

# Volunteers Experiences for the Future of Disaster Education: Empowering Communities, Addressing Challenges, and Charting a Resilient Future

**Seyfullah Gül**

Ondokuz Mayıs University, Türkiye,  
[seyfullah.gul@omu.edu.tr](mailto:seyfullah.gul@omu.edu.tr)  
<https://orcid.org/0000-0002-5166-454X>

**Eyüp Artvinli**

Eskişehir Osmangazi University, Türkiye,  
[eartvinli@ogu.edu.tr](mailto:eartvinli@ogu.edu.tr)  
<https://orcid.org/0000-0002-0502-5720>

**Abstract.** Volunteers are tremendous resources in space and time scale with their global footprints, qualifications, and scopes. However, volunteers are often ignored, especially in dealing with disasters. This study has been carried out to identify the basic problems that will shape the future education of volunteers working in disasters, based on real-life case studies. In this study, a qualitative case study method was used to focus on the activities completed by volunteers in the event of a disaster, and therefore reveal the problems which are experienced by volunteers. The data has been collected through participant observation and semi-structured interviews. Descriptive analysis was used to analyze the data. According to findings six themes of (1) participation, (2) quality, (3) attitude, (4) impact, (5) problems and (6) suggestions are determined as being related to the activities of volunteers who respond to and deal with disasters. The findings also indicate that although volunteers can easily join volunteer organizations in Türkiye, there are problems arising from disaster victims, volunteer organizations and volunteers. Consequently, whilst volunteers in Türkiye are important actors in dealing with disasters, it is thought that volunteers can be utilized much more and at a qualified level in the fight against disasters.

**Key words:** Disaster education, NGOs, disaster and emergency management presidency (AFAD), Türkiye

## Savanorių patirtis švietimo apie krizines situacijas ateičiai: bendruomenių įgalinimas, iššūkių sprendimas ir atsparios ateities vizija

**Santrauka.** Savanoriai yra didžiulis išteklius, jų indėlis, kvalifikacija ir veiklos diapazonas – beribis. Vis dėlto savanoriai dažnai ignoruojami, ypač reaguojant į krizines situacijas. Šis realių atvejų tyrimas buvo atliktas siekiant nustatyti pagrindines problemas, kurios ateityje padėtų formuoti savanorių, dirbančių krizinėmis situacijomis, ugdymą. Tyrime naudotas kokybinis atvejo studijos metodas, siekiant sutelkti dėmesį į savanorių vykdomą veiklą nelaimių atveju ir atskleisti sunkumus, su kuriais jie susiduria. Duomenys buvo renkami iš dalyvių stebėjimų ir iš pusiau struktūruo-

**Received:** 25/10/2023. **Accepted:** 30/11/2023

Copyright © Seyfullah Gül, Eyüp Artvinli, 2023. Published by Vilnius University Press. This is an Open Access article distributed under the terms of the [Creative Commons Attribution Licence \(CC BY\)](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

tų interviu, duomenims analizuoti naudota aprašomoji analizė. Remiantis gautais rezultatais, išskirtos šešios temos: (1) dalyvavimas, (2) kokybė, (3) požiūris, (4) poveikis, (5) problemos ir (6) pasiūlymai, apimančios savanorių, kurie reaguoja į krizines situacijas ir jas likviduoja, veiklą. Tyrimo rezultatai taip pat rodo, kad nors savanoriai gali nesunkiai prisidėti prie savanorių organizacijų Turkijoje, jiems kyla problemų, susijusių su nelaimių aukomis, savanorių organizacijomis ir pačiais savanoriais. Todėl, nors savanoriai Turkijoje yra svarbūs nelaimių padarinių likvidavimo dalyviai, galima daryti išvadą, kad krizinėse situacijose savanorių pagalba galėtų būti daug platesnė ir kvalifikuotesnė. **Pagrindiniai žodžiai:** švietimas apie krizines situacijas, nevyriausybines organizacijas, krizinių ir ekstremaliųjų situacijų valdymo centras (AFAD), Turkija.

---

## Introduction

Disasters, whether they occur as a natural process or as a man-made phenomenon, are one of the most complex problems faced by the world. Disaster is a phenomenon that is researched and discussed by different disciplines with its conceptual structure, types, causes, consequences, precautions to be taken before and after, and thematic focal points. The World Health Organization (WHO) defines disaster as a sudden ecological phenomenon of sufficient magnitude to require external assistance. On the other hand, Landsman (2001) defines disaster as an emergency of such severity and magnitude that resultant combination of deaths, injuries, illness, and property damage cannot be effectively managed with routine procedures or resources. There is little consensus on the conceptual dimension and definition of the word disaster. However, many definitions emphasize the fact that response to or dealing with disaster requires foreign aid, will occur suddenly, causes serious deterioration in the functioning of society and ecology, and causes loss of life and property.

On the other hand, there are several definitions of disaster education that may lead to confusion about its place in disaster management. For example, Shaw et al. (2011) believe that ‘disaster education,’ ‘disaster risk education,’ and ‘disaster prevention education’ are ‘different expressions that essentially mean disaster risk reduction education’ (Dufty, 2020). There are many studies about disaster education for the different stakeholders of the communities (Daewoong, 2019; Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES), 2022; Harada, Shoji, Takafuji, 2023; Kaya, 2022; Başibüyük, Pala, 2023); Mulianingsih, Hardati, 2022; Nakano, Yamori, 2021; Önal, 2019; Rahma, Mardiatno, Hizbaron, 2023; Torani, Majd, Maroufi, Dowlati, Sheikhi, 2019). There can be found many different applications about disaster education and their results in the literature (Li et al., 2022; Gong, Duan, Guo, 2021; Shaw, Sakurai, Oikawa, 2021; Senanayake et al., 2023).

In addition to the quality, quantity, spatial and temporal distribution of disasters, other important issues include disaster damage prevention, risk reduction, preparatory studies, intervention, and assistance. While most of the activities required before and after a disaster are provided by public and local organizations and expert teams, sometimes the responses of relevant organizations are insufficient in solving problems such as search and rescue, first aid and recovery. Therefore, additional volunteers are of vital importance at this stage.

Volunteering is an activity that points to a wide variety of activities such as traditional assistance, delivery of social services and different ways of civic participation, which individuals do with their goodwill for the improvement of society in general, and where material interest is not the main motivating factor (Betil, 2013, p.12). Shaskolsky (1967, pp. 8-9) classifies volunteers as: (1) spontaneous volunteers (who provide purely individual assistance, primarily those involved in the early stages of the disaster, e.g., the ones who participate in search and rescue stages), (2) expected organization volunteers (people who are regularly associated with some organizations, such as volunteer firefighters and Red Cross, whose participation in these organizations is known before, and who is involved in any pre-disaster planning of the organization), (3) spontaneous organization volunteers (those who take part in the service of an organization only after a disaster has occurred), and (4) individual volunteers (those who put their skills like a doctor at the service of the victims, meeting the general expectations of the society individually).

