition depends on the readiness of linguistic organs, so language development occurs following cognitive development.

This is reinforced by Otto (2015, p. 200) that one of the important things is how parents help the development of language through buffering language strategies (strategies used by parents to help children's learning by providing information and encouragement needed by children) by encouraging children's learning in the zone of proximal development (a zone where a child can master a new concept because of getting help or guidance from adults). With an environment for children's learning in the form of assistance to them when doing verbal and non-verbal tasks that cannot be done by the children themselves but implemented with games. This is also in line with the opinion of Madyawati (2016, p. 41), that language development is influenced by the child's environment and surroundings. Interaction with more mature people / more mature speakers plays a very important role in helping to improve a child's ability to communicate. According to Ormrod (2009, pp. 68–69) to be able to communicate effectively, children must master many aspects of language, including the meaning of thousands of words, a complex set of rules about

how to combine words, and social rules in interacting with people other according to the prevailing culture. Such knowledge and skills develop throughout the school years, often with the guidance of the teacher. There is no doubt that a child's environment plays an important role in linguistic development. Children can learn a language only if the people around them use that language routinely in conversation. When children hear more and more diverse languages, the child digests these words in his thoughts so that the child's vocabulary will increase as well. After the environment around the child both the home environment and the school environment provides conditioning and stimulation that encourages the optimization of the development of the child's speech ability, then it is then examined how the child performs his cognitive function (remembering, receiving, compiling, and organizing the information). The habit of children in using cognitive functions is called cognitive style.

Parents can stimulate the development of their children's speaking abilities. This is in line with the opinion of Otto, (2015, p. 200), one of the important things is how parents help the development of language through buffering language strategies (strategies used by parents to help children's learning by providing information and encouragement needed by children) by encourage children's learning in the zone of proximal development (a zone where a child can master a new concept because of getting help or guidance from adults). This buffering language strategy involves the environment towards children's learning in the form of assistance to them when performing verbal and non-verbal tasks that children cannot do alone but are carried out through various games.

Parents often think that by being with their children, the child will have the opportunity to talk. It is better if we really take the time to have a one-on-one conversation with children who will then be encouraged to have fun with adults. In such cases, adults must refrain from assuming that speech is not important to be heard or use baby language because this has been proven to inhibit the progress of normal speech. Parents often put a lot of emphasis on children's reading and schoolwork and forget the importance of learning to communicate (Lwin, Khoo, Lyen, & Sim, 2002, pp. 23–24). There is no doubt that a child's environment plays an important role in linguistic development. Children can learn a language only if the people around them use that language routinely in conversation. As children hear more and more diverse languages and digest these words in their minds, children will have more and more vocabulary. If we associate the ability to think with the ability to speak, then it is clear that at an early age children can express their thoughts, responses to an event or event, etc., in the form of speech or oral, then he uses the power of thinking to convey it verbally.

## 2.2 *Cognitive style and Attachment*

Shi's (2011) research it is known that cognitive styles have a significant influence on learners' choices of learning strategies. Synthesizing style, sharpener style, field-independent style and impulsive style of cognitive styles corrective clearly almost with every strategy presented in this paper, so they turn to be the most influential cognitive styles that have an impact on learners' learning strategy choices. It is concluded (1) cognitive style has a significant influence on students' learning choices; (2) Synthesize style, sharpening style (remembering something by retelling an event), independent – dependent field style, impulsive style on cognitive style have a positive correlation with each learning strategy chosen by students. Another study found that there was an influence of interaction between play activity and cognitive style on early numeracy skills. It can be concluded that the activity and cognitive style affect the ability to count early, the selection and application of play activities and pay attention to the cognitive style of the child is very helpful. This research does not associate cognitive style with attachment and speaking ability.

Research on attachment was also conducted by Larasati & Desiningrum (2017) who examined the relationship between safe attachment to mother and emotional regulation. The results of their research are that there is a positive relationship between safe attachment to mother and emotional regulation. The higher the attachment to the mother's individual, the higher the level of emotional regulation experienced. However, the study did not highlight the interrelationship between attachment and speaking ability and cognitive style. In the study of Sumantri, Supriyati, and Nugroho (2015) with the title Effect of Clinging and Self Esteem on Spiritual Intelligence, this

study was a causal study on grade 3 students of Islamic elementary schools in Rawamangun in 2014 with a survey method with a path analysis technique. The results of the study are as follows: 1) there is a positive direct effect between attachment to a child's spiritual intelligence, 2) there is a positive direct effect of self-esteem on a child's spiritual intelligence, and 3) there is a positive direct effect of attachment on a child's self-esteem. The study examines the effect of attachment on self-esteem and interpersonal intelligence. However, the study did not highlight the interrelationship between attachment and cognitive abilities. While the research to be carried out is to determine the effect of cognitive style and attachment on the ability to speak early childhood.

Purnama and Wahyuni (2018) examined how attachment to mothers and fathers with social competence in adolescents. In that study it was concluded that there was a significant relationship between attachment to mother and father with social competence in adolescents, which means a higher attachment to mother and father, was higher to social competence in adolescents. This is also in accordance with the opinion of Boroujerdi, Kimiaee, Yazdi, and Safa (2019) this bond, which is built between an infant and his / her primary care giver within the first few years of life, becomes an important part of his / her personality. This means that this bond, which is built between the baby and his primary care giver in the first few years of life, becomes an important part of his personality.

Further about attachment was also investigated by Goodman et al., (2018) who examined the attachment of early childhood and suicidal thoughts in young Kenyan men. It was concluded in the study that warm feelings and attachment to safety in childhood can cause lower feelings of loneliness and suicidal ideation in adulthood. Research on attachment was also carried out by Ding, Xu, Wang, Li, and Wang (2014), researching the relationship between baby attachment with attachment and cognitive and behavior in early childhood concluded that the sense of security in infancy has an important impact on early childhood behavior problems, especially behavior aggressive where it is significantly more likely to occur in children who have insecure attachment in infancy than the type with safe attachment. Babies who have a secure attachment have a significant impact on cognitive development which is generally better than early childhood who has an insecure attachment during their infancy. However, the two studies did not highlight the interrelationship between attachment and cognitive abilities. The difference with the research to be conducted is that the researcher will examine the influence of cognitive style and attachment to the ability to speak early childhood.

