

PAPER DETAILS

TITLE: Opinions of music undergraduate students about effects of earthquakes on: the case of Kahramanmaras

AUTHORS: Alper SAKALAR

PAGES: 129-146

ORIGINAL PDF URL: <https://dergipark.org.tr/tr/download/article-file/3293276>

Research Article

Opinions of music undergraduate students about effects of earthquakes on: the case of Kahramanmaraş

Alper Şakalar¹

Fine Arts Faculty, Music Department, Kahramanmaraş, Türkiye

Article Info

Received: 28 July 2023

Accepted: 25 Sept 2023

Available online: 30 Sept 2023

Keywords:

Career development

Earthquake

Music

Music education

University students' views

Abstract

The echoes of the earthquakes that occurred in Kahramanmaraş, Turkey, were heard around the world. However, the impact of these earthquakes on the field of music has remained implicit. The city of Kahramanmaraş is home to a campus that provides education to 35,238 students and hosts a significant institution for music education, producing 30 graduates in the field of arts every year. It is of great importance to investigate the effects of these earthquakes on the students studying music education at Kahramanmaraş Sütçü İmam University, not only in terms of loss of life and property but also in terms of changes in their educational and career trajectories. To obtain data, a case study research model has been chosen, where data is collected through semi-structured interview form supported by observations to depict the current situation. The data collection instruments include a semi-structured interview form consisting of 20 questions and an unstructured observation form. The participants of the research are 104 undergraduated students were enrolled at music department in the 2022-2023 academic year. Maxqda2022 qualitative data analysis software was used for data analysis. As a result of the study, the changes experienced by the students were classified into physical, emotional, and accessibility of education themes. Regarding the participants' views about the physical changes related to their music education, students mentioned their housing conditions, economic status, working environment, access to study materials, and the condition of musical instruments was stated. The participants also stated emotional changes experienced were related to stress, motivation, self-confidence, concerns, passion, and anxiety disorders. Furthermore, it is necessary to conduct quantitative research on music students in earthquake-affected regions in the future.

2717-8870 © 2023 The JIAE.

Published by Genc Bilge (Young Wise)

Pub. Ltd. This is an open access article

under the CC BY-NC-ND license



To cite this article

Şakalar, A. (2023). Opinions of music undergraduate students about effects of earthquakes on: the case of Kahramanmaraş. *Journal for the Interdisciplinary Art and Education*, 4(3), 129-146.

Introduction

The Kahramanmaraş earthquake's intensity, devastating impact, and social, societal, educational, and psychological effects caused it to be felt worldwide. Research conducted on the earthquake that occurred on February 6, 2023, indicates that the disaster was felt by approximately 16 million people in 11 provinces. The earthquakes that hit Pazarcık and Elbistan districts on February 6, 2023, resulted in the collapse of numerous buildings in the affected provinces. "The earthquakes have also displaced more than 500,000 people within the country and left approximately 2 million people homeless" (Republic of Turkey Presidency of Strategy and Budget, 2023).

¹ Assoc. Prof. Dr., Kahramanmaraş Sutcu Imam University, Fine Arts Faculty, Music Department, Kahramanmaraş, Türkiye. E-mail: asakalar@ksu.edu.tr, ORCID: 0000-0002-0137-9089



Photo 1. Kahramanmaraş map and city center after the earthquake

Çelik (2023) has stated that individuals facing such destructive disasters may exhibit post-traumatic symptoms. According to Çelik, these symptoms can manifest in various ways, such as cognitive, emotional, behavioral, affective, and sleep problems. The researcher has also noted that other studies have shown that individuals may encounter psychological problems after earthquakes, such as depression, anxiety, sleep problems, physical symptoms, dissociative disorders, and sexual dysfunction (p.576). In a study conducted by Kardaş and Tanhan (2018) on individuals who experienced the Van earthquake, the relationships between post-traumatic stress symptoms and psychological resilience were examined. This study revealed that psychological resilience decreases when symptoms such as avoidance, re-experiencing, and irritability increase after the traumatic event (p. 1-36).



