

# The Effectiveness of Picture Storybooks for Flood Disaster Emergency Drill for Children Aged 5-6 Years

Rezki Rahmadona<sup>1</sup>, Sean Marta Efastri<sup>2</sup>, Azlin Atika Putri<sup>3</sup>

<sup>1</sup> Lancang Kuning University; [rezirahmarezki@gmail.com](mailto:rezirahmarezki@gmail.com)

<sup>2</sup> Lancang Kuning University; [seanmarta@unilak.ac.id](mailto:seanmarta@unilak.ac.id)

<sup>3</sup> Lancang Kuning University; [azlin@unilak.ac.id](mailto:azlin@unilak.ac.id)

## ARTICLE INFO

### Keywords:

keyword 1; Flood Disaster  
keyword 2; Emergency Drill  
keyword 3; Picture Storybook  
keyword 4; ECCE

### Article history:

Received 2024-05-03

Revised 2024-08-20

Accepted 2024-10-15

## ABSTRACT

This study was conducted with the aim of determining the effectiveness of picture story books on the understanding of children aged 5-6 years about flood relief emergency drills in Raudhatul Athfal Ar-Razzaq. This study uses the Pre-Experiment design experimental method with the type of One-Group Pretest-Posttest Design, the design of this method is to find out how much influence an equivalent sample has. The data obtained produces statistical t with a calculated t value of 18,326 and sig.  $0.000 \leq 0.05$  means significance data. Based on the results that have been described, it can be concluded that there is an effectiveness of picture story books in children's understanding of flood disaster emergency drills for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq.

*This is an open access article under the [CC BY-NC-SA](https://creativecommons.org/licenses/by-nc-sa/4.0/) license.*



## Corresponding Author:

Rezki Rahmadona

Lancang Kuning University 1; [rezirahmarezki@gmail.com](mailto:rezirahmarezki@gmail.com)

## 1. INTRODUCTION

Natural disasters are a series of bad events or events caused by various things that cause tremendous pressure to humans due to such complicated damage (Nasrullah et al., 2021). Riau Province is one of the areas prone to flooding, especially the city of Pekanbaru which has many rivers. Flood disasters can occur due to high rainfall and are interspersed with the accumulation of garbage from irresponsible human bad behavior that causes the flow of the river to be hampered and makes river water overflow to the surrounding residents' homes.

Flood disaster is a natural disaster that can threaten humans so that it costs so many lives without exception affecting children, as well as in areas close to rivers that have the potential to be affected by floods with a very high chance. Flood disasters can cause various kinds of losses, namely disturbing and damaging the environmental order, material losses, psychological disturbances of a person, to casualties. Post-disaster education often serves as a source of psychological support, addressing mental health, coping mechanisms, and overall student well-being and this role of education can emerge as a representation of community recovery after a disaster. In addition, it plays a crucial role in facilitating survival and normal recovery after substantial trauma (Arici et al., 2023). Therefore, the importance of creating a safe and healthy environment applies to physical security, health, education and basic rights of children (A. A. Putri et al., 2023).

Based on this, it is important to have a good understanding and knowledge of the implementation of flood emergency management simulations that can be equipped from an early age. As in (Efastri & Wahyuni, 2023) stated that education about flood disasters, both in the form of disaster mitigation education and others, can be carried out by educators, namely in collaboration with the service team by providing directions and rules that children must do to be safe by applying a responsive attitude to face flood disasters. By facilitating the involvement of children and youth in disaster risk reduction within the educational framework not only strengthens current resilience but also contributes to long-term sustainability (Wang & Han, 2023).

Seeing this, we need to recognize awareness and knowledge about *flood disaster emergency drills* for early childhood. Especially in areas that are prone to flooding such as Pekanbaru City, where kindergarten (ECCE) teachers in the city of Pekanbaru still do not have much knowledge about flood disaster management which is caused by access to conduct training on flood disaster management and self-rescue from flood disasters is still very limited. Disaster education seeks to equip individuals and communities with the necessary knowledge, skills, and motivation to engage in proactive measures that mitigate their susceptibility to disasters. (Cvetkovi, 2024). The introduction of *flood disaster emergency drills* for early childhood can be based on the efforts of an educator to teach about the steps to carry out flood disaster training that can be used through the media of picture storybooks by applying simulations. Enhancing the well-being of individuals contributes significantly to better educational results and bolsters the resilience of communities. Educators are pivotal not only in imparting knowledge to the youth but also in fostering the strength and adaptability of the community (Fu & Id, 2024). The results of learning from educators will later have an impact on students on their understanding of disaster simulations that they know. Therefore, function and duty of an educator commence with the development of the child, starting from the moment of birth. This is crucial as it is during this period that the child begins to encounter various external stimuli that significantly influence their growth and learning (Fitriani et al., 2024).

