



Implementation of Fire Preparedness Activities for Children Aged 5–6 Years at TK Tunas Permata

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Abstract

Fire Preparedness is a form of disaster response (fire) that emphasizes increasing awareness and resilience toward disasters. This understanding must be instilled in the surrounding community, especially in early childhood, who still do not fully understand what to do when an unexpected disaster occurs. This issue shows the importance of disaster knowledge and risk reduction from an early age to provide understanding and guidance on the steps that should be taken when a threat arises in their environment, thereby minimizing disaster risks. This study aims to determine the implementation of fire preparedness activities for children aged 5–6 years at TK Tunas Permata, Bandar Lampung. The research began with problems identified during preliminary observation, where the researcher found that some children were afraid during the fire preparedness activity, and the teacher's explanation about the activity was not yet concrete enough. As a result, not all children could clearly understand the delivered learning. This study used a qualitative research method with a descriptive qualitative approach. The subjects of the research were teachers at TK Tunas Permata. Data were collected through interviews, observations, and documentation. The data were analyzed qualitatively through data reduction, display, and conclusion drawing. Based on the findings, teachers had made efforts to provide explanations and understanding regarding fire preparedness activities or disaster education. The students at TK Tunas Permata were considered to have developed as expected, particularly regarding social-emotional and language development. Therefore, these activities helped children to cooperate, support one another, and recognize symbols, tools, and fire emergency alarms.

Keywords: Fire Preparedness Activities, Children Aged 5–6 Years, Early Childhood

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INTRODUCTION

Fire preparedness is a form of disaster response that emphasizes the importance of increasing understanding and resilience to disasters among the community, especially children in early childhood. Children are still in the cognitive development stage at this age and have not fully understood the actions they should take during emergencies (Pianta et al., 2020). Therefore, it is essential to instill preparedness values early so that children develop basic self-protection skills during a disaster, particularly a fire. Knowledge of

preparedness not only focuses on self-rescue but also fosters a sense of responsibility and concern for the safety of the surrounding environment (Maryani & Yulianti, 2022).

The issue of fire preparedness highlights the importance of disaster mitigation knowledge and skills from an early age. Disaster education provides understanding about the steps to take during high-risk situations to reduce potential impacts (UNESCO, 2019). Disasters threaten and disrupt people's lives, caused by natural or human factors (BNPB, 2021). In the context of fire, danger does not only come from the flames but also from panic, which can worsen the situation, especially for children who are not emotionally prepared (Hapsari & Sutopo, 2020). Therefore, schools are vital in preparing children to be resilient in emergencies (Mutiani & Nur, 2023).

Fire preparedness activities in early childhood education environments aim to teach safety and strengthen social aspects such as cooperation, communication, and leadership (Rohayati & Lestari, 2021). Through fire drills and simulations, children learn to interact in situations that demand peer collaboration and coordination (Hartati et al., 2022). These activities also encourage children to understand the importance of shared responsibility in maintaining personal and collective safety. Thus, fire preparedness is a physical training activity and a form of character education that nurtures empathy and social awareness (Suyadi & Ulfa, 2020).

In addition, fire preparedness activities can be developed through play-based and storytelling approaches that align with early childhood characteristics. Role-playing allows children to express their understanding of emergencies (Nugroho & Rahmawati, 2021). For instance, when a child says, "I will help my friend get out of the house," it reflects an emerging awareness of helping others during danger. Such learning experiences strengthen children's narrative development while instilling empathy (Sari et al., 2023). Contextual learning methods like these are consistent with the principles of experiential learning, which emphasize active engagement in real-life situations (Kolb, 2015).

Previous studies have also highlighted the importance of implementing school fire disaster mitigation programs. Research by Warda Apriyanti entitled *Implementation of the Disaster Mitigation Program Through Disaster-Prepared School at SD Negeri Baluwarti, Kotagede, Yogyakarta* showed that disaster-prepared school programs effectively improve school community readiness (Apriyanti, 2019). A study by Firman titled *Fire Disaster Mitigation Learning Program from an Early Age at the Baubau City Fire and Rescue Department* also confirmed that early disaster education shapes responsive and skillful behavior in children (Firman, 2020). Furthermore, research by L. M. Azhar Sa'ban (2023) entitled *Developing Fire Disaster Mitigation Knowledge in School Students* revealed that continuous mitigation education fosters a disaster-aware culture (Sa'ban, 2023). These findings align with a global study by UNICEF (2020), emphasizing the importance of disaster risk education in early childhood institutions.