Santrock (2011, p. 127), attachments refer to a relationship between two people who have a strong sense of each other and do things together to continue the relationship. So according to Santrock, attachment refers to a relationship between two people who have strong feelings for each other and do many things together to continue that relationship. According to researchers, that when children and parents do a lot of activities together, there will be interaction between them. During this interaction, verbal communication was established between them. This can encourage children to express their thoughts and desires. According to Holmes (2014, p. 67) attachment is an overall term which refers to the state and quality of an individual's attachment. These can be divided into secure and insecure attachments. Like many psychodynamic terms, 'attachments' carries both experiential and theoretical over-tones. To feel attached is to feel safe and secure. By contrast, an insecurely attached person may have a mixture of feelings towards their attachment figure: intense love and dependency, fear of rejection, irritability and vigilance. So according to Holmes, attachment is a whole term that refers to the status and quality of individual attachments. These can be divided into safe and unsafe attachments. Feeling attached is a feeling of security and comfort. Conversely, people who have insecure attachments may have mixed feelings towards their attachment: strong love and dependence, fear of rejection, irritability and vigilance. The young child's hunger for his mother's love and presence is as great as his hunger for food. Attachment Theory provides a language in which the phenomenology of attachment experiences is given full legitimacy. Attachment is a 'primary motivational system' with its own workings and interfaces with other motivational systems. This means that a child's hunger for love and his mother's presence are as great as his hunger for food.

Attachment theory provides a language in which the phenomenology of stickiness experience is given full legitimacy. Stickiness is a 'main motivational system' by its own way of working

and interfaces with other motivational systems. Attachment is a strong emotional bond that children develop through their interactions with people who have special meaning in their lives, usually parents. This is also in line with the opinion of Papalia (2008, p. 274), attachment (attachment) is a lasting and reciprocal emotional bond between baby and caregiver who both contribute to the quality of the caregiver-baby relationship. This means that when there is an interaction between the baby and the caregiver, a bond is formed where the quality of the bond runs parallel with the response between the two. This shows that babies or young children need a relationship that is consistent with certain people to develop. It is understood that the relationship between the two will affect infants and young children in their future development. This is also in accordance with the opinion of Boroujerdi et al., (2019) this bond, which is built between an infant and his / her primary care giver within the first few years of life, becomes an important part of his / her personality. This means that this bond, which is built between the baby and his primary care giver in the first few years of life, becomes an important part of his personality. Attachment is a bond or tie between an individual and an attachment figure. It means that attachment is a bond between an individual and his sticky figure. According Feeney (2001, p. 23), attachment behavior as any form of behavior that results in a person attaining or retaining proximity to some other differentiated and preferred individuals, usually conceived as stronger and / or wiser. This means that attachment is all behavior that results in someone achieving or maintaining closeness with other individuals who are different and preferred, usually considered as stronger or wiser, while attachment according to Berk (2007, p. 419) attachment is a strong bond of affection between the child and the parents or the people who are specialized in children's lives, which leads the child to feel comfortable when interacting with children. Attachment as a strong bond of affection between a child with parents or special people in a child's life, which leads children to feel pleasure when children interact with them.

According to Taylor (2010, p. 27) attachment is a pattern of organized behavior within a relationship, not a trail that children have in varying quantities. Attachments allow the child to feel safe in strange environments and to move away from the attachment figure, physically and emotionally, and explore. It means that attachment is a pattern of organized behavior in a relationship, not a trace that children have in varying amounts. Attachment that allows children to feel safe in strange environments even if far from physically and emotionally attached figures. According to Davis, (2011, p. 7) attachment is a strong emotional tie to a specific person that promotes the young child's sense of security. This means that attachment is a strong emotional bond with a certain person which increases the sense of security in young children.

Attachment is a strong emotional bond that is developed through positive interactions between the child and his primary caregiver, usually with his parents who are attached. Furthermore, Desmita (2010, p. 121) explains that attachment develops through a series of stages, which are determined in part by cognitive changes and partly by the truly natural interactions between infants and caregivers. There are four stages of attachment development and in the fourth stage (Goal-coordinated partnership from the age of two years onwards) this infant learns to negotiate with familiar caregivers and are willing to participate in give and take relationships. That is, children negotiate with caregivers they know and are willing to participate in giving and receiving relationships. In the interactions that develop between the child and the caregiver, the child builds an internal working model. If the interactions that occur between the caregiver and the child develop optimally, then two-way communication is developed. Parents (caregivers) will provide a conducive environment that can support the development of children's speech skills. The more interactions that occur between children and parents, the good communication will be built between them.

At the initial observation in one kindergarten in Banten Province, it was shown that not all children have equal speaking ability. There are still kindergarten children who are still not fluent, do not understand the words delivered by the teachers, and have difficulty communicating smoothly. In addition, there are also children who are still difficult for parents or caregivers to leave when attending school. There are even parents who come into the classroom to wait for their children to learn. The observation also shows that there are children who are very active, but there are also those who are solitary. There are children who actively ask their friends and teachers when facing an assignment or new things that they find, but there are also children who are silent and do the assignment alone.

### 3 METHODS

The method used in this study is the Ex-post Facto research method with 2x2 factorial design. Kerlinger (1990) states that ex-post facto research is a systematic empirical search where it cannot control its independent variables because events have occurred or because they cannot be manipulated. It can be concluded that the ex-post facto research in question means that the independent variables are not given certain treatments and cannot be controlled. In this study, we will look at the relationship between two independent variables with one dependent variable. Ex post facto research including quantitative research to examine events that have occurred.

#### 3.1 Participant

Based on data from the ECE Directorate of ECE Development (2018) in 2017, the number of ECE institutions in Banten Province is 6,022 ECE institutions. Tangerang Selatan City, Banten Province as a city bordering South Jakarta City, DKI Jakarta Province has a Gross Participation Rate achievement of 70.60%. This figure shows the high enough of their parents to send their children to ECE institutions, amounting to 823 education units to get education.

Table 1. The distribution of ECE unit at Tangerang Selatan City.

Region/City	TK	KB	TPA	SPS	Total Education Unit
Tangerang Selatan	511	251	2	59	823

Based on the arithmetic process, the total number of samples that can be used as research subjects is 391 kindergarten students. Furthermore, a third group randomized sample was taken to decide which kindergarten would be selected to be the research site of kindergarten students who would be the research subject.