Photo 2. Mass musical events in Kahramanmaraş (TRT News, 2020; Sabah Newspaper, 2022)

After the COVID-19 pandemic, the need and importance for distance education has increased all over the world. Due to the earthquakes in Kahramanmaraş that affected 11 provinces, it was decided to continue the courses given in all universities in Turkey with distance education. Zapalska, Zelmanowitz, Jackson, LaMonica, Heckman, and Mrakovcich (2020) mentioned that distance education is a process that provides access to learning when time and distance separate the information source and the learners. Internet-based technologies for e-mail, video conferencing and file sharing are used as an adjunct to teaching. Modern computer-based technologies offer user-friendly and easy-to-access possibilities for text, graphic audio and video materials that can be implemented in a common and consistent format (p. 1992-1993).

After the earthquake, it was decided to continue the education at KSU with distance education for a while. The students' thoughts about distance education after the earthquake can vary. Law and Sissons (1985) mentioned the usefulness of distance education programs in their research and stated that educational technologies reflect unique developments. He also drew attention to the fact that distance education technologies are directed towards behavioral and conscious purposes (p.46). In this context, with the developing technology, the regulation of distance education according to other phenomena needed in education is of great importance for the academic performance of students who receive applied education.

This research investigates the academic and psychological effects of the earthquakes that occurred in Pazarcık (with a magnitude of 7.7) and Elbistan (with a magnitude of 7.6) in Kahramanmaraş on February 6, 2023, which affected 11 provinces in Turkey, on music students pursuing undergraduate education in Kahramanmaraş, as well as the reflections of these effects on their career development.

Kahramanmaraş Sütçü İmam University and Music Education

Kahramanmaraş Sütçü İmam University was established by Law No. 3837, published in the Official Gazette on July 11, 1992, and started its educational activities in the 1992-1993 Academic Year. Since its establishment, the university has been committed to renewing and improving itself day by day, aiming to achieve and maintain high standards in social, scientific, and cultural activities. As of 2022, the university comprises 13 faculties, 3 vocational schools, 3 institutes, 7 vocational schools, 5 departments under the rectorate, 25 application and research centers, and 1 health application and research hospital (KSU, 2023).

Kahramanmaraş Sütçü İmam University Faculty of Fine Arts was established by the Council of Ministers' decision numbered 2004/7032, published in the Official Gazette on April 16, 2004. With the Higher Education Council's letter dated June 20, 2006, the Department of Fine Arts was opened, including the Departments of Painting, Textile Design, Interior Architecture, Industrial Product Design, Graphic Design, and Sculpture. With the Higher Education Council's letter dated October 2, 2014, the "Music Department" was opened. According to the Higher Education Council's letter dated May 29, 2018, the Faculty of Fine Arts started admitting students to the Music Department for the first time in the 2018-2019 Academic Year at the undergraduate level (KSU, 2023).



Photo 3. Kahramanmaraş Sütçü İmam University's Avşar Campus (KSU, 2023)

The undergraduate education at universities is one of the final steps of vocational training, and music education students, like other students, go through an important period of academic and artistic development. During the four-year undergraduate education, intensive efforts are made to develop artistic expressions, deepen music understanding, and take steps towards a professional career. Along with theoretical courses, practical applications related to playing musical instruments and vocal techniques are taught, and students gain stage experience through various music-related performances. Undergraduate music education also has significant contributions to emotional development and self-confidence. Students effectively use music not only as a professional competence but also as a means of communication and sharing cultural experiences. In this context, earthquakes can be a challenging experience both academically and emotionally for students in music education.

The duration of the Music Department at KSU GSF is four years, and the language of instruction is Turkish. Students are admitted to the program through a special aptitude exam. The curriculum includes compulsory and elective courses covering domain knowledge, general culture, and all aspects of music. The cognitive skills targeted by theoretical courses are supported through practical applications. To achieve this, various musical activities are included both within

and outside the school. Graduates of this program can pursue careers as academics or researchers in various institutions (research and application centers, libraries, science and application centers, etc.) related to music after completing undergraduate or postgraduate education in the field of music. They may also hold titles such as technicians, coordinators, or managers in congress and cultural centers and concert halls. In addition, they can become performers or vocal artists in orchestras, chamber music groups, choirs, etc., in private or public organizations that have music-related groups. Furthermore, by receiving pedagogical training, they can obtain the title of music teacher (KSU, 2023). The Music Department admits 30 students each year through the special aptitude exam, with 3 of the places reserved for disabled individuals.