The researcher have conducted observations and interviews with educators in one of the Pekanbaru kindergartens regarding *flood disaster emergency drills* through picture book media by applying simulations for early childhood, from the results of interviews that the application of *flood disaster emergency drills* through storybook media by applying simulation methods has never been implemented. The causes are (1) there has been no flood disaster training debriefing, (2) educators have never applied simulations in the learning process after using picture story books, and (3) inadequate facilities to implement simulations and storybooks about flood preparedness. While the city of Pekanbaru is prone to flooding, it needs to be prevented before it happens, in the way described in (Park et al., 2024) that an individual or group needs to be able to consider the implications of the application of scientific knowledge and the problems it may pose to themselves or the wider community. Based on this, the researcher has an interest in conducting research on the effectiveness of picture story books to introduce *flood disaster emergency training measures* for children aged 5-6 years.

## 2. METHODS

Research design is a series arranged systematically or planned to carry out research activities in obtaining the data needed from various sources and reviewing them in detail from the facts found, then drawing conclusions. This study used quantitative research methods. According to (Sugiyono, 2013) quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, quantitative data analysis, with the aim of testing hypotheses that have been set. According to (Hikmawati, 2020) the experimental

method as a research method used to seek the effectiveness of certain treatments against others under controlled conditions. This research uses the Pre-Experimental Design experimental method *with* the type of *One-Group Pretest-Posttest Design*. The design of this method is to determine the effectiveness of picture story books on children's understanding of *flood disaster emergency drills* for children aged 5-6 years. Population is an area consisting of objects that have certain qualities and characteristics determined by research to be studied and then drawn conclusions (Rachmawati, 2022) The population in this study was class B Ali learners in Raudhatul Athfal Ar-Razzaq. According to Yusuf's opinion in (Reswita & Wahyuni, 2018a) samples are part of the number and characteristics possessed by the population. In an effort to determine the size of the sample taken from the population, the sample studied in this study uses *non-probability sampling* techniques. Researchers use a type of *total sampling technique*, namely a sample collection technique taken from all members of the population (Sugiyono, 2013) The parameter of this study is to determine the results of the *posttest* of children's understanding of *flood disaster emergency drills* using digital-based picture storybook media which is strengthened through a simulation approach for children aged 5-6 in class B Ali Raudhatul Athfal Ar-Razzaq Pekanbaru.

Table 1. Development Assessment Criteria

| No | Questions about Children's Understanding of Flood Disaster Emergency Drill                                                                                                           | BB | MB | BSH | BSB |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|-----|
| 1  | Can children dispose of waste according to the trash can (inorganic and organic) to prevent flooding?                                                                                |    |    |     |     |
| 2  | Is the child able to prepare a standby bag? (drinking bottles, clothes, food, names, toiletries, and flashlights)."                                                                  |    |    |     |     |
| 3  | Do children understand symbols/images such as evacuation routes, gathering points, types of garbage cans, may/cannot dispose of garbage, flood-prone areas, and evacuation shelters? |    |    |     |     |
| 4  | Does the child know what to avoid during a flood? (water currents, electricity poles, and trees that can collapse).                                                                  |    |    |     |     |
| 5  | Does the child know who to ask for help during a flood? (BNPB members, and other adults).                                                                                            |    |    |     |     |
| 6  | Does the child know what tools to use during floods? (tents, boats, and standby bags).                                                                                               |    |    |     |     |
| 7  | Do children know how to maintain personal hygiene after a flood? (do not play flood water, drink clean water, and diligently wash hands).                                            |    |    |     |     |
| 8  | Do children know how to keep the environment clean after a flood? (cleaning up flooded areas).                                                                                       |    |    |     |     |

Source: (Hasbi et al., 2019)

The assessment instrument that the researchers used is a type of Likert scale. The *Likert* scale is a tool for measuring perceptions, attitudes or opinions of a person or in a group about an event or social phenomenon (Sugiyono, 2013) Analysis of observations was used to determine the effectiveness of picture storybooks for *flood disaster emergency drills* for children aged 5-6 years. Data analysis techniques in this study apply descriptive statistical analysis and inferential statistical analysis. Descriptive statistics is statistics that serves to

describe objects studied through sample or population data without conducting analysis and making conclusions that apply to the public, while inferential statistics is a statistical technique that is generally used to analyze sample data and the results are applied to the population (Sugiyono, 2013) Children's understanding of *flood disaster emergency drills* using digital-based picture storybook media can be calculated based on observation data that has been studied and then the assessment results are sought. Activities in analyzing data are grouping data based on variables and types of respondents, presenting the data under study and doing calculations to test the hypotheses that have been proposed. In order to find out the results of the hypothesis test, you can use the t test using the SPSS ver.25.0 application.

