

Community Service Journal of Indonesia 6 (1) (2024):

Doi: <https://doi.org/10.36720/csji.v6i1.658>

EDUCATION OF EARTHQUAKE ALERT APPLICATION AT PGRI MIDDLE SCHOOL BANTUR MALANG

Nisa Dewanti¹, Meli Diana^{1*}, Riesmiyatingdyah¹, Frengki Apriyanto², Rosly Zunaedi²

¹ Diploma Nursing Study Program, Health Polytechnic of Kerta Cendekia, Sidoarjo

² Nursing Study Program, Widyagama Husada College of Health Sciences, Malang

***Correspondence:**

Meli Diana

Diploma Nursing Program, Health Polytechnic of Kerta Cendekia
Lingkar Timur Road, Rangkah Kidul Village, Sidoarjo Sub-District
Sidoarjo Regency, East Java Province, Indonesia - 61234
Email: melidiana159357@gmail.com

Received: June, 16th, 2024; **Revised:** -; **Accepted:** June, 29th, 2024

ABSTRACT

The Earthquake Alert Application Socialization Activity given to teachers at PGRI Middle School Bantur Malang is a form of community service in the form of delivering material and socializing the use of the Earthquake Alert Application as a guide on how to rescue when an earthquake occurs. Implementation of socialization activities on August 25 2023 at PGRI Middle School Bantur Malang. The target of this outreach activity is all teachers at PGRI Middle School Bantur. Before carrying out extension activities, there is an activity preparation process for approximately six weeks before carrying out the activities, starting from making applications to submitting permits to related parties. As a form of evaluation, this activity has attended by eight teachers, the participants participated in the activity very enthusiastically, and all participants were able to operate the application well.

Keywords: *Earthquake, Application, Education*

© 2024 The Authors. Community Service Journal of Indonesia Published by Institute for Research and Community Service, Health Polytechnic of Kerta Cendekia, Sidoarjo
This is an Open Access Article distributed under the terms of the [Creative Commons Attribution-NonCommercial 4.0 \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/), which allows others to remix, tweak, and build upon the work non-commercially as long as the original work is properly cited. The new creations are not necessarily licensed under the identical terms.

E-ISSN
2684-7884
P-ISSN
2774-4027

INTRODUCTION

Indonesia is located between two continents and the equator is one of the areas that is potentially prone to earthquake disasters because it is traversed

by the meeting point of three tectonic plates, namely the Indo-Australian plate, the Eurasian plate and the Pacific plate (Utomo & Buana, F, 2017). Children are the group most vulnerable to being victims

of disasters compared to adults. Children are not yet able to save themselves and there is a lack of preparedness when a disaster occurs so that the chance of becoming a victim is greater (Midtbust, Dyregrov, & Djup, 2018).

Based on data from the Indonesian Badan Nasional Penanggulangan Bencana (BNPB) Indonesia, woman and children are 14 times more likely to die than adult male during a disaster. 60-70% of disaster victims in Indonesia are women, children and the elderly (BNPB). Low performance in disaster management and lack of disaster mitigation education in schools are still problems in Indonesia. So there are many victims of school age children when disasters occur and there is a lack of public awareness of disasters and mitigation efforts (Hayudityas, 2020). Victims of school-age children occur both inside and outside the classroom. This shows that disaster preparedness education is important to provide from an early age to understand and direct what actions should be taken when a disaster occurs (Dyregrov, Yule, & Olf, 2018; Taylor & Peace, 2015).

Bantur Village, Srigrongco District, Malang Regency is a village in the coastal area and borders directly on the Indo-Australian plate line, causing frequent earthquakes in the area. There are two elementary schools and one junior high school in Bantur village. Based on the results of the study, PGRI Middle School Bantur has never received any socialization regarding disaster preparedness.

The high risk of PGRI Middle School Bantur has affected by disasters makes it important to provide Disaster Preparedness Education. Disaster preparedness education aims to provide

knowledge to identify risks, which includes how to prepare, support and rebuild communities when a disaster occurs, as well as reducing the impact of disasters thereby increasing emergency preparedness and response to save communities (Oktari et al., 2018; Taylor & Peace, 2015).

