THE EFFECT OF USING BIG BOOK MEDIA BASED ON PEER TUTORS TO STUDENTS’ COGNITIVE ABILITY OF MADRASAH IBTIDAIYAH

Umar Sulaiman¹, Hamsiah Djafar², Mihrani³, Chaerul Mundzir⁴
¹,²,³,⁴Universitas Islam Negeri (UIN) Alauddin Makassar
Email: umar.sulaiman@uin-alauddin.ac.id¹, hamsiah.djafar@uin-alauddin.ac.id², mihrania@gmail.com³, chaerul.mundzir@uin-alauddin.ac.id⁴

Abstract:
This research describes the effect of using Big Book media based on peer tutors to cognitive abilities in the fifth-grade students at MIN 1 Makassar. This research used quantitative methods with a pre-experimental design one-shot case study. The sample of this study was 57 fifth-grade students. The results of this research have been obtained. First, the use of Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar was in the good category with an average value in the interval 113-118. Second, the cognitive abilities were fairly high at intervals of 66-76. Third, the hypothesis test results using one sample t-test analysis indicated the effect of using Big Book media based on peer tutors on the students' cognitive abilities. Therefore, this study is expected to be a consideration for schools and teachers to use Big Book media to accommodate students' learning needs.

Keywords:
Big Book Media, Peer Tutors, Cognitive Ability


INTRODUCTION
Cognitive development is one aspect of studies included in developmental psychology's scope. Like other aspects of development, cognitive also develops step by step towards perfection or maturity. In simple terms, it is a child's ability to think more
complexly, reason, and solve problems (Marinda, 2020). Developed cognitive abilities make students easier to master other general knowledge so that they can carry out their functions in social interactions.

The theory of cognitive development by Jean Piaget explains that elementary school students aged 7 to 11 years are generally in the concrete operational stage. They can think logically about concrete events at this stage but cannot solve abstract problems. They can already classify concrete objects into groups (Trianingsih, 2016). The cognitive development of elementary students certainly cannot be equated with teenagers or adults because their cognitive abilities are still limited to abstract things. For example, they may understand that glass breaks if it hits the floor, but they cannot answer why it breaks scientifically.

Cognitive development occurs very rapidly in elementary school. Students learn to form concepts, see relationships, and solve problems involving concrete objects and familiar situations. However, they still have limitations in thinking about abstract things. Since elementary-age students do not yet have maturity in thinking, they still have limitations in choosing and sorting something positive or negative, which has a good or bad impact. Here is the important role of parents and teachers. Through them, students know something positive and negative. The good or bad of a student's development depends on meeting the needs he/she gets from other people, such as parents, teachers, and other individuals in his/her environment.

Cognitive development influences students' mental and emotional development and language skills. Students' attitudes and actions are also related to their thinking ability. Thus, cognitive development is a key to non-physical development (Bujuri, 2018). Success in cognitive development determines other aspects. Previous (cognitive) development will be the basis for further development. Vice versa, if there are obstacles to previous developments, then further developments will experience obstacles (Basri, 2018).

Elementary-age students need concrete objects and real situations/habits to implement in learning. Teachers must present real objects and learning situations as a method or media to make it easier for students to think logically, classify objects, form concepts, see relationships and solve problems. Four implications of Piaget's cognitive theory can be applied in education. First, teachers must care about students' thinking processes to obtain an idea. Second, teachers must provide a variety of activities that allow students to be actively involved with their initiative. Third, teachers should not emphasize learning activities that require students to think like adults. Fourth, teachers must care about each student's speed and level of cognitive development in carrying out a lesson so that he/she can learn optimally.

Learning activities can be used to develop cognitive abilities in early childhood and elementary-age students. Activities in teaching and learning should emphasize the development of cognitive structures by providing opportunities for students to be directly involved in various activities following integrated learning and containing meaning (Fardiah, Murwani, & Dhieni, 2022). Teachers need to understand students'
cognitive abilities in elementary school so that natural learning is organized according to
their cognitive abilities. Therefore, teachers must design their teaching by utilizing
various media types and appropriate learning resources so that the learning process runs
effectively and efficiently.

