

ENHANCING DISASTER COMMUNICATION LITERACY BASED ON TRADITIONAL GAMES AMONG WEST ACEH STUDENTS

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Abstrak: Aceh Barat sebagai salah satu daerah rawan bencana alam di Indonesia memerlukan langkah-langkah konkrit sebagai upaya mitigasi bencana. Salah satu langkah penting yang harus dilakukan adalah memberikan pengetahuan tentang literasi komunikasi bencana di kalangan siswa. Studi-studi sebelumnya telah mengkaji tentang model komunikasi bencana berdasarkan beberapa pengalaman daerah-daerah yang mengalami bencana alam dan non-alam. Namun, belum banyak studi yang mengkaji literasi komunikasi bencana melalui permainan tradisional seperti teka-teki silang (TTS). Oleh karena itu, artikel ini berupaya mengisi kekosongan studi tersebut dengan mengambil studi kasus pada Madrasah Tsanawiyah Negeri (MTsN) 3 Aceh Barat. Data-data artikel ini diperoleh melalui aktivitas penyuluhan dan pendampingan dalam bentuk pengabdian kepada masyarakat yang bersifat insidental. Hasil pengabdian kepada masyarakat ini menunjukkan bahwa literasi komunikasi bencana perlu didiseminasikan dalam bentuk permainan teka-teki silang. Para siswa yang mengikuti penyuluhan ini lebih aktif menggunakan kemampuan berpikir mereka untuk memahami istilah-istilah dalam kebencanaan. Di samping keaktifan mereka dalam mengisi permainan teka-teki silang tersebut, pada saat yang sama mereka berlatih untuk bekerjasama menyelesaikan permainan tersebut bersama teman-teman mereka. Hal ini merepresentasikan bahwa resiko bencana dapat diminimalisir melalui kerjasama aktif di kalangan masyarakat.

Kata Kunci: literasi, komunikasi bencana, permainan tradisional

Abstract: West Aceh as one of the natural disaster-prone areas in Indonesia requires concrete steps for disaster mitigation. One important step that must be taken is to provide knowledge about disaster communication literacy among students. Previous studies have examined disaster communication models based on some experiences of areas that experienced natural and non-natural disasters. However, few studies have examined disaster communication literacy through traditional games such as crossword puzzles (TTS). Therefore, this article attempts to fill this gap by taking a case study of Madrasah Tsanawiyah Negeri (MTsN) 3 Aceh Barat. The data for this article were obtained through counseling and mentoring activities in the form of incidental community service. The results of this community service show that disaster communication literacy needs to be disseminated in the form of a crossword puzzle game. The students who participated in this counseling were more active in using their thinking skills to understand the terms of disaster. In addition to their activeness in filling out the crossword puzzle game, they practiced working together with their friends to complete the game. This represents that disaster risk can be minimized through active cooperation among the community.

Keywords: literacy, disaster communication, traditional games

Pendahuluan

Based on Indonesian Disaster Information Data (DIBI), in the last three years (2020-2023), around 520 disasters occurred in Aceh as shown in [Table 1](#). These disasters include floods, landslides, abrasion, drought, and others (DIBI, [2023](#)). This situation shows that the people of Aceh must have strong preparedness to face the potential and risks of disasters. Prihatin (2018) mentioned several data showing that Indonesian people were generally

unprepared to face disasters. The large number of fatalities shows this due to disasters in various regions in Indonesia. To reduce disaster risk, disaster mitigation measures are needed with various approaches such as structural (hard power) and non-structural (soft power) approaches. (Lestari, 2018a; Tamitiadini, Dewi, & Adila, 2019).

