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DETERMINATION OF DISASTER AWARENESS PERCEPTION LEVELS OF CLASS TEACHERS[1]

Sınıf Öğretmenlerinin Afet Bilinci Algı Düzeylerinin Belirlenmesi

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Abstract

Turkey is more prone to disasters due to its geographical location. The population living in various regions of Turkey encountered several lethal disasters, including earthquakes, avalanches, floods, fires, and landslides at different times, and yet they continue to confront such calamities. Disaster preparedness training is crucial for minimizing the damage in disasters. Schools are the initial public institutions providing disaster preparedness training; thus, such institutions and their educators pose special responsibilities. Delivering such training effectively and successfully is directly related to teachers' disaster awareness perceptions. The current study aimed to assess the degree of disaster awareness perceptions among classroom teachers by analyzing factors, including age, gender, geographical region where they were grew up, professional seniority, educational level, title, and disaster experience. The study also focused on ascertaining disaster awareness perception levels of primary school teachers by utilizing the survey design, a quantitative research technique. The study sample comprised 509 classroom teachers employed in schools affiliated with the Ministry of National Education in the province of Van during the fall semester of the 2022–2023 school year. Two separate forms, "Teacher Personal Details" developed by the author and the "Disaster Awareness Perception Scale" generated by Dikmenli, Yakar, and Konca (2018), were used to collect research data. Frequency-percentage distributions, arithmetic means, standard deviations, and Kruskal Wallis and Mann Whitney U test were employed to analyze the acquired research data. The study revealed that primary school teachers have a high level of awareness for disasters. It was found that the disaster awareness perception levels of classroom teachers differed significantly in the post-disaster dimension according to their gender and in the total score according to the region where they grew up. As a result of the research; It was determined that the disaster awareness perception levels of the classroom teachers were high; It can be said that programs such as School-Based Disaster Education, Disaster Education Year, and Disaster Drill Year with the goal of the "Disaster Ready Turkey" positively affect the perceptions of classroom teachers' disaster awareness.

Keywords: Disaster perception, disaster awareness, disaster education, classroom teacher, perception.

Öz

Türkiye bulunduğu coğrafya itibariyle bir afetler ülkesidir. Türkiye'nin çeşitli bölgelerinde yaşayan insanlar farklı zamanlarda deprem, çığ, sel, yangın, heyelan gibi birçok afetlerle karşı karşıya kalmıştır ve kalmaya devam etmektedir. Afetlerde zararı en aza indirgemek için afet eğitimleri büyük önem arz etmektedir. Afet eğitimleri ilk olarak okullarda verilmektedir ve bu sebeple eğitim kurumlarına ve öğretmenlere büyük görevler düşmektedir. Bu eğitimlerin daha etkili ve nitelikli bir şekilde verilmesi öğretmenlerin afet bilinci algısı ile yakından ilişkilidir. Bu amaçla gerçekleştirilen araştırma sınıf öğretmenlerinin afet bilinci algılarının ne düzeyde olduğunu yaş, cinsiyet, büyüdüğü coğrafi bölge, mesleki kıdem, eğitim düzeyi, unvan ve afet deneyimi değişkenlerine göre incelemektir. Sınıf öğretmenlerinin afet bilinci algı düzeylerinin belirlenmesi amacıyla yapılan bu araştırmada, nicel araştırma yöntemlerinden tarama deseni kullanılmıştır. Araştırma, 2022-2023 eğitim-öğretim yılı güz döneminde Van ilinde Milli eğitim Bakanlığına bağlı okullarda görev yapan toplam 509 sınıf öğretmeni ile gerçekleştirilmiştir. Araştırmanın verileri araştırmacı tarafından geliştirilen "Öğretmen Kişisel Bilgi Formu" ve Dikmenli, Yakar ve Konca (2018) tarafından geliştirilen "Afet Bilinci Algı Ölçeği" ile toplanmıştır. Elde edilen veriler frekans-yüzde dağılımları, aritmetik ortalama, standart sapma değerleri, Kruskal Wallis ve Mann Whitney U testi ile analiz edilmiştir. Verilerin analizi sonucunda; sınıf öğretmenlerinin afet bilinçlerinin yüksek düzeyde olduğu belirlenmiştir. Sınıf öğretmenlerinin afet bilinci algı düzeylerinin, cinsiyetlerine göre afet sonrası alt boyutunda ve büyüdükleri coğrafi bölgeye göre toplam puanda anlamlı düzeyde farklılaştığı tespit edilmiştir. Araştırma sonucunda; sınıf öğretmenlerinin afet bilinci algı düzeylerinin yüksek düzeyde olduğu saptanmış olup; "Afete Hazır Türkiye" hedefinde, Okul Temelli Afet Eğitimi, Afet Eğitim Yılı, Afet Tatbikat Yılı gibi gelişmeler sınıf öğretmenlerinin afet bilinci algılarını olumlu yönde etkilediği söylenebilir.

Anahtar Kelimeler: Afet algısı, afet bilinci, afet eğitimi, sınıf öğretmeni, algı.

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INTRODUCTION

As more people globally experience the consequences of disasters (Codeanu, Celenza, and Jacobs, 2014), disaster education programs have recently witnessed a sharp increase in interest (Mangione, Capuano, Orciuoli, and Ritrovato, 2013). Societies must be disaster-prepared, especially for youth and students (Irawan, Ayuni, and Sumarmi, 2018). Many nations have solved or aspired to address their disaster issue by educating their populace at a young age (Altay, 2008). In this sense, schools are critical institutions that have a substantial impact on disaster education with a high level of sustainability (Kırıkkaya, Ünver, and Çakın, 2011). Besides, Schools are vital for disaster education since children are the most vulnerable and in-need population in society against disasters (Shaw and Kobayashi, 2001). Accordingly, the societal status of teachers poses a critical aspect when considering their leadership role. Undoubtfully, teachers have substantial tasks in the education dimension to minimize disaster risk. As is the case globally, it is crucial to strengthen the competence of teachers, who are widely acknowledged as the fundamental component in the execution of educational activities, to lessen disaster risk and enhance the efficiency of disaster education (Dölek, 2021). An effective disaster education explicitly raises societal awareness, preparedness, and resilience, as well as student readiness beginning at the basic education level (Yu, Cruz, and Hokugo, 2017). It is also essential to instill a sense of disaster awareness in children from an early age (Gökmenoğlu, Sönmez, Yavuz, and Gök, 2021). As in many other nations, the tasks of classroom teachers performing instructional activities in primary schools (Yıldırım, 2021), the first and most fundamental step of educational institutions, is also critical in Turkey in disaster preparedness. Therefore, disaster awareness and cognition of classroom teachers who will train in disaster education (Kıran, 2021) and drills are especially critical to creating disaster awareness at a young age and fostering a culture of minimizing disaster risk.