Volunteers, whether individually, spontaneously or affiliated with an organisation, become a tremendous force of assistance by offering their time, knowledge, skills and resources to help others in times of need arising from the disaster. However, this tremendous power can certainly become a greater and more effective power if a society is trained to reduce disaster risks at an early age (Kaya, Artvinli, Dönmez, 2023; Artvinli, Dönmez, 2023). In the event of a disaster, volunteers fulfil many functions such as (1) taking on roles that require less technical training, allowing professionals to focus on more highly specialized roles; (2) providing additional intervention capacity through different skills and abilities; (3) providing the most efficient, effective intervention and recovery using a well-designed plan and all available resources; and (4) reducing the overall workload (FEMA, 2006; Whittaker, McLennan and Handmer, 2015).

Although the rate of participation in volunteering activities has increased both individually and through an organization in the world and in Türkiye, this rate is still not at an expected level. According to the World Giving Index 2021 published by the Charities Aid Foundation, globally more people than previously recorded (more than half of the world's adult population) reported helping a stranger in 2020. According to the same study, there has been an increase in the time to participate in voluntary activities in Türkiye compared to previous years (132nd in 2014, 99th in 2020) (World Giving Index (WGI), 2021).

### ***The Current Study***

Volunteering has become an important field of study in national and international literature. Among these studies, issues such as the problems of volunteers in non-governmental organizations and solutions to these problems (Aslan, 2019), definitions, opportunities and challenges (Whittaker, McLennan and Handmer, 2015), awareness and preparation (Khatun and Islam, 2015) are the leading topics. In addition, studies on the role and contributions of volunteering (Betil, 2013), the participation of young people in volunteering activities (Görgün, 2019), the functions of volunteers in disaster management and the con-

cept of volunteering, and the reasons that push people to volunteer in society can also be found in the literature. In addition to these studies, some studies examining issues such as the reasons that prevent people from volunteering and providing volunteer training (Kaya, 2013; Alkın, 2021), volunteer experiences in large buildings during earthquakes (Kako and Ikeda, 2009), natural disasters and participation in volunteer activities are also included in the literature. The arguments above show that volunteers are a phenomenon that needs to be investigated more comprehensively through a multidisciplinary lens of space and time in terms of their global domains, functions, fields of activity and the problems they face. In the face of adversity, volunteers stand as pillars of support, catalysts for change, and harbingers of hope. Their unwavering commitment and selfless dedication during times of disaster play a pivotal role in shaping the outcomes of affected communities. Among the various facets of disaster management, education emerges as a critical tool in mitigating risks, fostering preparedness, and building resilience. This article delves into the multifaceted landscape of volunteers in disaster education, exploring their participation, impact, challenges, and potential solutions for the future of disaster education. Thus, the aim of this study, in the context of disaster education, is to identify the basic problems that will shape the future education of volunteers working in disasters, based on real-life case studies. Within the scope of this aim, the research question has been defined as: “According to disaster volunteers working in disasters, what are the main problems that need to be addressed in terms of future disaster education?”

## **Methodology**

To this research, a qualitative case study method was used. In qualitative research, social phenomena and events are investigated in a realistic and holistic way in their natural environments, to understand the reasons behind social reality and human behavior (Yıldırım and Şimşek, 2018, p.41; Gürbüz and Şahin, 2014, p.106). A case study is a methodological approach that involves in-depth examination of a limited system using multiple data collection to gather systematic information about how it performs and works (Chmiliar, 2010). This method has been preferred to help reveal the problems experienced by the volunteers by focusing on the activities of the volunteers in the event of a disaster.

### ***Data collection tool***

In case studies, six sources are mentioned in the data collection process: (1) documents, (2) archival records, (3) interviews, (4) direct observation, (5) participant observation, and (6) physical structures (Yin, 1984). In this study, data has been collected using participant observation and face-to-face interviews. A semistructured interview has also been used to help examine the subjective judgments, feelings and thoughts of the volunteers who are participating in the study. In development of the semistructured interview, works of Arslan (2018), Whittaker, McLennan and Handmer (2015), FEMA (2006),

Kaya (2013) and Yamamura (2013) have been considered. The semistructured interview consists of two parts. In the first part there are questions which include personal information of the participants such as age, gender, city of residence and educational status. In the second part, there are open-ended questions to identify volunteers' participation, disaster training, volunteering activities and the associated problems. The interviews have firstly been conducted face-to-face with a volunteer who has taken part in at least one volunteering activity and has not been included in the study, using a semistructured interview form developed according to the literature, and after this application, necessary changes have been made on the interview form. For the validity of the form, the opinions of an expert scholar in the field of volunteering have been considered.

For participant observation, volunteers took part in the improvement works for seven days as volunteers of Disaster and Emergency Management Presidency (AFAD) in the flood disaster that had occurred in the Bozkurt district of Kastamonu in the Western Karadeniz region on August 11, 2021. Thanks to participant observation, the opportunity to interact with the group that had taken part in various activities voluntarily in disasters was collected, thus, an in-depth observation was made about many activities that were not open to observation.

### ***Participants***

Easy-to-access case sampling is a purposive sampling method, and it was used in the selection of the study group. While purposive sampling enables the selection of participants with certain characteristics that the researcher thinks appropriate for understanding the research problem based on personal observations, the easy-to-access case sampling technique brings speed and practicality to the research (Gürbüz and Şahin, 2014, p.128; Yıldırım and Şimşek, 2018). In this regard, the individuals who will participate in the study were selected from the volunteers who were registered in at least one volunteering organization and who participated in at least one volunteering activity with this organization. Criteria such as the settlement where the participants lived, the volunteering organization they participated in, and their professions were determined, and diversity was tried to be provided within these criteria. Based on these criteria, the participant group consisted of 20 volunteers who lived in Samsun, Konya, Kastamonu, Kocaeli, Trabzon, Amasya settlements and took part in volunteer activities such as floods, earthquakes, and fires, and one volunteer who makes participant observation (Figure 1, 2, 3, 4) (Table 1).