In reality, some teachers were still stuck using conventional learning. Various
innovative learning strategies were rarely applied, even though several learning methods
had been introduced to improve students' cognitive abilities (Nur, Hafina, & Rusmana,
2020). The same problem occurred at MIN (state Islamic elementary school) 1 Makassar.
Teachers of the fifth grade rarely use interesting learning media, which affects the low
learning outcomes of students.

Based on the results of preliminary observation conducted by researchers at MIN 1
Makassar, they saw and found several problems experienced by fifth-grade students. In
the learning process, they looked passive and only listened to teachers' explanations
without asking questions. In other words, students were less active in the classroom.
Their curiosity was low. When given exercises, the score obtained by students was low.
The fifth-grade teachers said many students still scored below the Minimum
Completeness Criteria. Researchers identified one of the causes of low student learning
outcomes was teachers who did not use interesting and creative learning media. As a
result, students were less enthusiastic about participating in learning activities. A very
influential factor in hindering the development of students' cognitive abilities is the
teachers' ability to convey material and their boring learning designs so that students'
interest in participating decreases.

From that problems, teachers should have more control over the learning material
and use varied and creative learning patterns, such as learning media, to awaken
students' cognitive abilities. Using media can attract students' attention, stimulate their
curiosity about learning, improve their cognitive abilities, and arouse their enthusiasm to
participate in learning activities to achieve learning objectives.

Choosing learning media must follow the students' cognitive development in the
fifth grade of elementary school. The use of learning media appropriate to students'
cognitive abilities and characteristics is expected to provide positive results in learning.
In addition, it is expected to create an active and participatory learning process so that
students can understand the learning material well. For this reason, teachers must be
able to choose and process effective learning media to achieve learning goals.

One learning media that teachers can use in the learning process is Big Book media.
According to USAID, Big Book is a learning medium in the form of reading books in a
large-size format equipped with large writing and pictures (Laily & Gunansyah, 2018).
Media Big Book is a medium that can improve students' cognitive abilities with its unique
and creative form to stimulate students' curiosity about learning (Pamela, 2019).
Students like Big Book learning media, and teachers can make it themselves. Big book
media contains short stories with large writing and image formats to attract attention
and arouse students' enthusiasm for reading, making it easier to understand the subject
matter.
Big book media is included in the picture book category. The use of picture books provides great benefits for students' learning. An image is a semiotic function halfway between symbolic play and mental image. By using picture books, it can be said that students have played symbolic games, which provide pleasure and autotelism, like mental images, to imitate reality (Kiromi & Fauziah, 2016). A Big Book is designed for a separate theme; each story has meaning and goals. It aims for students to get the meaning of reading from stories equipped with pictures where each picture is made in color, and the shape of the picture is interesting (Hadiana, Hadad, & Marlina, 2018).

This Big Book media is not only easier to make and design, but it is also easier for students to understand. In addition, big books have special characteristics such as colorful, predictable storylines and simple text patterns. A Big Book can be used for students through joint or group learning activities. It can also be a medium for increasing a good understanding of students as a whole because it allows them to work together to give meaning to the writing contained in it.

Previous research conducted by Prawiyogi, Latifatu, Purwanugraha, & Elisa (2021) found that Big Book media was successfully applied in the second grade to foster students' interest in reading. Using Big Book media makes students more active and enthusiastic in reading activities. Another study by Septiyan (2017) found that there was an influence of Big Book media on the students' speaking ability in group B of the Early Childhood Education Program of Spouse Group Association of Bengkulu Province, with the results of the analysis showing that $t_{\text{test}} > t_{\text{table}} = 5.437 > 2.145$. The same results were also obtained in the research of Adnan, Yamin, Aulia, & Kurniawati (2019) that there was an effect of using Big Book media in learning to read for the first-grade students at SDN 51 Banda Aceh. Therefore, from several previous studies, it is clear that Big Book media is highly recommended to improve student learning outcomes in cognitive aspects.

Students' learning activities using Big Book media can be maximized by utilizing the help of those who have high abilities. Teachers instruct students who have high abilities to guide students with low abilities. Such an activity is called learning by utilizing a peer tutor. It means students guide other students, or those who act as tutors (teachers) are students. Those who act as tutors are students who have strengths over others, meaning that they are smarter or understand the subject matter in certain subjects compared to other students (Febianti, 2014). Peer tutors make it easier for students to learn, participate actively in learning, and solve problems together, resulting in an equal distribution of students' abilities to the material being studied.