Table 1. Disaster Profile in Aceh in the 2020-2023 Range

Year	Number of Disasters	Types of Disasters	Number of Victims
2020-2023	520	Floods, Landslides, Floods and Landslides, Abrasion	Died: 18 Missing: 7 Injured: 13 Suffered: 307,724 Displaced: 67,882

Source: Data processed from DIBI

The two approaches that can be used in mitigating the above disasters are listed in *Undang-Undang Nomor 24 Tahun 2007 tentang Penanggulangan Bencana*. In addition, based on the constitutional mandate, every citizen must carry out disaster management activities. Furthermore, in *Pasal 37 ayat 2* explains that one of the disaster management efforts is through developing a culture of disaster awareness or disaster communication literacy in the author's terms. Disaster awareness culture needs to be socialized among children. This is because children are a group that is physically and psychologically vulnerable when facing disasters (Andrianie & Habiby, 2021). Labudasari & Rochmah (2020) explained that a culture of disaster awareness can be implemented among students in several ways, including integration into subjects and socialization of disaster literacy.

The community service carried out by this author is included in the second group, namely the socialization of disaster literacy outside of school subjects. So far, many studies have explained how to increase disaster communication literacy among students. For example, a study conducted by Rahmawati, Laelasari, Magfiroh, Susilawati, & Damayanti (2023) discusses the socialization of disaster mitigation through singing, telling and playing methods. Dewi (2020) explains disaster mitigation efforts through implementing the Disaster Preparedness School (SSB) policy in Yogyakarta. Along the way, this policy was also implemented in other areas with a high potential for disaster, such as Lombok (Angraini, Syamsuddin, Wirawan, Qomariyah, & Sukrisna, 2019) and West Sumatera (Saputra, Roswati, Fatmawati, Novita, & Nelvawita, 2021). Unlike previous studies, Muyasaroh & Sudarmilah (2019) used online gaming tools to educate children about digital literacy. According to them, an online game called 'Boim the Fire Conqueror' can teach children about fire disaster mitigation. Apart from children with normal conditions who need disaster mitigation skills, the study by Komalasari & Pamungkas (2019) targeted children with special needs. They conduct training and simulation activities for children with special needs using a multisensory-based disaster mitigation approach. This training is very important, considering that children with normal conditions and children with special needs have the same right to obtain knowledge and information about disasters. Even though many studies have provided disaster mitigation models in Indonesia, there is no ideal non-structural approach that can be used to mitigate disasters among school students before a disaster occurs (pre-

disaster). So far, non-structural approaches in disaster mitigation have always taken the form of outreach or seminars. According to the author, a model like this seems monotonous and does not significantly impact children.

This article enriches previous studies by proposing a disaster communication literacy model through Crossword Puzzle or *Teka-Teki Silang* (TTS) games. The author believes that TTS is not only seen as a game but also stimulates affective, cognitive, and psychomotor abilities. These three aspects of ability are missing from previous authors' readings. Therefore, the author carries out community service at MTsN 3 West Aceh. The aim is not only to increase disaster communication literacy among students but also to enrich studies regarding disaster mitigation in Indonesia. MTsN 3 is one of the junior high schools under the Ministry of Religion in West Aceh. MTsN 3 was chosen as the location for community service because so far no activities regarding disaster communication literacy have been carried out. In fact, this school is in the center of Meulaboh City, which has a very high potential for natural disasters. Apart from that, ease of access is also a consideration for the author in carrying out service at the school.

Method

Activities to increase disaster communication literacy among students are carried out using a game-based learning approach (Wardani, 2009). The game-based learning used is the Crossword Puzzle method known as Crossword Puzzles (TTS). This TTS method is used as a fun method, attracts students' attention, and can increase the working capacity of students' brain nerves to process information, even though it is done in a relaxed manner (Kurniawan, Dewi, Leonita, Nurlisis, & Muryanto, 2021). Apart from that, play media is very close to children's culture (Wardani, 2009). Then every child has the instinct to play. This instinct helps the child's growth and development process (Mulyadi, 1997). This community service program was carried out based on the roadmap and timeline that have been prepared as Figure 1 below.