Disaster Situation and Reality in Turkey

Turkey is one of the nations with a high potential to experience natural or man-included disasters (Limoncu and Atmaca, 2018). In this setting, such disasters have already occurred throughout history, frequently resulting in unanticipated fatalities, injuries, and property losses (Yılmaz, 2012). Natural disasters, particularly earthquakes, regularly impact Turkey. With global warming, however, natural disasters such as floods and landslides have also become regular and widespread (Şahin, 2019). “According to the Risk Management Index designed to quantify and rank the risks of humanitarian crises and disasters, Turkey ranks 45th among 191 countries in the Global Risk Index. It is also among the nations in the ''high-risk'' group with an index score of 5.0” (AFAD, 2018: 10). “Due to its geological, meteorological and topographical structure, Turkey resides in a geography exposed to natural disasters repeatedly. This geography also subjects Turkey to numerous disasters, including earthquakes, landslides, floods, rockfalls, and avalanches.” (AFAD, 2018: 8). As previously stated, Turkey is situated in a geographical territory with a high risk of natural disasters; hence, it occasionally faces adverse catastrophes at varying scales. It is erroneous to assume that people of this geography should cope with these risks by themselves, as it poses high hazards and potential for disaster. Thus, it is vitally necessary to limit such risks and dangers and minimize the negatory impacts of disasters via providing training and prevention activities to raise individual and societal disaster awareness. At this point, it is up to individuals to equip themselves with preparation activities, including disaster awareness and preparedness, and adopt safeguards and measures in this regard. Behavioral knowledge patterns displayed before, during, and after disasters alter personal lives and the course of society. Therefore, it is crucial to acquire optimal levels of disaster knowledge, awareness, and consciousness in terms of taking measures via taking lessons from previous experiences for a constantly evolving society and generations physically and intellectually healthier (Oyanık & Cengiz, 2020).

Disaster Education and Disaster Awareness

The conducts of individuals in overcoming unforeseen situations such as disasters are directly related to their disaster preparedness, experience, and awareness levels (İnal, Kocagöz, and Turan, 2012). Disaster awareness and education play a crucial part in conceiving a human profile that is environmentally sensitive and compatible (Değirmenci and İlter, 2013). Although disasters are mostly inevitable natural occasions, systematic efforts to improve disaster awareness may reduce the damage caused by disasters to individuals and society. Indeed, raising public awareness is crucial to improve the societal ability to withstand disasters (Clerveaux, Spence, and Katada, 2010). Only through delivering training and raising awareness in all segments of society will it be feasible to lessen the loss of life and property by disasters. In the presence of educators and experts, disaster education entails the required actions and safety precautions before, after, and during the disasters to increase disaster preparedness, raising disaster awareness ultimately. The objective of disaster education is to raise societal awareness against disasters as a whole, according to this perspective (Sever and Değirmenci, 2019). Disasters progressively occur worldwide and damage irrespective of race, gender, age, and territory (Asean, 2011; as cited in Adiyoso and Kanegae, 2012). Nowadays, preparatory education appears to be the only effective method to prevent disasters or minimize their deleterious consequences by acquiring knowledge and putting it into practice with technological advancements (Torani et al., 2019). Disaster

education is an essential educational process guiding individuals on what to do in advance of, during, and after an emergency or a disaster, offering numerous prevention and recovery processes (Dufty, 2018). The common purpose of disaster education is to raise awareness in society. It is conceivable to refer to consciousness as individuals' capacity to recognize, sense, comprehend, and perceive themselves, their environments, and the events around them (Gerrig and Zimbardo, 2017). Only raising public awareness and educating society about disasters can minimize losses (Sever and Deirmenci, 2019). There is no doubt that the value of disaster education constantly gains significance with the increase in the variety and visibility of disasters on a global and regional scale.

School-Based Disaster Education

It is explicit that teachers' professional and technological competencies are critical factors for a constructive educational approach. Hence, it is of the opinion that the role of the School-Based Disaster Education Program implemented by the Ministry of National Education places a significant emphasis on training teachers. This program aims to improve teachers' proficiency, awareness, and expertise. The scope of this training has duly eventuated favorable outcomes on knowledge, attitude, and behavioral changes among teachers (Ministry of National Education [MEB], 2018). School-based disaster education is a critical issue, especially in Turkey, where natural disasters are likely and frequently occur. Thus, initiating disaster preparedness training at early ages among children is crucial to lessen society's vulnerability to disasters. Converting disaster awareness into a lifestyle highly hinges upon properly internalizing the related concepts. Effective disaster education also requires accuracy in employing key terminologies such as risk, hazard, damage, and capacity (Gökmenoğlu et al., 2021). From this viewpoint, an effective disaster education given by classroom teachers in primary schools will specifically serve to create disaster awareness among individuals and a disaster culture in society in general.