### ***Data collection***

In the case study method research, field survey, especially interviews and observations are important. For this reason, participant observations were made, and records were kept after the flood disaster in the Bozkurt district of Kastamonu on 11 August 2021, when volunteer activities were carried out between 13 August 2021 and 19 August 2021. In addition, face-to-face interviews were conducted with 20 volunteers who took part in the floods and fires that occurred in different regions of Turkey and the earthquake

**Table 1. Information Related to the Participants**

Theme	Category	Participants (V: Volunteer POV: Participant Observation Volunteer)																				
		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	POV
	Age	27	21	28	49	22	44	18	37	25	38	28	20	23	34	39	27	36	37	23	57	49
Gender	Female	✓		✓		✓	✓	✓		✓			✓			✓				✓		
	Male		✓		✓				✓		✓	✓		✓	✓		✓	✓	✓		✓	✓
Place of residence	Konya			✓																		
	Kocaeli		✓			✓																
	Kastamonu	✓																				
	Samsun				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
	Amasya																				✓	
	Trabzon																					✓
Educa-tional status	Secondary school											✓										
	High school						✓	✓			✓					✓						
	Undergradu-ate	✓	✓	✓	✓	✓				✓			✓	✓	✓		✓					
	Graduate								✓												✓	✓
	PhD																	✓	✓			✓
Vol-unteer organi-zation	AFAD	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	KIZILAY										✓		✓									
	İHH						✓	✓														
	AGD								✓													
	HAYRAT											✓										
	SAMDAK												✓									
	OMÜ																	✓	✓			
	MEB																					✓
Training methods	Face-to-face	-	✓		✓					-	✓								✓	✓	✓	
	Face-to-face and online			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓					✓
The place of duty	Kastamonu	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						✓
	Rize								✓													
	Antalya						✓				✓											
	İzmir						✓	✓														
	Erzincan																					✓
	Gaziantep																					✓
	Giresun						✓															
	Artvin												✓	✓		✓	✓	✓				✓
Type of disaster	Flood disaster	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
	Earthquake						✓	✓										✓	✓	✓	✓	
	Fire disaster						✓				✓											





*Figure 1-2. The flood disaster in the Bozkurt district of Kastamonu on August 11, 2021.*



*Figure 3-4. Volunteer activities in Bozkurt.*

disaster affecting 11 provinces centered in Kahramanmaraş on February 6, 2023. Those interviews, which were conducted using semistructured interview forms, lasted between 20 and 35 minutes. In the transcription of those data, the names of the interviewed individuals are not used, but instead V1, ..., V20; POV code was used for participant observation volunteer. After transferring the observations and interviews to the computer environment, 45 pages of data were collected.

### *Analysis of data*

The data collected from participant observations and interviews have been subjected to descriptive analysis which is a process that includes handling and explaining the characteristics, causes and consequences of the subject examined by the researchers in its context (Gürbüz and Şahin, 2014, p.384). Firstly, the data collected by the descriptive analysis method has been reduced, the data has been organized as the second stage, the results have been found as the third stage, and finally the findings have been summarized (Mason, 2002; Yıldırım and Şimşek, 2018). Some opinions of the participants about the themes

have been given with block quotations without any changes. The data has been divided into themes and subthemes by taking the opinion of a colleague, so that internal validity has been tried to be ensured, and external validity has been tried to be provided by making rich descriptions. By comparing the data collected from the participant observation used in the research with the data collected from the interviews, it has been tried to ensure reliability with the triangulation method (Mays and Pope, 2000). It has been observed that there is a high level of similarity (92%) in the data collected by both methods.

### ***Ethical Considerations***

In this study, all rules stated within the scope of “Higher Education Institutions Scientific Research and Publication Ethics Directive” were followed. None of the actions stated under the title “Actions Against Scientific Research and Publication Ethics,” which is the second part of the directive, have not been carried out. This study was approved by the Ondokuz Mayıs University. Ethical review board name: Ondokuz Mayıs University Social and Human Sciences Research Ethics Committee. Date of ethics review decision: 26 August 2022. Ethics assessment document issue number: 07/2022-706.

### **Findings**

In this section, the findings collected from face-to-face interviews and participant observation have been separated into themes, categories and codes, and these data have been supported by direct quotations where needed. According to the findings six inclusive themes have been emerged from the qualitative data: (1) participation, (2) quality, (3) attitude, (4) impact, (5) problems, and (6) suggestions. Among the six inclusive themes, 15 categories characterizing these themes have been identified (Table 2).

**Table 2.** *Distribution of the Categories Related to the Subject According to the Themes*

	<b>Themes</b>	<b>Categories</b>
<b>1</b>	<b>Participation</b>	The method of volunteering application Volunteer training received. Form of volunteer training received
<b>2</b>	<b>Quality</b>	Qualities that volunteers should have Duties of volunteers Activities of volunteers in disaster areas
<b>3</b>	<b>Attitude</b>	Attitude of local people towards volunteers Attitude of representatives of voluntary organizations towards volunteers
<b>4</b>	<b>Effect</b>	Positive effects of participating in volunteer activities Negative effects of participating in volunteer activities
<b>5</b>	<b>Problems</b>	Problems arising from volunteer organizations Problems caused by volunteers Problems arising from disaster victims
<b>6</b>	<b>Suggestions</b>	Recommendations for volunteers Recommendations to voluntary organizations and their representatives



### *Participation in the volunteer system*

Three categories have been determined regarding the theme of volunteers' participation in the volunteering system: (1) the form of application, (2) the volunteer training received, and (3) the volunteer training, and the findings regarding the codes have been supported by block quotations (Table 3).

**Table 3.** Findings Related to The Way Volunteers Applied to The Volunteering Organizations, The Volunteer Trainings Received, And The Type Of Volunteer Training Categories

Categories	Codes
<b>The method of volunteering application</b>	Online
	Face-to-face
	SMS
	Telephone
<b>Volunteer training received</b>	Search and rescue operations
	Fire Fighting
	First aid training
	Disaster knowledge and awareness
	Search and rescue nodes
	Reducing disaster risks
	Understanding disaster risks
	Personal stress management
	Leadership
	Setting up a tent
	Transmitter-GPS
CBRN Training	
<b>Form of volunteer training received</b>	Face-to-face
	Online
	Online and face-to-face

According to Table 3, volunteers state that they mostly apply for volunteering online and face-to-face in Türkiye. While some of the volunteer trainings (search and rescue nodes, disaster risk reduction, understanding disaster risks, personal stress management, etc.) are given mostly online, volunteer trainings such as fire extinguishing, search and rescue and first aid are given face-to-face.

The V6 conveys the following regarding the way volunteers apply to volunteer organizations, the volunteer training received, and the form of volunteer training:

*“I am a volunteer in more than one NGO. Therefore, each voluntary organization has its own trainings. For example, in AFAD, I received online disaster risk reduction, understanding disaster risks, personal stress management, nodes used in search and rescue actions, disaster awareness training for individuals and families and leadership trainings. I received face-to-face trainings on firefighting, light search and rescue/machine use, transmitter and GPS. I received face-to-face trainings on search and rescue in nature, setting up tent, and GPS navigation at IHH. “ (V6).*

## *Qualifications of volunteers*

Three categories have been determined regarding the theme of the qualifications of volunteers: (1) the characteristics that the volunteers should have, (2) the tasks they should do, and (3) the activities they performed in disaster areas, and the findings regarding the codes have been supported by block quotations (Table 4).