#### 3.2 Instrument

Table 2. Early Childhood Speech skills instruments

No	Speech Skills
1	The child mentions one to eight verbs in daily activities
2	The child mentions nouns in the surrounding environment
3	The child shows the object he is mentioning
4	The child shows the movements he mentioned
5	The child does the activity he mentioned
6	Children tell about their activities in the morning with clear sentences
7	Children tell stories about their experiences
8	Children answer parents' questions with clear words
9	The child mentions the name of objects that are around him with the correct word
10	The child mentions the activities that he does at night with the correct words
11	Children speak using three or more words into simple sentences
12	Children tell about the activities they do in simple sentences
13	The children explain today's activities in the correct word order

To test the validity of the instrument the ability to speak by using the correlation coefficient between the score of the item with the total score of the instrument with the Pearson Product Moment. Thirteen statement items were tested and after analysing the validity test items did not obtain statement items that did not meet the requirements, because the  $r$  count was greater than  $r$  tables.

The results of the calculation of the reliability of the instrument the ability of speaking obtained the reliability value of the alpha Cronbach instrument  $r_{11} = 0.908$ . Thus it can be concluded that the instrument of speaking ability that has been tested has a very high reliability, the instrument can be used in research.

### 3.3 Data Analysis

Data analysis techniques include data management and data presentation, calculations to describe data, and testing hypotheses using statistical tests. Descriptive statistics are intended for the presentation of data descriptively to make it easier for readers to follow and examine the statistical data (quantities) that have been obtained based on statistical calculations. Inferential statistics by analysing the normality test using the Lilliefors test, homogeneity using the Barlett test both of these requirements (homogeneity) are carried out in each row column and each cell. Hypothesis testing uses the two way ANOVA and continued with the Tukey test. The Tukey test was used for the same sample size for each treatment. This data analysis technique was assisted with Microsoft Excel and SPSS applications.

## 4 RESULT AND DISCUSSION

The data of this study were grouped into eight data groups namely: (1) early childhood speech ability scores that have independent field cognitive styles (A1), (2) early childhood speech ability scores that have field dependent cognitive styles (A2), (3) scores of early childhood speech ability with high attachment (B1), (4) early childhood speech ability scores with low attachment (B2), (5) early childhood speech ability scores that have independent field cognitive styles with high attachment (A1B1), (6) early childhood speech ability scores that have a field dependent cognitive style with high attachment (A2B1), (7) early childhood speech ability scores that have independent field cognitive styles with low attachment (A1B2), (8) scores of early childhood speech abilities that have a field dependent cognitive style with low attachment (A2B2).

Table 3. Recapitulation of Early Childhood Speaking Score in All Groups

A									
B	A <sub>1</sub>	A <sub>2</sub>		Total					
B <sub>1</sub>	$\Sigma Y_{11}$	=	489	$\Sigma Y_{21}$	=	412	$\Sigma Y_{B1}$	=	901
	$n_{11}$	=	10	$n_{21}$	=	10	$n_{B1}$	=	20
	$\bar{Y}_{11}$	=	48,90	$\bar{Y}_{21}$	=	41,20	$\bar{Y}_{B1}$	=	45,05
	$\Sigma Y_{11}^2$	=	23951	$\Sigma Y_{21}^2$	=	17046	$\Sigma Y_{B1}^2$	=	40997
	$(\Sigma Y_{11})^2$	=	239121	$(\Sigma Y_{21})^2$	=	169744	$(\Sigma Y_{B1})^2$	=	811801
	$S_{11}^2$	=	4,32	$S_{21}^2$	=	7,96	$S_{B1}^2$	=	21,42
	$S_{11}$	=	2,08	$S_{21}$	=	2,82	$S_{B1}$	=	4,63
B <sub>2</sub>	$\Sigma Y_{12}$	=	411	$\Sigma Y_{22}$	=	447	$\Sigma Y_{B2}$	=	858
	$n_{12}$	=	10	$n_{22}$	=	10	$n_{B2}$	=	20
	$\bar{Y}_{12}$	=	41,10	$\bar{Y}_{22}$	=	44,70	$\bar{Y}_{B2}$	=	42,90
	$\Sigma Y_{12}^2$	=	16959	$\Sigma Y_{22}^2$	=	20043	$\Sigma Y_{B2}^2$	=	37002
	$(\Sigma Y_{12})^2$	=	168921	$(\Sigma Y_{22})^2$	=	199809	$(\Sigma Y_{B2})^2$	=	736164
	$S_{12}^2$	=	7,43	$S_{22}^2$	=	6,90	$S_{B2}^2$	=	10,20
	$S_{12}$	=	2,73	$S_{22}$	=	2,63	$S_{B2}$	=	3,19
Total	$\Sigma Y_{A1}$	=	900	$\Sigma Y_{A2}$	=	859	$\Sigma Y_T$	=	1759
	$n_{A1}$	=	20	$n_{A2}$	=	20	$n_T$	=	40
	$\bar{Y}_{A1}$	=	45,00	$\bar{Y}_{A2}$	=	42,95	$\Sigma Y_T^2$	=	77999
	$\Sigma Y_{A1}^2$	=	40910	$\Sigma Y_{A2}^2$	=	37089	$(\Sigma Y_T)^2$	=	3094081
	$(\Sigma Y_{A1})^2$	=	810000	$(\Sigma Y_{A2})^2$	=	737881			

$S_{A1}^2$	=	21,58	$S_{A2}^2$	=	10,26
$S_{A1}$	=	4,65	$S_{A2}$	=	3,20

Hypothesis testing in this study was carried out using two-way analysis of variance and continued with the Tukey test, if there were interactions in the test. Analysis of variance of two paths is used to test the main effect and interaction effect between cognitive style and attachment to the scores of speech abilities of early childhood. By using the two-way ANOVA table, the results are obtained as in table 3. below.

