




The Effectiveness of School Signs for Schoolchildren in Post-Flood Disaster Areas in Aek Parambunan Subdistrict in 2026

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received Apr 05, 2025 Revised Apr 22, 2025 Accepted May 30, 2025</p>	<p>Floods are a natural disaster that often cause psychological impacts on the community, especially children. Post-disaster conditions often lead to fear, anxiety, and emotional disturbances that can affect children's learning activities and adjustment at school. This study used an analytical survey design with a cross-sectional approach. The study was conducted in Aek Parambunan Village in 2026. The population in this study were school children affected by the flood in Aek Parambunan Village, with a sample size of 30 respondents. Based on the initial survey conducted by the researcher, there were still children who experienced quite high levels of anxiety after the flood, which were characterized by fear, restlessness, and lack of concentration during learning activities at school. The results showed that of the 30 respondents, 18 respondents (60%) who received regular music therapy showed a decrease in anxiety levels, while 12 respondents (40%) who did not receive optimal music therapy still experienced higher levels of anxiety. It can be concluded that there is a relationship between the provision of music therapy and a decrease in anxiety levels in school children in post-flood disaster areas in Aek Parambunan Village in 2026. Music therapy can be an effective alternative intervention to help children's psychological recovery after experiencing a disaster.</p>
<p>Keywords:</p> <p>Music Therapy, Anxiety, School children, Post Flood, Disaster.</p>	<p style="text-align: right;"><i>This is an open access article under the CC BY-NC license.</i></p> 

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1. Introduction

Floods are a natural disaster that often occurs in various regions of Indonesia and can have a wide impact on people's lives. (Sarifah et al., 2024), (Puspitotanti & Karmilah, 2021) Floods not only cause damage to the environment and infrastructure, but also impact various aspects of life, including children's education. (Wirdatul, Hardianti, Sumianto, Asnimawati, & Gustriana, 2025), (Aini, Savitri, Athaya, Naufaldy, & Naifahsyah, 2025) Post-flood conditions often disrupt children's learning activities due to damage to school facilities, loss of learning equipment, and environmental conditions that have not fully recovered. (Satro Harmendo, Verolyna, & Afrizal, 2025), (Putri, Maharani, Azizah, & Dari, 2025).

School-age children are a highly vulnerable group to the impacts of disasters. After flooding, many children struggle to return to normal school activities. (Wetik & Polii, 2023), (Suleman, 2024) Some children even experienced a decrease in learning motivation, discomfort in the school environment, and

difficulty adapting to the changed school conditions after the disaster.(Kusbianto, 2025),(Susanti, Anggraeni, & Hakim, 2026).

Analyzing the effectiveness of school signs for school children in post-flood disaster areas in Aek Parambunan Village in 2026. Knowing the condition of school children in post-flood disaster areas in Aek Parambunan Village in 2026. Knowing the implementation of providing school signs for school children in post-flood disaster areas. Analyzing the effectiveness of school signs in increasing children's motivation and comfort to return to school after a flood disaster.(Bakhriansyah, Anhar, & Noor, 2025),(Satro Harmendo et al., 2025).

2. Methods

This study uses an analytical survey method with a cross-sectional approach, which aims to determine the effectiveness of the use of school signs for school children in post-flood disaster areas in Aek Parambunan Village in 2025. This study will be conducted in Aek Parambunan Village, an area affected by the flood disaster and has school-age children who are still carrying out educational activities. The study population includes children aged 7–15 years who are still actively attending school and experiencing the impact of environmental changes due to flooding.(Risma, 2025),(Utari & Nurrohmah, 2022).