Based on the description, the researchers were interested in conducting research with the main problem related to finding “The Effect of Using Big Book Media based on Peer Tutors towards Cognitive Ability in the Fifth Grade Students of MIN 1 Makassar.” This main problem was expanded into several sub-problems, namely exploring the cognitive abilities and the effect of using Big Book media based on peer tutors on the cognitive abilities of the fifth-grade students of MIN 1 Makassar.
From the results of the literature review, there are several research articles related to this study. The first research was conducted by Puspaningrum, entitled *Pengaruh Penggunaan Media Big Book Terhadap Kemampuan Literasi Informasi Siswa Sekolah Dasar*. The result indicated an influence on the use of Big Book media in the experimental class that was given treatment (Puspaningrum, 2015). This research is similar to Puspaningrum’s because they are quantitative research using Big Book media with independent variables. The difference lies in the dependent variable, place, and time of research.

The next research by Retno, entitled *Kognitif, Afektif, dan Psikomotorik menurut Bloom: Perkembangan dan Peranan*, described the benefits of studying cognitive, affective, and psychomotor aspects. Using these three domains as a basis for teaching or educating students made them understand learning as a whole and simultaneously developed their emotional and motor abilities. It also helped teachers and educators to recognize the stage of each student’s ability to create instructions that lead to critical thinking skills. Learning without knowing the basic concepts or critical thinking skills was difficult to apply. The result only made students accustomed to recognizing theory without understanding its basics, making it difficult to apply in various situations (Retno, 2021). Thus, the cognitive abilities studied in this research were relevant as a scientific source for this research.

The third related research conducted by Dini, Chami, & Roosyanti (2019), entitled *Penerapan Media Big Book untuk Meningkatkan Keterampilan Membaca Permulaan Kelas I Subtema Benda Hidup dan Tak Hidup di Sekitar Kita di SDN Madyopuro 3 Malang*. The result indicated an increase in students’ reading activity and fluency in cycle II according to the learning steps using Big Book media. Dini’s contributed to this research as a scientific source for studying variables using Big Book media and students' cognitive abilities. The difference with this research lay in the type of research, location, time, and learning steps focused on the role of peer tutors.

The other research was conducted by Hafizah (2013), with the title *Pengaruh Metode Tutor Sebaya terhadap Hasil Belajar di Kelas V Sekolah Dasar Kota Pontianak*. The result indicated that learning by peer tutoring affected student learning outcomes in Indonesian language subject of the fifth grade of SDN 28 Pontianak City (Hafizah, 2013). This research was relevant to the use of peer tutors and cognitive abilities (learning outcomes) studied in this study, although they differ in location, time, and type of research.

The next related research finding was carried out by Jalil (2018), entitled *Perbandingan Media Mini Book dan Big Book terhadap Hasil Belajar Peserta Didik Kelas VI di Madrasah Ibtidaiyah Al-Abrar Kota Makassar*. The result indicated that learning outcomes in mathematics of the fifth-grade students of Madrasah Ibtidaiyah Al-Abrar Makassar City increased by 11.95 from 66.12 to 78.07 after using Big Book media (Jalil, 2018). This research was relevant to using Big Book media in this study. Although they differed in the context of variables, location, and study time, Jalil’s findings contributed as a scientific resource to this research.
Those several studies mentioned previously show relevance to the problems of this study. The differences were the context of the method, time, location, and object of research, so other researchers had not studied this research.

This research entitled "The effect of Using Big Book Media based on Peer Tutors to Students’ Cognitive Abilities in the Fifth-Grade at MIN 1 Makassar" is expected to describe the use of Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar. In addition, this research also described the cognitive abilities of the fifth-grade students in MIN 1 Makassar. Therefore, the results of this research presented whether there was an effect of using Big Book media based on peer tutors on the cognitive abilities of the fifth-grade students in MIN 1 Makassar. The results of this study made a significant contribution to the options of strategy and learning media for students, especially in strengthening the cognitive abilities of students at the elementary school level.

