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Research Article

A Review of Graduate Theses on Disaster Management in Higher Education in Türkiye

Türkiye'de Yükseköğretimde Afet Yönetimi Üzerine Yazılmış Lisansüstü Tezlere Yönelik Bir İnceleme

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Abstract

The aim of this study is to determine the research tendencies of universities in the field of disaster management in higher education. The study examined 86 master's and doctoral theses on "Disaster Management in Higher Education" written between 2003 and 2022 to identify research trends in universities. The study used descriptive and content analysis methods to evaluate the current status of the topic, method, analysis techniques, and trends. To find the relevant studies, keywords such as "disaster", "disaster management", "higher education", "university", "student", "staff", and "policy" were used in the Higher Education Council (YÖK) National Thesis Center. The results showed that the number of theses focused on "disaster management in higher education" has increased significantly in the last four years. The majority of the studies were conducted in Çanakkale Onsekiz Mart University. Another finding is that in disaster management theses in higher education, female researchers represent 49%, while male researchers constitute 51%, and empirical studies have been identified as the most commonly used research method. The disaster management system was primarily addressed in the "preparedness" dimension, and universities conducted research in the public domain to contribute to society in disaster management. However, the study suggested that universities should focus on areas related to the university's framework conditions for disaster management. In conclusion, the study provides universities with recommendations and implications for future research to improve their understanding and approaches towards disaster management in higher education.

Key Words: *disaster management, research trends, graduate theses, content analysis, higher education studies.*

Öz

Çalışmanın amacı, yükseköğretimde afet yönetimi alanında üniversitelerin araştırma eğilimlerini belirlemektir. 2003 ile 2022 yılları arasında yazılmış toplam 86 yüksek lisans ve doktora tezi incelenmiş ve konu, yöntem, analiz teknikleri ve trendler açısından mevcut durum değerlendirilmiştir. İlgili çalışmaları bulmak için Yükseköğretim Kurulu (YÖK) Ulusal Tez Merkezi'nden "afet", "afet yönetimi", "yüksek öğrenim", "üniversite", "öğrenci", "personel" ve "politika" gibi anahtar kelimeler kullanılmıştır. Çalışma, MAXQDA 2020 Analytic Pro nitel veri analizi yazılımı kullanılarak analiz edilmiştir. Veri analizinde tanımlayıcı ve içerik analizi yöntemleri kullanılmıştır. Çalışmanın bulgularından biri, özellikle son dört yılda "yükseköğretimde afet yönetimi" üzerine yazılmış tezlerin belirgin bir artış göstermiş olmasıdır. Çanakkale Onsekiz Mart Üniversitesi'nin en fazla çalışmayı yürüttüğü belirlenmiştir. Ancak doktora tezlerinin sayısı düşük olup konu genellikle kapsamlı bir şekilde ele alınmamıştır. Bir başka bulgu, yükseköğretimde afet yönetimi tezlerinde kadın araştırmacılar %49, erkek araştırmacılar ise %51 oranında temsil edilmekte ve ampirik çalışmalar en yaygın araştırma yöntemi olarak kullanıldığı tespit edilmiştir. Afet yönetim sisteminin genellikle "hazırlık" boyutunda ele alındığı ve üniversitelerin afet yönetimi konusunda toplumsal katkı misyonunu yerine getirmek için kamusal alanda araştırmalar yaptıkları, ancak üniversitelerin afet yönetimi ile ilgili üniversitenin

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çerçeve koşullarını ilgilendiren konularda daha fazla çalışma yapılması gerektiği sonucuna varılmıştır. Bu çalışma, üniversitelere afet yönetimi alanındaki anlayış ve yaklaşımlarını geliştirmek için çıkarımlar ve gelecekteki araştırmalar için öneriler sunmaktadır.

Anahtar Kelimeler: *afet yönetimi, araştırma eğilimleri, lisansüstü tezler, içerik analizi, yükseköğretim çalışmaları.*

1. Introduction

The earthquakes that occurred in northwestern Türkiye on August 17, 1999, and in southeastern Türkiye on February 6, 2023, left the country reeling from an unprecedented natural disaster of staggering proportions. The aftermath of this cataclysm was characterized by a wide swath of destruction, extensive economic damage, and an overwhelming loss of human life. The severity of the situation spurred an immediate response, as all sectors of Türkiye galvanized to prepare for the possibility of future calamities of similar scope. To this end, the education, training, and research sectors in Türkiye underwent a dramatic transformation, and national policies for disaster management have continued to evolve from the days of the Ottoman Empire to the present-day Turkish Republic.

It cannot be overstated how critically essential it is to provide education and preparation for skilled individuals in the domain of disaster management. The successful management of natural calamities and other emergencies relies heavily on a well-prepared workforce equipped with the necessary knowledge and competencies. The institution of higher education stands at the forefront of such preparations, providing aspiring professionals with a solid foundation for their future careers in disaster management. The contribution of research in the field of disaster management at universities cannot be understated in its potential to enhance both the theoretical and practical aspects of the disaster management domain.

As documented in a research investigation by Sözcü (2020), there has been an upswing in the awareness of disaster management in the Turkish higher education context. The author examined the opportunities for disaster management education in Turkish universities and established that the number of courses and programs has shown an upward trend. At the same time, he underscored the urgency of bolstering the collaborative relationship between universities and other disaster management organizations. Similarly, Şengün and Küçükşen (2019) emphasized the imperative of establishing disaster management as a distinct academic discipline at the university level. The authors put forth that such a step would help raise the bar for the quality of disaster management education and increase the number of professionals equipped to respond effectively to emergencies.

In summary, the role of higher education in disaster management is paramount, and research in this area holds the promise of improving disaster management preparedness and response.

The general aim of this study is to fill the research gap in this field by examining postgraduate thesis studies on "Disaster Management in Higher Education" in Türkiye meticulously and comprehensively. For this purpose, a literature review was conducted to understand the current status of current research in this field. Then, a research question was developed based on the opinions obtained from the literature review.

2. Disaster Management and Higher Education

Disaster management refers to the planning, preparation, coordination, and implementation of measures to reduce the impact of disasters on people, infrastructure, and the environment. It encompasses all activities aimed at saving lives, minimizing injuries, and limiting property damage (UNISDR, 2009).

The disaster management process involves various phases, including risk assessment, disaster planning and preparation, response, recovery, and mitigation (Gautam & KK, 2021). Risk assessment involves identifying potential risks and evaluating their impact in order to take preventive measures. Disaster planning and preparation involves the development of emergency plans, training, simulations, and tests (OCHA, 2006). The response phase includes the quick and effective mobilization of rescue and relief personnel to save lives and minimize damage. The recovery phase involves the restoration of infrastructure, support for affected communities, and reconstruction (UNISDR, 2009; UNDP, 2017). Disaster management is a crucial task for governments, non-profit organizations, and businesses to ensure the safety and well-being of people and communities. It requires close collaboration and

coordination between different organizations and institutions to take effective measures and minimize the impact of disasters (IFRC, 2008).

Disaster management is a complex and multifaceted topic that requires careful planning, preparation, and coordination to ensure an effective response to emergencies. It is an important task that ensures the safety and well-being of people and communities worldwide.

Even with the most meticulous preparation and planning, natural disasters and emergencies can still result in severe consequences for affected communities. It is, therefore, imperative to educate and equip professionals in disaster management to ensure an efficient response. Higher education assumes a critical role in this regard by imparting students with the necessary knowledge and skills to pursue a career in disaster management.

Apart from educating students, research and innovation are also integral to improving disaster management. Developing new technologies and methods to predict and manage disasters necessitates a high level of coordination and cooperation among scientists, government agencies, and other stakeholders. Higher education provides an excellent platform for collaboration and the exchange of ideas and expertise, which can advance research and innovation in the field of disaster management.

In conclusion, higher education plays a pivotal role in disaster management. Educating professionals and fostering research and innovation are essential to ensuring an effective response to disasters and emergencies.

3. Literature Review and the Research Problem

Literature review is a research method that allows researchers to analyze existing knowledge on a subject in-depth. In this study, a literature review was conducted on "Disaster Management in Higher Education" in Türkiye. The aim is to determine the state of research in this field in Türkiye, the scope of the studies conducted, their topics, and limitations. To this end, the theses conducted at different universities in Türkiye were examined. Additionally, in this part of the study, the research problem was also identified.

Ural's (2008) study delves deep into the extensive efforts that have been taken in the aftermath of the Kocaeli earthquake to create a resilient nation ready to withstand any future disasters. Additionally, the study provides an in-depth analysis of national policy initiatives and their far-reaching impact on the development of disaster management education in Türkiye.

The challenge for higher education institutions (HEIs) to respond to industry needs and prepare students for careers in disaster resilience is complicated by the complexity and multidisciplinary nature of disaster management education. In order to effectively respond to the current and dynamic construction labor market requirements, HEIs have a responsibility to reduce the mismatch between what is delivered and what is required by the industry, as Thayaparana et al.'s (2014) study demonstrates. To meet the labor market's needs, adopting a lifelong learning approach may be an appropriate strategy for HEIs to provide continuous knowledge and education. However, the study reveals that it is not a simple task for HEIs to integrate this approach into their systems, given their formal and bureaucratic nature. Consequently, HEIs are increasingly relying on fostering close collaboration with external organizations such as industries, professional bodies, and communities to address this issue. The study further discusses the role of HEIs in providing disaster management education, the challenges associated with it, and ways to address these challenges through collaboration between HEIs and the industry.

Sözcü (2020) extensively analyzed studies on disaster education from kindergarten to university level in Türkiye. The document review method was used as one of the qualitative research techniques, evaluating a total of 2 doctoral theses, 27 master's theses, and 29 scientific articles published between 2003 and 2020. An internet search was conducted using the keywords "disaster" and "disaster education" in the HEB Thesis database to identify relevant studies. The data collected were analyzed using the content analysis method and evaluated based on the research topics, methods, findings, and conclusions. The author found that the number and quality of disaster education studies in Türkiye have increased in recent years, with studies covering a variety of topics from "disaster information" to "perceptions of disasters" to "disaster behaviors," but experimental studies were scarce.

Türkiye is at risk of natural and man-made disasters such as earthquakes, floods, and landslides due to its geographical location and geological structure. To minimize the loss of life and property in the event of a disaster, effective disaster management is essential, which includes pre-disaster risk reduction and preparedness measures, as well as intervention, recovery, and reconstruction efforts following the disaster. To prevent significant losses from disasters, activities such as identifying disaster hazards and risks, taking preventive measures, and investing in risk reduction are necessary (Carter, 1992: 4; Erkan, 2010: 6-10; Özmen, 2016: 10) (Figure 1).