Based on the description above, the author carried out community service in the form of socializing the Earthquake Alert Application aimed at teachers of PGRI Middle School Bantur, which hopefully it will teach later and socialized again to their students and the student's parents.

OBJECTIVES

General Purpose

After being given socialization regarding the operation of the earthquake warning application, it is hoped that teachers at PGRI Middle School Bantur can understand and apply it when an earthquake occurs, and can socialize the use of the application to students and their parents.

Special Purpose

The specific objectives after this outreach are expected to be for teachers to be able to:

1. Explain and practice how to save from an earthquake while indoors
2. Explain and practice how to save from an earthquake when outdoors
3. Socialize the use of disaster alert application to students and their parents.

PLAN OF ACTION

Strategy Plan

The strategic plan for implementing this counseling includes:

1. Coordinate with policy leaders at PGRI Middle School Bantul, Malang Regency
2. Determine the implementation time contract with the targets at PGRI Middle School Bantul, Malang Regency
3. Carrying out outreach activities at PGRI Middle School Bantul, Malang Regency

Implementation

The counseling was carried out after the permit to carry out community service was issued by the Kerta Ilmu Health Polytechnic of Sidoarjo and the Widayagama Husada College of Health Sciences with number: 1562/A-1/STIKES/VIII/2023.

Actions performed in implementation these activities include:

1. Contact the principal of PGRI Middle School Bantul, Malang Regency to request permission to carry out Earthquake Alert Application Socialization activities
2. Prepare a place and equipment for socialization
3. Implementation of socialization activities for the Earthquake Alert Application

Setting

This counseling activity has carried out at PGRI Middle School Bantul, Malang Regency on August 25, 2023.

Target

The targets of this outreach activity are teachers at PGRI Middle School, Bantul Malang Regency.

RESULTS AND DISCUSSION

Socialization starts at 9.00 until 10.10 am. The socialization has carried out in the classroom of PGRI Middle School Bantul and has attended by eight teachers.

The equipment used for outreach is leaflets, Android cellphones, and questionnaires to evaluate the use of earthquake alert application.

Disaster education is an effort to increase students' capacity regarding disasters. Students must understanding of disasters, types of disasters, signs of impending disasters, impacts of disasters, efforts to reduce disaster risks and vulnerability and susceptibility to disasters in his area (Zahara, 2019). Disaster mitigation education taught in schools will form the character of students who are ready to be prepared for any disaster occurred.

Disaster risk reduction must be understood and implemented by all parties within a comprehensive framework, both from technological aspects, disaster preparedness education, to disaster preparedness education policies that have local characteristics and are updated according to the latest disaster events (Ilma, Cendana Feoh, & Saifudin, 2021).

Changes in education in the digital era require teachers to have the ability to integrate information and communication technology into the learning process, one of which is using smartphone technology (Slamet & Suwarno, 2022). Smartphones are a disaster mitigation learning medium that is easy to use because smartphones are used by up to 65.8% of the Indonesian population and all groups and age levels own and are able to operate them (Chaidirman, Indriastuti, & Narmi, 2019; Mutiaraningrum & Nugroho, 2021). Smartphones can function as a medium for

disaster education by packaging attractive content so that users can easily accept it and are willing to implement the new knowledge that has been contained on the smartphone (Assidiqi, Juhadi, & Banowati, 2023).

In this socialization, teachers are assisted in installing the application on their cellphones and then given assistance on how to operate the application. Then each teacher has asked to practice how to save themselves from an earthquake disaster using the earthquake alert application guide.

All question asked by participants were answered by the presenters. All teachers questioned by the presenter were able to answer the questions. All participants were able to practice how to save themselves from earthquakes while indoors and outdoors with the earthquake preparedness application guide. A total of 7 teachers were able to practice how to operate the earthquake disaster preparedness application correctly and one teacher was unable to operate the application on his cellphone because it was hampered by an Android version that had not been updated.