In addition to the undergraduate program, KSU GSF Music Department also started the Music I. Instructional Thesis Master's Program under KSU Social Sciences Institute, approved by the Higher Education Council, in the Fall Semester of the 2022-2023 Academic Year. The program began admitting students for the Master's degree in the Spring Semester of the 2022-2023 Academic Year.

Theoretical Framework

Career development is a lifelong process for individuals, shaped by the interaction of personal characteristics, personal needs, environmental factors, and experiences. In this context, assessing the effects of a phenomenon through data obtained from individuals' situations and views enables a deep understanding of the effect. "Holland's theory of careers and vocational choice, which explains the connections between various personality traits and professions, is a widely used theoretical framework for understanding individuals' vocational choices and career paths" (Adigüzel et al., 2014, p. 564). Mohanty (2018), identified the vital components in his conceptual model of sustainable education for India as profit, people, and planet. The benefit component consists of policy, finance, resources, and technology. The people component includes trainings for educators for pre-service and in-service professional developments, trainings for the development of different competencies, leadership training programs, student participation, and improvements for academic staff. The planet component includes campus, infrastructure, socio-economic resources, community awareness and participation, school management and leadership, teacher-student relationship, resource management, and networking with other institutions (p. 2248). In this context, the research has been designed within the framework of Holland's theory of careers and vocational choice and Mohanty's conceptual model of sustainable education for India in order to understand the effects of the earthquake phenomenon on students' career development process, sustainable education and their views on this subject.

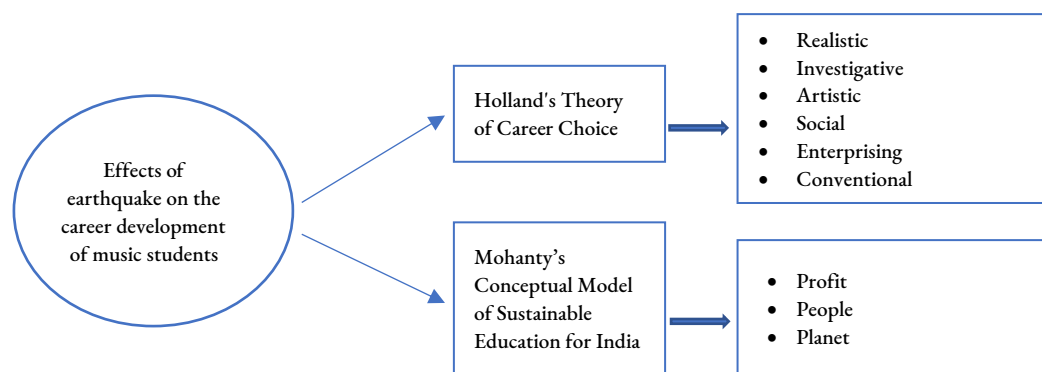


Figure 1. Holland's Theory of Career Choice (Adigüzel et al., 2014) and Mohanty's Conceptual Model of Sustainable Education for India

Significance of the Research

Kahramanmaraş being located within active tectonic zones in Turkey exposes the region's students and educational institutions to earthquake-related risks. Factors that may affect students' level and performance in undergraduate music education should be taken into consideration, as they can also influence the quality and outcomes of education. "Post-earthquake individuals may develop depressive symptoms such as reliving different aspects of the earthquake, feelings

of helplessness, hopelessness, loss of pleasure in activities, and intense fear" (Powell et al., 2019). The cultural capital acquired throughout generations primarily determines how the society will face a disaster like an earthquake and how life will be lived after the catastrophe. Individuals perceive, feel, think, understand, and act based on the inclinations and specific action schemas they acquire from their socialized environment and the events happening around them (Erdoğan, 2023, p. 724). Kahramanmaraş stands as an important example for a study concerning these matters. Considering the effects of earthquakes on students' career development, it is essential to create academic and emotional solutions. The research is important for understanding students' experiences after the earthquake and contributing to the development of supportive strategies for their career growth.