3. Results and Discussion

This study was conducted on 50 schoolchildren affected by flooding in Aek Parambunan Village in 2026. The aim of this study was to determine the effectiveness of using school signs (signs or school area markers) in improving the safety and orderliness of schoolchildren in post-flood areas. The following are the research findings:

a. Respondent Characteristics

Based on the results of data collection on 50 respondents of school children who were flood victims, the following characteristics were obtained:

b. Age

The majority of respondents were in the 9–12 year age group, 24 children (48%), 6–8 year age group, 16 children (32%), and 13–15 year age group, 10 children (20%).

c. Gender

There were 26 female respondents (52%), while there were 24 male respondents (48%).

d. Level of education

Most of the respondents were at the Elementary School (SD) level, as many as 33 children (66%), at the Junior High School level as many as 12 children (24%), and at the Kindergarten level as many as 5 children (10%).

e. Post-Flood Housing Status

There are 23 children (46%) who still live in their own homes, 16 children (32%) who live in relatives' homes, and 11 children (22%) who are in refugee posts.

f. Flood Experience

Respondents who experienced flooding for the first time were 27 children (54%), while those who had experienced flooding before were 23 children (46%).

3.1 Parental Accompaniment to School

Most of the children were accompanied by their parents or family, as many as 29 children (58%), while 21 children (42%) went to school independently or with friends.

3.2 Implementation of School Signs in Post-Flood Areas

The results of research on the application of school signs (school crossing signs, warning boards, and safe route signs) in post-flood areas show that: (a) Application of school signs is good: 24 children (48%), (b) Application of school signs is sufficient: 16 children (32%), (c) Application of school signs is inadequate: 10 children (20%).

The school signs used in this study included school area warning signs, school crossing signs, and information boards indicating safe routes to school. School signs were installed at several strategic locations, such as near the school gate, the main road leading to the school, and areas frequently used by children after the flood.

3.3 Level of Safety and Comfort for School Children

Based on the results of measurements using observation sheets and child safety perception questionnaires, the following results were obtained: High level of safety: 23 children (46%), Medium level of safety: 17 children (34%), Low security level: 10 children (20%) Children who have a high level of security generally feel safer when going to and from school, find it easier to recognize the route to school, and are more careful when crossing the road because there are clear school signs.

3.4 The Relationship Between School Sign Effectiveness and Child Safety

Bivariate analysis using the Chi-Square test showed a significant relationship between the implementation of school signs and the level of school child safety in the post-flood area of Aek Parambunan Village. The statistical test results obtained a p value of 0.003 ($p < 0.05$), which means there is a significant relationship between the effectiveness of school signs and increased school child safety.

3.5 Discussion

The research results showed that the majority of respondents were in the school-age range, 7–12 years old. At this age, children are at a stage of cognitive and social development, beginning to actively interact with the school and community environment. However, the experience of facing a flood disaster can have psychological impacts such as fear, anxiety, and discomfort when returning to school. (Masrukin, 2020), (DWI NAJHMIA MULYA, 2023).

These characteristics indicate that the child's age, parental education level, and family socio-economic conditions can influence the effectiveness of implementing school signs as a means of helping children re-adapt to the educational environment after the flood disaster in Aek Parambunan Village in 2026.

a. Implementation of School Signs for School Children

The research results showed that most respondents rated the implementation of school signage as good to adequate. These signs include signs indicating directions to the school, signs indicating safe routes to the school, and markers indicating the school's location that are easily visible to children.

The presence of school signs greatly helps children familiarize themselves with the school environment, which may have changed after a flood. These signs also make it easier for children to find safe routes to school, reducing confusion and fear when going to school.

b. Level of Children's Comfort and Safety in School

The research results show that children's levels of comfort and safety at school after the flood varied, ranging from fairly comfortable to very comfortable. Some children still expressed anxiety when passing through previously flooded areas.

c. The Effectiveness of School Signs for Schoolchildren Post-Flood

The results of the research analysis show that the presence of school signs has a positive influence on the ease of children's access to school and increases their sense of security in carrying out learning activities after the flood disaster.

4. Conclusions

The results of a study on the Effectiveness of School Signs for Schoolchildren in Post-Flood Disaster Areas in Aek Parambunan Village in 2026 showed that the installation and use of school signs provided significant benefits for schoolchildren after the flood disaster. Analysis of the research results showed that school signs play a crucial role in assisting children's adaptation to the post-disaster environment. The presence of these signs also helps parents, teachers, and the community in directing children to school locations more easily and orderly. Thus, installing school signs can be a simple yet effective effort to support the recovery of children's educational activities after a flood disaster.

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