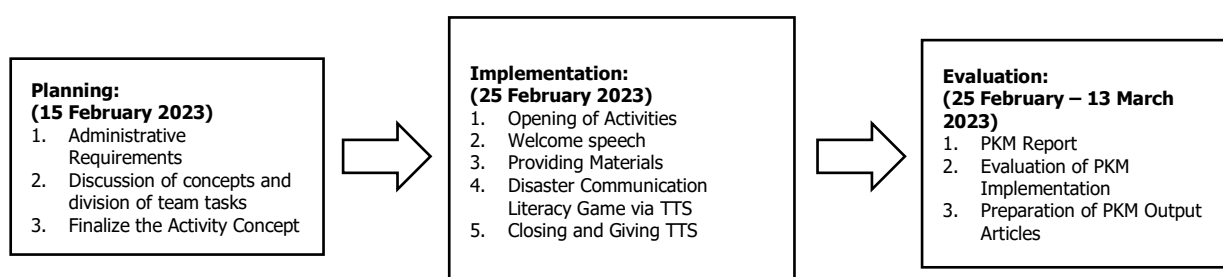


Figure 1. Roadmap and Timeline of this community service program

Apart from that, this program was carried out based on the timeline agreed upon with partners, namely on February 25 2023 at MTsN 3 West Aceh. This program involved 72 participants. The parties involved and their roles can be seen in Table 2 and the materials needed to carry out this program are shown in Table 3.

Table 2. Stakeholders involved in the program

No.	Stakeholders	Role
1	MTsN 3 West Aceh	Invite speakers, provide activity space, and become participants
2	Communication Department of Teuku Umar University	Provide a letter of introduction to activities at LPPM Teuku Umar University
3	LPPM Universitas Teuku Umar	Provide a letter of assignment to carry out community service activities
4	Communication Lecturer of Teuku Umar University	Become a resource person in disaster communication literacy activities

Source: Researcher Processed Data

Table 3. Activity support materials

No.	Material	Jumlah
1	Laptop	1 unit
2	Infocus	1 unit
3	TTS game banner	1 sheet (size 2 x 1 meter)
4	Activity banner	1 sheet (size 2 x 1 meter)
5	Door prizes	1 pct

Source: Researcher Processed Data

This program is carried out in three stages, namely planning, implementation, and Evaluation. During the planning, the author carried out several activities including:

1. Manage the administration of implementing community service, such as making a cover letter for community service addressed to the head of the communication science study program, then forwarding it to the faculty and forwarding it to the Research, Community Service and Education Quality Assurance Institute (LPPM-PMP) of Teuku Umar University.
2. Discuss the conceptual plan for implementing activities, including the selection of resource persons, materials, and other equipment. This activity was carried out with several activities, such as holding planning meetings with lecturers in the communication science study program at Teuku Umar University. Then, the planning that has been discussed will be implemented by each lecturer which has been divided into several sub-sections of activities, such as team A formulating activities and games that are by the theme of community service, team B designing the design/layout of the games which will be implemented in the form of TTS and selecting images related to disasters, and team C focuses on the budget and follow-up on community service administration.
3. Finalize the activity concept before the activity takes place, such as reviewing the entire planning that has been carried out by each team. This study was carried out with the aim that the overall design of community service activities could be implemented appropriately.

Meanwhile, during the implementation, the author carried out several activities, namely:

1. Opening of activities by school representatives. In this activity, the opening was carried out by a teacher and continued by giving directions to the students to be able to follow the entire series of activities carefully.
2. Welcome by representatives of lecturers who carry out community service activities. On this occasion, representatives of Teuku Umar University communication science study

program lecturers explained the reasons for carrying out this activity and invited students to actively participate in every activity that was held.

3. Providing TTS-based disaster communication literacy material. At this stage, representatives of Teuku Umar University communication science study program lecturers first delivered material about disasters and efforts that can be taken to overcome disasters. Apart from that, at this stage, students also convey ways to mitigate disasters that can be carried out by students. After delivering the material, the next activity continued with the implementation of Crossword Puzzle (TTS) games.
4. Closing or giving door prizes to groups who can fill in the TTS questions correctly.

After the program implementation, the author carried out personal communication with the teachers to find out the extent of their response regarding this service activity. Then the author evaluated with the team, to find out the shortcomings in the implementation of these activities. The aim is to improve future community service activities. Then the author reported the results of the activities to the LPPM of Teuku Umar University and compiled other activity outputs in the form of journal articles.