### 3. FINDINGS AND DISCUSSION

Researchers can see the effectiveness or influence of digital-based picture book media regarding *flood disaster emergency drills* for children aged 5-6 years. In the initial stage, researchers conducted data analysis, data analysis was carried out by managing paired *t-test* statistical data with the help of the SPSS ver.25.0 application. The *paired t-test* data management technique is used to test the difference between before and after action on the same variable. This study had 2 tests consisting of *pretest* and *posttest* in group 1 class, namely children aged 5-6 years in class B Ali Raudhatul Athfal Ar-Razzaq. This study aims to determine whether the use of picture story books is effective for *flood disaster emergency drills* for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq Pekanbaru which can be known by obtaining data after conducting research. Taking to obtain data from this study, researchers used observational data collection techniques on 18 children. Subjects were observed based on indicators of the effectiveness of picture storybooks for *flood disaster emergency drills* for children aged 5-6 years before (*pretest*) and after treatment (*posttest*). Giving an average assessment of the number of indicator scores for each child and the overall score of each child, where the highest score is 4 and the lowest score is 1, researchers use the following value conversion:

BB value = if final result 1.00-1.49

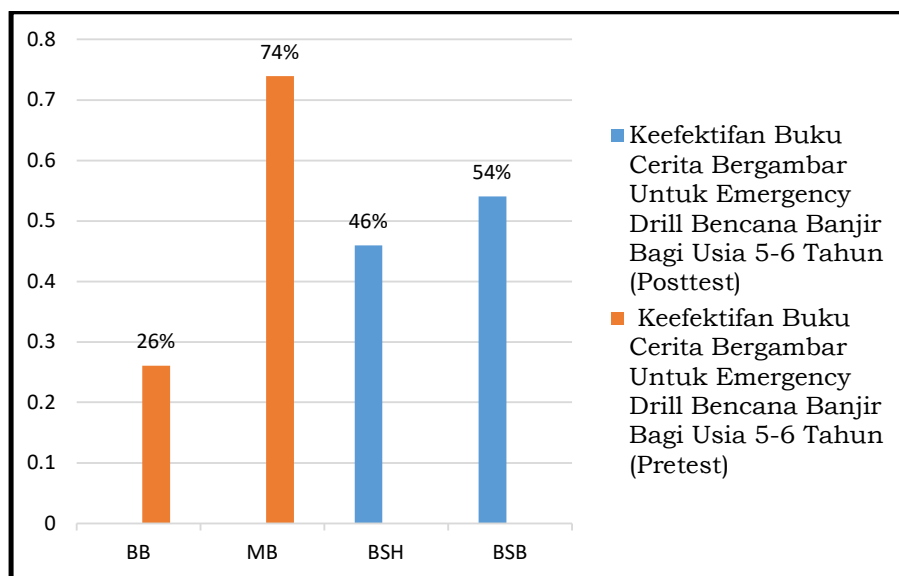
MB value = if final result 1.50-2.49

BSH value = if final result 2.50-3.49

BSB value = if final result 3.50-4.00

Table 2. Recapitulation of Pretest and Posttest Data

| No                   | Name   | Pretest |         |          | Posttest |         |          |
|----------------------|--------|---------|---------|----------|----------|---------|----------|
|                      |        | Sum     | Average | Category | Sum      | Average | Category |
| 1                    | Kid 1  | 15      | 1.88    | MB       | 32       | 4.00    | BSB      |
| 2                    | Kid 2  | 16      | 2.00    | MB       | 22       | 2.75    | BSH      |
| 3                    | Kid 3  | 15      | 1.88    | MB       | 27       | 3.38    | BSH      |
| 4                    | Kid 4  | 14      | 1.75    | MB       | 29       | 3.63    | BSB      |
| 5                    | Kid 5  | 14      | 1.75    | MB       | 25       | 3.13    | BSH      |
| 6                    | Kid 6  | 12      | 1.50    | MB       | 25       | 3.13    | BSH      |
| 7                    | Kid 7  | 11      | 1.38    | BB       | 28       | 3.50    | BSB      |
| 8                    | Kid 8  | 8       | 1.00    | BB       | 27       | 3.38    | BSH      |
| 9                    | Kid 9  | 12      | 1.50    | MB       | 28       | 3.50    | BSB      |
| 10                   | Kid 10 | 11      | 1.38    | BB       | 27       | 3.38    | BSH      |
| 11                   | Kid 11 | 17      | 2.13    | MB       | 31       | 3.88    | BSB      |
| 12                   | Kid 12 | 11      | 1.38    | BB       | 24       | 3.00    | BSH      |
| 13                   | Kid 13 | 14      | 1.75    | MB       | 31       | 3.88    | BSB      |
| 14                   | Kid 14 | 10      | 1.25    | BB       | 23       | 2.88    | BSH      |
| 15                   | Kid 15 | 12      | 1.50    | MB       | 31       | 3.88    | BSB      |
| 16                   | Kid 16 | 14      | 1.75    | MB       | 27       | 3.38    | BSH      |
| 17                   | Kid 17 | 15      | 1.88    | MB       | 28       | 3.50    | BSB      |
| 18                   | Kid 18 | 9       | 1.13    | BB       | 29       | 3.63    | BSB      |
| <b>Sum</b>           |        | 230     | 28.75   |          | 494      | 61.75   |          |
| <b>Average</b>       |        | 13      | 1.60    | MB       | 27       | 3.43    | BSH      |
| <b>Stage Maximum</b> |        | 17      | 2.13    | BSH      | 32       | 4.00    | BSB      |