Based on data from the evaluation questionnaire given to respondents, all respondents said this application was easy to use and understand how to use it. All respondents stated that this application provided sufficient information about saving themselves from earthquake disasters. All respondents also stated that they were interested in using this application and would spread the use of this application to their other friends or family. So that it can be said that this socialization was running quite effectively and successfully.

CONCLUSION

Socialization of the use of earthquake warning applications was considered quite successful because participants were able to explain and practice how to save themselves from earthquake disasters while outdoors or indoors with implementation guidelines.

REFERENCES

- Assidiqi, M. N. F., Juhadi, J., & Banowati, E. (2023). JAMBURA GEO EDUCATION JOURNAL Upaya Peningkatan Pengetahuan Bencana melalui Prototipe Aplikasi LANDIE (Landslide Disaster Education)-NonCommercial (CC-BY-NC) 4.0 International License. *JAMBURA GEO EDUCATION JOURNAL*, 4(2), 167–178.
<https://doi.org/10.34312/jgej.v4.i2.21320>
- Chaidirman, C., Indriastuti, D., & Narmi, N. (2019). Fenomena Kecanduan Penggunaan Gawai (Gadget) pada Kalangan Remaja Suku Bajo. *Holistic Nursing and Health Science*, 2(2), 33–41.
- Dyregrov, A., Yule, W., & Olf, M. (2018). Children and natural disasters. *European Journal of Psychotraumatology*, 9(2).
<https://doi.org/https://doi.org/10.1080/20008198.2018.1500823>
- Hayudityas, B. (2020). Pentingnya Penerapan Pendidikan Mitigasi Bencana Di Sekolah Untuk Mengetahui Kesiapsiagaan peserta Didik. *Jurnal Edukasi Nonformal*, 1(2), 94–102.
- Ilma, N. I., Cendana Feoh, A. D., & Saifudin, W. A. (2021). Aplikasi Keselamatan Berbasis Smartphone dengan Integrasi Sinyal Sos Sebagai

- Solusi Pembentukan Masyarakat Tanggap Bencana. *CITRAWIRA : Journal of Advertising and Visual Communication*, 2(1), 23–33. <https://doi.org/10.33153/citrawira.v2i1.3666>
- Midtbust, L. G. H., Dyregrov, A., & Djup, H. W. (2018). Communicating with children and adolescents about the risk of natural disasters. *European Journal of Psychotraumatology*, 9(sup2). <https://doi.org/https://doi.org/10.1080/20008198.2018.1429771>
- Mutiaraningrum, I., & Nugroho, A. (2021). Smartphone-Based Mobile Assisted Language Learning Application In Higher Vocational Education In Indonesia. *JEES (Journal of English Educators Society)*, 6(1), 26–34. <https://doi.org/https://doi.org/https://doi.org/10.21070/jees.v6i1.793>
- Slamet, S., & Suwarno, S. (2022). Pemanfaatan Aplikasi Mitigasi Bencana Berbasis Android dalam Pembelajaran IPS. *Proceedings Series on Social Sciences & Humanities*, 6, 37–44. <https://doi.org/10.30595/pssh.v6i.437>
- Taylor, H., & Peace, R. (2015). Children and cultural influences in a natural disaster: Flood response in Surakarta, Indonesia. *International Journal of Disaster Risk Reduction*, 13, 76–84. <https://doi.org/https://doi.org/https://doi.org/10.1016/j.ijdr.2015.04.001>
- Utomo, H., & Buana, F. C. (2017). *Pedoman Standar Layanan kesiapan keluarga hadapi Bencana*. Jakarta: Deputi Bidang Perlindungan Anak.
- Zahara, S. (2019). Peran sekolah dalam pendidikan mitigasi bencana di sekolah menengah atas. *Jurnal Pencerahan*, 13(2), 144–155. Retrieved from <http://jurnalpencerahan.org/index.php/jp/article/download/5/5>