The data for this article was obtained through the service learning method, meaning the author acts as an instructor who teaches disaster communication literacy to students, so that students gain experience and knowledge outside their subjects. Then the author also communicated with the teacher. Next, service data is compiled descriptively and discussed through relevant literature, to obtain reflective conclusions or recommendations.

Results and Discussions

The results of this activity are explained in two parts, namely: First, providing Disaster Communication Literacy Material. Second, increasing Disaster Communication Literacy through TTS. However, before the author explains in detail regarding community service activities, the author will first explain the reasons for using TTS in community service activities. Several academics have used several methods of learning about disaster mitigation, such as making booklets, installing road signs, and counseling. In relation to making booklets, the educational process is carried out by presenting material about disasters and disaster mitigation efforts in the form of small books or pocketbooks. This book is supported by illustrations or visuals that support student understanding, so that students are interested in reading the pocketbook. However, presenting the material in booklet form requires integration with formal lessons and efforts from teachers to be able to understand disaster material to students interactively (Pradina & Pratama, [2021](#)).

Apart from that, education on other disaster mitigation efforts such as installing markers and counseling has also been carried out. Regarding the installation of markers, the education carried out is only limited to conveying the meaning of disaster signs as part of door locks or area restrictions (Putri et al., [2022](#)). This effort is also conveyed in the form of disaster mitigation outreach activities by other academics. The outreach only conveys general knowledge about disasters and general efforts to overcome disasters (Sukanto, Nurhidayat, & Verawati, [2021](#)).

Some of the disaster mitigation education that has been carried out by several academics above shows that the efforts made are only limited to general knowledge and have not been carried out in-depth with a fun approach. If we look at it based on students' grasping power, it is best if students are given an education that is fun or has a fun learning method (Asmawadi, 2021). Several forms of education based on fun learning methods can be done in the form of crossword puzzle games and picture guessing. This form of education is considered very effective and can develop children's ability to comprehend more quickly (Fatima, Khairunisa, Priatna, & Prihatminingtyas, 2019). Based on the implementation of community service activities above, the author sees that the TTS method can be used as an option in the student learning process, one of which is the process of understanding material about disasters and disaster mitigation at (MTsN) 3 West Aceh.

The results of the community service activities that the author has carried out are as follows:

Providing Disaster Communication Literacy Materials

The disaster communication literacy material carried out at MTsN 3 West Aceh is divided into two, namely natural and non-natural disasters as shown in Figure 2. The service resource person explained that natural disasters are disasters caused by natural events such as earthquakes, tsunamis, volcanic eruptions, floods, landslides, and others. Meanwhile, non-natural disasters are disasters caused by non-natural events such as technological failures, epidemics, and disease outbreaks.



Figure 2. One of the disaster communication literacy materials

Apart from that, the resource persons also provided case studies of disasters that could potentially occur in Aceh such as floods, extreme weather, abrasion, earthquakes, landslides, fires, tsunamis, and others. Based on this explanation, the resource person provided mitigation steps. (Lestari, 2018b, 2018a) they explained that disaster mitigation is efforts made by the community to reduce disaster risks such as preparedness training, outreach, and increasing disaster communication literacy.

The mitigation explained by the resource person is in line with Lestari's opinion above. Mitigation that can be carried out by school students in West Aceh is through disaster training and increasing disaster literacy. The resource person also provided a case study of flood disaster

mitigation which was divided into pre-flood, during the flood, and after the flood. Before (pre-flood) mitigation that can be done is socialization, cleaning water channels, and preparing flood disaster equipment. When a flood occurs, school students can do several things such as not panic, look for higher ground, save important documents, and look for objects around them that can float. Meanwhile, after a flood occurs, things that must be done are cleaning your residence, checking the availability of clean water, not using clean water arbitrarily, repairing water channels, self-motivation, and so on.