RESEARCH METHOD

This research used quantitative methods with a pre-experimental design one-shot case study. This design is an experimental study in which a group is given treatment, and the results are analyzed (Sugiyono, 2009). In the pre-experimental design one-shot case study, the researchers treated the variable studied to get data from numbers obtained empirically and systematically, then analyzed the data.

The research was conducted at Madrasa Ibtidaiyah Negeri (MIN) 1 Makassar. MIN 1 Makassar was selected because the research location is a religion-based school in great demand by the community. The population in this study were all fifth-grade students at MIN 1 Makassar for the 2021/2022 academic year, consisting of 57 students. The sampling technique used in this research was a saturated sample, meaning that the 57 samples are also the study population (Sugiyono, 2009). Fifth-grade students were taken as a sample because they could use Big Book media. In addition, they can collaborate with peer tutors. At the same time, the sixth-grade students were not used as a sample because they took the final school exams.

The independent variable in this study was the use of Big Book media based on peer tutors. Then, the dependent variable was students’ cognitive ability, as follows:

![Research Design](image)

Data collection techniques used in this study were a questionnaire and a test. The questionnaire used the Likert scale with four alternative answers, which were 4, 3, 2, and 1 for the positive statements and 1, 2, 3, and 4 for the negative statements (Sugiyono, 2010). Students taught using Big Book media based on peer tutors were given the
questionnaire to measure their learning experiences using Big Book media based on peer tutors. Then, a cognitive ability test was used to obtain data on the students' cognitive abilities. The test was in the form of multiple choice with four answer choices. The number of questions was 20 items. The total score obtained is 100 by converting the number of respondents' answers. The test was based on the material taught using Big Book media based on peer tutors, namely theme nine (objects around us) for the fifth-grade students with sub-theme one (single and mixed objects) (Siregar, 2014).

Items of questions/statements contained in research instruments are validated internally. Those items were then submitted to an expert to be corrected before being used as valid data collection instruments (Sugiyono, 2009). Furthermore, researchers used descriptive and inferential statistical analysis to analyze the data. The descriptive statistical analysis aims to describe the variable data studied, including the average, maximum score, minimum score, standard deviation, frequency distribution table, percentage, and histogram of each variable. Inferential statistical analysis analyzes sample data whose results are applied to the population (USAID, 2014). Inferential statistical analysis is intended to test research hypotheses. However, before testing the hypothesis, a requirements test (classical assumption test) is first carried out, including the normality test, linearity test, and simple regression equation analysis.

**RESULTS AND DISCUSSION**

**A. Results**

The data on using Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar was obtained through a questionnaire. Based on the analysis data, the highest score was 122, and the lowest was 101. Then, based on the result of descriptive statistical analysis, the average was 113.52; the standard deviation was 5.87; the mode was 121; and the median was 113.

The categorization was carried out to describe the use of Big Book media based on peer tutors. The results of the categorization are presented in Table 4.1 as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Categorization</th>
<th>Interval</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Very Good</td>
<td>119 – 124</td>
<td>13</td>
<td>22.8</td>
</tr>
<tr>
<td>2.</td>
<td>Good</td>
<td>113 – 118</td>
<td>18</td>
<td>31.58</td>
</tr>
<tr>
<td>3.</td>
<td>Fair</td>
<td>107 – 112</td>
<td>19</td>
<td>33.34</td>
</tr>
<tr>
<td>4.</td>
<td>Poor</td>
<td>101 – 106</td>
<td>7</td>
<td>12.28</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>57</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Research Result, 2022

Furthermore, to clarify the description of data categorization of the use of Big Book media based on peer tutors, a bar chart is presented as shown in Figure 4.1 as follows:
The data presented in Table 1 and Figure 2 shows the results of using Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar. There were 18 students, or 31.58%, in a good category. While in the poor category, there were seven students, or 12.28%. Nineteen students (33.34%) were in the fair category, and 13 (22.8%) were in the very good category. Based on the results of this descriptive analysis, it was indicated that the use of Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar was generally included in the good category. This was proved by the average value of 113.52, which was in the good category.

Inferential data analysis was done to test the research hypothesis. Hypothesis testing was carried out using the SPSS for Windows application. Before testing the hypothesis, the prerequisite tests, such as normality and linearity tests, were carried out.