*Table 4. Findings Related to Categories of The Qualifications*

<b>Categories</b>	<b>Codes</b>
<b>Required qualifications of volunteers</b>	Having completed theoretical and practical volunteer training programs
	Feeling responsibility
	Not having financial expectations
	Desire to be useful to society
	Being held accountable for their actions
	Being aware of disasters
	Being aware of their rights
	Not doing discriminations between tasks
<b>Duties of volunteers</b>	Speeding up the process by supporting professional teams in the field
	Assisting in improvement efforts
	To contribute to the awareness of the society about disasters
	Sharing their experiences with their families and acquaintances
	Being a source of morale for disaster victims
	To promote the feelings of brotherhood and cooperation
	To be useful to society
	Minimizing disaster damage
<b>Activities of volunteers in disaster areas</b>	Tent setup and collection of tents
	Recovering and cleaning
	Distribution of food and aid
	Establishment of the container city
	Logistics
	Search and rescue
	Fire cooling

As can be seen in Table 4, having completed the specialist training stands out as an important feature that the volunteers should have. While accelerating the process by supporting the professional teams in the field is seen as an important volunteering task, the most common activity of volunteers in disaster areas is improvement and cleaning. Some participants explained the qualifications of volunteers as:

*“I think the volunteer system has three important missions. The first is to raise awareness of the volunteers about disasters as a result of the training and field experiences received, and to make a significant contribution to the formation of an awareness level of the society about disasters by sharing this knowledge with their families and acquaintances around them. For*

*example, after I had become a volunteer myself, I gained much more knowledge and experience about disasters thanks to the trainings I received. Whenever I have the opportunity, I help my students in the lessons and the people around me to be informed about disasters by sharing this information I have learned. In this way, I think that there will be a serious interaction in the society about disasters thanks to the volunteering system.” (V4).*

*“As an AFAD volunteer, I took part in the flood disaster that occurred in Kastamonu Bozkurt on 11.08.2021 voluntarily. I took part in the setup process of the disaster victims’ tents and the recovery works in the region. When we withdrew from the recovery and cleaning works, I carried out various activities such as the distribution of food and aid in the tent city. I helped the teams in the establishment of the container city and the collection of the tents.” (V1).*

### **Attitudes towards volunteers**

Two categories have been determined as (1) the attitudes of local people and (2) the representatives of voluntary organizations regarding the theme of attitude towards volunteers, and the findings regarding the codes have been supported by block quotes (Table 5).

**Table 5. Findings Related to Categories of Attitudes to The Volunteers**

<b>Categories</b>	<b>Codes</b>
<b>Attitudes of local people towards volunteers</b>	Disaster victims were aware of the effort of the volunteers
	Gratitude to the volunteers
	We were seen as heroes
	There was a political attitude
	Negative attitudes were displayed in some regions because of the volunteers’ appearance as paid workers.
	There are regional differences in attitude towards volunteers
<b>Attitudes of representatives of voluntary organizations towards volunteers</b>	Seeing volunteers as workers
	Demonstrating an attitude that trivializes volunteers
	They behaved very well
	They were surprised at our ambition to struggle and help
	They treated us differently in a positive way
We were seen as heroes	

When Table 5 is examined, it is seen that the attitudes of the local people towards the volunteers differ regionally. In some regions, volunteers are perceived as workers, while in other regions they are perceived as people for whom gratitude is felt. While the representatives of voluntary organizations generally have a positive attitude towards the volunteers, there are also differences in the individual attitudes of the representatives towards the volunteers. Some participants’ views were given below:

*“ Our AFAD volunteer coordinators were aware of us and our effort. However, their workload was greater than ours in the disaster. Despite their hard work, they supported us. I am grateful for their hard work. There are also very different perspectives for the local people in the region where we worked. We were generally treated positively. A small group also tried to*

*get more personal work done. They tried to get things done outside of our field of duty, etc. I think it's because we ignore ourselves and our rights in our effort to help.” (V1).*

*“In the first days, the public also helped us a lot, but later on, some people among them saw us as paid workers and tried to make us do the drudgery work. Some of the principals also tried to use the volunteers to the fullest in the first days, but later they gave up on it.” (V2).*

### ***The effect of volunteering process on volunteers***

Two categories have been determined as (1) positive and (2) negative effects related to the theme of the impact of the volunteering process on the volunteer, and the findings regarding the codes have been supported by block quotations (Table 6).

**Table 6.** Findings Related to Categories of the Effect of Volunteering Process on Volunteers

<b>Categories</b>	<b>Codes</b>
<b>Positive aspects of participating in volunteer activities</b>	Disaster management experience in the field and gaining experience
	Taught teamwork and patient
	Gaining a sense of togetherness
	Always being available as a volunteer
	Having a nice and efficient process
	I felt important by touching people's hearts
	Establishing good friendships
	Easier and faster progress of this hard process with volunteers
	Show empathy towards
<b>Negative aspects of participating in volunteer activities</b>	Working at an intense and tiring pace
	Exposure to psychological trauma
	Failure to meet expectations

Table 6 shows that the volunteering process has positive and negative effects on the volunteers. While gaining experience in dealing with disasters in the field is seen as an important individual gain, working at an intense and tiring pace is perceived as a negative effect. The statements supporting this view are given below:

*“In the process, even though we are very tired physically, we have gained many different experiences and practices. This has been a huge win for all of us. One of the most important aspects of the process was the establishment of good friendships.” (V4).*

*“The positive side of the process was that we were on the field, in such a disaster, we worked together in almost every part of the field. I have experienced that no matter where one lives, I have to be ready to work voluntarily in the event of a disaster. As a negativity, I was a little confused at first because my first field experience was such a flood disaster. In addition to working at an intense and tiring pace, we were also exposed to psychological traumas. Of course, these are the situations we expect, ordinary and can be overcome by getting support.” (V1).*

*“In this process, I have seen the situations that can be experienced after the disaster in a realistic way. Although it is a tiring and painful experience, I think it provides a great experience in disasters.” (V14).*

## Problems encountered in volunteering activities

The problems faced by the volunteers during the volunteering process have been identified in three categories as (1) problems arising from volunteering organizations (2) problems arising from volunteers and (3) problems arising from disaster victims, and the findings regarding the codes have been supported by block quotations (Table 7).