Disaster Awareness among Classroom Teachers

Although the frequency, number, and damage of disasters vary by country, there is a broad unanimity that measures to mitigate their consequences before they ensue are more critical than post-disaster prevention strategies. Constructing disaster-proof buildings, reinforcing structures, implementing structural measures such as limiting construction in high-risk zones, and raising preparedness among the populace about what to do before, during, and after the disaster are the foremost precautionary steps in pre-disaster preparation. One of the main functions of education is to train the population to take measures to mitigate disaster risks for themselves and their surroundings (MEB, 2018). Schools are tailor-made settings to provide such training in a planned and programmed way from the youngest ages (Çelik, 2020). The most critical step in the solution phase is to educate children as early as possible to prepare societies to cope with the reality of disasters, which is crucial for every human being. Given the significance of childhood in a person's life, it is formidable to ignore the value of education in making children maximally competent. Hence, considering the potential of nature-driven and human-induced disasters to likely occur anytime, it is imperative not to lose time for such education and provide it to students for disaster preparedness, how to respond to them, and how to mitigate their deleterious impacts (Fuhrmann, 2008). In addition, children constitute a significant portion of the categories recognized as disproportionately affected by the catastrophic effects of disasters (Peek, 2008). Keeping in mind that today's children will forge tomorrow's society, students and teachers primarily require awareness-raising activities. Extending children's awareness about their surroundings and potential threats will eventually impact their future manners in ways that mitigate the negative consequences of disasters in promoting sustainable development. Based on the facts provided, disaster awareness and consciousness should be regarded as a long-term educational process (Gökçe, Özden, and Demir, 2008: 108). Teachers' personal and professional development, deemed the most fundamental part of education in many national and international studies, is conceded as one of the determinants influencing educational quality. Each country designs its teacher education program according to its own demands. For instance, given the national circumstances, it is explicit that the extensive use of disaster education subjects and material in the professional development of Japanese teachers is of utmost relevance. Besides, the most rudimentary practice to be protected from disasters is to have accurate and the most recent information about disasters. In this context, disaster education is recognized as a crucial discipline on a global scale and is associated with curricula. Teachers sharing their expertise with students referring to before, during, and after a disaster mitigates the loss rate dramatically (Yavuz, 2021). In summary, teachers are the most significant role-playing entities in establishing the linkage between school and society in disaster education and improving societal resilience against disasters (Izadkhah, Hosseini, and Heshmati, 2012).

It is explicit that teachers may actively participate in disaster management systems across the world. Indeed, it is necessary that teachers, a sizable group for potential opinion leadership, should be immediately included in the disaster education processes in Turkey, currently posing highly catastrophic, and play an active role in the disaster recovery attempts. Only education and teachers can generate a disaster-resiliency and conscientious society (Doğan,

2021). Teachers are primarily responsible for training students about vital disaster-specific issues (Uygun, 2022). Additionally, the disaster preparedness of children who spend more time in schools than their families largely depends on teachers' awareness and abilities (MEB, 2018). As the initial step of the education process in which classroom teachers have versatile and vital tasks, the primary school period is the best time to share immense knowledge and skills, and internalize them permanently (Samancı and Uçan, 2015), and classroom teachers have versatile and vital tasks. Considering that teachers play a central role in society, they must have this awareness before training students about disaster preparedness. At an early age, therefore, educating individuals about disasters, mitigating their impact, and developing disaster prevention strategies will make them far more aware of potential natural- and human-driven threats and hazards in their regions. In conclusion, the disaster awareness level of teachers, especially classroom teachers, is a game-changer and significative factor for the individual and society.

In the literature; disaster awareness (Özgüven, 2006; Clerveaux and Spence, 2009; Dikmenli, Yakar and Konca, 2018; Tekin and Dikmenli, 2020; Adanalı, Yıyin and Özenel, 2022; Akman and Yıldırım, 2022; Uygun, 2022; Bekler, Çiftçi, Bekler and Demirci, 2022), disaster preparedness (Shaw, Shiwaku, Kobayashi and Kobayashi, 2004; Muttarak and Pothisiri, 2013; Çelik and Gündoğdu, 2022), disaster literacy (Sözcü and Aydınözü, 2019; Demirdelen and Çakıcı, 2021) and many studies have been conducted on disaster education (Mangione, Capuano, Orciuoli and Ritrovato, 2013; Chadderton, 2015; İnal, Kaya, & Altıntaş, 2018; Avcı, 2022). When the studies carried out in this context are evaluated, it has been determined that the issues related to disasters around the world have gained importance, the interest in studies related to disasters has increased, and disaster studies have increased and diversified day by day.

Teachers undoubtedly play a critical role in obliging disaster education and achieving its objectives in the educational system (Maya and Sarı, 2018). The teacher is an entity determining the future of the nation. Since teachers involve national educational goals in their training procedure, they potentially influence and alter the perspectives of every individual in society. The tasks of teachers have undergone substantial modifications in the ever-changing world. Hence, adopting teachers based on societal needs become critical since they, particularly classroom teachers, have a considerable influence on forging individuals' personalities (Yılmaz, 2007). Given the disaster scenario in our nation, it is deemed worthwhile to review the current status, development, and change of classroom teachers who are essential for disaster education. This study is significant in this context because it assesses the current state of affairs in line with the views and experiences of classroom teachers and emphasizes the shortcomings in a multidimensional manner.

Teachers are considered role models to convey life-related issues. Classroom teachers, on the other hand, have a unique opportunity to make a positive impact on children who are just about to discover the excitement of enjoying reading, writing, mathematics, language, the arts, and other fundamental domains while guiding them (Yusoff, How, Azmi, and Othman 2019). Given the significance of primary education, it is essential to determine that teachers have received disaster training, is prepared for disaster incidents, and have posed awareness and preparedness for disasters. Assaying the disaster awareness perception of teachers is critical during the preparation phase for potential disasters. It is thought assessing the disaster awareness level of classroom teachers -who are in the practitioner position in the initial stage of disaster education- adds significant value to the current study. Another substantial value of this research is the presumption that teachers' preparedness for disasters will concurrently impact their students' acquisition of accurate information, cognition, awareness, and experience of disaster cases. It is also necessary to highlight the outcomes, suggestions, and deficiencies of the most vulnerable members of society and our children, who are the assurance of our future, within the context of the disaster education of classroom teachers, who are among the most influential actors that will educate how to cope with disaster reality in a country posing disaster potential considerably. Thus, the current study aimed to propose solutions to enhance teachers' disaster awareness by exposing the level of disaster awareness perceptions of classroom teachers and how they differ according to the specified variables.