The normality test used was the Kolmogorov-Smirnov using the SPSS for Windows program. The data tested for normality were data on using Big Book media based on peer tutors (X) and data on students' cognitive abilities (Y). The results of the normality test are presented in Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig. Value</th>
<th>α</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The use of Big Book media based on peer tutors.</td>
<td>0.072</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>2. The students’ cognitive abilities.</td>
<td>0.060</td>
<td>0.05</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Source: Research Result, 2022

Based on Table 2, the sig value for data on using Big Book media based on peer tutors was 0.072. The sig value for data on students’ cognitive abilities was 0.060. The results of the normality test indicated that \( \text{sig} \geq \alpha (\alpha = 0.05) \). Thus, it can be said that the data on using big book media based on peer tutors and students' cognitive abilities came from populations with normal distribution.

The linearity test used was the SPSS for the Windows application. The results of the linearity test are presented in Table 3 as follows:

<table>
<thead>
<tr>
<th>Linear Relation</th>
<th>( \text{Sig. Value} )</th>
<th>α</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linearity between students’ cognitive abilities (Y) on the use of Big Book media based on peer tutors (X).</td>
<td>0.573</td>
<td>0.05</td>
<td>Linear</td>
</tr>
</tbody>
</table>

Source: Research Result, 2022
Based on Table 3, the $\text{sig}$ value in the linearity test between students' cognitive abilities ($Y$) and the use of Big Book media based on peer tutors ($X$) was 0.573. The results of the linearity test indicated that $\text{sig} \geq \alpha (0.573 > 0.05)$. Thus, it can be interpreted that the cognitive ability of students ($Y$) and the use of Big Book media based on peer tutors ($X$) was linear (forming a straight line).

Analysis of the simple regression equation using SPSS for Windows obtained the form of a simple regression equation between the students' cognitive ability variables ($Y$) and the variable use of Big Book media based on peer tutors ($X$), namely as follows:

\[ \hat{Y} = 1.155X - 55.810. \]

The equation above shows that the variable use of Big Book media based on peer tutors ($X$) has a relationship with the cognitive ability variable of students ($Y$). That is, if the variable of the use of Big Book media based on peer tutors ($X$) experiences an increase, then the cognitive ability variable ($Y$) also experiences an increase of 1.155. Therefore, the hypothesis in this study is as follows:

$H_0$: There was no effect of using Big Book media based on peer tutors on the students' cognitive abilities in the fifth-grade students of MIN 1 Makassar.

$H_1$: There was an effect of using Big Book media based on peer tutors on the students' cognitive abilities in the fifth-grade students of MIN 1 Makassar.

The test criteria focus on the output of data analysis. If $-t_{\text{table}} \leq t_{\text{test}} \leq t_{\text{table}}$ then $H_0$ is accepted. While, if $-t_{\text{test}} < -t_{\text{table}}$ or $t_{\text{test}} > t_{\text{table}}$, then $H_0$ rejected. Decision-making criteria can also be reached by comparing the $\text{sig}$ value with $\alpha = 0.05$. If the $\text{sig} < \alpha = 0.05$ then $H_0$ is rejected, and $H_1$ is accepted. However, if the opposite occurs, the value is $\text{sig} > \alpha = 0.05$ then $H_0$ is accepted, $H_1$ is rejected. The results of hypothesis testing using the one-sample t-test are presented in Table 4 as follows:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$t_{\text{hitung}}$</th>
<th>$t_{\text{table}}$</th>
<th>$\text{Sig.}$</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effect of using Big Book media based on peer tutors on the students' cognitive abilities in the fifth-grade students of MIN 1 Makassar</td>
<td>6.723</td>
<td>2.00324</td>
<td>0.000</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Explanation: $t_{\text{test}} = 6.723 > t_{\text{table}} = 2.00324$ $\text{sig} = 0.000 < \alpha = 0.05$

Result: $H_0$ Rejected, $H_1$ accepted

Source: Research Result, 2022

Based on the results of data analysis with the help of the SPSS for Windows application, the value was obtained $t_{\text{test}} = 6.723$. While the value of $t_{\text{table}}$ for 57 samples, and $\alpha = 0.05$ was $t_{\text{table}} = 2.00324$ because $t_{\text{test}} = 6.723 > t_{\text{table}} = 2.00324$, then $H_0$ was rejected, $H_1$ was accepted. The $\text{sig}$ value = 0.000 $< \alpha = 0.05$ was also obtained so that $H_0$ was rejected, and $H_1$ was accepted. The results of this analysis indicated an effect of using Big Book media based on peer tutors. 