Apart from providing material regarding disaster literacy, service speakers also introduce agencies or institutions involved in dealing with disasters in Indonesia. The resource person explained the duties and functions of the National Disaster Management Agency (BNPB) and the Search and Rescue Team (SAR) or National SAR Agency (BASARNAS). Through this material, students can increase their disaster communication literacy. Based on the resource person's confirmation with students during the presentation of the material, the resource person asked about their understanding of SAR and BNPB. Most of the students' answers said that they did not recognize several disaster management institutions. Therefore, this service provides an increase in disaster communication literacy, especially in students' cognitive aspects.

The students' experiences in knowing the functions and roles of disaster management institutions above strengthen Jean Piaget's theory of cognitive development. According to Piaget, students' or children's cognitive knowledge will continue to develop based on the experiences and activities they experience (Mifroh, 2020). This finding also refutes the assumption that may have been held by some scholars or the public that the lecture learning method is less effective in disseminating knowledge. This assumption is not entirely wrong, but it is important to know that although not all knowledge can be accepted by students, based on Piaget's theory, the activities experienced by students will give them new insights. This is demonstrated by students' experiences in receiving information related to SAR and BNPB.

During the process of delivering this material, the students were very enthusiastic about listening to disaster information or knowledge from the resource person. They are actively involved in interactive communication while delivering the material. This is driven by the use of technology-based learning media such as Infocus. The use of infocus and displaying material in video form further supports the process of receiving disaster communication literacy material for students. This is in line with an opinion (Arigiyati, Kuncoro, & Kusumaningrum, 2021) which says that the teacher or resource person's ability to use technology can support an interactive and conducive learning process.

The author believes that the provision of material in various activities, especially among students, needs to be designed with a more modern approach. For example, packaging socialization materials in audio-visual form. This is because research results show that students more easily receive knowledge through the sense of sight (visual) than the sense of hearing (auditory) (Yusuf & Amin, 2016).

Increasing Disaster Communication Literacy Based on Crossword Puzzles (TTS)

The implementation of the TTS games was carried out after the material was delivered

by the community service team. Students are first given an understanding of general information in the field of disasters and disaster mitigation efforts. When the material was presented, students were first asked several questions about disasters. The result is that there are still many students who do not understand disaster mitigation, but they know the types of disasters, such as floods, tsunamis, and earthquakes. The author assumes that these students have not fully received education about disaster mitigation, so education is needed that can encourage students to understand disaster mitigation. The author hopes that the form of education delivered to them will at least not only understand them but can also train them to be prepared and sensitive to disaster issues. Therefore, the author and the community service team agreed to provide early education to students as a first step to increasing awareness and understanding regarding disaster mitigation. This effort can be done using fun methods, such as Crossword Puzzles.

Crossword Puzzles (TTS) is a word game with a method of filling in empty boxes according to the instructions given by the creator. These empty boxes must be filled according to the number of boxes provided and combined with other box connections. Generally, TTS uses two clue terms, namely horizontal and descending column clues. The community service team created TTS according to the topic of service and adapted it to the abilities of students at the MTs level. The TTS design form for activities to increase disaster communication literacy is shown in [Figure 3](#).