Problem Statement/Sub-Problem Statements

'What are the disaster awareness perception levels of classroom teachers?' constitutes the problem statement in the study. Below is a list of the sub-problem statements in this regard:

- What is the disaster awareness level of classroom teachers?

- Do disaster awareness perception levels of classroom teachers vary significantly by age?

- Do disaster awareness perception levels of classroom teachers vary significantly by gender?

- Do disaster awareness perception levels of classroom teachers vary significantly by the geographical region they were grew up?

- Do disaster awareness perception levels of classroom teachers vary significantly by professional seniority?

- Do disaster awareness perception levels of classroom teachers vary significantly by educational status?

- Do disaster awareness perception levels of classroom teachers vary significantly by title?

- Do disaster awareness perception levels of classroom teachers vary significantly by disaster experiences?

METHOD

Study Design

While striving to analyze the disaster awareness perceptions of primary school teachers, this study employed the survey design, a quantitative research technique. "Survey analysis, which is widely used in social sciences and allows working on large groups, is a research model that aims to characterize a situation as it is, without the researcher's manipulation of the independent variable" (Tutar and Erdem, 2022: 135). The goals of the survey design were to identify characteristic features, opinions, attitudes, and perceptions of a large group (Hocaoğlu and Akkaş-Baysal, 2019). The study's methodology was a cross-sectional model with a sizable sample and a single measurement (Büyüköztürk, Kılıç, Akgün, Karadeniz, and Demirel, 2020). Since surveying the entire population was unattainable using the cross-sectional survey model in cases involving large groups, data were acquired by identifying distinct groups in the population (Tutar and Erdem, 2022).

Population and Sampling

The study population consisted of classroom teachers employed officially at primary schools affiliated with the Van Province Directorate of National Education in the 2022-2023 school year. The study sample, however, comprised 509 classroom teachers selected from this population by an appropriate sampling method. The appropriate sampling method is a strategy in which it is easy and accessible to include individuals or groups in the research process (Ekiz, 2020). The primary reason for choosing this strategy was that the researchers were residing in provinces and districts where data for schools were gathered. Demographic information of the teachers included in the study was obtained with the "Teacher Personal Details Form" provided in Table 1.

Table 1. Demographic Information Of Classroom Teachers

Variables	Categories	n	%
Age	21-49	159	31,2
	30-39	248	48,7
	40-49	71	13,9
	50-59	27	5,3
	60+	4	0,7
Gender	Female	287	56,3
	Male	222	43,6
Region of grew up	Akdeniz	47	9,2
	Doğu Anadolu	212	41,6
	Ege	52	10,2
	Güneydoğu Anadolu	46	9,03
	Karadeniz	40	7,8
	İç Anadolu	72	14,14
	Marmara	40	7,8
Professional seniority	1-10	342	67,1
	11-20	110	21,6
	21-30	43	8,4
	31-40	12	2,3
	41+	2	0,3
Education status	Undergraduate	422	82,9
	Master	84	16,5
	Doctorate	3	0,5
Professional titles	Teacher	454	89,1
	Master Teacher	52	10,2
	Head teacher	3	0,5
Disaster experience	Yes	313	61,4
	No	196	38,5

Data Collection Tools and Process

This study utilized the 'Teacher Personal Details Form' and 'Disaster Awareness Perception Scale' as data collection tools.

The researcher developed the 'Teacher Personal Details Form.' The introductory section of this form retained the purpose and scope of the study. It also provided additional information stating that the research received necessary permissions/authorizations, that study participation is voluntary, and that the study data will be kept confidential. In the form, there were also queries for teachers to respond to, including their age, gender, geographical region where they were grew up, professional seniority, educational status, and title, selecting these variables based on the literature review. Typically, there was a 10-year interval measurement to collect teachers' ages and professional background data. There were seven geographical region classifications for the variable defining the area where teachers were grew up. While the educational status comprised undergraduate, graduate, and doctorate groups, the title section included classroom teacher, chartered teacher, and head teacher for the data collection. As a result, teachers provided categorized data through the developed form.

The Disaster Awareness Perception Scale developed by Dikmenli, Yakar, and Konca (2018) measured the disaster cognition of teachers. Accordingly, the scale with a five-point Likert style scoring from 1 to 5 comprised four sub-factors and 36 items. These items are as follows: 13 are related to 'disaster education awareness,' eight to 'pre-disaster awareness,' eight to 'false disaster awareness,' and seven to 'post-disaster awareness.' In the disaster education sub-dimension (factor), while 13-30 points denote 'poor,' 31-48 and 49-65 points refer to 'acceptable' and 'good' scales, respectively. In the pre-disaster and false disaster awareness dimensions, however, 8-18 points stand for 'poor,' whereas 19-29 and 30-40 points signify 'acceptable' and 'good' scales, respectively. Finally, in the post-disaster dimension, 7-17, 19-29, and 30-40 points refer to the 'poor,' 'moderate,' and 'good' scales, respectively. Considering the total scores obtained from the scale, 36-84, 85-132, and 133-180 score ranges refer to 'poor,' 'average,' and 'good,' respectively. The highest score attainable from the scale is 180, and the lowest score is 36. The maximum score on the scale indicates the highest level of disaster awareness; contrarily, the minimum score signifies the lowest level of disaster awareness. The Cronbach alpha reliability coefficient of the scale is 0.72. The Cronbach Alpha reliability coefficient of this study, however, was 0.95. As a result, these findings demonstrated that classroom teachers provided reliable data regarding their disaster awareness perception levels.

The data collection procedure took two weeks in total. Participants electronically responded to the Disaster Awareness Perception Scale through an online questionnaire (Google Forms).

Data Analysis

The study data were analyzed using quantitative analysis methods. Consequently, the data were presented descriptively using frequency-percentage distributions, arithmetic means, and standard deviation values. The results of normality tests revealed that the data were not normally distributed. As a result, the study employed non-parametric tests for the analysis, benefitting from the Mann-Whitney U test and the Kruskal Wallis test. The Statistical Package for the Social Sciences (SPSS) 22 was employed to analyze the data, accepting 0.05 as a significance level.