The Effect of Using Big Book Media Based on Peer (Umar S., Hamsiah D., Mihrani, & Chaerul M.) 53
on the students’ cognitive abilities of students in the fifth-grade students of MIN 1 Makassar.

B. Discussion

1. The Use of Big Book Media Based on Peer Tutors in the Fifth Grade Students of MIN 1 Makassar

Data on the use of Big Book media based on peer tutors were obtained through a questionnaire of 57 fifth-grade students in MIN 1 Makassar. Big book media based on peer tutors is the learning media containing short stories with large-sized writing and image formats to attract attention and arouse students' enthusiasm for reading. It was easier for students to understand the subject matter, then maximized its use by utilizing the help of students with high abilities to guide those with low abilities. The results of the descriptive analysis indicated that the average value of using Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar City was 113.52. It was in a good category with a frequency of 18 or 31.58%. This result means that the fifth-grade teachers of MIN 1 Makassar were generally in a good category when applying/using Big Book media based on peer tutors in teaching especially on the material theme 9 (objects around) and sub-theme 1 (single and mixed objects).

The use of Big Book media based on peer tutors made students actively participate and interact with each other in class. This was following one of the goals of using big books in learning, namely involving students actively in learning (USAID, 2014). In addition, the involvement of peer tutors in learning created interactions among students, as well as interactions between students with teachers. The forms of interaction in learning using Big Book media based on peer tutors included cooperation, competition, and disagreement. These were social interactions that occurred in the school environment. Social interaction is a relationship between two or more human individuals where the behavior of one individual influences, changes or improves the other individual or vice versa. In line with this, a sociologist from Canada named Erving Goffman argued that society was formed because of interactions among its members. Without interaction, it was not easy to understand the social world. At this point, an interaction was an action that lay at a practical level, not just theoretical (Xiao, 2018). This is also following one of the sociological theories, namely dramaturgy theory. It is a sociological theory that understands the social world through social interaction. In the process of social interaction, self-concept is formed through interaction with other people in certain social situations (UNJ, 2022). Thus, it is clear that using Big Book media based on peer tutors can create an active learning atmosphere because there is interaction between the tutor and trainee and between teachers and other students.

2. Cognitive Abilities of the Fifth-Grade Students in MIN 1 Makassar

The cognitive abilities of the fifth-grade students in MIN 1 Makassar after learning using Big Book media based on peer tutors are generally quite high. This is proven through a descriptive analysis of students’ cognitive ability tests, which shows that the
average score obtained by students is 75.19. The average value is in the fairly high category.

Cognitive ability is the achievement/ability of individuals or groups that can be observed as a result or process of acquiring knowledge through learning experiences. Cognitive abilities develop gradually, in line with physical development and the nerves in the center of the nervous system. One of the influential theories in explaining cognitive development is Piaget’s theory (Abdurrahman, 2012). Piaget suggests the phases of cognitive development based on two perspectives: structuralism and constructivism.

The structural side states that intelligence or cognitive abilities develop through a series of development stages marked by the development of the quality of the cognitive structure. The constructive side states that students build cognitive abilities through interactions with the world around them. Piaget likens students to researchers who are always busy building theories about the world through their interactions with their surroundings. The results of this interaction form a cognitive structure or schemata that starts with forming a logical thinking structure, then develops into a generalization of general conclusions. Piaget divides cognitive development into four phases, namely the sensorimotor phase (age 0-2 years), the pre-operational phase (age 2-7 years), the concrete operational phase (age 7-12 years), and the formal operational phase (age 12 years to adulthood) (Hidayati & Purnami, 2008). Therefore, students’ cognitive abilities of a learner are determined by their experience of interaction in the environment, such as the interaction in the classroom between fellow students and teachers.

3. The Effect of Using Big Book Media Based on Peer Tutors towards Cognitive Ability in the Fifth Grade Students of MIN 1 Makassar

Based on the results of hypothesis testing that has been done, it is concluded that there is an effect of using Big Book media based on peer tutors on the cognitive abilities of the fifth-grade students in MIN 1 Makassar.