Table 4. Result of Two-ways Anova Analysis

Varians Resource	Df	NS	ANS	$F_{count}$	$F_{table}$ $\alpha = 0,05$
Inter Groups	3	407,48	135,83	20,43**	4,11
Intra Groups	36	239,50	6,65		
Intra A	1	42,03	42,03	6,32**	4,11
Intra B	1	46,23	46,23	–	–
Interaction A x B	1	319,22	319,22	48,00**	4,11
Reduced Total	39	646,98			

Remarks:

- \*\* = Significant
- Df = Degree of freedom
- NS = Number of Square
- ANS = average number of squares

#### 4.1.1 Differences in Early Childhood Speaking Ability in the Group of Children Who Have a Field Independent Cognitive Style and the Group of Children who Have a Field Dependent Cognitive Style

Based on the analysis of the variance of the two lines between A line at a significant level  $\alpha = 0.05$ , obtained  $F_{count} = 6.32$  and  $F_{table} (0.05; 1; 36) = 4.11$ , obtained  $F_{count} > F_{table}$  then  $H_0$  is rejected so  $H_1$  is accepted. It can be concluded that there are differences in the ability to speak early childhood between groups of children who have independent field cognitive styles and groups of children who have significant field dependent cognitive styles. In other words, the independent field cognitive style ( $\bar{Y}_{A1} = 45.00$ ) is higher than the field dependent cognitive style ( $\bar{Y}_{A2} = 42.95$ ). This means that the research hypothesis which states that the ability to speak early childhood who has an independent field cognitive style is higher than the ability to speak early childhood who has a field dependent cognitive style can be accepted. This means that there are differences in the scores of early childhoods speaking abilities that have independent field cognitive styles and those that have field dependent cognitive styles.

Every child has their own cognitive style. So, in early childhood there is a cognitive style that they already have from the start. They receive, process and react to information, something that they already have. Cognitive style is the basis that distinguishes between individuals as they interact with elements of the situation and is also an important approach to understanding and personally thinking Sternberg and Williams (2009, p. 112). So, in early childhood there is a cognitive style that they already have from the start. They receive, process and react to information, a characteristic that they already have. This is in line with the opinion of Uno (2016, p. 191), cognitive style is given and can affect learning achievement. As a cognitive style possessed by early childhood from the outset and is sedentary, teachers should be able to devise strategies so that optimization occurs in learning.

When a child in kindergarten receives a learning, he processes the learning information according to the cognitive style he has. When he has an independent field cognitive style, he will learn independently and have intrinsic motivation to explore this information in detail. The child prefers to learn on his own and interact with the teacher as needed. But because he studies a topic because he has intrinsic motivation, he will react to this learning with enthusiasm and a very large curiosity. This makes the child will communicate more often with his teacher. It is also possible that the child communicates with his friends to discuss the information he received.

Different things were occurred to children who have a field dependent cognitive style. On the other hand, children who have this cognitive style have characteristics that are willing to start learning when there are influences or orders from other people (teachers or parents). So, the child will see the surrounding environment or wait for instructions to learn something and not initiate themselves, how to think globally, enjoy an atmosphere of learning that involves others and motivation is external. In children who have cognitive style like this, the environment plays a very important role in optimizing all aspects of child development, one of which is language development.

In this study it is known that children who have an independent field cognitive style are more capable of speaking than children who have a field dependent cognitive style. This difference is shown by the average score of early childhood speech ability scores that have an independent field cognitive style of 45.00 and the average score of early childhood speech abilities that have a field dependent cognitive style of 42.95. This proves that the environment around children received by children at home and at school provides a condition and situation that encourages stimulation in optimizing the development of children's speech ability. When he has an independent field cognitive style, he will learn independently and have intrinsic motivation to explore this information in detail. Because he studies a topic because he has intrinsic motivation, he will react to that learning with enthusiasm and a very large curiosity. This makes the child will communicate more often with his teacher. It is also possible that the child communicates with his friends to discuss the information he received.

Curiosity caused by intrinsic motivation is what makes the child communicate with parties who according to him can exchange ideas with him about the topic. On the other hand, children who have an independent field cognitive style are less sensitive to criticism. This means that the child does not sulk quickly when the teacher or friend or anyone criticizes anything related to him. So, the child has no difficulty communicating with anyone even if he is criticized. This can be the cause of early childhood speaking ability scores that have a field independent cognitive style higher than field dependent where children with cognitive style have characteristics that want to start learning if there is influence or orders from others (teachers or parents). So, the child will see the surrounding environment or wait for instructions to learn something and not the initiative itself.

When the environment does not support the passive child, then the child lacks the initiative to communicate with teachers or friends, even though he is described as a child who prefers cooperation rather than alone, has broad interpersonal relationships, and has extrinsic motivation. This is in line with what was delivered by Borich & Tombari., (1996); Braune & Wickens, (1986, p. 3) states that children who have an independent field cognitive style have attitudes such as being independent, not influenced by the environment, less concerned with interpersonal relationships, happy working alone, can accept criticism. Conversely children who have a field dependent cognitive style have attitudes, among others, less independent, strongly influenced by the environment, a lot of attention to people, easy to cooperate, more sensitive to criticism, more sensitive, more able to establish interpersonal relationships. Learning models that provide opportunities for students to learn independently provide opportunities for independent field individuals to be able to succeed better. The reason is that, besides being inclined to work independently, they also tend to learn and respond with intrinsic motivation. Prioritized reinforcement in learning is intrinsic reinforcement, so attention to competition, ranking, and superior activity is very high.

#### 4.2 Interaction between Cognitive Style and Attachment to Early Childhood Speaking Ability Scores

Based on the analysis of the variance of the two paths about the interaction between cognitive style and attachment to the scores of early childhood speaking skills seen in the two ways Anova calculation table above, that the price of  $F_{count}$  interaction = 48.00 and  $F_{table}$  (0.05; 1: 36) = 4,11, obtained  $F_{count} > F_{table}$  then  $H_0$  is rejected so  $H_1$  is accepted. The conclusion that there is an interaction between cognitive style and attachment to the ability to speak early childhood. The interaction between cognitive style and attachment to the ability to speak early childhood can be seen in the following picture.

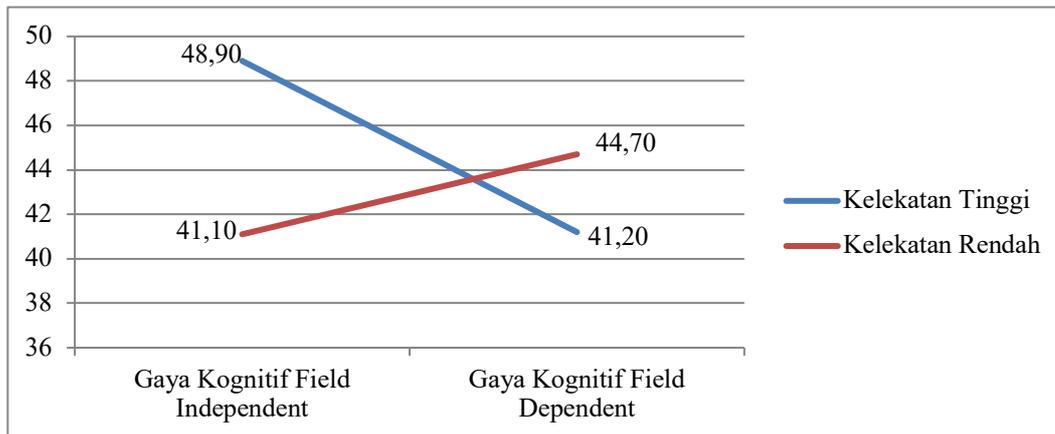


Figure 1. Field independentizing of the interaction between cognitive style and attachment in its effect on the ability to speak early childhood