Before the data collection procedure, the study acquired approval from Bartın University Social and Human Sciences Ethics Committee with protocol number 2022-SBB-0075.

FINDINGS

This section presents the findings from the data collected for the sub-problems of the study.

Disaster awareness perception levels of classroom teachers

The Disaster Awareness Perception Scale was used to determine the disaster awareness perception levels of the classroom teachers. Based on the scale's dimensions and the derived arithmetic means, frequencies, and standard deviations from the sum of the scale's scores, the outcomes were categorized as 'poor,' 'average,' and 'good.' Table 2 presents the findings about the disaster awareness perception levels of classroom teachers.

Table 2. Disaster Awareness Perception Levels Of Classroom Teachers

		Poor	Average	Good	$\bar{X}$	S
Disaster education dimension	f	37	17	455	54,91	10,79
	%	7,2	3,3	89,3		
Pre-disaster dimension	f	37	12	460	34,40	7,40
	%	7,2	2,3	90,3		
False disaster awareness dimension	f	16	40	453	34,96	5,92
	%	3,1	7,8	88,9		
Post-disaster dimension	f	56	200	253	25,39	6,28
	%	11	39,2	49,7		
Total	f	26	40	443	149,67	23,52

	%	5,10	7,85	87,03

Table 2 displays that participants scored a maximum of 65 points and a minimum of 13 points on the disaster education dimension. Participants' performance on this dimension was 7.2% (37), 3.3% (17), and 89.3% (455) for poor, average, and good levels, respectively. The calculated overall average score of the participant teachers in this dimension was $\bar{X}$ =54.91; hence, they explicitly reflected a good level of awareness. Similarly, in the pre-disaster category, while 7.2% (37) of the participant teachers scored poorly, 2.3% (12) and 90.3% (460) of them scored average and good, respectively. The overall average score of the pre-disaster dimension for participant teachers was $\bar{X}$=34.40, referring to quite a good level of awareness. Furthermore, in the false disaster awareness dimension, 3.1% (16), 7.8% (40), and 88.9% (453) of the participants posed poor, average, and good levels of awareness. The overall average score calculated for this dimension by the participant teachers was $\bar{X}$= 34.96, indicating a high level. In the post-disaster category, however, participant teachers scored 11% (56), 39.2% (200), and 49.7% (253) for poor, average, and good levels. As a result, the overall average score of the teachers for this dimension was $\bar{X}$ = 25,39, reflecting a moderate level of awareness. Considering the general average scores of the participant classroom teachers, 5.10% (26), 7.85% (40), and 87.03% (443) of them received poor, average, and good scores, respectively. The overall average score calculated for the participants in all dimensions was $\bar{X}$= 149.67, explicitly indicating that classroom teachers retained a high level of disaster awareness perception.

Findings for the Second Sub-Problem

The Kruskal-Wallis test was used to analyze whether there was a significant difference between participants' ages, their overall disaster awareness perception levels, and other variables such as their disaster education, pre-disaster, false disaster, and post-disaster awareness in the scale. Table 3 summarizes these findings.

Table 3. Kruskal Wallis Test Results Related To Classroom Teachers' Disaster Awareness Perceptions And Age

	Age ranges	N	Mean Rank	df	x^2	p
Disaster education dimension	21-29	159	235,96	4	7,277	0,122
	30-39	248	270,75			
	40-49	71	244,66			
	50-59	27	262,13			
	60+	4	170,50			
Pre-disaster dimension	21-29	159	249,34	4	0,963	0,915
	30-39	248	260,98			
	40-49	71	252,73			
	50-59	27	242,87			
	60+	4	231,38			
False disaster awareness dimension	21-29	159	249,59	4	5,940	0,204
	30-39	248	253,77			
	40-49	71	252,99			
	50-59	27	314,80			
	60+	4	178,13			
Post-disaster dimension	21-29	159	262,13	4	1,936	0,748
	30-39	248	249,34			
	40-49	71	248,13			
	50-59	27	283,70			
	60+	4	250,75			
Total	21-29	159	243,82	4	3,926	0,416
	30-39	248	262,34			
	40-49	71	243,10			
	50-59	27	290,85			
	60+	4	213,50			

Table 3 indicated no significant difference between the age variable and other dimensions, including disaster education, pre-disaster, false disaster, and post-disaster awareness. There was also no significant difference between the overall scores obtained from the scale and the age variable. Therefore, there was no significant difference between disaster awareness perception levels and the age variable.

Findings for the Third Sub-Problem

For the third sub-problem, the Mann-Whitney U Test was used to assess whether there was a statistically significant difference in the gender variable and general disaster awareness perception levels of participants. Table 4 displays the outcomes of the Mann-Whitney U Test accordingly.

Table 4. Mann-Whitney U Test Results Related To Classroom Teachers' Disaster Awareness Perceptions And Gender

Dimension	Gender	N	Mean Rank	Sum of Ranks	U	p
Disaster education	Female	287	257,21	73818,50	31223,50	0,700
	Male	222	252,15	55976,50		
Pre-disaster	Female	287	260,37	74727	30315	0,345
	Male	222	248,05	55068		
False disaster awareness	Female	287	260,10	74647,50	30394,50	0,368
	Male	222	248,41	55147,50		
Post-disaster	Female	287	242,43	69576	28248	0,028
	Male	222	271,26	60219		
Total	Female	287	255,40	73298,50	31743,50	0,945
	Male	222	254,49	56496,50		

Table 4 displayed no significant difference between participants' gender variable and perception of disaster awareness in disaster-related education and other dimensions, including pre-disaster and false disaster awareness. However, there was a statistically significant difference between the post-disaster dimension and the gender variable (U= 28248, p <0.05). Accordingly, post-disaster perception levels of male teachers were higher than female teachers. However, there was no significant difference between the overall scores obtained from the scale and the gender variable.

Findings for the Fourth Sub-Problem

The Kruskal-Wallis Test was used to analyze whether the geographic regions in which the classroom teachers were grew up affected the level of disaster perception awareness. Table 5 lists the outcomes of this test.