Picture 1.1 Comparison of Pretest and Posttest Results

Based on the figure above on the effectiveness of picture storybooks for flood disaster emergency drills, the percentage obtained with the Undeveloped (BB) child category is 26% (pretest) and 0% (posttest), the Starting to Develop (MB) child category is 74% (pretest) and 0% (posttest), the Developing According to Expectations (BSH) child category is 0% (pretest) and 46% (posttest), the Very Good Development (BSB) child category is 0% (pretest) and 54% (posttest). Furthermore, testing the hypothesis used in the pre-experimental research design of one group pretest-posttest, namely using the t-test method (paired t-test) because in this study there are independent equivalents that are interrelated (Sugiyono, 2019). Before performing the t-test, a normality test is carried out as a condition for using t-test analysis.

Table 3. Normality Test Results

|                 | <i>Shapiro -Wilk</i> |    |      |
|-----------------|----------------------|----|------|
|                 | Statistic            | df | Sig. |
| <b>Pretest</b>  | .962                 | 18 | .639 |
| <b>Posttest</b> | .958                 | 18 | .556 |

The normality test is used to determine whether the data is normally distributed or not, if the normal data can continue with the t-test and if the data is abnormal then proceed with the Wicoxon test. The test was conducted with SPSS ver.25.0 application support. From the results of processing the data of this study, the normality test that is normally distributed which can be seen from the test table of normality and because  $N < 30$  samples then look at shapiro-wilk where if the Sig value  $> 0.05$  means normal distribution, then the researcher continues on parametric stastitics by doing a t-test (paired t-test).

Table 1 Hypothesis Test Results

| Paired Differences |                   |                       |                                                 |        |        |    |                     |
|--------------------|-------------------|-----------------------|-------------------------------------------------|--------|--------|----|---------------------|
| Mean               | Std.<br>Deviation | Std.<br>Error<br>Mean | 95% Confidence<br>Interval of the<br>Difference |        | T      | df | Sig. (2-<br>tailed) |
|                    |                   |                       | Lower                                           | Upper  |        |    |                     |
| 14.667             | 3.395             | .800                  | 16.355                                          | 12.978 | 18.326 | 17 | .000                |

Ha : There is effectiveness between picture story books and children's understanding of *flood disaster emergency drills* for children aged 5-6 years.

H0 : There is no effectiveness between picture story books and children's understanding of *flood disaster emergency drills* for children aged 5-6 years.

After qualifying with the normality test first and being declared normal, the next step is to test the hypothesis, in this study to test the hypothesis using *paired t-test* with the help of SPSS ver 25.0. The aim is to measure whether there is a difference before and after applying picture books to the understanding of *flood disaster emergency drills* for children aged 5-6 years. Based on the table above, the results of statistical tests with Sig. (2-tailed) results of  $0.000 < 0.05$ , then as the basis for decision making can be interpreted that H0 is rejected and Ha is accepted. So it can be concluded that there is an average difference between the understanding of *pretest* and *posttest* flood disaster emergency drills. Which means that there is an effectiveness in using picture story books for *flood disaster emergency drills* for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq. Individual disaster preparedness can prevent severe damage, injury, and death during and after a disaster. As explained in (Fazeli et al., 2024) an individual training and education prepares people to react better and make decisions to deal with the different phases of natural disasters, from responding to disaster warnings to the evacuation process. Increasing the knowledge of each community member about natural disaster emergencies facilitates and promotes the entire community experience, which ultimately increases community resilience.