Problem and Sub-Problems

The main problem of research;

- To what extent do earthquakes affect the career development process of undergraduate students studying music education?

The sub-problems of the research;

- What is the physical impact of earthquakes on students' music education?
- To what extent do students' emotional states after the earthquake affect their education?
- How do the attitudes of students after the earthquake shape their educational and career goals?

Method

Research Design

This study was designed using a qualitative approach, employing a case study design. The explanatory/descriptive case study method, based on Datta's (1990) theoretical framework on case studies, was utilized to make unfamiliar situations familiar and explain their connections to real-life.

Study Group

The population of the research consisted of undergraduate music students studying at universities in Turkey, and the sample included students affected by earthquakes in Kahramanmaraş. The research was limited to 122 actively enrolled students in the KSU Faculty of Fine Arts, Music Department, and 104 of these students voluntarily participated in the study. Among the participants, 51.9% were female (n=54) and 48.1% were male (n=50). The average age ranged from 18 to 43, with a mean of 25.25 and a standard deviation of 6.87 ($\bar{X}=25.25$, $SD=6.87$). Of the participants, 25% were in the first year (n=26), 20% were in the second year (n=21), 27% were in the third year (n=28), and 28% were in the fourth year (n=29) of their undergraduate studies. Regarding their musical instruments, 31.7% of participants were studying violin (n=33), 23% were studying vocals (n=24), 14.4% were studying flute (n=15), 12.5% were studying Turkish folk music interpretation (n=13), 11.5% were studying piano (n=12), and 8.6% were studying cello (n=9). Eight participants lost a first-degree relative in the earthquake (7.5%). After the earthquake, 67% of the participants (n=70) started residing in other cities, while 33% (n=34) continued to live in Kahramanmaraş.

Table 1. Distribution of the study group by undergraduate program years and instrument specialization.






	Flute	Violin	Piano	Vocal	TFM interp.	Cello	Total
 4th grade	2	10	4	9		4	29
 3rd grade	6	11	3	7		1	28
 2nd grade	2	5	3	3	6	2	21
 1st grade	3	7	2	5	7	2	26
Σ TOTAL	13	33	12	24	13	9	104
 N= Documents/Speakers	13 (12,5%)	33 (31,7%)	12 (11,5%)	24 (23,1%)	13 (12,5%)	9 (8,7%)	104 (100,0%)

Table 1 shows the distribution of participants according to their class levels and the instruments they are studying. It can be observed that there are no students in the third and fourth years of the undergraduate program for Turkish folk music interpretation. The students have been coded as Participant: P, Class: G, Music Field, Instrument: I, when presenting the quotations.

Data Collection Tools

Semi-Structured Interview Form

In the research, a semi-structured interview form was used as a data collection tool to achieve a balance between the flexibility of an open-ended interview and the focus of a structured ethnographic survey. Expert opinions were sought when preparing the form, which consists of 20 questions, and the questions were designed to give participants the opportunity to express their experiences and interpretations in their own words. This method aimed to reach subjective reality and develop a richer and more detailed understanding of the phenomenon under investigation. For instance, with the question posed to the participants, "Did your passion for music change after the earthquake? What do you think is the reason for this change or the lack thereof?" it was attempted to understand in detail whether there was a change in their passion for music and, if there was a change, the reason behind it. While preparing the form, an interpretive approach was used to question societal reality and understand subjective knowledge. The prepared questions were transferred to a digital platform through Google Forms, aiming to facilitate access to participants residing in different cities after the earthquake. The form also included a separate section for demographic information. A sample question from the semi-structured interview form: Has there been any change in your passion for making music after the earthquake? Please indicate with the reason.