*Table 7. Findings Related to Categories of Problems Encountered in Volunteering Activities*

Categories	Codes
<b>Problems arising from volunteers</b>	Lack of experience
	Volunteers' not knowing their rights
	Ignoring ourselves and our rights in an effort to help
	Advertising and social media anxiety of volunteers
	To make promises that are beyond his/her authority and cannot be fulfilled.
<b>Problems arising from the volunteer organization</b>	It has not been explained that the volunteers do not work for money.
	Lack of psychological training before and after disaster
	Initial equipment shortage
	Lack of organization and planning in the disaster area
	Not to evaluate volunteers according to their field of expertise.
	Accommodation and transportation problem
	Chaos
	Long working time
<b>Problems arising from disasters</b>	Advertising desire of volunteer organization
	Some disaster victims try to get us their personal affairs and works done out of our field of duty.
	Disaster victims are not aware of volunteering activities

According to Table 7, the lack of experience of the volunteers and their willingness to share their activities with advertisement and social media concerns are seen as important problems arising from the volunteers. Volunteers stand out as the problems arising from the voluntary organization in the late delivery of the distributed equipment and the transportation between the volunteers' accommodation place and the disaster area. The fact that disaster victims are not aware of volunteering activities creates a problem in volunteering activities. Such examples can be given from these opinions:

*“The biggest problem in the field was the volunteer teams who came to the region just to show off, took the equipment we needed and only took pictures and drank tea, the AFAD cameramen who constantly asked for interviews to shoot a public spot, and the news channels that constantly interrupted our work to shoot videos and tried to shoot videos of even the corpses. If these people had not been taken to the field, the work that needed to be done in the field could have been done much faster. Dealing with these made us very tired both physically and mentally.” (V2).*

*“We tried to do every task given, but we could have done more with a good organization. We couldn't organize because of the lack of experience in this situation and the organization was*

*in a hurry. There was even turmoil at first. It was not explained that the volunteers work for no money. Some disaster victims ask how much money you get. Unfortunately, there is an online training imposition regarding disaster education.” (V10).*

### **Suggestions on volunteering activities**

To make volunteering activities of volunteers more functional, two categories have been determined as (1) recommendations for the volunteers and (2) recommendations for the volunteer organizations and their representatives, the findings regarding the codes have been supported by block quotes (Table 8).

**Table 8. Findings Related to Categories of Suggestions on Volunteering Activities**

<b>Categories</b>	<b>Codes</b>
<b>Recommendations for volunteers</b>	Holding volunteers responsible for their actions in the disaster area
	Ensuring that volunteers are aware of their rights
	The rush to complete face-to-face training
	Providing training on disaster victim psychology to volunteers
	Providing psychological support to volunteers before and after the disaster
	Giving fieldwork according to the skills, psychological and physical adequacy of the volunteers
	Conducting promotional activities explaining that volunteering has no monetary value
	Volunteering should be considered and encouraged
	Inclusion of people from all professions
	Providing identity and equipment to volunteers before the disaster
	Conducting practices for volunteers
<b>Recommendations for voluntary organizations and their representatives</b>	Organizing all volunteer organizations under one roof in the disaster area (upper roof)
	Collecting and distributing aid in the disaster area in one hand
	Monitoring and training of volunteers involved in disasters
<b>Advice for volunteers</b>	Obligatory disaster training certificate in public and private sector applications
	Counting on administrative leave of volunteers who have to work in a job
	Collection and distribution of aids by performing needs analysis
	Providing better coordination between volunteers and management
	Training of coordinators on volunteer relations
	Giving the authorities the right to take initiative in the disaster area
	Assignment of experts in the field according to the disaster situation
	More media coverage of volunteers
	Educating the public on volunteering activities
	Insuring the volunteers throughout the activity
	Guaranteeing the rights of volunteers by the presidency



In Table 8, it is emphasized that the volunteers should hurry to complete face-to-face and applied trainings in order to make their volunteering activities more efficient, and that they should be assigned tasks according to their skills, psychological and physical competencies in field studies. Some participants' suggestions were given below:

*“Individuals who apply voluntarily should be separated according to their professions and competencies, and disaster trainings should be given regarding these areas. A psychologist to give psychological support and an engineer to work in the field would be beneficial.” (V12).*

*“Authorities should take initiatives to encourage voluntarism in the private sector, especially in the public sector. It is necessary to accelerate the work on the permits of people who leave their jobs and come to the disaster area. In fact, having received disaster training should be the first condition in job applications.” (V13).*

*“Information can be given about the importance of being a volunteer. People often want to be a volunteer, but because they don't know exactly what to do, they can't take it moderately. At this point, I think that more comprehensive trainings should be given to raise awareness of the importance of volunteering and the activities of volunteers, their responsibilities, and the work done in disaster areas.” (V9).*

## Conclusion and Discussion

This qualitative study aims to develop suggestions for the problems faced by the volunteers who take part in disasters in Türkiye and to make more profitable use of the volunteers in disasters. This work was designed on six key concepts: participation, quality, attitude, impact, problems, and suggestions.

According to findings from this study, the first theme is the participation of volunteers in volunteer organizations. Although participation in volunteering organizations is mostly online, it is in the form of SMS, telephone and in-person application and there is no difficulty in participation. According to the United Nations Volunteers (UNV) Program (2013), online applications, field and stand studies, announcement platforms and social media are expressed as ways of participation frequently used by volunteer organizations to increase the number of volunteers. While the findings indicate that many volunteers have received training on disaster knowledge and awareness online, few individuals have received practical training such as search and rescue, first aid and firefighting. In other words, volunteers are mostly taken to online training, and volunteer organizations stay away from face-to-face and practical training. According to Akatay and Yelkikalan (2007), these trainings will not only improve the knowledge and skills of volunteers, but also enable the nongovernmental organizations to be adopted. In addition, volunteers must reach a sufficient level in disaster recovery and take an active part in the disaster process after practical training (Aydemir, 2019).

Another important theme is the qualifications of the volunteers. Among the qualifications that volunteers should have, it is seen as an important qualification to have received specialist trainings. Researchers also state that individuals who have attended various trainings and courses to cope with disasters and gained experience with practical trainings may be more suitable to face the disaster environment (Blanchetière, 2006; McKay,

2011). In addition, being responsible, not having a financial expectation, being useful to the society, being conscious and not choosing a task are among the other qualities. This finding is largely similar to the basic qualities of an ideal volunteer stated by the Private Sector Volunteers Association (2009). In addition, the duties and responsibilities of the volunteers and the volunteering activities in the field overlap with each other.

Attitude towards volunteers is the third theme in this study. It is necessary to distinguish between the attitudes of local people and representatives of volunteer organizations towards volunteers. One is an individual who is affected by the disaster and the other is an individual who aims to help him. In this respect, the actor who is closer to the volunteer is the representative of the voluntary organization. The disaster victims in different disaster areas were aware of the efforts of the volunteers and were grateful to them. However, some of the victims see volunteers as paid workers or political actors. It is thought that this is since the victims are not aware of the volunteering system or because of the victim psychology. Two major traumas experienced by disaster victims after the disaster can be mentioned. The first of these is the disaster itself. The second and more destructive one is the deterioration of the social order. Ursano, Fullerton and Norwood (1995) state that the response to these traumas includes four stages for the disaster victim. Due to these traumas, the disaster victims may often show a different approach to the individuals and public authorities in the recovery process. For this reason, from the point of volunteer–victim relationship it is extremely important to provide training for volunteers on disaster victim relations and victim psychology. The attitudes of voluntary organization representatives towards volunteers also show individual differences. Some volunteer organization officials, like disaster victims, tend to see volunteers as workers and have an attitude to trivialize them. However, on the contrary, the attitude of the representatives of voluntary organizations that glorify the volunteers is one of the factors affecting their staying in the activities of the volunteers. Hidalgo and Moreno (2009) state that institutional support, positive mission, and formation are very important predictors of intention to remain voluntary. Another approach to volunteers in this respect is carers. Despite a growing body of research to enable mainstream agencies to include people with disability in disaster risk reduction (DIDRR), informal carers are often overlooked (Crawford et al., 2023).