Based on the results of data processing and hypothesis testing that has been described previously to get the results of alternative hypotheses (Ha) accepted, this can be interpreted that "There is effectiveness between picture story books and children's understanding of flood disaster emergency drills for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq Pekanbaru". The difference in children's understanding of flood disaster emergency drills can be seen from the pretest and posttest results where there is a change in pretest scores after being given treatment. When researchers conducted a pretest on flood disaster emergency drills using picture story books for children aged 5-6 years, it turned out that children still did not know about flood disaster emergency drills. Therefore, when providing treatment or simulation, researchers choose the appropriate approach to provide an understanding of flood disaster emergency drills in the form of picture story books (Reswita & Wahyuni, 2018b; Wahyuni et al., 2021, 2022, 2023; Wahyuni, Fadilah, et al., 2020; Wahyuni, Reswita, et al., 2020, 2020; Wahyuni & Rizkizaputra, 2023). In disaster education, schools as a component of society have a strategic role in preparing young people from an early age to better understand natural disasters, their mitigation, and resilience (Rahmawati, 2023), because providing knowledge about flood disaster emergency drills for early childhood is very important to convey in order to become disaster-resilient children in accordance with (Hasbi et al., 2019). That it is important to provide provisions on flood disaster preparedness from early childhood, as draw on (Andreassen & Villanger, 2024) the emergency preparedness exercises are vital to ensure that personnel and responders are adequately trained to perform the tasks required of them during emergencies

In order for learning material to be achieved in accordance with developmental expectations, researchers use learning media for each treatment such as picture story books, where the picture story books presented adjust the material about flood disaster emergency drills in accordance with early childhood understanding. Hurlock in (Adipta et al., 2016) revealed that children like picture story books because of the following: (1) children get a good opportunity to gain new knowledge, (2) through picture story books can grow their imagination, (3) picture story books make it easier for children to understand by thinking through pictures that are interesting for children to see, (4) picture story books for early childhood can be easily understood because they use straightforward and concise language, and (5) picture story books attract children's attention because they are spiked with interesting colors. Therefore, researchers delivered flood disaster emergency drill material to early childhood using picture storybooks and reinforced with simulations. Using child-centered picture storybooks in the learning process makes children active, especially added by applying simulation play according to the storybook discussed which aims to help children who cannot read and to strengthen children's understanding of flood disaster emergency drills in a fun way. In line with (Kustandi & Darmawan, 2020) that fun media for children is used in the learning process, children will feel an exciting nuance in the learning process.

This is also in accordance with the principle in the Guidebook for Disaster Education in PAUD Units (Hasbi et al., 2019) that disaster education in ECCE units can be developed with the principle of learning through play, as researchers carried out in providing treatment for eight meetings, where after using picture story book media that can live up to a pleasant atmosphere in the learning process for children, Researchers also apply the principles in the guidebook, namely with the aim of strengthening children's understanding of flood disaster emergency drills, besides that it can leave messages and impressions that are not easily forgotten for children, according to research (Ferianto & Hidayati, 2019) that by applying simulations can increase their understanding much better, because the learning material they learn can be directly felt from his experience. This is evident in (Seddighi et al., 2023) that studies in the field of pedagogy and disaster education has shown that combining educational methods for disaster preparedness is more effective than using just one method.

Based on the results of previous research conducted by (M. S. Putri et al., 2022) with the results of effectiveness tests using the Wilcoxon test showed that *Asymp.Sig (2-tailed)* was valued at  $0.000 < 0.05$ , then  $H_0$  was rejected and  $H_a$  was accepted, which can be concluded that there is an average difference between *pretest* and *posttest*. The results of this study prove that *busy book* type picture books on flood disaster mitigation knowledge in early childhood are declared effective as learning media to increase children's knowledge about flood disaster preparedness mitigation for children aged 5-6 years, according to (Khadijah, 2015) revealed that visual media in the form of picture story books can be used to stimulate and foster learning motivation for early childhood. Therefore, to overcome the problems obtained, researchers have carried out research by applying picture story books about flood disaster emergency drills to find out whether there is an effectiveness of picture story books for understanding flood emergency drills for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq Pekanbaru.

In addition, based on the results of previous research from (Dewi et al., 2023) that her research using the *Pop Up Book* media for flood disaster mitigation on the logical thinking skills of children aged 5-6 years can provide information related to how children will protect themselves from the dangers of threatening disasters, knowing about floods and their consequences, knowing who can help them when floods occur, and know the actions to take when a flood occurs to keep yourself safe from the threat of danger that comes. This is in line with (Guslinda & Kurnia, 2018) which states that learning media can arouse children's new curiosity. It turns out that by presenting new material about flood disaster emergency drills for early childhood, researchers are indirectly trying to hone children's critical reasoning,

where critical reasoning can overcome children's problems to think wisely in making decisions that are useful in the application of their daily lives (Andriana et al., 2023).