Considering these findings, this study explores how fire preparedness education can be implemented and introduced to young children. Through well-structured educational activities, children can learn to recognize danger signs, understand firefighting tools, and know the proper evacuation procedures (Rahmah & Hasanah, 2021). Thus, children can prepare themselves to face fire emergencies calmly and effectively. Moreover, these activities foster children's independence in protecting themselves and helping others, enabling them to actively reduce greater disaster risks (Aini & Wibowo, 2022).

Disaster education at an early age plays a crucial role in enhancing children's understanding and awareness of non-natural disasters. Through experience-based learning, children can more easily grasp risks and appropriate solutions to ensure safety (Sulastri & Fadhilah, 2021). Teachers strategically integrate disaster education into learning activities (Ismail & Dewi, 2020). They serve not only as knowledge facilitators but also as mentors and role models who instill preparedness values through daily routines in school (Fadillah, 2022).

As formal educational institutions, schools also play a significant role in supporting disaster prevention and mitigation programs. Schools can serve as educational spaces for building a disaster-aware culture through collaboration between teachers, students, and external agencies such as the fire department (Hidayati, 2021). With fire preparedness education, children acquire practical skills to respond to disasters and learn to remain calm, empathetic, and cooperative in emergencies (Kusuma & Arifin, 2023). Disaster education in early childhood is thus an essential investment in shaping a resilient, caring, and environmentally responsible generation ready to face future challenges (WHO, 2022).

METHOD

The type of research used in this study is descriptive qualitative. Descriptive qualitative research produces and processes descriptive data such as interview transcripts, field notes, pictures, and other documentation that describe phenomena in depth (Creswell, 2016). This approach aims to understand social phenomena holistically through descriptions of words and observed behaviors. Bogdan and Taylor, as cited in Margono (2019), explain that qualitative research is a procedure that produces descriptive data in the form of written or spoken words from people and observable behaviors. Therefore, this method is appropriate for exploring an in-depth understanding of research subjects' experiences, views, and meanings toward the phenomena being studied.

Descriptive qualitative research focuses on understanding the meaning behind behaviors, events, or social interactions occurring in a natural context without manipulating research variables (Miles, Huberman, & Saldaña, 2018). This study used the qualitative approach to describe how fire preparedness activities are implemented for children aged 5–6 years at TK Tunas Permata. Through this approach, the researcher aims to understand teachers' and students' processes, obstacles, and responses during these activities. As stated by Moleong (2021), qualitative research emphasizes the interpretation and meaning of an event rather than numerical data, thus producing a more contextual and in-depth understanding of the object being studied.

This descriptive qualitative research aims to obtain a comprehensive overview of the implementation of fire preparedness activities as a form of disaster education at the early childhood education level. Through interviews, observations, and documentation, the researcher seeks to understand how teachers provide education and how children respond to these activities. This research aims not to test hypotheses but to describe and interpret phenomena based on participants' perspectives (Denzin & Lincoln, 2018). Therefore, the findings are expected to contribute to developing more effective, contextual, and age-appropriate disaster education models for early childhood learners (Sugiyono, 2022).

RESULT AND DISCUSSION

Based on the researcher's interviews with teachers at TK Tunas Permata, it was stated that the fire preparedness activity is highly positive. In addition to learning the steps of fire preparedness, children become familiar with the essential tools and emergency vehicles in case of a fire, which can occur unexpectedly. The teachers mentioned that the fire preparedness activity was delightful for the children, as they could visit the local fire department, observe firefighting equipment firsthand, and even ride on the fire truck.

According to the principal's interview, the fire preparedness activity for early childhood provides significant positive impacts, especially in aspects of safety, character building, and cognitive development. Children are highly receptive to direct experiences and contextual learning during this golden development period. Through simulation and training activities, children are introduced to the basic concepts of personal and environmental safety practically and enjoyably. They learn to recognize warning signs of danger, understand evacuation procedures, and know the correct actions to take in case of

a fire. This knowledge forms an early foundation for safety awareness that can carry into adulthood.