Both positive and negative effects of volunteering on an individual have been determined. Findings show that volunteering contributes positively to the personal development of the individual, as well as making the individual feel important, strengthening friendship relations and gaining awareness of togetherness. This finding coincides with Güder and ÖSGD's (2006) qualities (pleasure and spiritual enrichment, self-confidence development, increase in teamwork skills, social position, a new environment and friendships, new interests) that volunteering brings to the individual. The National Council for Voluntary Organizations (NCVO) (2018) states that while volunteering is stronger in some areas than others, it has positive impacts on four areas: mental health and well-being, physical health, social connections, employability, and skills. Also, Wilson and Musick (1999) point out that benefits are often in the form of intrinsic rather than extrinsic

rewards, and even indicates the existence of fears that giving rewards for self-sacrifice will undermine motivation and distort values. However, although the research focuses on the positive aspects of volunteering rather than the negative aspects, some negative consequences of volunteering such as fatigue and physical damages, exposure to psychological traumas and not meeting the expectations have also been noted in this research. Different studies have noted some negative consequences of volunteering such as stress and exhaustion, perception of efforts being unrecognized, poor relationships, inadequate training and support (Wilson, 2000; Ross *et al.*, 1999; Rook and Sorkin, 2003; Bakker *et al.*, 2007).

Most of the time, in volunteering activities that can turn into a mass movement, some problems arising from the volunteers, the volunteer organizations and the disaster victims are encountered. Most of the problems that arise from volunteers are due to the desire to help more or the lack of volunteer training. However, there are also problems due to the fact that disaster management is not well organized and lack of planning by voluntary organizations. On the other hand, the root cause of the problems stemming from the disaster victims is that they are not aware of volunteering activities. Güngör (2016) and Coşkun (2008, p. 5) state that various management problems arise in growing and expanding NGOs, and these problems mostly arise from the amateurish management of NGOs. In addition, humanitarian aid services in a disaster area are a limited process and although the most important task is not to distribute aid, such a misconception prevails both in the public and in crisis management. According to Yılmaz (2012), the hectic behavior of volunteers and volunteer organization officials after a disaster and the lack of coordination in aid services cause confusion.

This study contributes to the literature in several ways. First, it presents the problems experienced by in disasters in different geographies by taking advantage of the theories and practices of different researchers (Rook and Sorkin 2003; Wilson and Musick, 1999; Whittaker *et al.*, 2015; Kako and Ikeda, 2009).

The study has also some practical implications. Participating in volunteering activities adds value to the individuals and society. This study has provided data on participation, quality, attitude, impact, problems, and suggestions for these problems contributing to the reduction of the effects of the disaster problems.

As with any other study, this study has also some limitations. First of all, in a country like Türkiye where natural and man-made disasters are high and active participation in volunteering activities is limited, the sample size is 16 participants. There are only eight questions regarding participation, quality, attitude, impact, problems and suggestions for volunteers in the semi-interview form used, and these volunteers are not evenly distributed throughout Türkiye. In addition, although most of the volunteers have taken part in flood, fire, earthquake disasters, there have been no participants involved in other disasters such as avalanches, rockfalls, landslides, etc. Due to the pandemic conditions, the interviews with some researchers have been kept short. Another limitation is that participant observation is limited to one week and has only been done during volunteering activities such as recovery, logistics, and aid distribution.

The impact of volunteer-led disaster education reverberates profoundly within communities. Empowered with knowledge and preparedness, individuals and communities are better equipped to anticipate, respond, and recover from disasters. Increased awareness leads to proactive measures, such as developing evacuation plans, creating emergency kits, and implementing safety protocols, thereby reducing the vulnerability of communities. Moreover, the ripple effect of education extends beyond immediate responses. Educated communities become advocates for change, fostering a culture of resilience and promoting sustainable practices to mitigate future risks.

## Suggestions

The study includes a few recommendations for the future of risk reduction education for volunteers, voluntary organizations, and their representatives. First, volunteers focus on the helping dimension of volunteering and ignore the psychological and social needs, responsibilities, and rights of both them and the victims. Trainings on stress management, victim psychology, and volunteer rights should be added to the trainings for volunteers. In addition, psychological support should be given to volunteers returning from disaster areas. Volunteering is an activity without financial expectations. Promotional activities that will raise public awareness about volunteers should be increased. In addition, volunteers should be separated according to their skills, psychological and physical abilities, and gain experience by taking them to practical trainings that include field studies. In fact, it is recommended that a disaster training certificate should be mandatory in public and private sector job applications. Studies that will contribute to the increase of volunteer motivation and the number of volunteers by identifying the problems of volunteers in disasters and other social responsibility studies can be carried out in different countries and with larger samples. Studies on volunteers are limited. Theses, projects and research on the phenomenon of volunteering, especially involving spontaneous and individual volunteers, can be increased. In addition, volunteering activities can be included in formal and nonformal education curricula. To address these challenges and enhance the effectiveness of volunteer-led disaster education, several strategies can be employed. Increased collaboration between government agencies, nonprofit organizations, and private sectors can bolster resources and support for volunteers. Adequate funding and access to updated educational materials are imperative to sustain and expand educational initiatives. Furthermore, prioritizing mental health support and providing comprehensive training that incorporates cultural competency and language diversity can better equip volunteers to engage with diverse communities sensitively.

## References

- Akatay, A., & Yelkikalan, N. (2007). *Sivil toplum kuruluşlarında gönüllülük ve insan kaynakları yönetimi*. Bursa: Ekin Publishing.
- Alkin, R.C. (2021). Civil society in the disaster management: An investigation on the response and recovery phases after Izmir earthquake. *Journal of The Black Sea Studies*, 18(70), 313-334. Retrieved from [http://www.karamdergisi.com/Makaleler/695175224\\_5.Ruhi%20Can%20Alk%c4%b1n%20TM.pdf](http://www.karamdergisi.com/Makaleler/695175224_5.Ruhi%20Can%20Alk%c4%b1n%20TM.pdf)