This can be proven by the results of the research that the researchers carried out, where in addition to using picture story books, researchers also invite children to play simulations according to the picture story books on the material presented, so that children are asked to think critically about what to do when facing the problems they experience after receiving information from picture story books that have been presented by researchers. In accordance with the decree of the Ministry of Education and Culture and Technology number 009/H/KR/2022 concerning the dimensions, elements, and sub-elements of the Pancasila student profile in the independent curriculum with the application of the fifth dimension, namely critical reasoning, analyzing and evaluating reasoning, reflecting on thoughts and thinking processes in decision making (Kemendikbudristek, 2022). While the results of previous research from (Wardani & Ayriza, 2020) where the results of the research showed that picture story books affect disaster management knowledge in children even though children have never experienced it, as explained in (Daud et al., 2021) that visual media such as picture story books are useful for overcoming their experiences through the information children get. This can be proven by the result of the value and probability  $t_{hitung}$  25.790  $sig$   $t = 0.000$ . This means that picture story books have an influence on disaster management knowledge in children by 55.94%. Similar to the results of this study where  $t_{hitung}$  18.326 and  $sig$  0.000, because  $the\ GIS\ test < 0.05$  means that the data is asked for significance or there is an effectiveness of picture story books on children's understanding of flood disaster emergency drills for children aged 5-6 years.

The effectiveness of picture storybooks for flood disaster emergency drills for children aged 5-6 years carried out on November 28, 2023 begins with a *pretest*, November 29, 2023 provides the first treatment regarding maintaining cleanliness in knowing the causes of floods, December 5, 2023 provides the second treatment regarding emergency alert bag knowledge as a provision before a flood, December 7, 2023 provides the third treatment regarding knowledge of signs that must be known before a flood, 08 December 2023 gives the fourth treatment regarding knowledge of things to avoid during a flood, 11 December 2023 gives the fifth treatment regarding the knowledge of people who can help him when a flood occurs, 12 December 2023 gives the sixth treatment regarding knowledge of tools that are often used during floods, 13 December 2023 gives the seventh treatment regarding knowledge of maintaining personal hygiene both before and after the flood, December 14, 2023 provides the eighth treatment regarding knowledge of maintaining environmental cleanliness after a flood and what to do, then the last on December 15, 2023 ends with a *posttest*.

Based on the results of this study, it was explained that the results of data processing and hypothesis testing that had been described previously obtained alternative hypothesis ( $H_a$ ) results were accepted, this could be interpreted that "There is effectiveness between picture story books and children's understanding of flood disaster emergency drills for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq Pekanbaru". The difference in children's understanding of flood disaster emergency drills can be seen from the *pretest* and *posttest* results where there is a change in *pretest* scores after being given treatment. This can be proven by the results of obtaining an increase in the highest score *pretest* reaching a value of 2.13 with an average of 1.60 and after being treated (*posttest*) the highest score increased to 4.00 with an average of 3.43 from these results it can be seen that there is a change of 53%. There is an increase in children's understanding of flood disaster emergency drills when using picture story books so that children can participate in learning to make children active because they are interspersed with playing simulations according to story books that aim to help children who cannot read, help hone the mindset to be more critical in making a decision or analyzing something that children see and also useful for children to Help sharpen children's understanding of flood emergency drills in a fun way.

#### 4. CONCLUSION

Based on the results of the study, it was concluded that there was an effectiveness of picture story books in developing an understanding of *flood disaster emergency drills* for children aged 5-6 years in Raudhatul Athfal Ar-Razzaq Pekanbaru. The accumulated data produces Sig.(2-tailed)  $0.000 < 0.05$  means data of significance. Based on the results of the study, researchers provide suggestions for parties in Early Childhood Education, it is hoped that schools and teachers can continue the program on *flood disaster emergency drills* regularly by providing adequate flood disaster training facilities, and it is expected that future researchers can evaluate the effectiveness of existing methods and analyze the Pancasila Student Profile, which is the fifth element of critical reasoning in the methods used in this study.