Table 5. Kruskal Wallis Test Results Regarding Classroom Teachers' Perceptions Of Disaster Awareness And The Region Where They Were Grew Up

	Region	N	Mean Rank	df	x^2	p	Difference
Disaster education dimension	Akdeniz	47	227,51	6	10,536	0,104	-
	Doğu Anadolu	212	241,92				
	Ege	52	292,13				
	Güneydoğu Anadolu	46	294,24				
	Karadeniz	40	267,98				
	İç Anadolu	72	258,54				
	Marmara	40	243,86				
Pre-disaster dimension	Akdeniz	47	218,14	6	9,559	0,144	-
	Doğu Anadolu	212	243,84				
	Ege	52	282,78				
	Güneydoğu Anadolu	46	290,39				
	Karadeniz	40	274,58				
	İç Anadolu	72	257,08				
	Marmara	40	257,34				
False disaster awareness dimension	Akdeniz	47	235,29	6	9,141	0,096	-
	Doğu Anadolu	212	245,94				
	Ege	52	300,48				
	Güneydoğu Anadolu	46	276,01				
	Karadeniz	40	283,98				
	İç Anadolu	72	234,84				
	Marmara	40	250,21				
Post-disaster dimension	Akdeniz	47	234,93	6	10,098	0,121	-
	Doğu Anadolu	212	254,38				
	Ege	52	261,01				
	Güneydoğu Anadolu	46	300,55				
	Karadeniz	40	265,40				
	İç Anadolu	72	257,94				
	Marmara	40	205,98				
Total	Akdeniz	47	225,22	6	14,10	0,028	Akdeniz- Ege Akdeniz-Güneydoğu Ege-Marmara Ege-Doğu Anadolu Güneydoğu-Marmara Güneydoğu-Doğu Anadolu
	Doğu Anadolu	212	241,37				
	Ege	52	298,88				
	Güneydoğu Anadolu	46	297,51				
	Karadeniz	40	277,89				
	İç Anadolu	72	255,33				
	Marmara	40	232,81				

Table 5 indicated no statistically significant difference between the disaster awareness perception levels of participants and the region they were grew up for the dimensions of disaster education, pre-disaster, false-disaster, and post-

disaster awareness. However, there was a significant difference between overall scores obtained from the scale and the region where participants were grew up (p <0,05). Accordingly, there was a statistically significant difference in terms of disaster awareness perception levels among teachers who were grew up in the Mediterranean-Aegean, Mediterranean-Southeast, Aegean-Marmara, Aegean-Eastern Anatolia, Southeast-Marmara and Southeast-East Anatolia regions.

Findings for the Fifth Sub-Problem

The Kruskal-Wallis Test was used to assess whether there is a difference between professional seniority and participants' overall disaster awareness perception levels and their disaster education, pre-disaster, false disaster, and post-disaster awareness in the scale. Accordingly, Table 6 lists the Kruskal Wallis test results acquired from these parameters.

Table 6. Kruskal Wallis Test Results Related to Classroom Teachers' Disaster Awareness Perceptions and Professional Seniority

	Professional seniority	N	Mean Rank	df	x^2	p
Disaster education dimension	1-10	342	248,97	4	4,566	0,335
	11-20	110	280,99			
	21-30	43	239,44			
	31-40	12	246,33			
	41+	2	243			
Pre-disaster dimension	1-10	342	253,14	4	1,783	0,776
	11-20	110	263,35			
	21-30	43	243,98			
	31-40	12	252,71			
	41+	2	364,25			
False disaster awareness dimension	1-10	342	255,57	4	1,275	0,866
	11-20	110	247,66			
	21-30	43	258,79			
	31-40	12	295,46			
	41+	2	237,25			
Post-disaster dimension	1-10	342	244,41	4	5,583	0,233
	11-20	110	277,25			
	21-30	43	276,33			
	31-40	12	267,13			
	41+	2	310,25			
Total	1-10	342	247,53	4	3,523	0,474
	11-20	11	274,07			
	21-30	43	255,72			
	31-40	12	278,38			
	41+	2	327,50			

According to the data in Table 6, there was no significant difference between participants' disaster awareness perception levels and seniority in their profession in disaster education, pre-disaster, false disaster, and post-disaster awareness dimensions. In addition, there was no significant difference between classroom teachers' scale ratings and their professional seniority.

Findings for the Sixth Sub-Problem

The Kruskal-Wallis test was employed to determine the difference between participants' disaster awareness perception levels and educational status variables. Table 7 displays the findings of this test.

Table 7. Kruskal Wallis Test Results Related to Classroom Teachers' Disaster Awareness Perceptions and Education Status

	Educational status	N	Mean Rank	df	x^2	p
Disaster education dimension	Undergraduate	422	257,41	2	0,708	0,702
	Master	84	242,70			
	Doctorate	3	260,17			
Pre-disaster dimension	Undergraduate	422	253,26	2	0,889	0,641
	Master	84	261,29			
	Doctorate	3	324,17			
False disaster awareness dimension	Undergraduate	422	255,89	2	0,771	0,680
	Master	84	248,28			
	Doctorate	3	318,67			
Post-disaster dimension	Undergraduate	422	258,53	2	1,898	0,387
	Master	84	239,94			
	Doctorate	3	180,67			
Total	Undergraduate	422	256,77	2	0,434	0,805

	Master	84	245,58			
	Doctorate	3	269,17			

Table 7 indicated no significant difference between participants' dimensions of disaster education, pre-disaster, false disaster, and post-disaster awareness and educational status. Similarly, it revealed no significant difference between the overall scores of the classroom teachers from these scales and their education status. Therefore, there was no significant difference between participants' disaster awareness perception levels and their educational status.

Findings for the Seventh Sub-Problem

The Kruskal-Wallis Test was conducted to analyze the difference between participants' professional titles and disaster awareness perception levels, and Table 8 illustrates the outcomes of this test.