The cognitive style and attachment interact with the scores on the ability to speak early childhood. And this is evidenced by the results of the analysis of the variance of the two lines in the Interaction line A \* B found that the  $F_{count}$  interaction of 48.00 is greater  $F_{table}$  (0.05; 1: 36) = 4.11. This means that there is a significant interaction effect between cognitive style and attachment to the ability to speak early childhood.

With the testing of these interactions, then further tests need to be done. Further tests are intended to find out about: (1) differences in the scores of early childhood speaking abilities that have independent field cognitive styles and those that have field dependent cognitive styles for groups of children with high attachment (A1B1 and A2B1); and (2) differences in the scores of early childhood speaking abilities of children who have independent field cognitive styles and those who have field dependent cognitive styles for groups of children with low attachment (A1B2 and A2B2). A summary of the results of further tests with Tukey tests on the 2 groups of data compared can be seen in table 4.13 below. The calculation can be seen in the appendix.

Table 5. Resume of the result of Turkey Test Analysis.

No	Groups Compared	df	$Q_{count}$	$Q_{table}$ $\alpha = 0,05$
1	A <sub>1</sub> B <sub>1</sub> with A <sub>2</sub> B <sub>1</sub>	4: 10	9,39**	4,33
2	A <sub>1</sub> B <sub>2</sub> with A <sub>2</sub> B <sub>2</sub>	4: 10	4,39**	4,33

Remark

\*\* = Significant

This means that there is a significant interaction effect between cognitive style and attachment to the ability to speak early childhood. Because there is a significant interaction effect, it is followed by a Tukey test for the two experimental design cells. If parents and teachers can play a

role in creating a conducive environment, the ability to speak early childhood can develop optimally. This is in line with the opinion of Madyawati (2016, p. 41), language development is influenced by the child's environment and the surrounding environment. Interaction with more mature people / more mature speakers plays a very important role in helping to increase the child's ability to communicate.

Children learn by imitating. For that the way for children to practice their abilities by conditioning so that children can talk. Parents, teachers, caregivers, etc. should provide the broadest opportunity for children to talk. It is possible that the child has difficulty systematically stringing word for word, and it is possible that the child will use unclear expressions to convey his point. Parents and teachers, etc. can listen to the child and convey the use of wrong or unclear words into the right words. Furthermore, children will be able to remember the correct words and sentences that are arranged exactly when he wants to convey his intentions on another occasion. Parents, teachers, caregivers, etc. must provide enough time for the child and they can communicate both ways. With this, the child's ability to speak will be honed. Their desire to speak must be encouraged and supported by providing many opportunities to participate in various language activities such as singing, telling stories, following drama, and reading poetry.

Gandasetiawan (2009, pp. 31–32) age 3-6 years is a sensitive period for hearing nonverbal sounds and verbal auditory recognition. In this period, children are sensitive to use language. Some things that need to be done to optimally support children's mental-intellectual development, for example inviting children to color objects, letting children answer their physical needs, for example asking if the child is sleepy, hungry, thirsty, and cold; involve the child in conversation using simple sentences; ask the child to give his full name; learn to count; introduce opposite words to children; accustom children to express feelings of what is captured by the eyes, ears, nose; invite children to analyze the child's experience mentioning the names of animals, fruits, and vegetables, teaching children to answer commands, etc. In principle, it is trying for children to talk.

One way to improve children's speaking ability is to invite the child to communicate in two directions. When children express their thoughts and feelings, basically they are practicing their speaking ability. On the other hand, children who have an independent field cognitive style are less sensitive to criticism. This means that the child does not sulk quickly when the teacher or friend or anyone criticizes anything related to him. So, the child has no difficulty communicating with anyone even if he is criticized. Different things happen to children who have a field dependent cognitive style. On the other hand, children who have this cognitive style have characteristics that are willing to start learning when there are influences or orders from others (teacher or parents). So, the child will see the surrounding environment or wait for instructions to learn something and not initiate themselves, how to think globally, enjoy an atmosphere of learning that involves others and motivation is external. In children who have cognitive style like this, the environment plays a very important role in optimizing all aspects of child development, one of which is language development. So, when the environment does not support the passive child, then the child lacks the initiative to communicate with teachers or friends, even though he is described as a child who prefers cooperation rather than alone, has broad interpersonal relationships, and has extrinsic motivation. But the advantages of children who have a field dependent cognitive style like to pay attention to the surrounding environment. Because the child is a repeat imitator, when he pays attention to what is happening in the environment, then it will be recorded in the child's memory and the child imitates by practicing it.

#### *4.3 Differences in Early Childhood Speaking Ability that has a Field Independent Cognitive Style and Children who have a Field Dependent Cognitive Style in Children with High Attachment*

Children with high attachment influence the ability to speak the age of the child in terms of cognitive style. This is proven based on the results of further tests using the Tukey test the results are as follows:

Table 6. Comparison between Group A1B1 with A2B1

No	Compared Groups	df	Q <sub>count</sub>	Q <sub>table</sub> $\alpha = 0,05$
1	A <sub>1</sub> B <sub>1</sub> and A <sub>2</sub> B <sub>1</sub>	4: 10	9,39**	4,33

Remark:

\*\* = Significant

Early childhood speaking ability scores that have independent field cognitive style with high attachment (A1B1) compared to early childhood speech ability scores that have field dependent cognitive style with high attachment (A2B1), obtained Q count = 9.39 and Q table (0.05; 4:10) = 4.33. Thus, Q count is greater than Q table, so H<sub>0</sub> is rejected, it can be interpreted that there is a significant difference in the score of early childhood speech ability with a high attachment significantly between independent field cognitive style and field dependent cognitive style. In other words, children who have an independent field cognitive style with high attachment ( $\bar{Y}A1B1 = 48.90$ ) are higher than those who have a field dependent cognitive style with high attachment ( $\bar{Y}A2B1 = 41.20$ ) on early childhood speech ability scores.