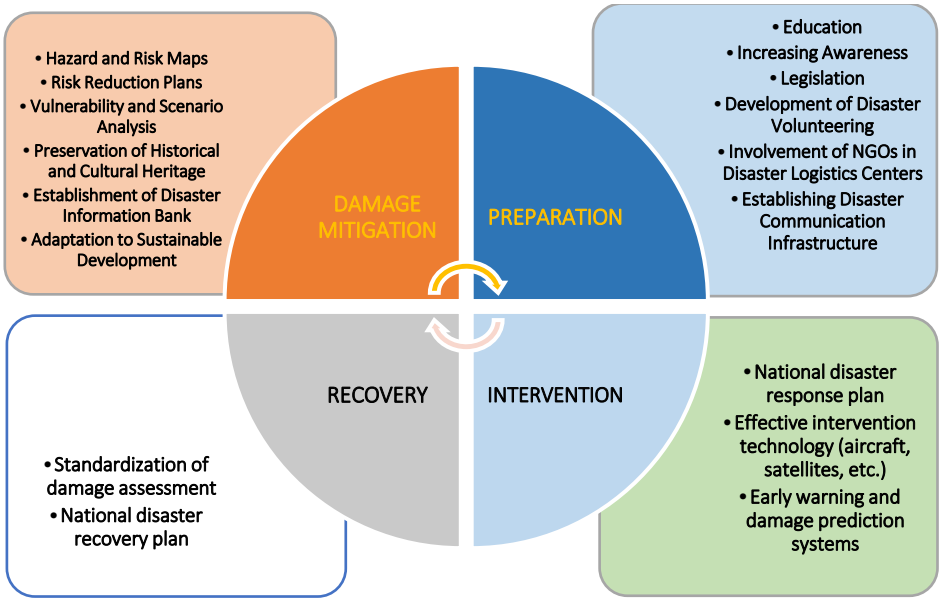


Figure 1. Integrated Disaster Management System.

Resource: Republic of Türkiye Prime Ministry Disaster and Emergency Management Presidency

In order to mount a timely, speedy, and effective response to a disaster, a range of activities are required, including conducting necessary pre-disaster planning, training, and drills, establishing early warning systems, storing emergency relief supplies, and educating the public about disasters. Immediately following the occurrence of a disaster, depending on the magnitude of the damage, search and rescue operations in the disaster area must be carried out within a period of 1-2 months, providing care for the injured, and meeting the basic needs of the displaced people for shelter, food, security, and moral support. Through coordinated emergency measures of all state institutions, daily life can be normalized as quickly as possible. Following the 1-2 months of intervention work after the disaster, measures should be taken to improve the lives of those affected by the disaster, such as creating disaster-resistant housing, improving or renewing infrastructure, agriculture, livestock, industry, commerce, education, health, and providing support to promote the economic and social development of the disaster area, increase the resilience of the population to future disasters, and develop the region better than before. (Erkan, 2010: 9-11).

The phase of preparation is an essential process aiming to develop and put into effect the necessary measures prior to a potential catastrophe or during an emergency. This critical phase encompasses the planning of indispensable arrangements, the acquisition of materials, and the establishment of critical mechanisms. Within this phase, vital components include early warning systems, evacuation, emergency priority, and disaster plans, which are essential elements of disaster preparedness, readiness, and response (Fişek & Kabasakal, 2008).

The intervention phase constitutes all actions essential to prevent the present situation from deteriorating, and carry out rescue and recovery operations that include all necessary actions to save lives, relieve suffering, and provide initial care, including clothing, food, communication, and more (Fişek & Kabasakal, 2008). This intervention phase is a period that starts immediately after the occurrence of a disaster and can last for varying lengths of time, depending on the size of the catastrophe. The utmost priority during this period is to meet the needs of the affected population, including life-

saving actions, medical care such as first aid, evacuation, supply of drinking water, food, clothing, shelter, security, and damage assessment, which are all critical components of disaster response efforts (Ergünay, 2002).

The recovery phase, a crucial component of disaster management, aims to exert the utmost efforts in satisfying victims' needs in various areas, such as communication, transportation, water, electricity, sewage, education, and housing, after a catastrophe (Güler, 2012). The use of complex sentence structures and detailed examples can introduce a high degree of perplexity, facilitating the transmission of comprehensive information about the numerous actions required during this phase. It is of utmost importance during this phase to restore the needs of disaster victims to the level before the catastrophe, making it an indispensable aspect of disaster management (Şengün, 2007). Additionally, this phase envisions planning for a higher quality of life than before the catastrophe, emphasizing the importance of its successful execution (Özdemir & İlki, 2004).

Lastly, *the damage mitigation phase* involves all possible efforts to minimize the impacts of disasters before, during, and after their occurrence. Given the inherent limitations in avoiding the devastating effects of disasters, society's awareness and sensitivity are crucial for taking measures in case of a risk of damage and minimizing the impact in case of damage. It is indispensable to identify risky environments before a disaster and take the required measures to minimize the impact in case of a catastrophe (Kaya, 2013).

The research problem of this study is to determine the direction of research in this field based on the limited results of studies on the adequacy and effectiveness of disaster management research in Turkish higher education institutions. Through an in-depth literature analysis, it has been revealed that a comprehensive examination of research trends related to "disaster management in higher education" in Türkiye is lacking. The aim of this study is to investigate the current state of postgraduate theses on disaster management in higher education in Türkiye, in terms of their topics, methodology, and analytical techniques used from 2003 to 2022. To gain a deeper understanding, the analysis considers several sub-problems that specifically focus on master's and doctoral theses on disaster management in higher education, with a closer examination of the following topics:

• Distribution according to postgraduate levels,

• Distribution according to languages in which theses were written,

• Distribution according to years in which theses were written,

• Distribution according to institutions, departments, universities, and types of universities,

• Distribution according to gender of researchers,

• Distribution according to titles of thesis advisors,

• Distribution according to empirical studies,

• Distribution according to data collection techniques and tools,

• Distribution according to sample populations,

• Distribution according to types of data analysis,

• Distribution according to sampling methods,

• Distribution according to sample size,

• Distribution according to number of pages,

• Distribution according to number of variables,

• Distribution according to sub-topics, and

• Distribution according to sub-topics based on a systems approach.

• What are the general characteristics?

The investigation at hand takes note that the earliest documented thesis on "disaster management in higher education" in Türkiye was traced back to 2003, thus all postgraduate theses that spanned the years 2003 to 2022 were taken into consideration for this study. As stated by Al (2008), the analysis of theses in a given area provides general knowledge regarding its contents, profundity, and prevalence, as well as a glimpse into the field's overall appearance. Hence, the findings of this research endeavor may serve as a pivotal point of reference for practitioners who intend to divulge the current trends of the subject, including its methods, analysis techniques, and other subordinate issues. Furthermore, the purpose of this study is to contribute to bridging the gap in the available literature on disaster management in higher education in Türkiye.

4. Method

4.1. Purpose, Scope and Limitations of the Research

The aim of this study is to determine the research trends in master's and doctoral thesis studies focusing on "Disaster Management in Higher Education" in Türkiye between 2003-2022. In determining the scope of the study, the theses available in the National Thesis Center of the Council of Higher Education (YÖK) were examined. A total of 86 thesis studies were reached in the research. These studies were obtained by scanning the researches in which keywords such as "disaster", "disaster management", "higher education", "university", "academician", "administrative personnel", "student" were used in the detailed search tab on the website http://www.tez.yok.gov.tr. Detailed descriptions of the keywords are explained under the data collection heading.

4.2. Universe and Sample

The encompassing universe of the research at hand comprises all scientific investigations that address the pertinent topic of disaster management in the higher of educational institutions in Türkiye. To that effect, the research sample under scrutiny has been culled from the broad plethora of graduate theses dedicated to disaster management in higher education, which publicly accessible within Türkiye, across the temporal plane spanning the years 2003 to 2022.

Moreover, it is worth noting that the ambit of the research has been delimited to the realm of master and doctoral theses relating to disaster management in the context of education, as dictated by the relevant specifications. Hence, it was incumbent upon to utilize the following criteria in the selection of the sample under scrutiny:

Firstly, the research topic of the master and doctoral theses should pertain to the to crucial domain of natural disaster management in the wider context of education. It bears emphasizing that the thematic coverage ought to be sufficiently extensive, so as to take into account the salient aspects of education, research, commercialization, social contribution, as well as the diverse array of internal and external stakeholders of the university, namely students, personnel, and external stakeholders.

Secondly, it is mandated that the graduate theses being examined must have been duly authorized and published in the National Thesis Center of the Higher Education Council. This condition holds true for the period between the years 2003 to 2022, which forms the very crux of the entire research endeavor.

4.3. Research Methodology

The study's research methodology involved the adoption of a qualitative approach, specifically the case study design (situation analysis), to explore the status of graduate theses on "Disaster Management in Higher Education" in Türkiye between 2003 and 2023, examining them through various aspects. Merriam (2013) defines situation analysis as a research method that involves providing an in-depth description and examination of a limited system. The process of systematically collecting information about how the limited system operates to perform an in-depth examination is known as a situation analysis study (Chmiliar, 2010). Using multiple data collection methods, including observation, interviews, document analysis, and audio-visual materials, researchers can explore one or more limited scenarios over time, according to Creswell (2007), who characterizes situation analysis as a qualitative research method that identifies patterns related to themes.

According to Hancock and Algozzine (2006), situation analysis are research studies that describe and thoroughly examine time- and space-limited events using multiple data collection instruments. The

researchers collect data systematically to gain a thorough understanding of what is happening in the real world, and the findings can help identify the root cause of the event and establish focus areas for future studies (Davey, 1991). The descriptive analysis technique was employed to determine research trends, and the content analysis technique was utilized based on a systems approach to identify subcategories associated with "Disaster Management in Higher Education". Content analysis is the process of deriving meaning from qualitative data sources by collecting similar data into specific thematic and categorical frameworks and organizing and interpreting them in a way that is understandable to the reader (Bauer, 2003; Salanda, 2011).