The results of this study are supported by Andriana, Syachruroci, Alamsyah, & Sumirat (2017), who stated that one of the media that could increase students’ interest and reading skills was Big Book. It means that one of the media that can increase students’ interest and reading skills is Big Book.

Students’ cognitive abilities in learning can be developed through reading activities. Chong stated:

“The success of learning in schools is measured in reading, writing, listening and speaking skills, so being a teacher's important concern in language skills, especially reading, is an important tool for academic success.”

The success of learning in schools is measured by reading, writing, listening, and speaking skills. It becomes an important concern for a teacher in language skills, especially since reading is an important tool for academic success. Thus, Big Book media based on peer tutors used in this study is felt directly by students and can attract students’ attention to participate in learning.
Murphy, as quoted by Eliyasni, Habibi, & Sukma (2019), states that:

"Big Book Media can quickly attract students' interest because the pictures inside contain interesting rhythms for students. They have repetitive writing, vocabulary that is easy to understand, and predictable storylines."

That statement implies that Big Book media can quickly attract students' interest because the pictures in it contain rhythms that are interesting to students. Big books have repetitive writing, easy-to-understand vocabulary, and predictable storylines.

The use of Big Book media can be maximized with the help of peer tutors. Mutual respect and understanding are fostered among students who work together in groups. Students involved as tutors for their peers feel proud of their role and learn from their experiences. They feel responsible for what is imposed on them. Students who get assistance from their tutors develop better abilities to listen, concentrate, and understand what is learned meaningfully.

Syaiful Bahri Djamarah, as quoted by Febianti (2014), stated that peer tutors were appropriate for student participation as a whole and individually. This strategy allows each student to act as a teacher for his/her friends. With this strategy, students who have not wanted to be involved actively participate in learning. In addition, studying together in groups with peer tutors is one of the characteristics of competency-based learning. Students become active in learning through interacting and communicating with peer tutors. These activities increase cooperation between students and ultimately positively impact student competence. Lie (2004) emphasized that teaching by peer tutors is more effective than teaching by teachers. Due to the background, the schemata experiences of students are similar to one another compared to the teacher's schemata. The results of this study are also in line with one of the sociological theories, namely the symbolic interactionism theory.

Symbolic interactionism theory has the basic principle that humans can think, and their thoughts are shaped by social interaction. In the interaction process, a person learns meanings and symbols that lead to the capacity to be different from others (UNJ, 2022). This theory emphasizes the influence of peer tutors on students' cognitive abilities. Each student has different abilities from others. The existence of peer tutors creates interaction between fellow students who help each other. Students who have understood the lesson teach others. Conversely, students who do not understand ask questions to smart students, and interaction between them ultimately forms an understanding of a concept being studied.

CONCLUSION

Based on the analysis data of the instruments of using Big Book media based on peer tutors and students' cognitive abilities, which were analyzed descriptively and inferentially, research conclusions are as follows: First, generally, the use of Big Book media based on peer tutors in the fifth-grade students of MIN 1 Makassar was in the good category. The average value of Big Book media based on peer tutors was 113.52, included
in the 113-118 interval, which was the good category. Second, generally, the cognitive abilities of the fifth-grade students of MIN 1 Makassar were in the fairly high category. The average value of the students' cognitive ability was 75.19 in the 66-76 interval, with a fairly high category. Third, the results of hypothesis testing using the one sample t-test analysis showed an effect of Big Book media based on peer tutors on cognitive abilities in the fifth-grade students of MIN 1 Makassar. Based on the results of data analysis with the help of the SPSS for Windows application, the value $t_{test} = 6.723$ was obtained. While the values $t_{test}$ for 57 samples, $\alpha = 0.05$, and $t_{table} = 2.00324$. Because $t_{test} = 6.723 > t_{table} = 2.00324$ were also obtained, then $\text{sig} = 0.000 < \alpha = 0.05$. Based on the results of this study, it was found that using Big Book media based on peer tutors affected students' cognitive abilities. Therefore, it was suggested that teachers use Big Book media based on peer tutors in teaching.

REFERENCES