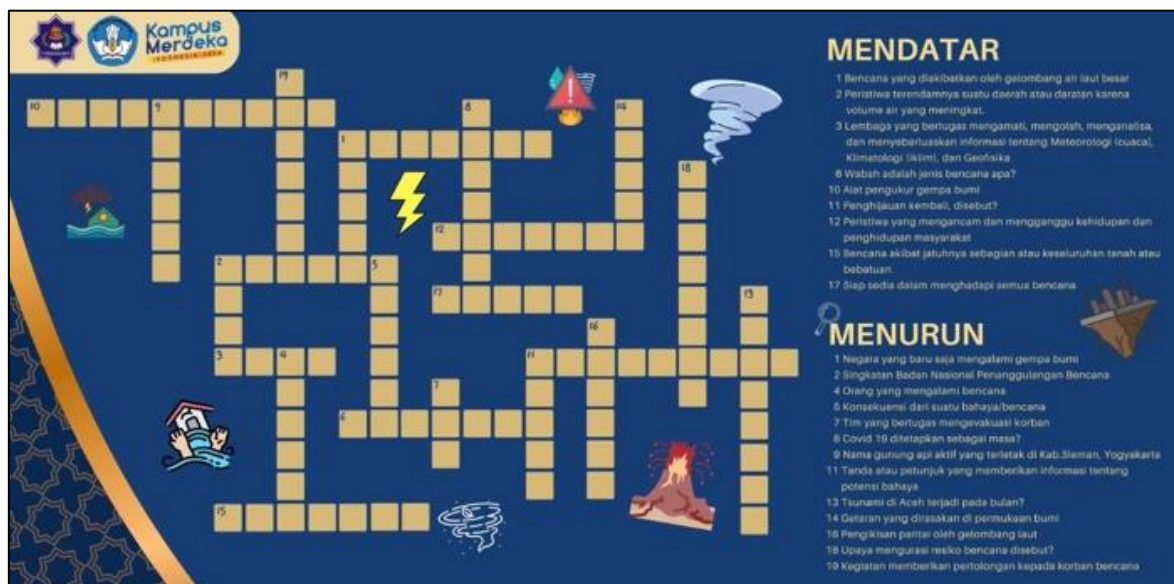


Figure 3. TTS Game Design

In these empty boxes, students must fill in according to the instructions in the horizontal and descending columns. The questions that students must fill in are shown in [Table 4](#).

The instructions above represent various aspects of disasters such as general knowledge of disasters (terms), history, and mastery of information and reporting. In the general knowledge aspect of disasters, it is reflected in the terms mitigation (answer 18 down), victims (answer 4 down), aid (answer 19 down), Abrasion (answer 16 down), BNPB (answer 2 down),

Seismograph (answer 10 down), and others. Then on aspects of historical knowledge such as when the Aceh tsunami occurred (13 decreased), the Pandemic (answer 8 decreased), and others. In the aspect of knowledge, the latest information and news about disasters is reflected in answers regarding BMKG (answer 3 horizontally), Turkey (answer 1 decreasing), signs (answer 11 decreasing), and others.

Table 4. Horizontal and Descending Questions

No	<i>Mendatar dan Menurun</i>
Mendatar	
1	<i>Bencana yang diakibatkan oleh gelombang air laut besar</i>
2	<i>Peristiwa terendahnya suatu daerah atau daratan karena volume air yang meningkat</i>
3	<i>Lembaga yang bertugas mengamati, mengolah, menganalisa, dan menyebarkan informasi tentang cuaca, iklim, dan geofisika</i>
6	<i>Wabah adalah jenis bencana apa?</i>
10	<i>Alat pengukur gempa bumi</i>
11	<i>Penghijauan kembali disebut?</i>
12	<i>Peristiwa yang mengancam dan mengganggu kehidupan dan penghidupan masyarakat</i>
15	<i>Bencana akibat jatuhnya sebagian atau keseluruhan tanah atau bebatuan</i>
17	<i>Siapa sedia dalam menghadapi semua bencana</i>
Menurun	
1	<i>Negara yang baru saja mengalami gempa bumi</i>
2	<i>Singkatan Badan Nasional Penanggulangan Bencana</i>
4	<i>Orang yang mengalami bencana</i>
5	<i>Konsekuensi dari suatu bahaya/bencana</i>
7	<i>Tim yang bertugas mengevakuasi korban</i>
8	<i>Covid-19 ditetapkan sebagai masa?</i>
9	<i>Nama gunung api aktif yang terletak di Kab. Sleman, Yogyakarta</i>
11	<i>Tanda atau petunjuk yang memberikan informasi tentang potensi bahaya</i>
13	<i>Tsunami di Aceh terjadi pada bulan?</i>
14	<i>Getaran yang dirasakan di permukaan bumi</i>
16	<i>Pengikisan pantai oleh gelombang air laut</i>
18	<i>Upaya mengurangi risiko bencana disebut?</i>
19	<i>Kegiatan memberikan pertolongan kepada korban bencana</i>

Source: Author's personal documents

Based on the instructions above, students are asked to fill in the empty boxes on the TTS with their peers. The community service team divided students into two groups using a random system (men and women). From each group, appoint one person as the writer of the answers on the TTS banner that has been provided.