Preparedness for fire disasters among early childhood learners is an essential aspect of disaster mitigation education. According to Jean Piaget's theory, children aged 5–6 years are in the concrete operational stage, where they begin to think logically and understand simple instructions related to safety. The indicators of the fire preparedness activity for children aged 5–6 years at TK Tunas Permata are as follows: 1) Basic understanding of fire, 2) Use of safety equipment, 3) Emergency response actions, 4) Introduction to emergency services, 5) Simulation and drills, 6) Attitude of safety awareness, and 7) Improved understanding through education.

Table 1. Assessment Data of Fire Preparedness Activities for Children Aged 5–6 Years at TK Tunas Permata

No	Name	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6	Indicator 7	Information
1	A.M	✓		✓		✓		✓	BM
2	A.R.A		✓	✓	✓	✓	✓	✓	SM
3	A.M.A		✓	✓	✓	✓	✓	✓	SM
4	A.I.S		✓	✓	✓	✓	✓	✓	SM
5	A.S.T	✓	✓	✓	✓	✓	✓	✓	SM
6	A.H.H	✓	✓	✓	✓	✓	✓	✓	SM
7	A.A.P	✓	✓	✓	✓	✓	✓	✓	BM
8	C.R.A	✓	✓	✓	✓	✓	✓	✓	SM
9	E.N.I	✓	✓	✓	✓	✓	✓	✓	BM
10	F.F.R	✓	✓	✓	✓	✓	✓	✓	SM
11	M.M.I	✓	✓	✓	✓	✓	✓	✓	SM
12	M.A	✓	✓	✓	✓	✓	✓	✓	BM
13	M.R.H	✓	✓	✓	✓	✓	✓	✓	BM
14	A.A.K	✓	✓	✓	✓	✓	✓	✓	SM
15	A.O.R	✓	✓	✓	✓	✓	✓	✓	SM
16	A.P.A	✓	✓	✓	✓	✓	✓	✓	BM
17	N.M.C	✓	✓	✓	✓	✓	✓	✓	SM
18	N.A.S	✓	✓	✓	✓	✓	✓	✓	BM
19	N.H	✓	✓	✓	✓	✓	✓	✓	SM
20	N.R.L	✓	✓	✓	✓	✓	✓	✓	SM
21	Q.N.S	✓	✓	✓	✓	✓	✓	✓	SM
22	R.A.A	✓	✓	✓	✓	✓	✓	✓	BM
23	A.M.N	✓	✓	✓	✓	✓	✓	✓	SM
24	S.M.Y	✓	✓	✓	✓	✓	✓	✓	SM
25	S.I	✓	✓	✓	✓	✓	✓	✓	SM

(BM = Not Yet Evident; SM = Evident)

Table 1 above shows that out of 25 students, most indicators have appeared (SM), although several children still fall into the not yet evident (BM) category. Based on the results, eight students were categorized as BM, while 17 were classified as SM. The research conducted at TK Tunas Permata regarding fire preparedness activities for children aged 5–6 years revealed that children already possess a basic understanding of the concept and dangers of fire, especially when taught at home or school. However, their level of comprehension remains limited, as children at this age generally cannot fully grasp the overall risks. They may recognize warning signs, such as smoke or flames, but often remain unsure of actions to take when encountering them. Studies indicate that structured training and simple simulations can help children recognize danger signs more effectively and improve their fire preparedness.

Based on observations, interviews, and documentation conducted at TK Tunas Permata Bandar Lampung, the implementation of fire preparedness activities showed that most children aged 5–6 years could understand the basics of fire disaster preparedness. The assessment table data indicated that out of 25 children, 17 had reached the *Emergent (SM)* category, while 8 were still in the *Not Yet Emergent (BM)* category. This finding demonstrates that most children have developed awareness of danger signs, evacuation steps, and responsive behavior during emergencies. These results are consistent with Warda Apriyanti (2021), who emphasized that disaster mitigation education in early childhood and primary schools increases awareness and practical skills in facing disasters. Firman (2020) also confirmed that fire mitigation learning programs conducted through cooperation with fire departments improve children's preparedness for fire hazards. Similarly, L. M. Azhar Sa'ban (2023) highlighted the importance of instilling fire mitigation knowledge among students to build responsibility and sensitivity toward collective safety.