- Arslan, M.L. (2018). Volunteering in non-governmental organizations: Problems and solutions. *Policy Policy Notes*, 4, 1–15. Retrieved from <https://kurumsalyonetim.org/images/sivil-toplum-kuruluslarinda-gonulluluk-sorunlar-cozum-yollari-pdf-ilke-org-tr.pdf>
- Artvinli, E., & Dönmez, L. (2023). Sosyal bilgiler eğitiminde afetler ve afet eğitimi: gerçeklerle yüzleşmenin yolu (Disasters and disaster education in social studies education: the way to face the facts). In E. Kaya, F. Tıkman, H. Bayram ve E. Yıldırım (eds.), *Çağdaş sosyal bilgiler öğretimi* (s. 227–271). Vizetek Yayıncılık.
- Aydemir, A. (2019). Studies and evaluations of neighborhood disaster volunteers in disaster management (Bursa model), Yayınlanmamış yüksek lisans tezi, Çanakkale Onsekiz Mart Üniversitesi . Retrieved from [https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=eW\\_3X8cx42\\_sPKHw\\_tLRnw&no=J4MI-J8L-aoa-PIVFxu7oDA](https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=eW_3X8cx42_sPKHw_tLRnw&no=J4MI-J8L-aoa-PIVFxu7oDA)
- Bakker, A.B., Van Der Zee, K.I., Lewig, K.A., & Dollard, M.F. (2007). The relationship between the big five personality factors and burnout: A study among volunteer counselors. *The Journal of Social Psychology*, 146(1), 31–50. Retrieved from <https://doi.org/10.3200/SOCP.146.1.31-50>
- Başbüyük, A. & Pala, Ş. M. (2023). Hayat Bilgisi, Sosyal Bilgiler ve Coğrafya Dersi Öğretim Programları Kazanımlarının Afet Eğitimi Açısından İncelenmesi. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi*, Cilt: 25, Sayı: 2, 184–197. <https://doi.org/10.17556/erziefd.1063242>
- Betil, İ. (2013). Etkin bir sivil toplum yansıması olarak gönüllülük: Karşılaştığı zorluklar ve fırsatlar. Birleşmiş Milletler Gönüllüleri (UNV) Programı Türkiye & GSM Gençlik Servisleri Merkezi (Yay. Haz.). *Türkiye’de gönüllülük: Gönüllülüğün rolünün ve katkılarının keşfedilmesi* içinde (s. 11–16), Çev. E. Erdem. Retrieved from <https://www.tusev.org.tr/usrfiles/files/Gonulluluk.pdf>
- Blanchetière, P. (2006). *Resilience of humanitarian workers [Dissertation]*. Manchester: UK. Retrieved from <https://www.alnap.org/system/files/content/resource/files/main/resilience-of-aid-workers-article.pdf>
- Charities Aid Foundation (CAF) (2021). *World Giving Index, 2021*. Retrieved from [https://www.cafonline.org/docs/default-source/about-us-research/cafworldgivingindex2021\\_report\\_web2\\_100621.pdf](https://www.cafonline.org/docs/default-source/about-us-research/cafworldgivingindex2021_report_web2_100621.pdf)
- Chmiliar, I. (2010). Multiple-case designs. In A. J. Mills, G. Eurepas & E. Wiebe (Eds.), *Encyclopedia of case study research* (pp. 582–583). USA: SAGE Publications.
- Coşkun, A. (2008). Sivil toplum kuruluşlarında yönetim, İstanbul., Seçkin Publishing.
- Crawford, T., Yen, I., Chang, K. J., Llewellyn, G., Dominey-Howes, D., & Villeneuve, M. (2023). How well prepared are we for disaster? The perspectives of informal carers of people with disability, *International Journal of Disaster Risk Reduction*, 93, 103785, <https://doi.org/10.1016/j.ijdr.2023.103785>
- Daewoong, L. (2019). Local government’s disaster management capacity and disaster resilience, *Local Government Studies*, 45(6), 803-826, DOI: <https://doi.org/10.1080/03003930.2019.1653284>
- Dufty, N. (2020). *Disaster Education, Communication and Engagement*, Wiley Blackwell, UK.
- FEMA (2006). *Developing and managing volunteers*. Retrieved from <https://training.fema.gov/emiweb/downloads/is244.pdf>
- Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES) (2022). *Comprehensive School Safety Framework 2022–2030 for Child Rights and Resilience in the Education Sector*, The Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES), <https://gadrrres.net/comprehensive-school-safety-framework>
- Gong, Q., Duan, Y., Guo, F. (2021). Disaster risk reduction education in school geography curriculum: Review and outlook from a perspective of China. *Sustainability*, 13, 3963.
- Görgün Baran, A. (2019). Participation of the young in volunteering activities in Turkey. *Journal of Youth Research*, 7, 5–26. Retrieved from <https://app.trdizin.gov.tr/publication/paper/detail/TXpNd01qazRPQT09>
- Güder, N. (2006). *Volunteering and volunteer management guide for NGOs*. Civil Society Development Center, Ankara. Retrieved from [https://www.stgm.org.tr/sites/default/files/2020-08/stoler-icin-gonulluluk-ve-gonullu-yonetimi-rehberi\\_1.pdf](https://www.stgm.org.tr/sites/default/files/2020-08/stoler-icin-gonulluluk-ve-gonullu-yonetimi-rehberi_1.pdf)