In the process, both groups of students were very enthusiastic about completing the TTS (Figure 4). They expressed their opinions to each other in turn. Indirectly, this trains their affective abilities. They learn to accept suggestions from their friends regarding the correct filling-in-the-blank spaces in the TTS. In addition, they also learn to harmonize opinions that arise from different arguments put forward by their peers. This shows that the students we trained for disaster communication literacy skills were an active group of students. Each of them read and studied the crossword clues. They are not passive, just waiting for answers from other colleagues.



Figure 4. Students' enthusiasm in completing TTS

In the process of completing the TTS, students also train their psychomotor skills. They practice how to express opinions (speaking), writing, and other practical skills. This activity illustrates that increasing disaster communication literacy through TTS games can improve students' social-emotional (affective) and practical (psychomotor) abilities.

Learning activities through TTS are very appropriate to the culture of students as a generation of children. (Mulyadi, 1997) explains that every child has the instinct to play. Play activities are a necessity for them to grow and develop their knowledge. Therefore, combining the world of games with the world of learning is a reflection of fast learning techniques (accelerated learning) and effective learning integration (integration-interconnection learning).

The effectiveness of learning through the world of TTS games is also in line with the characteristics of playing, namely 1) Playing is a fun activity for a child, 2) Playing is based on motivation that arises from within the child without having to be ordered by others, 3) Play is spontaneous and voluntary, 4) Playing involves the child's active role, both mentally and physically, and 5) Play has a special systematic relationship to something that is not playing (Mulyadi, 1997).

After students complete the TTS based on a predetermined period, the community service team reviews the students' answers. The students were asked to stand in their respective groups holding their respective TTS banners (Figure 5).



Figure 5. Both groups hold TTS banners

The results show that disaster communication literacy skills among students are very good. They were able to understand the material presented by the resource person before the TTS game started. If measured based on the percentage of the total number of students who took part in this service activity (61 people), it can be seen in general that almost 80% of students already understand the basic concepts of disasters and disaster mitigation. This data was obtained based on the division into 2 groups, namely Group I consisting of 31 people, and Group II consisting of 30 people. Of the two groups of students, group I filled in the TTS with all the correct answers. Meanwhile, group II had six wrong answers. Based on these results, it can be seen that students who joined group I can be said to have reached 100% understanding of disasters and disaster mitigation with a total of 12 questions. In comparison, group II was only able to answer 6 questions correctly and was relatively equivalent to a percentage of 50% of the total questions. 12 pieces. For more details, see [Table 5](#) below.

Table 5. Review Students' TTS Answers

Mendatar dan Menurun		Kelompok	
Mendatar		I	II
1	Bencana yang diakibatkan oleh gelombang air laut besar	√	√
2	Peristiwa terendahnya suatu daerah atau daratan karena volume air yang meningkat	√	√
3	Lembaga yang bertugas mengamati, mengolah, menganalisa, dan menyebarkan informasi tentang cuaca, iklim, dan geofisika	√	√
6	Wabah adalah jenis bencana apa?	√	√
10	Alat pengukur gempa bumi	√	X
11	Penghijauan kembali disebut?	√	X
12	Peristiwa yang mengancam dan mengganggu kehidupan dan penghidupan masyarakat	√	√
15	Bencana akibat jatuhnya sebagian atau keseluruhan tanah atau bebatuan	√	√
17	Siapa sedia dalam menghadapi semua bencana	√	√
Menurun		I	II
1	Negara yang baru saja mengalami gempa bumi	√	√
2	Singkatan Badan Nasional Penanggulangan Bencana	√	√
4	Orang yang mengalami bencana	√	√
5	Konsekuensi dari suatu bahaya/bencana	√	√
7	Tim yang bertugas mengevakuasi korban	√	√
8	Covid-19 ditetapkan sebagai masa?	√	√
9	Nama gunung api aktif yang terletak di Kab. Sleman, Yogyakarta	√	X
11	Tanda atau petunjuk yang memberikan informasi tentang potensi bahaya	√	X
13	Tsunami di Aceh terjadi pada bulan?	√	√
14	Getaran yang dirasakan di permukaan bumi	√	√
16	Pengikisan pantai oleh gelombang air laut	√	X
18	Upaya mengurangi risiko bencana disebut?	√	X
19	Kegiatan memberikan pertolongan kepada korban bencana	√	√