From the interviews, teachers reported that the fire preparedness activities positively impacted children's socio-emotional development. Children became braver, less panicky, and more cooperative during evacuation simulations. This supports Piaget's theory (as cited in Santrock, 2018), which states that children aged 5–6 years are in the *concrete operational stage*, where they begin to understand simple instructions and think logically about real-life situations. This direct experiential learning process aligns with constructivist theory, which asserts that children comprehend concepts more deeply through hands-on experiences (Vygotsky, 1978; Bruner, 1986). Thus, fire preparedness activities function not only as an introduction to emergencies but also as a medium for developing children's character, empathy, and communication skills.

Teachers play a vital role as facilitators in delivering contextual understanding to the children. This aligns with Suprayitno and Suryani (2021), who argue that early childhood educators must be able to convey disaster mitigation lessons effectively so that children understand safety procedures accurately. The findings of this study show that teachers at TK Tunas Permata have integrated disaster education into thematic learning through storytelling, drawings, and simple simulations. This experiential learning approach is proven effective, as stated by Kusumaningrum and Widodo (2020), who found that *experiential learning* enhances children's understanding of environmental contexts and nearby hazards. Furthermore, children's ability to recognize safety equipment, symbols, and fire alarms indicates that disaster education can be adapted to early childhood characteristics (Rahmadani et al., 2021).

Moreover, the fire preparedness activities foster empathy and cooperation among children. This supports Kurniawati and Fitri (2022), who found that disaster preparedness training develops social empathy and teamwork among early childhood learners. The process builds cognitive skills and promotes social awareness as part of character education. According to Prasetyo (2020), school disaster mitigation activities are integral to character education because they instill discipline, responsibility, and concern for others' safety.

Regarding learning outcomes, the fact that eight children had not yet reached the *Emergent* category suggests that the teaching approach must be adjusted to different learning styles. Some children still exhibited fear or confusion during simulations. This is consistent with Dewi and Hapsari (2021), who found that emotional factors and prior experiences strongly influence children's responses to emergencies. Teachers can increase role-playing activities and visual media such as educational videos and puppets to make learning more engaging (Astuti, 2019; Hasanah et al., 2022).

The importance of fire preparedness in early childhood settings is also aligned with Indonesia's National Disaster Management Agency (BNPB, 2020) policies, which emphasize integrating disaster education into school curricula to build a culture of resilience from an early age. This finding also aligns with Wulandari and Sari (2021), who concluded that

regular fire drills enhance children's ability to recognize danger and make quick, appropriate decisions. Therefore, the fire preparedness program at TK Tunas Permata can serve as a practical learning model to improve children's readiness for both fire-related and non-natural disasters.

This study demonstrates that fire preparedness activities positively affect children's cognitive, social-emotional, and linguistic development. Children regularly participating in fire simulations exhibit improved communication, coordination, and confidence in responding to emergencies. With support from teachers and parents, such programs should continue to be developed as part of thematic learning that promotes resilience and environmental awareness in early childhood education.

CONCLUSION

Based on the results of the research conducted at TK Tunas Permata, Bandar Lampung, it can be concluded that fire preparedness activities for children aged 5–6 years positively improve their knowledge, readiness, and skills in responding to fire emergencies. Most children could recognize warning signs, understand evacuation procedures, and demonstrate responsiveness and cooperation during simulation activities. This indicates that disaster mitigation education from an early age is effective in fostering self-safety awareness, responsibility, and social empathy that can be carried into later stages of development. In addition, fire preparedness activities play an essential role in developing children's social-emotional and language skills. Through direct experience and contextual learning, children become more confident, communicative, and cooperative with peers and teachers. The support of educators, who act as facilitators of contextual knowledge, has been proven to enhance children's understanding of safety concepts. Therefore, fire preparedness activities should continue to be implemented sustainably in early childhood education institutions as part of character education and disaster mitigation programs from an early age.

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