#### REFERENCES

- Adipta, H., Maryaeni, & Hasanah, M. (2016). Pemanfaatan Buku Cerita Bergambar Sebagai Sumber Bacaan Siswa SD. *Jurnal Pendidikan : Teori, Penelitian, Dan Pengembangan*, October, 989–992.
- Andreassen, N., & Villanger, R. (2024). *Enhancing cognitive motivation : an evaluation model for emergency preparedness exercises*. <https://doi.org/10.1108/TLO-06-2023-0100>
- Andriana, E., Rokmanah, S., & Lingga Luthfika, A. (2023). Analisis Pembentukan Karakter Berkebinekaan Global Melalui Metode Bercerita Untuk Peserta Didik Kelas 4 Sekolah Dasar. *Jurnal Pendidikan Dasar*, 14(01), 75–83. <https://doi.org/10.21009/jpd.v14i01.37471>
- Arici, F., Bozkaya, H., Cengiz, E., & Kuzey, M. (2023). *Education i n Disaster Situations : The Impact of The Kahramanmaraş Earthquake on Teachers ' Experiences*.
- Cvetkovi, V. M. (2024). *Exploring Students ' and Teachers ' Insights on School-Based Disaster Risk Reduction and Safety : A Case Study of Western Morava Basin , Serbia*.
- Daud, M., Irwansyah, R., Ferawati, F., Retno Sari, D., Yuniar, N., Putri Puwaningrum, J., Purbasari, I., Puspita Rini, G., Made Lestawati, I., Bawono, Y., Rozie, F., Khairina hanum Hasibuan, A., Fatima Mardina Angkur, M., Hidayah, N., & Ndeot, F. (2021). *Media Pembelajaran PAUD Tinjauan Teori dan Praktis*. Bandung: Widina Bhakti Persada.
- Dewi, M. P., Adhe, K. R., Maulidiyah, E. C., Simatupang, D., Guru, P., Anak, P., Dini, U., Pendidikan, F. I., & Surabaya, N. (2023). Pengembangan Media Pop Up Book Mitigasi Bencana Banjir Terhadap Kemampuan Berfikir Logis Anak Usia 5-6 Tahun. *Jurnal Inovasi Ilmu Pendidikan*, 1(2), 121–144.
- Efastri, S. M., & Wahyuni, S. (2023). *Hydrological Flood Disaster Mitigation for Early Childhood at Pembina Kampar State Kindergarten Mitigasi Bencana Hidrologi Banjir Untuk Anak Usia Dini Di Tk Negeri Pembina Kampar*. 7(6), 1597–1601.
- Fazeli, S., Haghani, M., Mojtahedi, M., & Rashidi, T. H. (2024). International Journal of Disaster Risk Reduction The role of individual preparedness and behavioural training in natural hazards: A scoping review. *International Journal of Disaster Risk Reduction*, 105(September 2023), 104379. <https://doi.org/10.1016/j.ijdr.2024.104379>
- Ferianto, K., & Hidayati, U. N. (2019). Efektifitas Pelatihan Penanggulangan Bencana Dengan Metode Simulasi Terhadap Perilaku Kesiapsiagaan Bencana Banjir Pada Siswa Sman 2 Tuban. *Jurnal Kesehatan Mesencephalon*, 5(2). <https://doi.org/10.36053/mesencephalon.v5i2.110>
- Fitriani, D., Wahyuni, S., Yacob, F., & Fahrizqa, N. (2024). *Implementation of Disaster Mitigation Educational Policies in Pre- school : A Case Study of Effective Steps in Preparing Children for Disaster*. 5(1), 63–79. <https://doi.org/10.24815/gaspol.v5i1.37361>
- Fu, Q., & Id, X. Z. (2024). *Promoting community resilience through disaster education : Review of community- based interventions with a focus on teacher resilience and well-being*. 1–22. <https://doi.org/10.1371/journal.pone.0296393>
- Guslinda, & Kurnia, R. (2018). *Media Pembelajaran Anak Usia Dini*. Surabaya: CV.Jakad