4.4. Data Collection Tool

Each dissertation included in the study was subjected to descriptive and content analysis using the qualitative data analysis program MAXQDA 2020 Analytic Pro. In the examination of postgraduate dissertations, the "Form for Classifying Qualitative Case Studies in Operations Management" developed by Barratt, Choi, and Li (2011), the "Form for Classifying Educational Technologies" developed by Göktaş, Küçük, Aydemir, Telli, Arpacık, Yıldırım, and Reisoğlu (2012), and the "Article Classification Form" developed by Sözbilir and Kutu (2008) were revised and used. The form consists of eight sections, namely: postgraduate level, language of writing, year of writing, institution of writing, department, university, type of university, gender of the researcher, academic title of the supervisor, type of empirical study, data collection techniques and instruments, sample size, type of data analysis, sampling method, sample size, number of pages, number of variables, sub-topics according to the integrated disaster management system, and sub-topics according to the system approach. By revising the form in accordance with the views of two experts in the field of higher education, the scope of the form was validated.

Two different frameworks were used in examining the sub-topics of master and doctoral theses on disaster management in higher education. The first framework, developed by Carter (1992) and further developed by Erkan (2010), consists of four main themes that cover the phases of disaster management (Republic of Türkiye Prime Ministry Disaster and Emergency Management Presidency, 2016): (1) preparation phase, (2) intervention phase, (3) improvement phase, and (4) damage reduction phase. The second framework is the system-based university model developed by Koyuncuoğlu and Tekin (2019). Theme evaluation was based on (1) framework conditions (internal environment, management), (2) input dimensions, (3) output dimensions, and (4) feedback themes. The use of these two approaches in evaluating the sub-topics of master and doctoral theses on disaster management in higher education was to obtain different perspectives and conclusions at the end of the study.

4.5. Data Collection

In this section, the selection process of postgraduate thesis studies will be explained.

The data used in the research consisted of master's and doctoral theses published between 2003 and 2022, which are included in the National Thesis Database of the Higher Education Council. It was assumed that the first thesis study on disaster management in higher education was conducted in 2003. Therefore, the starting date was accepted as 2003. Before determining the keywords, a detailed literature review was conducted on the subject. Based on the literature, some keywords were identified. Table 1 shows in detail which keywords were used.

Table 1. Keywords Used to Access Theses and Number of Theses Retrieved

Keyword	access allowed	access not allowed	Keyword	access allowed	access not allowed
Disaster and higher education	6	0	Disaster and policy and university	22	2
Disaster and higher learning	0	0	Disaster and policy and student	12	1
Disaster and university	51	3	Disaster management and higher education	0	0

Disaster and student	63	3	Disaster management and higher learning	0	0
Disaster and academician	7	0	Disaster management and university	25	2
Disaster and university and personnel	6	0	Disaster management and student	18	1
Disaster and policy and higher education	1	0	Disaster management and academician	4	0
Disaster and policy and higher learning	0	0	Disaster management and university and personnel	4	0

The following keywords were used in order: [(disaster) AND (higher education)], [(disaster) AND (higher learning)], [(disaster) AND (university)], [(disaster) AND (student)], [(disaster) AND (academic)], [(disaster) AND (university) AND (staff)], [(disaster) AND (policy) AND (higher education)], [(disaster) AND (policy) AND (higher learning)], [(disaster) AND (policy) AND (university)], [(disaster) AND (policy) AND (student)], [(disaster management) AND (higher education)], [(disaster management) AND (higher learning)], [disaster management] AND [university], [(disaster management) AND (student)], [(disaster management) AND (academic)], [(disaster management) AND (university) AND (staff)], and a search was conducted in all fields (title, subject, index, abstract). The selection process of postgraduate thesis studies is shown in Figure 2.

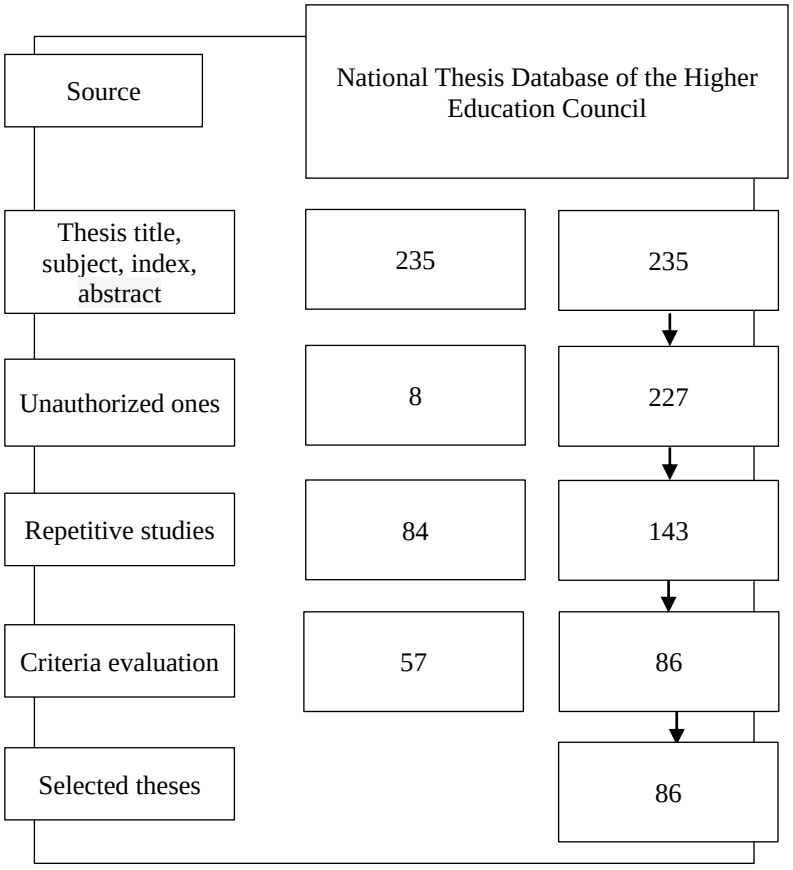


Figure 2. Selection Process of Postgraduate Theses

As seen in Figure 2, using the identified keywords, 235 postgraduate theses were initially accessed. Master's theses are named as "Master-Year Written-Thesis Title" and doctoral theses are named as "Dr-

Year Written-Thesis Title". Since it was not possible to thoroughly examine the abstracts of all thesis studies, non-permitted theses were excluded from the data pool (n=8). In the second step, repetitive theses were removed from the pool (n=84). Then, the theses were evaluated within the framework of the research criteria. As a result, the data pool consisted of a total of 86 postgraduate theses, including 74 master's theses and 12 doctoral theses. The research trends of thesis studies on disaster management in higher education are presented in detail in the findings section of the study.

4.6. Coding and Themes

This section elaborates on the coding and theme creation of the selected theses. After the selection of 86 thesis studies, the keywords and contents of the thesis studies were reviewed. The coding was determined based on the following criteria (Barratt et al., 2011: 334; Göktaş et al., 2012: 193; 198-199; Sözbilir & Kutu, 2008: 22): Postgraduate level, language of writing, year of writing, institute of writing, department, university, type of university, gender of the researcher, academic title of the supervisor, type of empirical study, data collection techniques and tools, sample size, type of data analysis, sampling method, sample size, number of pages, number of variables, subtopics according to the disaster management system dimensions (Republic of Türkiye Prime Ministry Disaster and Emergency Management Presidency, 2016), and subtopics according to the system approach university model (Koyuncuoğlu & Tekin, 2019). The selected thesis studies were assigned to one of the created themes based on these parameters.

4.7. Data Analysis

The collected theses were subjected to both descriptive and content analyses, with themes being identified prior to commencing the analysis process in the descriptive approach (Yıldırım & Şimşek, 2013). In contrast, the content analysis approach does not entail a preconceived framework, and the text's contents are scrutinized to determine the framework (Koyuncuoğlu, 2020). Given that both approaches were embraced in the disaster management system model and the systems-based university model in this study, mixed qualitative data analysis was executed. To determine the codes, a literature review on the topic was conducted, wherein many studies worldwide, as well as in Türkiye, were examined. Next, the parameters that could be scrutinized in postgraduate thesis studies were identified, and some codes were generated during the analysis process. The examination process of the theses adopted a descriptive approach. In the subsequent phase, descriptive and content analyses were applied based on the higher education disaster management model, which is founded on the system approach, and sub-topics were endeavored to be identified in accordance with the model. Then, the themes of the master and doctoral thesis studies were examined based on this model. Ultimately, after the thesis studies were scrutinized based on the recognized categories, the data was tabulated. In data analysis, frequency and percentage values were utilized, and graphs and tables were employed for presenting the findings.

4.8. Validity and Reliability

Validity and reliability are essential factors in qualitative research, where the data collection tool must effectively address the research questions (Ayazlar, 2015: 63). Validity refers to the accuracy of the measurement tool in providing information about the intended property, and it is an ongoing process in which the researcher continually reviews the data and takes measures to enhance its validity (Ayazlar, 2015: 68). Internal validity pertains to the researcher's consistency from data collection to analysis and whether it reflects the real situation, while external validity refers to the generalizability of research results to similar situations (Yıldırım and Şimşek, 2016: 270-271). Rather than seeking the general truth, qualitative research aims to understand specific or unique phenomena in-depth and carefully (Merriam, 2018: 215).

Regarding reliability, it is about the consistency and repeatability of the findings obtained (Merriam, 2018: 211). In qualitative research, it is more important that others find the research findings consistent and reliable, rather than reaching the same conclusions as the researcher (Merriam, 2015: 212). Reliability in qualitative research means that the subject being studied is presented neutrally and as it is, without interpretation (Yıldırım & Şimşek, 2016). Furthermore, validity and reliability in qualitative research largely depend on the researcher's ethics (Merriam, 2015: 220).

To ensure the validity and reliability of the study, two approaches were implemented, namely internal and external validity and reliability controls. To ensure the internal validity, two experts were consulted to validate the content of the prepared Classification Form. Moreover, the researcher constantly reviewed the collected data and corrected the Classification Form whenever necessary. For external validity, the research's data source, limitations, sampling technique, and criteria were thoroughly explained. To establish the internal reliability, the findings were presented objectively without interpretation, and two experts coded and compared the data to validate the research results. The study's reliability was calculated as 86% compliance rate using Miles and Huberman's (1994) research reliability formula. This rate should be at least 75% (Şencan, 2005). To ensure external reliability and obtain similar outcomes in comparable research, the conceptual framework, data source, data collection tool, data analysis, assumptions, limitations, and research process were meticulously elucidated. Additionally, the included thesis studies were scanned twice in a three-month period during the data collection process and reviewed again to confirm the findings.