Table 8. Kruskal Wallis Test Results Regarding Classroom Teachers' Disaster Awareness Perceptions and Profeaaional Title

	Professional title	N	Mean Rank	df	x^2	p
Disaster education dimension	Teacher	454	252,22	2	1,534	0,464
	Master Teacher	52	278,68			
	Head teacher	3	265,83			
Pre-disaster dimension	Teacher	454	251,46	2	2,481	0,289
	Master Teacher	52	284,78			
	Head teacher	3	274,33			
False disaster awareness dimension	Teacher	454	254,32	2	2,335	0,311
	Master Teacher	52	253,58			
	Head teacher	3	382,83			
Post-disaster dimension	Teacher	454	250,85	2	3,379	0,185
	Master Teacher	52	289,94			
	Head teacher	3	277			
Total	Teacher	454	251,02	2	3,174	0,205
	Master Teacher	52	286,45			
	Head teacher	3	312,67			

The data in Table 8 demonstrate that there was no significant difference between the disaster awareness perception levels and professional titles of the classroom teachers in the dimensions of disaster education, pre-disaster, false disaster, and post-disaster awareness variables. Furthermore, there was no significant difference between the classroom teachers' scale scores and professional titles.

Findings for the Eighth Sub-Problem

The Mann-Whitney U test was used to assess the difference between participants' disaster awareness perception levels and their disaster experience. Table 9 lists the findings of this test.

Table 9. Kruskal Wallis Test Results Regarding Classroom Teachers' Disaster Awareness Perceptions and Disaster Experience

	Disaster experiences	N	Mean Rank	Sum of Ranks	U	p
Disaster education dimension	Yes	313	266,99	83569	26920	0,020
	No	196	235,85	46226		
Pre-disaster dimension	Yes	313	256,35	80239	30250	0,791
	No	196	252,84	49556		
False disaster awareness dimension	Yes	313	259,72	81293	29196	0,354
	No	196	247,46	48502		
Post-disaster dimension	Yes	313	262,36	82118,50	28370,500	0,153
	No	196	243,25	47676,50		
Total	Yes	313	265,33	83048	27441	0,045
	No	196	238,51	46747		

Table 9 revealed a significant difference between participants' scores on the disaster education dimension and their disaster experiences ($p<0.05$). Accordingly, there was a substantial difference between classroom teachers' disaster education awareness and disaster experiences. However, there was no significant association between pre-disaster, false disaster, post-disaster dimensions, and disaster experience variables. Considering the overall scores of the classroom teachers from the scale and their disaster experiences, there was a statistically significant difference ($p<0.05$). As a result, there was a significant difference between classroom teachers' disaster awareness perception levels and their disaster experiences.

DISCUSSION, CONCLUSION, AND SUGGESTIONS

Assessment of study findings revealed that the disaster awareness perception among the classroom teachers was good (above the satisfactory level). Considering the sub-dimension averages of the scale, while the average score of the disaster education, pre-disaster, false disaster, and post-disaster awareness dimensions was at a good level, the average score of the post-disaster awareness remained at a moderate (average) level. Tekin (2020) reported that prospective classroom teachers posed a higher disaster awareness perception. Şahin et al. (2018) also indicated that university students had a substantial level of disaster awareness. Similarly, Çelik and Gündoğdu (2022) remarked that classroom teachers were highly responsive to disaster. The findings of this study on the disaster awareness perception levels of classroom teachers considerably overlap with study results conducted by Tekin (2020) and Şahin et al. (2018). The literature does, however, retain studies with various conclusions. Dikmenli and Yakar (2019) and Özkazanç and Duman-Yüksel (2015) stated that teacher candidates (prospective teachers) posed a modest level of disaster awareness perception. İnal et al. (2012) expressed that college students had a low level of disaster awareness. The fact that classroom teachers enroll in courses such as Environmental Education, Life Studies Teaching, and Social Studies Teaching at the Undergraduate-level, which additionally enclose disaster awareness and skills, as well as the teaching of lessons to students emphasizing disaster attainments, may be productive to elevate their disaster awareness level.

There was no significant difference between the age variable and disaster awareness perception levels of classroom teachers. Considering all dimensions of the scale in terms of age variable, there was also no significant difference among all variables and age variable. Hence, it is safe to conclude that the age variable has no impact on the disaster awareness perception levels among classroom teachers. Çelik (2020) reported that teachers' disaster preparedness levels do not vary by age. This finding is also comparable to that of Çelik (2020). Demirkaya (2007) found that the age of students had no effect on their attitudes toward earthquakes when assessing their conduct toward earthquakes in terms of various variables. As a result, the findings of Demirkaya (2007) also provide indirect support for the current study.

This study found no significant difference between the gender variable and the perception of disaster awareness among classroom teachers, except for identifying a statistically significant difference between the post-disaster dimension and the gender variable. Hence, it is conceivable to claim that the post-disaster perception levels of male teachers are higher than female teachers. Çelik and Gündoğdu (2022) asserted that there was no correlation between the disaster preparedness levels of elementary school teachers and their ages. Considering the gender variable, however, Öcal, Yıldırım, Yakar, and Erdoğan (2016) identified no significant difference between the disaster beliefs of social studies teacher candidates and their gender variable. Similarly, Türksever (2021) reported that the gender variable did not affect the disaster awareness of prospective teachers. Sözcü and Aydınözü (2019) also stated that the gender variable of teacher candidates did not impact their natural disaster-related beliefs. Concerning the subject, İmalı (2014) concluded that there was no significant difference between the variables of gender, natural disaster, and the risks posed by those natural events. Adıgüzel (2007) reported that, when assessing the crisis management related to earthquake disasters among school principals, there was no significant difference between their competencies in crisis management and their gender. Therefore, the conclusions made by Çelik and Gündoğdu (2022), Öcal et al. (2016), Türksever (2021), Sözcü and Aydınözü (2019), İmalı (2014), and Adıgüzel (2007) also conform with the findings of the current study. Yet, there are also analyses with different results in the literature. For instance, considering the gender variable, Tekin (2020) stated that female teacher candidates perceived a higher level of false disaster awareness. Çelik (2020) also inferred that female teachers take disaster more seriously than male teachers; however, male teachers consider themselves more competent in case of a disaster. According to Kırıkkaya et al. (2011), female teachers place a higher value than male teachers and are more aware of the achievements in disaster education. Comparing gender-wise, therefore, it is conceivable to state that male teachers are more acquainted with the post-disaster measures than female teachers.