- Publishing.
- Hasbi, M., Yuliantina, I., Nurfadilah, & Nugraha, A. (2019). *Pedoman Pendidikan Kebencanaan di Satuan PAUD*. Jakarta: Kementerian Pendidikan dan Kebudayaan.
- Hikmawati, F. (2020). *Metodologi Penelitian*. Depok: PT. Raja Grafindo Persada.
- Kemendikbudristek. (2022). *Keputusan Kepala Badan Standar, Kurikulum, dan Asesmen Pendidikan Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 009/H/KR/2022 Tentang Dimensi, Elemen, dan Sebelemen Profil Pelajar Pancasila Pada Kurikulum Merdeka* (Issue 021, pp. 1–35).
- Khadijah, K. (2015). *Media Pembelajaran Anak Usia Dini*. Medan: Perdana Publishing.
- Kustandi, C., & Darmawan, D. (2020). *Buku Pengembangan Media*. Jakarta: Kencana.
- Nasrullah, Y., Akbar, Z., & Supena, A. (2021). Pengembangan Media Komik untuk Meningkatkan Pemahaman Kesiapsiagaan Bencana Banjir pada Anak. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(2), 832–843. <https://doi.org/10.31004/obsesi.v6i2.1540>
- Park, W., Lim, I., & Song, J. (2024). Exploring the intersection of disasters and science education with preservice science teachers through a disaster case study. *Cultural Studies of Science Education*, 0123456789. <https://doi.org/10.1007/s11422-024-10225-3>
- Putri, A. A., Fadillah, S., & Novitasari, Y. (2023). *Sosialisasi Keselamatan dan Keamanan Anak Usia Dini di TK Luhuring Budi*. 1(2), 33–39.
- Putri, M. S., Reza, M., Widayanti, M. dwi, & Komalasari, D. (2022). Efektivitas Penggunaan Media Busy Book Dalam Meningkatkan Pengetahuan Mitigasi Bencana Banjir Pada Anak Usia 5-6 Tahun. *Jurnal Pendidikan Islam Anak Usia Dini*, 3(2), 66–77. <https://doi.org/10.19105/kiddo.v3i2.6483>
- Rachmawati, D. W. (2022). *Metodologi Penelitian*. Makassar: Cendikia Publisher.
- Rahmawati, R. D. (2023). *The impact of sets education on disaster education on student mitigation skills and resilience*. 17(3), 240–252.
- Reswita, R., & Wahyuni, S. (2018a). Efektivitas Media Pasir dalam Meningkatkan Kemampuan Konsep Bilangan pada Anak Usia 5-6 Tahun di Tk Aisyiyah Bengkalis. *Lectura: Jurnal Pendidikan*, 9(1), 43–51. <https://doi.org/10.31849/lectura.v9i1.927>
- Reswita, R., & Wahyuni, S. (2018b). Efektivitas Media Pasir dalam Meningkatkan Kemampuan Konsep Bilangan pada Anak Usia 5-6 Tahun di Tk Aisyiyah Bengkalis. *Jurnal Pendidikan*, 9(1), 43–51.
- Seddighi, H., Lopez, M., Zwitter, A., & Muldoon, M. L. (2023). International Journal of Disaster Risk Reduction Non-formal disaster education programs for school students in Iran: A qualitative study of the challenges experienced by stakeholders. *International Journal of Disaster Risk Reduction*, 86(January), 103531. <https://doi.org/10.1016/j.ijdr.2023.103531>
- Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.
- Wahyuni, S., Eryanti, R. W., & Hudha, A. M. (2023). Subjective Well Being Mahasiswa Penyandang Disabilitas. *Jurnal Pendidikan Tambusai*, 7(2), 11655–11665.
- Wahyuni, S., Fadilah, S., & Bastian, A. (2020). Children's independence Skills Analysis at Low Socioeconomic Environment. *Jurnal Pendidikan Usia Dini*, 14(2), 303–312.
- Wahyuni, S., Putra, E. M., & Fauziddin, M. (2022). Performance of Satuan PAUD Sejenis Managers through Managerial and Supervision Capability analysis. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(6), 5734–5746.
- Wahyuni, S., Putri, A. A., & Reswita, R. (2021). Parenting Culture of Low-Income Families in Implications for the Subjective Well-being of Early Childhood Students. *AL-ISHLAH: Jurnal Pendidikan*, 13(3), 1581–1592. <https://doi.org/10.35445/alishlah.v13i3.968>
- Wahyuni, S., Reswita, R., & Afidah, M. (2020). Pengembangan Model Pembelajaran Sains, Technology, Art, Engineering And Mathematic Pada Kurikulum PAUD. *Jurnal Golden Age*, 4(02), 297–309. <https://doi.org/10.29408/jga.v4i02.2441>
- Wahyuni, S., & Rizkizaputra, R. (2023). Pelatihan Analisis Miskonsepsi Siswa Menggunakan Teknik CRI Dalam Pembelajaran Hybrid Learning. *Wahana Dedikasi: Jurnal PkM Ilmu Kependidikan*, 6(1), 155–164.
- Wang, Z., & Han, Z. (2023). *The Interplay between School Preparedness and Student ' s Individual Protective Actions : The Mediating Role of Disaster Education*.

- Wardani, A., & Ayriza, Y. (2020). Analisis Kendala Orang Tua dalam Mendampingi Anak Belajar di Rumah Pada Masa Pandemi Covid-19. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 5(1), 772. <https://doi.org/10.31004/obsesi.v5i1.705>