5. Findings

This part of the research presents the results obtained from examining 86 thesis studies on disaster management in higher education using a combination of descriptive and content analysis. The analysis explored the postgraduate levels, languages, yearly distribution, institutes, universities, departments, researchers' gender, thesis advisors' titles, research methods and techniques, and application areas of the 86 thesis studies conducted in the context of disaster management in higher education.

Distribution of Theses by Postgraduate Levels

The distribution of thesis studies written on disaster management in higher education by postgraduate levels is shown in Table 1.

Table 2. Distribution of Theses on Disaster Management in Higher Education by Postgraduate Levels

Graduate level	**f**	**%**
Master's Degree	74	86
Doctorate Degree	12	14
Total	**86**	**100**

When Table 2 is examined, it is seen that 86% (74 in total) of the postgraduate thesis studies written between 2003-2022 were at the master's level and 14 % (12 in total) were at the doctoral level.

Distribution of Thesis Studies by Languages

The distribution of theses written on disaster management in higher education according to the languages they were written in is presented in Table 3.

Table 3. Distribution of Theses on Disaster Management in Higher Education by Languages Written

Language	**English**	**Turkish**	**Total**
Master's Degree	3	71	74
Doctorate Degree	0	12	12
Total	**3 (% 3)**	**83 (% 97)**	**86**

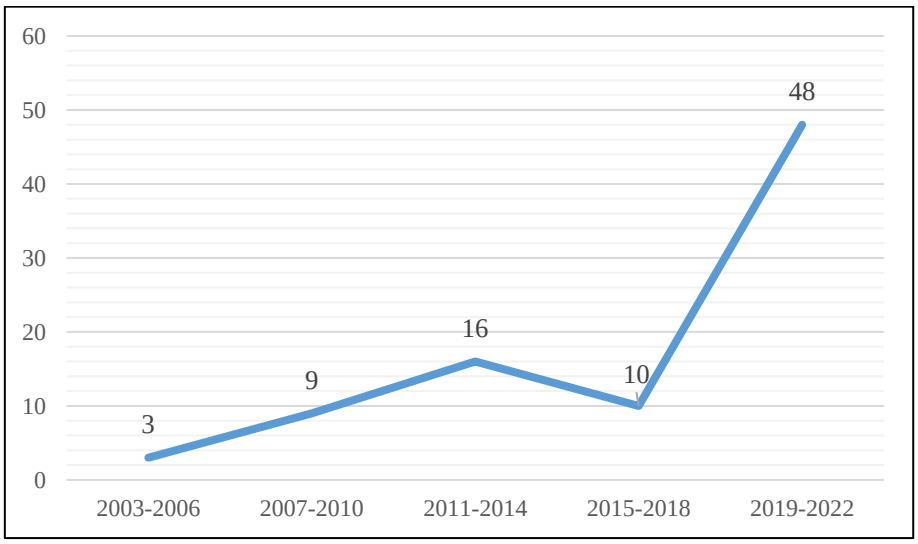
As shown in Table 3, the analyzed theses were written in two different languages. Of the theses written at the master's level, 3 were in English and 71 were in Turkish. All 12 of the theses prepared at the doctoral level were written in Turkish. 97 % of the thesis studies were written in Turkish, while the percentage of theses written in English was 3%.

Distribution of Theses by Year

Distribution of thesis studies on disaster management in higher education by year is shown in Table 4 and Graph 1.

Table 4. Distribution of Thesis Studies on Disaster Management in Higher Education by Year

Years	Number of Theses	Percentage %
2019-2022	48	56
2015-2018	10	12
2011-2014	16	19
2007-2010	9	10
2003-2006	3	3
Total	**86**	**100**



Graph 1. Distribution of Theses Written on Disaster Management in Higher Education by Years

As shown in Table 4 and Graph 1, a total of 86 thesis studies on disaster management in higher education were written from 2003 onwards, with 3 in the years 2003-2006, 9 in the years 2007-2010, 16 in the years 2011-2014, 10 in the years 2015-2018, and 48 in the years 2019-2022. The number of thesis studies written on disaster management in higher education until 2018 was 38, but there has been a significant increase in the number of thesis studies written between 2019 and 2022. Another noticeable aspect in the graph is that the number of thesis studies on disaster management in the context of higher education has gradually increased since 2003, and in the last 5 years, it has shown an increase of approximately 26.31 times compared to the total of previous periods.

Distribution of Theses According to the Institutes They Were Written In

Distribution of thesis studies on disaster management in higher education according to the institutes they were written in is shown in Table 5.

Table 5. Distribution of Thesis Studies on Disaster Management in Higher Education According to the Institutes They Were Written In

Institutions	PhD	Master	Total	Percentage %
Education Sciences	1	35	36	41,9
Health Sciences	6	14	20	23,3
Social Sciences	3	16	19	22,1
Natural Sciences	2	7	9	10,4
Graduate Programs	0	2	2	2,3
Total	**12**	**74**	**86**	**100**

When examining Table 5, it can be seen that postgraduate theses were written in 5 different institutes. Accordingly, master's theses written on disaster management in higher education were mainly written within the institutes of education sciences, social sciences, and health sciences, while doctoral theses were mainly written within the institutes of health sciences, social sciences, and natural sciences. In general, the theses were written at the institutes of education sciences with 41,9 %, health sciences with 23,3 %, social sciences with 22.1 %, natural sciences with 10,4 %, and graduate programs with 2.3 %.

Distribution of Thesis Studies According to Universities and University Types

The distribution of thesis studies written on disaster management in higher education according to universities and university types is presented in Table 6 and Table 7.

Table 6. Distribution of Thesis Studies Written on Disaster Management in Higher Education According to Universities

	Universities	2015-2018	2019-2022	Master	PhD	Total
1	Çanakkale Onsekiz Mart University	2	18	20	0	20
2	Gazi University	6	1	5	2	7
3	Bezmialem Vakıf University	0	4	2	2	4
4	Gümüşhane University	1	3	3	1	4
5	Sakarya University	1	3	4	0	4
6	İstanbul Teknik University	2	2	4	0	4
7	Hacettepe University	3	0	2	1	3
8	Karadeniz Teknik University	2	1	3	0	3
9	Dokuz Eylül University	1	1	2	0	2
10	İstanbul Gedik University	0	2	2	0	2
11	Kocaeli University	1	1	1	1	2
12	Marmara University	2	0	0	2	2
13	Mehmet Akif Ersoy University	1	1	2	0	2
14	Orta Doğu Teknik University	2	0	2	0	2
15	Afyon Kocatepe University	1	0	1	0	1
16	Anadolu University	1	0	1	0	1
17	Ege University	1	0	0	1	1
18	Fatih University	1	0	1	0	1

19	Fırat University	0	1	1	0	1
20	Galatasaray University	1	0	1	0	1
21	İnönü University	0	1	1	0	1
22	İstanbul Bilgi University	0	1	1	0	1
23	İstanbul Medipol University	0	1	1	0	1
24	İstanbul Yeni Yüzyıl University	0	1	1	0	1
25	Iğdır University	0	1	1	0	1
26	Kafkas University	1	0	1	0	1
27	Kastamonu University	0	1	0	1	1
28	Kırşehir Ahi Evran University	0	1	1	0	1
29	Maltepe Universiy	1	0	1	0	1
30	Muğla Sıtkı Koçman University	1	0	1	0	1
31	Necmettin Erbakan University	0	1	1	0	1
32	Niğde Ömer Halisdemir University	1	0	1	0	1
33	Sinop University	0	1	1	0	1
34	Sivas Cumhuriyet University	0	1	1	0	1
35	Süleyman Demirel University	1	0	1	0	1
36	Trakya University	1	0	1	0	1
37	Uşak University	0	1	1	0	1
38	Yıldız Teknik University	1	0	0	1	1
39	Yüzüncü Yıl University	1	0	1	0	1
	Total	**37**	**49**	**74**	**12**	**86**

Table 7. Distribution of Thesis Studies Written on Disaster Management in Higher Education According to University Types

University Type	Master	PhD	Number of Theses	Percentage %
State University	65	10	75	87
Private University	9	2	11	13
Total	**74 (% 86)**	**12 (% 14)**	**86**	**100**

Upon examination of Table 6, it is observed that the theses were conducted in Çanakkale Onsekiz Mart University (20 theses), Gazi University (7 theses), Bezmialem Foundation University, Gümüşhane University, Sakarya University, and İstanbul Technical University (4 theses each), Hacettepe University and Karadeniz Technical University (3 theses each), Dokuz Eylül University, Istanbul Gedik University, Kocaeli University, Marmara University, Mehmet Akif Ersoy University, and Middle East Technical University (2 theses each), Afyon Kocatepe University, Anadolu University, Ege University, Fatih University, Fırat University, Galatasaray University, İnönü University, Istanbul Bilgi University, Istanbul Medipol University, Istanbul Yeni Yüzyıl University, Iğdır University, Kafkas University, Kastamonu University, Kırşehir Ahi Evran University, Maltepe University, Muğla Sıtkı Koçman

University, Necmettin Erbakan University, Niğde University, Sinop University, Sivas Cumhuriyet University, Süleyman Demirel University, Trakya University, Uşak University, Yıldız Technical University, and Yüzüncü Yıl University (1 thesis each) (universities that produce an equal number of theses are listed in alphabetical order) were conducted. In addition, it is seen that research on disaster management in higher education has been conducted in 39 universities. Upon examining Table 7, it is understood that 75 of the theses were written in state universities and 11 of them in foundation universities.

Distribution of Theses by Departments

The distribution of theses written on disaster management in higher education according to the departments they were written in is shown in Table 8.