Children who have independent and field dependent cognitive styles have their own special characteristics or characteristics when children receive information, process it, and react to that information. Every child has their own cognitive style. So, in early childhood there is a cognitive style that they already have from the start. They receive, process and react to information, something that they already have. As a cognitive style that early childhood has from the beginning and is sedentary, the teachers should be able to formulate strategies so that optimization occurs in learning. The difference in characteristics is not explicitly owned by each child, meaning that all the characteristics are not always found intact in a child / complete in a child, but it is a tendency which is more dominant owned by children. Each trend has advantages and disadvantages of each. Therefore, the teacher who really knows the child's personality can accompany him in utilizing his strengths and overcoming his weaknesses.

In children who have independent field cognitive style, they have the characteristics of independent learning, and have intrinsic motivation to explore this information in detail. Because he studies a topic because he has intrinsic motivation, he will react to that learning with enthusiasm and a very large curiosity. This makes the child will communicate more often with his teacher. It is also possible that the child communicates with his friends to discuss the information he received. Curiosity caused by intrinsic motivation is what makes the child communicate with parties who according to him can exchange ideas with him about the topic. One way to improve children's speaking ability is to invite the child to communicate in two directions. When children express their thoughts and feelings, basically they are practicing their speaking ability. On the other hand, children who have an independent cognitive field style are less sensitive to criticism. This means that the child does not sulk quickly when the teacher or friend or anyone criticizes anything related to him. So, the child has no difficulty communicating with anyone even if he is criticized.

Different things happen to children who have a field dependent cognitive style. On the other hand, children who have this cognitive style have the characteristics of students who want to start learning when there are influences or orders from others (teachers or parents). So, the child will see the surrounding environment or wait for instructions to learn something and not initiate themselves, how to think globally, enjoy an atmosphere of learning that involves others and motivation is external. In children who have cognitive style like this, the environment plays a very important role in optimizing all aspects of child development, one of which is language development.

The environment does not support the passive child, then the child lacks the initiative to communicate with the teacher or friend, even though he is described as a child who prefers cooperation rather than alone, has broad interpersonal relationships, and has extrinsic motivation. Field dependent individuals tend to use a passive approach to learning, learning goals tend to be followed what the structure of learning material also tends to be followed as presented, so it requires learning materials that are well structured and systematic.

Tukey test results on the ability to speak early childhood with high viscosity obtained value  $Q_{\text{count}} = 9.39$  greater than  $Q_{\text{table}} (0.05; 4: 10) = 4.33$ . This means that there are differences in the ability to speak early childhood who have independent field cognitive style and who have field dependent cognitive style for groups of children with high attachment. Thus, it can be concluded that the average score of speaking ability of early childhood with high attachment, in the group of children who have an independent field cognitive style is 48.90 higher than the group of children who have a field dependent cognitive style of 41.20.

The higher score of groups of children who have independent field cognitive style that has a high attachment than the score of groups of children who have field dependent cognitive style shows that children who have intrinsic motivation and great curiosity about a learning topic, as well as their observations of something, then the children interact and communicate intensely with their parents and teachers. The intensity of communication, which is driven by curiosity, makes the child develop the ability to speak. This also happens to children who have a field dependent cognitive style. But children who have this cognitive style are so influenced by the environment to motivate them in learning something. Because he is being passive in receiving information, he is less able to explore this information with parents, teachers and those around him. Because the child communicates less, he less develops the ability to speak

Thus, the research hypothesis which states that the ability to speak early childhood with a high attachment that has a field independent cognitive style is higher than the field dependent cognitive style can be accepted. Differences in Early Childhood Speaking Ability that has a Field Independent Cognitive Style and Children who have a Field Dependent Cognitive Style in Children with Low Attachment. Children with low attachment influence the ability to speak early childhood scores in the presence of cognitive style. This is proven based on the results of further tests using the Tukey test the results are as follows:

Table 7. The comparison between group A1B2 and A2B2

No	Compared Groups	df	$Q_{\text{count}}$	$Q_{\text{table}}$ $\alpha = 0,05$
2	A <sub>1</sub> B <sub>2</sub> and A <sub>2</sub> B <sub>2</sub>	4: 10	4,39**	4,33

Remark:

\*\* = Significant

Early childhood speaking ability scores that have independent field cognitive style with low attachment (A1B2) compared to early childhood speech ability scores that have field dependent cognitive style with low attachment (A2B2), obtained  $Q_{\text{count}} = 4.39$  and  $Q_{\text{table}} (0, 05; 4: 10) = 4.33$ . Thus, the  $Q_{\text{count}}$  is greater than  $Q_{\text{table}}$ , so  $H_0$  is rejected, it can be interpreted that there is a significant difference in the scores of early childhood speech abilities with a low attachment significantly between independent field cognitive styles and field dependent cognitive styles. In other words, children who have an independent field cognitive style with low attachment ( $\bar{Y}_{A1B2} = 41.10$ ) are lower than those who have a field dependent cognitive style with low attachment ( $\bar{Y}_{A2B2} = 44.70$ ) on early childhood speech ability scores. Children who have independent and field dependent cognitive styles have their own special characteristics or characteristics when children receive information, process it, and react to that information. Every child has their own cognitive style. So, in early childhood there is a cognitive style that they already have from the start. They receive, process and react to information, something that they already have.

In children who have independent field cognitive style, they have the characteristics of independent learning, and have intrinsic motivation to explore this information in detail. Because he studies a topic because he has intrinsic motivation, he will react to that learning with enthusiasm and a very large curiosity. This makes the child will communicate more often with his teacher. It is also possible that the child communicates with his friends to discuss the information he received. Curiosity caused by intrinsic motivation is what makes the child communicate with parties who according to him can exchange ideas with him about the topic. One way to improve children's speaking ability is to invite the child to communicate in two directions. When children express

their thoughts and feelings, basically they are practicing their speaking ability. On the other hand, children who have an independent cognitive field style are less sensitive to criticism. This means that the child does not sulk quickly when the teacher or friend or anyone criticizes anything related to him. So, the child has no difficulty communicating with anyone even if he is criticized.