- Güngör, F. (2016). Gönüllü yönetiminin önemli bir aşaması olarak performans değerlendirme. *Strategic Public Management Journal*, 2(4), 21–48. Retrieved from <https://doi.org/10.25069/spmj.290639>
- Gürbüz, S., & Şahin, F. (2014). *Research methods in social sciences*. Ankara: Seçkin Publishing
- Harada, T., Shoji, M., & Takafuji, Y. (2023). Intergenerational spillover effects of school-based disaster education: Evidence from Indonesia, *International Journal of Disaster Risk Reduction*, 85, 103505, <https://doi.org/10.1016/j.ijdrr.2022.103505>
- Hidalgo, M.C., & Moreno, P. (2009). Organizational socialization of volunteers: The effect on their intention to Remain. *Journal of Community Psychology*, 37(5), 594–601. Retrieved from <https://doi.org/10.1002/jcop.20317>
- Kako, M., & Ikeda, S. (2009). Volunteer experiences in community housing during The Great Hanshin-Awaji Earthquake, Japan. *Nursing & health sciences*, 11(4), 357–359. Retrieved from <https://doi.org/10.1111/j.1442-2018.2009.00484.x>
- Kaya, M. (2013). *Afet yönetiminde sivil toplum kuruluşları ve gönüllülük işlevi*. İstanbul: Adaleti Savunanlar Stratejik Araştırmalar Merkezi Derneği (ASSAM). Retrieved from <https://www.assam.org.tr/index.php/konular/ic-guvenlik/afet-yonetiminde-sivil-toplum-kuruluslari-ve-gonulluluk-islevi.html>
- Kaya, N. (2022). *İklim değişikliği eğitimi*. Pegem Akademi, ISBN: 978-625-6357-57-0, Ankara.
- Kaya, N., Artvinli, E., & Dönmez, L. (2023). Uluslararası afet risklerini azaltma standartlarına göre coğrafya öğretim programı: bir içerik analizi. *International Journal of Geography and Geography Education (IGGE)*, 50, 24–49. <http://dx.doi.org/10.32003/igge.1275501>
- Khatun, H., & Islam, S. (2015). Awareness and preparedness of disasters in Bangladesh-A study of Dhaka City Dwellers. *Social Science Review, The University Studies*, 32(1), 57–70. [https://www.researchgate.net/publication/319205837\\_Awareness\\_and\\_Preparedness\\_of\\_Disasters\\_in\\_Bangladesh\\_A\\_Study\\_of\\_Dhaka\\_City\\_Dwellers](https://www.researchgate.net/publication/319205837_Awareness_and_Preparedness_of_Disasters_in_Bangladesh_A_Study_of_Dhaka_City_Dwellers)
- Landesman, L. Y. (2005). *Public health management of disasters: The practice guide*. American Public Health Association, 800 I Street, NW, Washington, DC. Retrieved from <https://books.google.com.tr/books?hl=tr&lr=&id=ooYWDW7z8uYC&oi=fnd&pg=PP9&dq=#v=onepage&q&f=false>
- Li, J., Xia, H., Qin, Y., Fu, P., Guo, X., Li, R., Zhao, X. (2022). Web GIS for Sustainable Education: Towards Natural Disaster Education for High School Students. *Sustainability*, 14, 2694. <https://doi.org/10.3390/su14052694>
- Mays, N., & Pope, C. (2000). Qualitative research in health care, Assessing quality in qualitative research. *BMJ*, 320, 50–52. Retrieved from <https://doi.org/10.1136/bmj.320.7226.50>
- McKay, L. (2011). *Building resilient managers in humanitarian organisations: Strengthening key organizational structures and personal skills that promote resilience in challenging environments*. London, England: People in Aid.
- Mulianingsih, F., Hardati, P (2022). Can Disaster Risk Education Reduce the Impact of Disasters in Schools? *Journal of Geography Science and Education*, 4(2), 19–23. <https://doi.org/10.3390/su13073963>
- Nakano, G., & Yamori, K. (2021). Disaster risk reduction education that enhances the proactive attitudes of learners: A bridge between knowledge and behavior, *International Journal of Disaster Risk Reduction*, Volume 66, 102620. <https://doi.org/10.1016/j.ijdrr.2021.102620>
- Önal, H. (2019). Temel eğitim ders kitaplarında afet olayları ile ilgili kavramlarda görülen eksiklikler. *Türkiye Sosyal Araştırmalar Dergisi*, 23(1), 177–192. <https://dergipark.org.tr/tr/download/article-file/695314>
- Rahma, A., Mardiatno, D., & Hizbaron, D. R. (2023). Developing a theoretical framework: school ecosystem-based disaster risk education, *International Research in Geographical and Environmental Education*, <https://doi.org/10.1080/10382046.2023.2214041>
- Rook, K.S., & Sorkin, D.H. (2003). Fostering social ties through a volunteering role: Implications for older adults' psychological health. *International Journal of Aging and Human Development*, 57(4), 313–337. Retrieved from <https://doi.org/10.2190/NBBN-EU3H-4Q1N-UXHR>



- Ross, M.W., Greenfield, S.A., & Bennett, L. (1999). Predictors of dropout and burnout in aids volunteers: A Longitudinal study. *AIDS Care*, 11(6), 723–731. Retrieved from <https://doi.org/10.1080/09540129947631>
- Senanayake, A. C., Samarakkody, A., Malalgoda, C., Amaratunga, D., Haigh, R., Liyanage, C., Hamza, M., Kaklauskas, A., Shaw, R. (2023). Towards an Inclusive Disaster Education: The State of Online Disaster Education from the Learner’s Perspective. *Sustainability*, 15, 11042. <https://doi.org/10.3390/su151411042>
- Shaskolsky, L. (1967). *Volunteerism in disaster situations*. Preliminary paper no. 1. Disaster Research Center, University of Delaware, Delaware. Retrieved from <https://udspace.udel.edu/bitstream/handle/19716/1165/WP16.pdf?sequence=1&isAllowed=y>
- Shaw, R.; Sakurai, A.; Oikawa, Y. (2021). New realization of disaster risk reduction education in the context of a global pandemic: Lessons from Japan. *Int. J. Disaster Risk Sci.*, 12, 568–580.
- The National Council for Voluntary Organisations (NCVO). (2018). *Understanding the impact of volunteering on volunteers*. Retrieved from <https://www.cvsce.org.uk/understanding-impact-volunteering-volunteers-2018-nvvo>
- Torani, S., Majd, P. M., Maroufi, S. S., Dowlati, M., & Sheikhi, R. A. (2019). The importance of education on disasters and emergencies: A review article. *Journal of Education and Health Promotion*, 8(85), 1–7. [https://doi.org/10.4103/jehp.jehp\\_262\\_18](https://doi.org/10.4103/jehp.jehp_262_18)
- United Nations Volunteers (UNV) Programme in Turkey (2013). In collaboration with GSM youth services centre. Retrieved from <https://www.stgm.org.tr/sites/default/files/2020-10/turkiyedegonulluluk.pdf>
- Ursano, R.J., Fullerton, C.S., & Norwood, A. (1995). Psychiatric dimensions of disaster: Patient care, community consultation, and preventive medicine. *Harvard Review of Psychiatry*, 3(4) 196–209. Retrieved from <https://doi.org/10.3109/10673229509017186>
- Whittaker, J., McLennan, B., & Handmer, J. (2015). A review of informal volunteerism in emergencies and disasters: Definition, opportunities and challenges. *International Journal of Disaster Risk Reduction*, 13, 358–368. Retrieved from <https://doi.org/10.1016/j.ijdr.2015.07.010>
- Wilson, J. (2000). Volunteering. *Annual Review of Sociology*, 26, 215–240. Retrieved from <https://doi.org/10.1146/annurev.soc.26.1.215>
- Wilson, J., & Musick, M. (1999). The Effects of Volunteering on the volunteer. *Law and Contemporary Problems*, 62(4), 141–168. Retrieved from <https://doi.org/10.2307/1192270>
- Yamamura, E. (2013). Natural Disasters and Participation in Volunteer Activities: A Case Study of The Great Hanshin-Awaji Earthquake. *Annals of Public and Cooperative Economics*, 84(1), 103–117. Retrieved from <https://doi.org/10.1111/apce.12005>
- Yıldırım, A., & Şimşek, H. (1999). *Qualitative research methods in the social sciences* (11th Edition). Ankara: Seçkin Publishing
- Yılmaz, A. (2012). Disaster related problems in Turkey. *Manas Journal of Social Studies*, 1(1), 61–81. Retrieved from <https://dergipark.org.tr/en/download/article-file/576813>
- Yin, R. (1984). *Case study research: Design and methods*. (3rd. Edition). California: Sage Publications. Retrieved from [https://iwansuharyanto.files.wordpress.com/2013/04/robert\\_k\\_yin\\_case\\_study\\_research\\_design\\_and\\_mebookfi-org.pdf](https://iwansuharyanto.files.wordpress.com/2013/04/robert_k_yin_case_study_research_design_and_mebookfi-org.pdf)