Table 8. Distribution of Thesis Studies on Disaster Management in Higher Education According to Departments

	Departments	Number of Theses
1	Department of Disaster Education and Management	17
2	Department of Disaster Management	7
3	Department of Public Health	7
4	Department of Primary Education	7
5	Department of Turkish and Social Science Education	6
6	Department of Industrial Engineering	4
7	Department of Emergency Medicine	3
8	Department of Education Sciences	3
9	Department of Occupational Health and Safety	3
10	Department of Disaster Medicine	2
11	Department of Child Health and Diseases Nursing	2
12	Department of Psychology	2
13	Department of Secondary Education Social Sciences	2
14	Department of Business Administration	2
15	Department of Emergency Aid and Rehabilitation	1
16	Department of Geography	1
17	Department of Geography Education	1
18	Department of Natural Disaster Risk Management	1
19	Interdiscipl. Depart. of Disaster Education & Management	1
20	Interdisciplinary Department of Environmental Health	1
21	Department of Education Programs and Instruction	1
22	Department of Natural Disaster Risk Management	1
23	Department of Public Health Nursing	1
24	Department of Interior Architecture	1
25	Department of Civil Engineering	1
26	Department of Geophysics Engineering	1

27	Department of Clinical Psychology	1
28	Department of Health Sciences	1
29	Department of Health Institutions Management	1
30	Department of Biomedical Sciences and Health	1
31	Department of Health Management	1
32	Department of Basic Education	1
33	Department of International Trade and Logistics	1
Total		**86**

When Table 8 is examined, it is seen that thesis studies were conducted within 33 different departments. The majority of thesis studies were conducted in the Department of Disaster Education and Management with 17 studies. The Departments of Disaster Management, Public Health, and Elementary Education followed with 7 studies each. Theses written on disaster management in higher education were found to be written in the "Department of Turkish and Social Sciences Education" 6 times, in the "Department of Industrial Engineering" 4 times, in the "Department of Emergency Medicine", "Department of Educational Sciences", and "Department of Occupational Health and Safety" 3 times each, in the "Department of Disaster Medicine", "Department of Pediatric Health and Diseases Nursing", "Department of Secondary Education Social Fields", "Department of Business", "Department of Educational Sciences", and "Department of Psychology" 2 times each, and once in each of the following departments: "Department of Emergency Aid and Rehabilitation", "Department of Geography", "Department of Geography Education", "Interdisciplinary Department of Disaster Education and Management", "Interdisciplinary Department of Environmental Health", "Department of Natural Disaster Risk Management", "Department of Curriculum and Instruction", "Department of Geomatics Engineering", "Department of Public Health Nursing", "Department of Interior Architecture", "Department of Civil Engineering", "Department of Geophysics Engineering", "Department of Clinical Psychology", "Department of Psychology", "Department of Health Sciences", "Health Institutions Management", "Department of Health and Biomedical Sciences", "Health Management", "Department of Basic Education", and "Department of International Trade and Logistics". In general, it was determined that the theses investigating the topic of disaster management in higher education were mostly written in the Departments of Disaster Education and Management, Disaster Management, Public Health, and Elementary Education, respectively.

Distribution of Thesis Researchers by Gender

The distribution of researchers who prepared thesis studies on disaster management in higher education according to their genders is shown in Table 9.

Table 9. Distribution of Researchers Who Prepared Theses on Disaster Management in Higher Education by Gender

Researchers' Gender	PhD	Master	Total / Percentage
Female	5	37	42 (% 49)
Male	7	37	44 (% 51)
Total	**12 (% 14)**	**74 (% 86)**	**86 (% 100)**

When Table 9 is examined, it is seen that 37 of the master's level theses on sustainable universities were written by female researchers and 37 by male researchers. At the doctoral level, 5 female researchers and 7 male researchers have researched on disaster management in higher education.

Distribution of Thesis Advisors by Gender

The distribution of thesis advisors by gender for the studies on disaster management in higher education is shown in Table 9.

Table 10. Distribution of Thesis Advisors by Gender for Studies on Disaster Management in Higher Education

Advisors' Gender	PhD	**Master**	**Total / Percentage**
Female	4	21	25 (% 29)
Male	8	53	61 (% 69,5)
Total	**12 (% 14)**	**74 (% 86)**	**86 (% 100)**

When examining Table 10, it can be seen that at the master's level, 21 theses were supervised by female advisors and 53 by male advisors on the subject of disaster management in higher education. At the doctoral level, 4 female advisors and 8 male advisors supervised the theses on disaster management in higher education.

Distribution of Thesis Advisors by Titles

The distribution of thesis advisors by titles for graduate theses written on disaster management in higher education is shown in Table 11.

Table 11. Distribution of Thesis Advisors by Titles for Graduate Theses on Disaster Management in Higher Education

Advisor Title	**Number of Theses**	**Percentage**
Prof. Dr.	30	35
Assoc. Prof. Dr.	19	22
Asst. Prof. Dr.	37	43
Total	**86**	**100**

When Table 11 is examined, it can be seen that the titles of advisors for the theses on disaster management in higher education were 35 % professors (30), 22 % associate professors (19), and 43 % assistance professors (37).

Distribution of Theses by Research Method

The distribution of research designs and methods of graduate theses on disaster management in higher education is shown in Tables 12 and 13.

Table 12. Distribution of Theses on Disaster Management by Research Design.

Research Design	**Number of Theses**	**Percentage %**
Conceptual - Theoretical Studies	1	1
Empirical Studies	85	99
Total	**86**	**100**

Table 13. Distribution of Graduate Theses on Disaster Management by Research Approach

Research Method	**Number of Theses**	**Percentage %**
Qualitative Approach	15	17
Quantitative Approach	67	78
Mixed Approach	3	4
Literature Review	1	1
Total	**86**	**100**

As seen in Table 13, all of the theses on disaster management in higher education are empirical studies. Out of the examined theses, 15 (17 %) of them used a qualitative approach, while 67 (78 %) used a quantitative approach. Only 3 (4 %) theses utilized a mixed research method.

Distribution of Theses by Data Collection Tools

The distribution of data collection tools for graduate theses on disaster management in higher education is shown in Table 14.

Table 14. Distribution of Data Collection Techniques and Tools for Theses on disaster management in higher education

Data Collection Tool	Tez Sayısı
Survey	61
Interview	16
Document analysis	10
Case study	6
Observation	5
Focus group	1

When Table 14 is examined, it can be seen that 6 different data collection tools were used in theses. It should be noted that in some thesis studies, more than one data collection tool was used. The most commonly used data collection techniques were survey (61), interview (16), document analysis (10) and case study (6), Observation (5), and focus group (1). The least commonly used data collection technique were focus group (1).

Distribution of Theses by Sample Population

The distribution of theses on disaster management in higher education by sample population is shown in Table 15.

Table 15. Distribution of Theses on Disaster Management in Higher Education by Sample Population

Sample Population	Number of Theses
Students and graduates	55
Academics	7
Administrative staff	8
Experts	4
Organizations (hospital, company, etc. representatives)	5
Organization employees	9
Independent individuals	3
No participants	10

When examining the sample population of theses, it can be seen that research was conducted on students in 55 theses, academics in 7 theses, and administrative staff in 8 theses (Table 15). In 4 theses, experts were included as the sample population, in 5 theses organizations were selected, in 9 theses organization employees were considered, and in 3 theses independent individuals were used as the sample population. It was determined that the sample population was not available in 10 theses.

Distribution of Theses by Data Analysis Type

The distribution of the type of data analysis used in graduate theses on disaster management in higher education is presented in Table 16.

Table 16. Distribution of Data Analysis Types Used in Theses on Sustainable University

Analysis Type	Number of Theses
Frequency	56
Correlation	28
T-test	25
Regression	22
Chi-square	21
Factor analysis	20
ANOVA	20
Mann-Whitney U test	15
Content analysis	13
Simulation	8
SEM	6
Multi-criteria decision analysis	1

When Table 16 is examined, it can be seen that frequency, correlation, t-test, regression, chi-square, factor analysis, and ANOVA data analysis techniques are used most frequently in theses on disaster management in higher education.

Distribution of Theses by Sampling Method

The distribution of the sampling method used in theses on disaster management in higher education is presented in Table 17.

Table 17. Distribution of Sampling Methods Used in Theses on Disaster Management in Higher Education

Sampling Method	Number of Theses
Purposeful sampling	45
Convenience sampling	23
Random sampling	9
Criterion sampling	8
Stratified sampling	4
Maximum diversity sampling	3
Cluster sampling	3
No sampling	11

When Table 17 is examined, it can be seen that purposeful sampling method was used most frequently in theses on disaster management in higher education. It is also observed that multiple sampling methods were adopted in some thesis studies. On the other hand, in 11 of the thesis studies, the sampling method was either not specified or no sampling was used.

Distribution of Theses by Sample Size

The distribution of theses written on disaster management in higher education according to sample size is shown in Table 18.

Table 18. Distribution of Theses on Disaster Management in Higher Education According to Sample Size

Sample Size	Number of Theses
1-100	9
101-200	14
201-300	11
301-400	6
401-500	5
501 and above	22
1-10 participants (qualitative)	6
11 and above participants (qualitative)	7
No sample	11

When Table 18 is examined, it is seen that the sample size in theses on disaster management in higher education is mostly 501 and above, 101-200, and 201-300, respectively. On the other hand, it was determined that 6 of the thesis studies were conducted with 1-10 participants, and 7 of them were conducted with 11 or more participants. 11 of the studies did not use a sample.

Distribution of Theses by Page Count

The distribution of theses written on disaster management in higher education by page count is shown in Table 19.

Table 19. Distribution of Theses on Disaster Management in Higher Education According to Page Count

Page Count	Number of Theses
1-100	20
101-200	52
201-300	9
301-400	4
401-500	1
Total	86

When Table 19 is examined, it is seen that 20 of the theses on disaster management in higher education were less than 100 pages. Most of the thesis studies (72 of them) are under 200 pages. On the other hand, the number of theses that exceed 200 pages is 14.

Distribution of Theses by Number of Variables

The distribution of graduate theses on disaster management in higher education according to the number of variables is shown in Table 20.

Table 20. Distribution of Theses on Disaster Management in Higher Education According to the Number of Variables

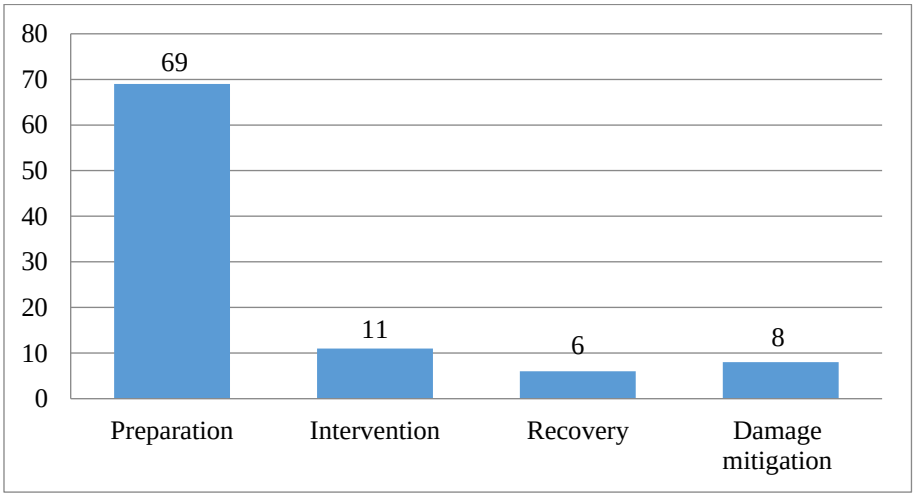
Number of Variables	Documents
2	15
3	11
4	14

5 and above	23
No variable	24

When Table 20 is examined, it can be seen that among the thesis studies, 15 of them have 2 variables, 11 of them have 3 variables, 14 of them have 4 variables, and 23 of them have 5 or more variables. It is observed that there are no variables in 24 of the thesis studies.