Different things happen to children who have a field dependent cognitive style. On the other hand, children who have this cognitive style have the characteristics of students who want to start learning when there is influence or orders from others (teacher or parent). So, the child will see the surrounding environment or wait for instructions to learn something and not initiate themselves, how to think globally, enjoy an atmosphere of learning that involves others and motivation is external. In children who have cognitive style like this, the environment plays a very important role in optimizing all aspects of child development, one of which is language development. So, when the environment does not support the passive child, then the child lacks the initiative to communicate with teachers or friends, even though he is described as a child who prefers cooperation rather than alone, has broad interpersonal relationships, and has extrinsic motivation. This is in line with the characteristics of individual dependent fields in learning also described by Borich and Tombari., (1996, p. 609) as follows: 1) accept concepts and material globally, 2) tend to connect the concepts in the curriculum with their own experiences, 3) seek guidance and guidance from the teacher, 4) require gifts to strengthen interaction with the teacher, 5) be sensitive to one's own feelings and opinions, 6) prefer to cooperate rather than work alone, and 7) more interested in the organization of the material prepared by the teacher. So, field dependent individuals tend to use a passive approach to learning, learning goals tend to be followed what the structure of learning material also tends to be followed as presented, so it requires learning materials that are well structured and systematic.

The results of the Tukey test on the score of speaking ability of early childhood with low attachment obtained the value of  $Q \text{ count} = 4.39$  is greater than the  $Q \text{ table} (0.05; 4; 10) = 4.33$ . This means that there are differences in the scores of early childhood speech abilities that have independent field cognitive styles and those that have field dependent cognitive styles for groups of children with low attachment. Thus, it can be concluded that the average score of speaking ability of early childhood with low attachment, in the group of children who have an independent field cognitive style by 41.10 lower than the group of children who have a field dependent cognitive style of 44.70.

The lower score of groups of children who have independent field cognitive style that has a low attachment than the score of groups of children who have field dependent cognitive style shows that when there is a limitation of attachment between children and parents causes children who have independent field cognitive style have lower ability to speak. The home environment in early kindergarten influences language skills, so as to predict children's readiness to enter school (Santrock, 2011). Children who have an independent field cognitive style have characteristics including intrinsic motivation, lack of attention to those around them, lack of interpersonal relationships, independent, and a great curiosity about a learning topic, as well as their observation of something. But Lev Vygotsky and several other experts have explained how important an interaction of children with those around them and with the environment to improve children's abilities. When the child interacts and has limited communication with parents, the child lacks the opportunity to talk. On the other hand, the child's lack of attention to the surrounding environment in which people communicate and the child lacks socialization, causes him to be limited to practicing or imitating the words he hears. Even though the child is basically a great copycat. Even parents who have a low attachment to their children, do not motivate children to develop speaking skills. Whereas the intensity of two-way communication between parents and children, can occur when parents and children do activities together, for example when eating together, sleeping together, asking the child about activities at school, spending time playing with children, etc. When the child who has an independent cognitive field, style does not receive information on the information he received even though he has intrinsic motivation, then the child will have less opportunity to develop his speech skills.

Children with field dependent cognitive styles who also have a low attachment to their parents, have other characteristics that allow them to communicate more often than children who have

independent field cognitive styles. This is explained by Nasution (2011, p. 76) the characteristics of field dependent include: (1) Very much influenced by the environment / much dependent on education since childhood; (2) Educated to always pay attention to others; (3) Having broad interpersonal relationships. Children who have a field dependent cognitive style have the opportunity to communicate with their friends because they have characteristics that have broader interpersonal relationships. He prefers to work with his friends when doing something, this is different from children who have independent field cognitive styles who prefer to do things themselves. On the other hand, the characteristics of children with a field dependent cognitive style have attitudes to pay more attention to others than children who have an independent field cognitive style.

Because children are accomplished imitators, the child who has a field dependent cognitive style will pay attention to the words spoken by those around him and will imitate those words. Basically when a child who has an independent field cognitive style has an intrinsic motivation and is supported by an environment that facilitates children's curiosity (the teacher and parents), then the child has an independent character and when he wants to know more about something, he will take the initiative to ask, discuss and think critically. However, when the environment is less supportive (low attachment and lack of interaction with parents and teachers and peers), it is precisely the child who has a field dependent cognitive style with a character that pays more attention to his surroundings, even though he is silent but he will imitate the words around him. Because children are accomplished imitators. But if the child has an independent field cognitive style, then he is not paying attention to his surroundings so that the child is less able to develop vocabulary. This is supported by the results of this study that children who have independent field cognitive style with low stickiness have lower scores than children who have low dependent field cognitive style.

Thus, the research hypothesis which states that the speak ability of early childhood with low attachment that has a field independent cognitive style is lower than the field dependent cognitive style can be accepted.

## 5 CONCLUSION

There are differences in the ability to speak early childhood between those who have independent field cognitive styles with field dependent cognitive styles. This means that early childhood who have an independent field cognitive style has higher speech ability scores than early childhood who has a field dependent cognitive style.

There is an interaction effect between cognitive style and attachment to the ability to speak early childhood. This means that the cognitive style of early childhood and the attachment between early childhood and their parents affect the ability to speak at an early age.

For children who have high attachment, the ability to speak of early childhood between those who have a higher independent field cognitive style and a field dependent cognitive style. From the results of the study it turns out that early childhood cognitive field independent style with high viscosity has higher speech ability scores than early childhood children who are field dependent cognitive style with high attachment.

For children who have low attachment, the ability to speak early childhood among those who have independent field cognitive style is lower than the field dependent cognitive style. From the results of the study it turns out that early childhood cognitive style independent field with low attachment has lower speech ability scores than early childhood children who are field dependent cognitive style with low attachment.