Note: √ (Right) / X (False)

Source: Researcher Processed Data

At the end of the review activity, the community service team gave door prizes to each group. The aim is to encourage them to take part in further activities. Apart from that, to

document the activities, the community service team together with teachers and participants took photos together.

This activity was appreciated by the teacher who accompanied the activity to increase disaster communication literacy at MTsN 3 West Aceh. Nurfaridah, one of the teachers present, said that so far disaster communication literacy had never been held, so this activity was very beneficial for students. Apart from that, he also added that game media is very appropriate for students.

"If they use games like this, they will be happy, but if they are studying monotonously in class, everyone will just keep quiet. So it is appropriate that this activity is packaged with a game model (Komunikasi Pribadi dengan Nurfaridah, 2023)."

One of the participants, Yassmin, said she had gained new knowledge regarding disaster communication literacy. So far, he does not know about how to reduce disaster risk and what institutions play a role in disaster management. Therefore, according to him, this activity is very beneficial for them as students. To be clearer, this activity produces several things, namely:

1. Collaboration between the Teuku Umar University Communication Science Study Program and MTsN 3 West Aceh in educating students about disaster communication literacy.
2. MTsN 3 West Aceh students have the basic ability to recognize the terms disaster, disaster mitigation, and initial actions in dealing with disaster situations that occur at any time.
3. Train the cognitive, affective, and psychomotor skills of MTsN 3 West Aceh students through TTS-based disaster communication literacy.
4. Offering a disaster communication literacy learning model through TTS among students.

Based on the above, disaster communication literacy among students requires collaborative and collegial cooperation from various parties, both universities, and stakeholders such as schools, so that all elements of society, from children to adults, have good or deep disaster mitigation capabilities. Another term is called crisis communication or crisis management (Nugroho & Sulistyorini, 2002). Aceh, as an area prone to natural disasters, of course, requires the readiness of its people to face disasters that may occur at any time. Moreover, recently the uncertain climate conditions require mental and physical readiness from the community to be able to adapt to these changes. One important aspect that must be done is to develop good communication patterns with oneself, with fellow citizens, and with nature or the environment, both during pre-disaster, during disaster, and post-disaster. (Lestari, 2018a).

Conclusion

The findings above reflect that one of the efforts to mitigate natural and non-natural disasters is through increasing disaster communication literacy among students. To provide knowledge about disasters among students, an approach is needed that is appropriate to the socio-psychological conditions of children. Therefore, a disaster communication literacy approach through TTS games is a strategy that is appropriate to students' culture. Middle school students, who tend to be accustomed to a 'play' culture, find it easier to understand disaster

communication literacy through games.

Based on the service activities that have been carried out, it is hoped that in the future other forms of innovative activities will emerge. Although this article has demonstrated one approach to disaster communication literacy, it is still an initial exploration. However, efforts to instill literacy and education about disasters are still in the development stage. The community service team still needs to dig deeper into role-play practices and traditional Indonesian games that can be taught to students as a form of preparedness when a disaster occurs. This means that there are many other approaches that community service activists can take, which are based on local wisdom. This cannot yet be applied practically considering the time and in-depth exploration of the material. So, some planning is needed as a form of continuation of this community service activity. Therefore, it is hoped that future studies will be able to enrich this topic of discussion so that other Indonesian local wisdom-based disaster mitigation models will emerge, which can become prototypes for disaster mitigation in the world.

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