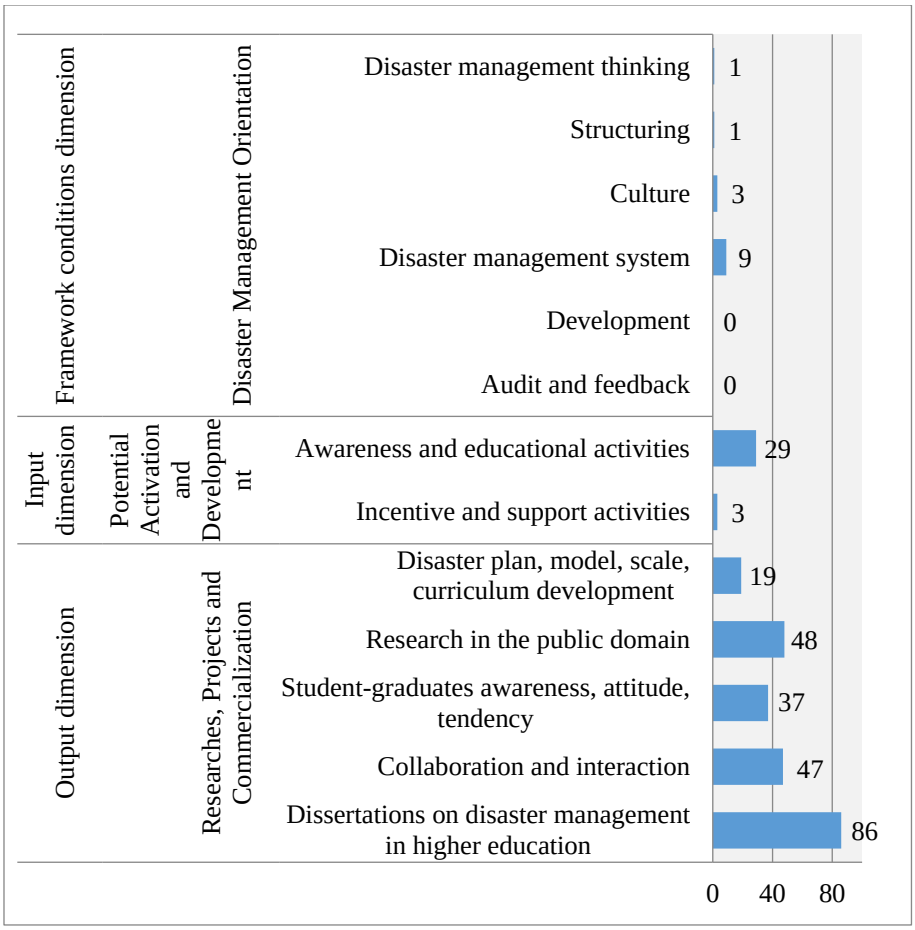
Distribution According to Thesis Topics

Two different frameworks were taken into account in determining the sub-topics of thesis studies written on disaster management in higher education (Turkish Prime Ministry Disaster and Emergency Management Presidency, 2016; Koyuncuoğlu & Tekin, 2019). The reason for considering two different frameworks is to provide the possibility of drawing different conclusions from the research results and examining the topic from different perspectives. The distribution of thesis studies written on disaster management in higher education according to the dimensions and sub-dimensions of the Integrated Disaster Management System and the System-Based University Model is shown in Graph 2 and Graph 3.



Graph 2. Distribution of Thesis Studies Written on Disaster Management in Higher Education by Integrated Disaster Management System Dimensions (Resource: Turkish Prime Ministry Disaster and Emergency Management Presidency, 2016)

When examining Figure 2, it can be seen that out of the thesis studies, 69 addressed the preparedness dimension of the integrated disaster management system, 11 addressed the intervention dimension, 6 addressed the recovery dimension, and 8 addressed the damage mitigation dimension.



Graph 3. Subtopic Distribution of Thesis Studies on Disaster Management in Higher Education According to the System-Based University Model (Resource: Koyuncuoğlu & Tekin, 2019)

According to the system-based university model developed by Koyuncuoğlu & Tekin (2019) in their study, the distribution of dissertation sub-topics was examined and it was found that in the framework conditions dimension (disaster management orientation), the sub-topics of "disaster management system" (9 theses), "culture" (3 theses), and "structuring" (1 theses) were the most studied. When the input dimension of the university system (potential activation and development) was examined, it was observed that the sub-topics of "awareness and educational activities" (29 theses) and "incentive and support activities" (3 theses) were studied. When the output dimension of the university system (researches, projects, and commercialization) was examined, it was determined that the sub-topics of "dissertations on disaster management in higher education" (86 theses), "research in the public domain" (48 theses), "collaboration and interaction" (47 theses), "student-graduates awareness, attitude, tendency" (37 theses), and "disaster plan, model, scale, curriculum development" (19 theses) were studied.

6. Discussion, Results and Recommendations

The aim of this study was to determine the research trends in master's and doctoral theses on "Disaster Management in Higher Education" in Türkiye. To achieve this aim, the theses related to "disaster management in higher education" that were available in full text on the National Thesis Center of the Council of Higher Education (YÖK) website were examined. In total, 86 theses were analyzed, including 74 master's theses and 12 doctoral theses from 39 different universities. The study was limited to the period between 2003 and 2022, assuming that the first thesis on disaster management in higher education was conducted in 2003.

Of the postgraduate theses written between 2003 and 2022, 74 were master's theses (86%) and 12 were doctoral theses (14%). This can be explained by the wider availability of master's programs. Generally, it can be said that there are not enough comprehensive studies on disaster management in higher

education, especially at the doctoral level. To conduct more extensive research on disaster management in higher education, it is necessary to focus on doctoral theses on this topic.

Of the theses analyzed, 83 were written in Turkish (97 %) and 3 were written in English (3 %). 3 theses were conducted between 2003 and 2006, 9 theses between 2007 and 2010, 16 theses between 2011 and 2014, 10 theses between 2015 and 2018, and 48 theses between 2019 and 2022. According to the research findings, although there was a decline in the studies conducted on disaster management in higher education between the years 2015-2018, it is observed that the average of the previous four-year period has increased approximately fivefold in the last 4 years. This trend of increased theses on disaster management in higher education in recent years corresponds to the findings of research conducted worldwide (Demiroz & Haase, 2019; Sözcü, 2020). Thus, it can be said that there has been a significant increase in research on disaster management in higher education in the past four years. However, when considering that there have been a total of 559,829 thesis studies conducted in Türkiye between 2003 and 2022, including 451,615 master's theses and 108,214 doctoral theses, and that only 86 of them have been written on "disaster management" and "higher education and stakeholders" since 2003, the ratio of these theses is only 0.0154 when compared to the total number of theses written. Therefore, it can be concluded that the topic of disaster management in higher education has not been sufficiently addressed in scientific studies, despite being in a country like Türkiye that experiences major disasters such as earthquakes.

When thesis studies are examined according to the institutions where they are written, it is seen that they are mainly written in Education Sciences, Health Sciences, and Natural Science Institutes. Between 2003 and 2022, theses written on disaster management in higher education were mostly written at Çanakkale Onsekiz Mart University (20 theses), Gazi University (7 theses), Bezmialem Foundation University (4 theses), Gümüşhane University (4 theses), Sakarya University (4 theses), and İstanbul Technical University (4 theses) respectively. The number of universities with 3 theses on disaster management in higher education is 2, while the number of universities with 2 theses is 6, and the number of universities with 1 thesis is 25. Many thesis studies were conducted at Çanakkale Onsekiz Mart University, Gazi University, Bezmialem Foundation University, and Gümüşhane University, which have disaster education and management, disaster management, and public health departments. The notable point here is that the universities that are ranked high in various index studies do not have thesis studies on disaster management in higher education. In the examination, it was revealed that 75 theses were conducted on disaster management in higher education in state universities and 11 theses in foundation universities. Currently, there are a total of 129 state universities, 75 foundation universities, and 4 foundation vocational higher schools in Türkiye. It was determined that 34 universities (26 %) out of 129 state universities conducted thesis studies on disaster management in higher education, while only 7 universities (9 %) out of 75 foundation universities conducted thesis studies on the subject. This situation shows that state universities are more interested in the subject. Another striking finding is that only 2 thesis studies have been conducted in doctoral programs on disaster management in foundation universities. Theses investigating disaster management in higher education were mostly written in the disaster education and management, disaster management, public health, and primary education departments, respectively. The fact that the subject was studied in 33 different departments shows that it is widely studied among departments.

According to the distribution of researcher gender in postgraduate thesis studies on disaster management in higher education, the number of female researchers is 42 people (49 %) and the number of male researchers is 44 people (51 %). As for the distribution of advisor gender, the number of female advisors is 25 (29 %), and the number of male advisors is 61 (71 %). It is observed that 43 % of the theses written on disaster management in higher education are supervised by Assistant Professors, 35 % by Prof. Dr., and 22 % by Associate Professors. Generally, it can be said that assistant professors and professors are more inclined towards the field of disaster management in higher education and guide their graduate students towards this field.

When examined in terms of research methods, it has been found that empirical studies are predominant in thesis studies on disaster management in higher education. It is also understood that quantitative research approaches are mostly adopted within empirical studies. In the study by Sözcü (2020), it is noted that research has been conducted on many different topics related to disasters, ranging from

knowledge about disasters to perceptions and behaviors related to disasters, but very few experimental studies have been conducted.