## 6 REFERENCES

- Aulya Purnama, R., & Wahyuni, S. (2018). Kelekatan (Attachment) pada Ibu dan Ayah Dengan Kompetensi Sosial pada Remaja. *Jurnal Psikologi*, 13(1), 30. <https://doi.org/10.24014/jp.v13i1.2762>

- Berk, L. E. (2007). *Child Development Boston. Pearson* (seventh Ed). Boston: Pearson.
- Borich, G. D., & Tombari., M. L. (1996). *Educational Psychology: A Contemporary Approach*. New York: Harper Collins College Publishers.
- Boroujerdi, F. G., Kimiaee, S. A., Yazdi, S. A. A., & Safa, M. (2019). Attachment style and history of childhood abuse in suicide attempters. *Psychiatry Research*, 271, 1–7. <https://doi.org/10.1016/j.psychres.2018.11.006>
- Braune, R., & Wickens, C. D. (1986). Time-sharing revisited: Test of a componential model for the assessment of individual differences. *Ergonomics*, 29(11), 1399–1414. <https://doi.org/10.1080/00140138608967254>
- Brodin, J., & Renblad, K. (2019). Improvement of preschool children’s speech and language skills. *Early Child Development and Care*, 0(0), 1–9. <https://doi.org/10.1080/03004430.2018.1564917>
- Davis, D. (2011). *Child Development, Third Edition: A Practitioner’s Guide (Clinical Practice with Children, Adolescents, and Families)* (Third Edit). New York London: The Guilford Press.
- Desmita. (2010). *Psikologi Perkembangan Peserta Didik*. Bandung: Rosdakarya.
- Ding, Y. hua, Xu, X., Wang, Z. yan, Li, H. rong, & Wang, W. ping. (2014). The relation of infant attachment to attachment and cognitive and behavioural outcomes in early childhood. *Early Human Development*, 90(9), 459–464. <https://doi.org/10.1016/j.earlhumdev.2014.06.004>
- Evans, R., & Jones, D. (2007). Perspectives on oracy-towards a theory of practice. *Early Child Development and Care*, 177(6–7), 557–567. <https://doi.org/10.1080/03004430701424938>
- Feeney, J. A. (2001). *Becoming Parents: Exploring The Bonds Between Mothers, Fathers, And Their Infants Paperback*. UK: Cambridge University Press.
- Gandasetiawan, R. Z. (2009). *Mengoptimalkan IQ dan EQ Anak Melalui Metode Sensomotorik*. Jakarta: PT BPK Gunung Mulia.
- Goodman, M. L., Gibson, D., Vo, T. T., Wang, A., Gitari, S., & Raimer, B. (2018). Early childhood attachment and suicidal ideation among young Kenyan men. *Advances in Life Course Research*, 35(February), 126–134. <https://doi.org/10.1016/j.alcr.2018.02.001>
- Holmes, J. (2014). *John Bowlby and Attachment Theory* (2nd Editio). <https://doi.org/https://doi.org/10.4324/9781315879772>
- Kerlinger, F. N. (1990). *Asas-asas Penelitian Behavioral* (3th ed.). Yogyakarta: Gajah Mada University Press.
- Larasati, N. I., & Desiningrum, dinie R. (2017). Hubungan Antara Kelekatan Aman Dengan Ibu Dan Regulasi Emosi Siswa Kelas X Sma Negeri 3 Salatiga. *Empati*, 6(3), 127–133.
- Lwin, M., Khoo, A., Lyen, K., & Sim, C. (2002). *How to Multiply Your Child’s Intelligence: A Practical Guide for Parents of Seven-Year-Olds and Below*. Singapore: Pearson Education Asia Pte., Ltd.
- Machado, J. M. (2012). *Early Childhood Experiences in Language Arts: Early Literacy* (10 edition). Belmont, USA: Wadsworth Publishing.
- Madyawati, L. (2016). *Strategi Pengembangan Bahasa Pada Anak*. Jakarta: Kencana.
- Mahabbati, A. (2013). *Layanan Pendidikan untuk Anak Berkebutuhan Khusus dan Pendidikan Inklusif*. Retrieved from <http://staffnew.uny.ac.id/upload/132318126/pengabdian/ppmlayanan-pendidikan-untuk-anak-berkebutuhan-khusus.pdf>

- McLeod, S., Harrison, L. J., & Wang, C. (2019). A longitudinal population study of literacy and numeracy outcomes for children identified with speech, language, and communication needs in early childhood. *Early Childhood Research Quarterly*, 47, 507–517. <https://doi.org/10.1016/j.ecresq.2018.07.004>
- Nasution, S. (2011). *Berbagai Pendekatan Dalam Proses Belajar Dan Mengajar*. Jakarta: Bumi Aksara.
- Nussipzhanova, B., Berdibayeva, S., Garber, A., Tuyakova, U., Mursaliyeva, A., & Baizhmanova, B. (2017). Cognitive development of pre-school children with language and speech disorders. *The European Journal of Social and Behavioural Sciences*, 21(1), 2570–2583. <https://doi.org/10.15405/ejsbs.227>
- Ormrod, J. E. (2009). *Psikologi Pendidikan Membantu Siswa Tumbuh dan Berkembang* (6th editio). Jakarta: Erlangga.
- Otto, B. (2015). *Perkembangan Bahasa Pada Anak Usia Dini* (third Edit). Jakarta: Prenadamedia.
- Papalia, D. (2008). *Human Development*. Jakarta: Kencana.
- Platokhina, N. A., Samarina, I. V., & Abashina, N. N. (2016). Preventive Measures against Speech Disorders in Early Childhood. *Procedia - Social and Behavioral Sciences*, 233(May), 247–251. <https://doi.org/10.1016/j.sbspro.2016.10.212>
- Pudjaningsih, W. (2013). Pembelajaran Melalui Bermain Dalam Rangka Pengembangan Kemampuan Berbahasa Anak di TK Islam Al-Azhar Kota Jambi. *Pena : Jurnal Pendidikan Bahasa Dan Sastra*, 53(9), 1689–1699.
- Santrock, J. W. (2011). *Life Span Development*. New York: Mc Graw Hill.
- Shi, C. (2011). A Study of the Relationship between Cognitive Styles and Learning Strategies. *Higher Education Studies*, 1(1), 20–26. <https://doi.org/10.5539/hes.v1n1p20>
- Sternberg, R. J., & Williams, W. M. (2009). *Educational Psychology* (2nd Editio). Boston: Pearson.
- Sumantri, M. S., Supriyati, Y., & Nugroho, H. (2015). Pengaruh Kelekatan dan Self Esteem terhadap Kecerdasan Spiritual. *Pps UNJ*.
- Taylor, C. (2010). *A Practical Guide to Caring for Children and Teenagers with Attachment Difficulties*. London and Philadelphia: Jessica Kingsley Publishers.
- Uno, H. B. (2016). *Orientasi Baru Dalam Psikologi Pembelajaran*. Jakarta: Bumi Aksara.
- Waring, R., Liow, S. R., Eadie, P., & Dodd, B. (2019). *Speech development in preschool children : evaluating the contribution of phonological short-term and phonological working memory*. 1–21. <https://doi.org/10.1017/S0305000919000035>