The current study found that the region where the classroom teachers were grew up and grew up did not affect their disaster awareness perception levels. However, there were also significant differences between overall mean scores and the geographical regions where teachers were grew up. This data indicates that there are statistically significant differences in the levels of disaster awareness perception among teachers trained in the Mediterranean and the Aegean, the Mediterranean and the Southeast, the Aegean and the Marmara, the Aegean and the East Anatolia, the Southeast and the East Anatolia and the Marmara and East regions. Regarding this variable, Tekin (2020) reported no difference between the area where the prospective classroom teachers resided and their disaster awareness perception. Similarly, Sözcü and Aydınözü (2019) concluded that the residential areas of teacher candidates indifferently affected their natural disaster awareness. Demirkaya (2007) also stated that there was no significant linkage between primary school students' attitudes towards earthquakes and the location they resided, a village in this case. Therefore, the findings concluded by Tekin (2020), Sözcü and Aydınözü (2019), and Demirkaya (2007) conform

with the outcomes of this study, albeit AlQahtany and Abubakar (2020) documented a significant linkage between the place of residence and the perception of disaster risks.

The study explicitly disclosed that the disaster awareness perception of the classroom teachers was unaffected by their professional seniority. Çelik and Gündoğdu (2022) stated that there was no difference between the level of disaster preparedness and professional seniority variable. On the contrary, Kırıkkaya et al. (2020) indicated that seniority in the profession favorably impacted the attainment level in disaster education. Kirikkaya et al. (2011) further concluded that teachers with over five years of professional experience were more successful in attaining disaster education than other teachers, which was also consistent with the findings of Çelik and Gündoğdu (2022).

The current study concluded that the educational status of the classroom teachers did not affect their disaster awareness perception levels. Dikmenli and Gafa (2017) reported that student education levels did not impact how well they perceived disaster awareness. The results of this study were comparable to those of Dikmenli and Gafa (2017) in this context. However, Dökmeci and Merinç (2018) examined the difference between associate and undergraduate degrees held by students and disaster knowledge and preparedness and discovered a significant difference between education levels and disaster awareness. Similarly, Gerdan (2014) inferred a substantial linkage between educational status and disaster awareness. Therefore, it is conceivable to argue that the disparity in educational content is to blame for the acquisition of such diverse results in these studies.

Another critical output of the current study is that there is no difference between the titles of classroom teachers and their disaster awareness perception levels. Indeed, analysis of disaster education, pre-disaster, false disaster, and post-disaster awareness sub-dimensions of the scale in terms of professional titles, such as classroom teacher, chartered teacher, and head teacher, yielded no statistical significance. As a result, it is viable to articulate that the professional titles of classroom teachers are not a critical variable in their disaster awareness perception levels. Consequently, the literature review did not identify any reference to a linkage between professional titles and disaster awareness perception among classroom teachers.

The current study established that the disaster experiences of the classroom teachers favorably impacted their disaster awareness perception levels. The assessment of the scale's sub-dimensions concluded that there was a statistically significant difference between the disaster experience and the disaster education dimension. However, the impact of the disaster experience on pre-disaster, false disaster, and post-disaster awareness variables was insignificant. Tekin (2020) reported that the disaster experiences of the classroom teacher candidates did not affect how they perceived the variables such as pre-disaster, false-disaster, and post-disaster awareness. Given this result, the current study conformed to this conclusion in Tekin (2020). However, it varied in terms of the outcome reported by Tekin (2020) that disaster experiences of prospective classroom teachers did not alter their overall disaster awareness perception levels. In this regard, the current study contradicts Tekin's (2020) conclusion. Dikmenli and Yakar (2019) found that the disaster awareness perception levels of teachers who have previously experienced any disaster were higher than those who have not experienced it. Correspondingly, Espina and Teng-Calleja (2015) found that individuals who have already experienced a disaster were more likely to be prepared for future disasters. Astuti, Werdhiana, and Wahyono (2021) also indicated that teachers' prior disaster experience affected their awareness, attitudes, and perceptions toward future disasters. Finally, Mishra and Suar (2007) reported a significant difference between experiencing a disaster and escalating disaster education and preparedness levels. Therefore, the findings of the current study were also in conformity with the results underlined in Dikmenli and Yakar (2019), Espina and Teng-Calleja (2015), Astuti, Werdhiana and Wahyono (2021), and Mishra and Suar (2007).

Teachers are undoubtedly one of the most important elements that shape and direct an individual, a society and a nation (Filiz, 2014). Based on this view, disaster preparedness is inevitable due to the necessity of living in a country of disasters. Since the subjects and contents related to disaster preparedness are given in primary schools, it draws attention to the position of classroom teachers. Considering that students' disaster awareness is shaped according to the disaster awareness of classroom teachers, the level of disaster awareness of classroom teachers gains importance. The level of disaster awareness perception of a classroom teacher working in a disaster country has the potential to determine and change the disaster awareness of students and thus the society. As a result of the research conducted based on these thoughts; It was determined that the disaster awareness perception levels of the classroom teachers were high; It can be said that programs such as School-Based Disaster Education, Disaster Education Year, and Disaster Drill Year with the goal of the “Disaster Ready Turkey” positively affect the perceptions of classroom teachers' disaster awareness.

It is conceivable to make the following recommendations in line with the findings of this study:

- There may be organizations such as seminars and symposiums to improve disaster awareness among classroom teachers.

- In-service training may comprise disaster awareness training activities for classroom teachers.

- Experts in their fields may provide training for classroom teachers periodically.

- Post-disaster activities for classroom teachers may develop their post-disaster awareness perception.

- Classroom teachers may utilize simulation-oriented in-class technological tools to generate and experience imaginary disasters for themselves and their students.

CONFLICTS OF INTEREST

"The authors declare that they have no conflict of interest"

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