When examined according to the research design of the theses, it was determined that empirical studies were included in all of the thesis studies. Within the empirical studies, it was found that quantitative approach (78 %), qualitative approach (17 %), and mixed approach (4 %) were adopted, respectively. Six different data collection tools were used in the examined thesis studies. The most frequently used data collection technique was questionnaire (61 studies), followed by interview (16 studies), document analysis (10 studies), case study (6 studies), observation (5 studies), and focus group (1 study). It should be noted that multiple data collection tools were used in some thesis studies. When the sample population of the theses was examined, it was observed that research was conducted on students and graduates in 55 studies, academics in 7 studies, and administrative personnel in 8 studies. In 5 studies, organizations (hospital, enterprise, etc.) were considered as the sample population, while in 9 studies, employees of these organizations, in 4 studies experts, and in 3 studies independent individuals were included as the sample population. Şenay, Şengül, and Seggie (2020: 10-11) found in their studies in the field of higher education that data were mostly collected through document analysis and scales. They report that most of the data were analyzed descriptively. However, they also determined that the majority of the data were collected from the student group and the representation power of the sample size was low.

The most commonly used data analysis techniques in graduate theses on disaster management in higher education are frequency, correlation, t-test, regression, chi-square, factor analysis, and ANOVA. In graduate theses on disaster management in higher education, purposive sampling (45), convenience sampling (23), random sampling (9), criterion sampling (8), stratified sampling (4), maximum diversity sampling (3), and cluster sampling (3) are the most commonly used sampling methods. On the other hand, 11 of the thesis studies did not use a sample.

Regarding the length of the theses, 20 theses were prepared with less than 100 pages, 72 theses were below 200 pages, 14 were over 200 pages, and 5 were over 300 pages. This shows that the majority of graduate theses on disaster management in higher education are below 200 pages. This can be explained by the fact that the theses examined are mostly master's theses and have fewer pages compared to doctoral theses.

The "preparedness" dimension of the integrated disaster management system was examined in 69 thesis studies, the intervention dimension in 11, the recovery dimension in 6, and the damage mitigation dimension in 8. It should be noted that one or more dimensions were addressed in thesis studies that included the concept of disaster management. It is seen that the "preparedness" dimension is more commonly addressed in the examined theses. Therefore, it can be said that the issue of disaster management in higher education is not approached holistically, and research is mostly conducted on one or two dimensions of the disaster management system. This indicates the need for a holistic approach to disaster management in higher education.

When the sub-topic distribution of thesis studies is examined according to Koyuncuoğlu & Tekin's (2019) university model, in the framework conditions dimension (disaster management orientation), the sub-categories "disaster management system" (9 studies), "culture" (3 studies), and "disaster management thinking" and "structuring" (1 study each) match the topics of the examined theses. No study was found related to the "development" and "audit and feedback" sub-dimensions in the disaster management orientation dimension. When the input dimension of the university system (potential activation and development) is examined, it is seen that the sub-topics "awareness and education activities" (29 studies) and "incentive and support activities" (3 studies) are examined. In the output dimension of the university system (graduate, research, project, and social contribution), the sub-topics "disaster plan, model, scale, curriculum" (19 studies), "research in the public area" (48 studies), "student-graduate awareness, attitude, tendency" (37 studies), and "collaboration and interaction" (47 studies) are addressed in the theses written on disaster management in higher education (86 studies).

When the theses written on disaster management in higher education are examined, it is seen that the studies are mainly focused on the output dimension of the university. It is observed that research is conducted on public research in the institutes of universities within the framework of collaboration and

interaction. In this case, it can be said that universities fulfill their mission of social contribution in the context of third-generation universities with researches conducted on disaster management in the public area. Studies on student and graduate awareness, attitude, and tendency related to disasters are ranked second, followed by studies on developing disaster plans, models, scales, and curricula. It can be said that research on incentive and support activities in the input dimension of universities is very limited, while the number of studies on education and awareness activities is more satisfactory. Especially when studies related to disaster management systems in hospitals affiliated with universities are excluded, it is striking that almost no research has been conducted on the framework conditions of universities.

The demand for experts and leaders in the field of crisis, disaster, and risk management has significantly increased. The regional effects of international crises and specific events such as natural disasters and radiation accidents demonstrate how crucial it is to have qualified knowledge and skills to deal with such situations and ensure people's safety (Umit Tirol, 2023). It is important to consider regional and global characteristics. In order to successfully overcome crises and disasters, the ability to apply scientific findings obtained from interdisciplinary research in this field is essential. The earthquakes on August 17, 1999 and February 6, 2023 have presented Türkiye with great challenges.

Recommendations for universities: Based on the results of the examination of graduate theses written on disaster management in the context of higher education in Türkiye, the following recommendations can be made to universities regarding thesis studies on disaster management: (1) Increasing research and investment in disaster management: Universities should invest more in research and disaster management to provide better disaster management and create social added value. (2) Increase the number of doctoral theses: Universities should increase the number of doctoral theses due to the need for more comprehensive research in the field of disaster management. (3) Internationalize research: Universities should internationalize their research to benefit from proven practices and knowledge from other countries and provide better disaster management. (4) Interdisciplinary collaboration: Universities should collaborate between different faculties and departments to promote interdisciplinary research in disaster management. (5) Inclusion of disaster management in curricula: Universities should increase and expand postgraduate programs on disaster management to ensure that future leaders and decision-makers have the necessary knowledge and understanding to act appropriately in disaster situations.

Generally, universities can make significant contributions to disaster risk reduction and crisis management in their education, research, and applications:

Education: Universities can offer courses and programs on risk, crisis, and disaster management, integrating various disciplines such as geography, environmental science, engineering, social sciences, economics, and law. Integration of practical experiences and use of simulations and exercises can enhance students' understanding and skills.

Research: Universities can conduct research on crisis and disaster management and expand their work to contribute to better understanding and solution proposals in this area. Collaboration with the industry/business can result in research findings being directly applied in practice.

Industry/Business: Universities can directly contribute to risk and crisis management and disaster management practices. For example, they can provide consultancy and education services in the development and implementation of risk management plans and emergency plans for businesses and government institutions.

Partnerships: Universities can establish partnerships with other institutions to enhance their capacity and capabilities in disaster risk reduction and crisis management. For instance, collaboration with government institutions, civil society organizations, and businesses can help address common challenges and develop new solutions.

Suggestions for future research: Future research can focus on the impact of disasters on university education. This can cover topics such as education, research, infrastructure, and the financial stability of universities. Future research can also focus on evaluating the effectiveness of disaster management plans developed by universities to improve preparedness for disasters and support disaster response efforts. The role of universities in disaster management can be analyzed. The impact of climate change on university education can also be studied. Future studies can also be conducted to enhance the

effectiveness of curriculum programs and raise awareness among graduates, ensuring they possess the necessary skills and knowledge by adding disaster management courses to the curriculum and conducting research to evaluate their impact. In particular, the analysis and evaluation of leadership strategies and decisions made by university administrators related to disaster management can be of interest. The following questions related to university management may also be of interest: What kind of disaster plans have university administrations developed and how are they being implemented? What role does university management play in coordinating disaster management activities on campus? How are resources for disaster management on campus being provided and allocated? How does university management respond to disaster events and what leadership decisions are made? How is the effectiveness of the university's disaster management activities measured and evaluated? By examining these questions, university administrators can learn how to be more effective and efficient in their future disaster management efforts.

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Araştırma Makalesi

A Review of Graduate Theses on Disaster Management in Higher Education in Türkiye

Türkiye'de Yükseköğretimde Afet Yönetimi Üzerine Yazılmış Lisansüstü Tezlere Yönelik Bir İnceleme

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Genişletilmiş Özet

Konu ve Amaç: 1999'da Türkiye'nin kuzeybatısında ve 2023'te güneydoğusunda meydana gelen depremler, tarihin en yıkıcı doğal afetlerindendir. Bu felaketler sonrası büyük yıkımlar, ekonomik zarar ve sayısız hayat kaybı yaşanmıştır. Yaşananlar, Türkiye'nin afet hazırlığına ne kadar önem vermesi gerektiğini açıkça göstermiştir.

Afet yönetiminde uzmanlaşmış bireylerin yetiştirilmesi, afetlerle başa çıkmak için hayati öneme sahiptir. Başarılı bir afet müdahalesi, bilgi ve beceriyle donanmış bir iş gücüne bağlıdır. Yükseköğretim, afet yönetimi alanında kariyer yapmayı planlayan genç profesyonellere bu becerileri kazandırma görevini üstlenir. Üniversitelerde yapılan afet yönetimi araştırmaları da bu alandaki teorik ve pratik bilginin genişlemesine katkıda bulunmaktadır.

Sözcü (2020)'nun yaptığı bir çalışmada, Türkiye'deki yükseköğretim kurumlarının afet yönetimi konusundaki farkındalığının arttığını belirtmektedir. Bu çalışma, üniversitelerdeki afet yönetimi programlarının arttığını göstermektedir. Şengün ve Küçükşen (2019) ise, afet yönetiminin üniversitelerde bağımsız bir disiplin olması gerektiğini savunmaktadır. Bunu yaparak, afet yönetimi eğitiminin kalitesini artırabileceğimizi ve daha yetkin profesyoneller yetiştirebileceğimizi ifade etmektedirler. Sonuç olarak, yükseköğretimin afet yönetimindeki yeri tartışılmaz bir öneme sahip ve bu alanda yapılan araştırmalar, afetlere müdahalenin daha etkili olmasına katkı sağlayacaktır.

Bu araştırmanın amacı, Türkiye'de üniversitelerde afet yönetimi konusunda gerçekleştirilen lisansüstü tez çalışmalarının araştırma trendlerini saptamaktır. Bu doğrultuda, 2003-2022 yılları arasında Türkiye'de yazılan yüksek lisans ve doktora tezleri ele alınarak, konu başlıkları, uygulanan yöntemler, analiz teknikleri ve genel eğilimler bakımından inceleme yapılmıştır. Bu çalışma, Türkiye'de lisansüstü seviyesinde afet yönetimine dair araştırmaların mevcut durumunu ortaya koyarak, bu konudaki gelecek araştırmalar için kılavuz niteliğinde bir temel sunmaktadır.

Yöntem: Yükseköğretimde afet yönetimi konusunda 2003-2023 yılları arasında yazılmış tezlerinin mevcut durumunun çeşitli değişkenler çerçevesinde incelendiği bu çalışmada, nitel araştırma yöntemi desenlerinden durum çalışması benimsenmiştir. Çalışma, Türkiye Yükseköğretim Kurulu Ulusal Tez Merkezi'nde kaydedilen 86 adet tezden oluşmaktadır. Araştırmanın örneklemi, Türkiye'de "yükseköğretimde afet yönetimi" konusunda 2003-2022 yılları arasında erişime açık durumunda olan lisansüstü tez çalışmalar oluşturmaktadır. Bu araştırma, "yükseköğretimde afet yönetimi" konusunda Türkiye'deki en erken belgelenen tezin 2003 yılına dayandığını tespit etmiştir. Bu nedenle, bu çalışma için 2003-2022 yıllarını kapsayan tüm lisansüstü tezler dikkate alınmıştır. Örneklem seçiminde şu ölçütler kullanılmıştır: (1) Lisansüstü tezlerinin araştırma konusu, eğitim-öğretim bağlamında doğal afet yönetimi ile ilişkili olmalıdır. Buna, üniversitenin misyonu olan eğitim-öğretim, araştırma, ticarileşme ve toplumsal katkı temaları ile üniversitenin iç paydaşları olan öğrenciler, personel ve dış paydaşlar dâhil tutulmuştur. (2) Lisansüstü tezleri, 2003-2022 yılları arasında YÖK'ün Ulusal Tez Merkezi'nde yayınlanmış ve izinli olmalıdır. Araştırma kapsamına alınan her bir tez MAXQDA 2020 Analytic Pro

nitel veri analizi programı kullanılarak betimleme ve içerik analizine tabi tutulmuştur. Elde edilen lisansüstü tez çalışmalarının incelenmesinde Barratt, Choi ve Li (2011) tarafından geliştirilen "Operasyon Yönetiminde Nitel Vaka Çalışmaları Yayın Sınıflama Formu", Göktaş, Küçük, Aydemir, Telli, Arpacık, Yıldırım ve Reisoğlu (2012) tarafından geliştirilen "Eğitim Teknolojileri Yayın Sınıflama Formu" ve Sözbilir ve Kutu (2008) tarafından geliştirilen "Makale Sınıflama Formu" revize edilerek kullanılmıştır. Form, temel olarak sekiz bölümden oluşmaktadır: Lisansüstü düzeyi, yazıldıkları dil, yazıldıkları yıl, yazıldığı enstitü, anabilim dalı, üniversite, üniversite türü, araştırmacının cinsiyeti, tez danışmanın unvanı, ampirik çalışma türü, veri toplama teknik ve araçları, örneklem kitlesi, veri analiz türü, örnekleme yöntemi, örneklem büyüklüğü, sayfa sayısı, değişken sayısı, alt konuları, sistem yaklaşımına göre alt konular olmak üzere 19 kategori altında incelenmiştir.

Yükseköğretimde afet yönetimi üzerine yazılmış tez çalışmalarının alt konuları incelenirken, iki farklı çerçeve kullanılmıştır. Birinci çerçeve, Carter (1992) tarafından ortaya konulan ve Erkan (2010) tarafından geliştirilen çerçevedir. Erkan (2010: 6-10) çalışmasında afet yönetimi aşamalarını dört ana temaya göre belirlemiştir. Bunlar; (1) Hazırlık aşaması, müdahale aşaması, iyileştirme aşaması ve zarar azaltma aşamasıdır. İkinci çerçeve ise, Koyuncuoğlu ve Tekin (2019) tarafından geliştirilen sistem temelli üniversite modeline göre; (1) Çerçeve koşulları, (2) girdi boyutu, (3) çıktı boyutu ve (4) geri bildirim temaları ile konu değerlendirilmiştir. Bu iki yöntemin uygulanması, yükseköğretimdeki afet yönetimi temalarını çeşitli perspektiflerden değerlendirerek daha kapsamlı sonuçlar elde etmeyi hedeflemektedir.

Sonuç, Tartışma ve Öneriler: 86 tezin analizi, son dört yılda yükseköğretimdeki afet yönetimi araştırmalarında önemli bir artış olduğunu göstermiştir. Ancak, Türkiye'de yapılan 559,829 tezin sadece 86'sinin bu konuyla ilgili olması, özellikle doktora düzeyinde daha kapsamlı çalışmalara ihtiyaç olduğunu göstermektedir. Çanakkale Onsekiz Mart Üniversitesi'nin bu alanda en aktif kurum olduğu tespit edilmiştir. Tezlerin büyük bir kısmı Türkçe olarak yazılırken, entegre afet yönetiminin "hazırlık" aşamasına ağırlık verildiği belirlenmiştir. Bu durum, kapsamlı bir yaklaşımın gerekliliğini vurgulamaktadır. Araştırmalar genellikle üniversitelerin çıktı boyutunu ve kamu sektöründeki çalışmaları merkezine almıştır. Bu çalışmalara ek olarak, öğrenci ve mezunların farkındalığı, tutumları, afet planları, modellemeler, ölçüm araçları ve müfredat geliştirmeleri de dikkat çekmektedir. Afet eğitimi ve yönetimi ile halk sağlığı bölümleri olan üniversitelerin, afet yönetimi konusunda daha çok tez ürettikleri gözlemlenmiştir. Bir başka bulgu, yükseköğretimde afet yönetimi tezlerinde % 49'luk bir bölüm kadın araştırmacılar tarafından gerçekleştirilirken, erkek araştırmacılar % 51'lik bir bölümü oluşturuyor ve ampirik yöntemlerin araştırmada sıkça başvurulan bir yöntem olduğu görülmüştür.

Üniversiteler yönelik öneriler:

Türkiye'de yükseköğretim bağlamında afet yönetimi üzerine yazılmış lisansüstü tez çalışmalarının inceleme sonuçlarına dayanarak, üniversitelere afet yönetimi ile ilgili tez çalışmaları ile ilgili şu önerilerde bulunulabilir: (1) Afet yönetimine daha fazla ağırlık vererek araştırma ve yatırımların yapılması: Üniversiteler, toplumsal katma değer yaratmak ve etkili afet yönetimi gerçekleştirmek için afet yönetimine daha fazla yatırım ve araştırma yapmalıdır. (2) Doktora tezlerinin sayısını artırmak: Üniversiteler, afet yönetimi alanında daha kapsamlı araştırmalara ihtiyaç duyulması nedeniyle doktora tezleri sayısını artırmalıdır. (3) Araştırmaları uluslararasılaştırmak: Üniversiteler, diğer ülkelerdeki kanıtlanmış uygulamalardan ve bilgilerden faydalanmak ve daha iyi bir afet yönetimi sağlamak için araştırmalarını uluslararasılaştırmalıdır. (4) Disiplinler arası iş birliği: Üniversiteler, afet yönetiminde disiplinler arası çalışmaları teşvik etmeli ve farklı fakülteler ve bölümlerin iş birliği yapmaları için şartları oluşturmalıdır. (5) Afet yönetimi konusundaki eğitimin genişletilmesi: Geleceğin liderleri ve karar vericilerinin afet durumlarında bilinçli hareket edebilmeleri için üniversiteler, afet yönetimi alanındaki lisansüstü program sayısını artırıp yaygınlaştırmalıdır. Genel olarak, üniversiteler, eğitim, araştırma ve uygulamalarıyla riskin önlenmesi, krizin yönetilmesi ve afetlere müdahale konularında kritik katkılarda bulunabilirler. Bu alandaki potansiyel katkıları şunlar olabilir:

Eğitim-Öğretim: Üniversiteler risk, kriz ve afet yönetimi konularında dersler ve programlar sunabilirler. Bu kapsamda coğrafya, çevre bilimleri, mühendislik, sosyal bilimler, ekonomi ve hukuk gibi çeşitli disiplinler dâhil edilebilir. Uygulamalı deneyimlerin müfredata dahil edilmesi ve simülasyon ile pratik uygulamaların gerçekleştirilmesi, öğrencilerin kavrayışını ve becerilerini artırabilir.

Araştırma: Üniversiteler, kriz ve afet yönetimi konusunda araştırmalar yapabilir ve bu alanda daha iyi anlayış ve çözüm önerilerine katkıda bulunmak için çalışmalarını genişletebilirler. Sektör/iş dünyası ile iş birliği yaparak, araştırma sonuçları doğrudan uygulamaya geçirilebilirler.

Sektör/İş dünyası İş Birliği: Üniversiteler, doğrudan risk ve kriz yönetimi ile afet yönetimi uygulamalarına katkıda bulunabilirler. Örneğin, işletmelerin risk yönetimi ve acil durum planlarının geliştirilmesi ve uygulanmasında danışmanlık ve eğitim hizmetleri sunabilirler. Ayrıca problemlerin çözülmesinde iş birliği yapabilirler.

Ortaklıklar Kurma: Üniversiteler, afet yönetimi konusundaki becerileri ve kapasiteleri artırmak için diğer organizasyonlarla iş birliği yapabilirler. Sivil toplum kuruluşları ve iş dünyasıyla oluşturulan ortaklıklar sayesinde, karşılaşılan zorluklara yanıt bulmak ve yenilikçi çözümler üretmek daha kolaylaşabilir.

Gelecek çalışmalar için öneriler:

Gelecek çalışmalar, afetlerin üniversite eğitimine olan etkileri incelenebilir. Bu, eğitim, araştırma, altyapı ve üniversitelerin mali istikrarı gibi konuları kapsayabilir. Üniversiteler tarafından oluşturulan afet yönetim planlarının etkinliği değerlendirilebilir. Böylelikle afetlere hazırlık ve müdahale süreçlerine nasıl bir katkı sağlandığı öğrenilebilir. Afet yönetimi derslerinin müfredatlara eklenmesi ve bu derslerin mezunlar üzerindeki bilinçlenme, beceri ve bilgi kazanımı etkileri araştırılabilir. Özellikle, üniversite yöneticilerinin afet yönetimine dair liderlik yaklaşımları, stratejileri ve kararları analiz edilebilir. Üniversite yönetimleri ile ilgili şu sorular da ilgi çekici olabilir: Ne tür afet planları geliştirildi ve bu planlar nasıl hayata geçiriliyor? Yönetim, kampüsteki afet faaliyetlerinin koordinasyonunda ne gibi roller üstleniyor? Afet yönetimi için kaynaklar nasıl sağlanıyor ve ayrılıyor? Afetlere nasıl tepki veriliyor ve hangi liderlik kararları alınıyor? Üniversitenin afetle ilgili faaliyetlerinin etkinliği nasıl ölçülüp değerlendiriliyor? Bu soruların yanıtlarını araştırmak, yönetimin afet yönetiminde daha bilinçli ve etkili adımlar atmasına yardımcı olabilir.