Unstructured Interviews

This data collection tool was created to describe the situations of students related to music education after the earthquake. The interviews were conducted to identify the challenges experienced by students after the earthquake.

Unstructured Observation

An unstructured observation method was used as a data collection tool in order to avoid limiting the research within specific parameters or structures. Observations were made from a location unbeknownst to the participants, thereby preventing any interference with natural behaviors. General information about the participants' situations regarding the earthquake was gathered through observations made intermittently over a five-month period following the earthquake. The aim of this method was to understand the situation, determine its scope, and contribute to the researcher's objectivity.

Documents

Documents related to the current situation of students studying music education after the earthquake were selected from publications issued by relevant institutions of the Republic of Turkey, such as CHET (Council of Higher Education of Türkiye), HEQB (Higher Education Quality Board), KSU (Kahramanmaraş Sütçü İmam University) and Fine Arts Faculty in KSU (KSU FAF).

Data Analysis

The data obtained from the participants were interpreted using content analysis method. Based on individual observations after the earthquake, both group and individual interviews were conducted with the participants to obtain general information about their situations, and preliminary work was conducted on codes and categories. After data collection, some of the created codes were revised, and new codes and categories were added. Miles-Huberman model (Baltacı, 2017, p. 1-15) was used as a reference for the analysis. Some data obtained from demographic information and closed-ended questions were determined as variables, and together with the codes created from open-ended questions, they were transferred to Maxqda2022 qualitative data analysis software. Shapes, visuals, numbers, browsers, tables, matrices, and graphs were used to interpret and analyze the categories gathered under the themes of physical, emotional, and theme aspects, and the relationships between codes were presented in tables.

Process

Participants were reached through mobile messaging groups established during the distance education process, and necessary information was provided before sending the surveys. The obtained data were downloaded from Google Forms to a local computer, and pre-processing was completed for analysis.

Realibility and Validity

The diversity of data sources, in-depth understanding, and control of observer bias have been considered in ensuring the validity and reliability of the research. The use of various data collection methods facilitated gathering data from multiple and diverse sources. This strengthened the validity of the research, as each method addresses different aspects and allows for a more comprehensive understanding of participants' experiences and thoughts. Collecting personalized information during the data collection phase increased the internal validity of the research through a profound understanding. Semi-structured interviews and unstructured observations enabled the control of observer bias, preserving the researcher's objectivity and enhancing the research's reliability. The diversity of employed data collection methods supports the consistency and repeatability of the data. Consequently, it was demonstrated that another researcher could achieve similar results if they were to conduct the same study, thus reinforcing the research's reliability. The semi-structured interview protocol, unstructured interviews, and observations directly address the research questions and objectives. This strengthens the external validity of the study, as the findings are applicable for generalization in similar contexts.

Ethics

Prior to commencing the data collection phase, ethical approval was obtained from the KSU Social and Human Sciences Ethics Committee in the session held on 06.06.2023, under the protocol number 2023-21.

Results

This section presents the findings related to the physical, emotional, and accessibility of education themes obtained from the data.

Decisions and regulations regarding music education in universities after the earthquake

After the earthquake, students relocating to different regions due to accommodation or similar reasons necessitated the creation of alternative solutions for the continuation of education in all universities in the country. "Due to the magnitude of the earthquake and its effects nationwide, the Council of Higher Education of Türkiye (CHET) announced that the 2022-2023 academic year spring semester would be completed through distance education throughout the country in response to the earthquake centered in Kahramanmaraş" (Makas, 2023) This approach aimed to ensure that students could benefit from their right to education seamlessly, and the process was also continued in institutions providing music education.

As the earthquakes occurred just days before the start of the 2022-2023 academic year spring semester, a significant majority of students were in Kahramanmaraş during the disaster and experienced the earthquake firsthand. KSU Rectorate conducted efforts to ensure a smooth process after the earthquake and provided necessary facilitation and support to the students and faculty members during this period. In a letter dated 15.02.2023 and numbered E-198142, the KSU Senate decided that the courses would be provided through distance education due to the earthquake and the courses would be conducted asynchronously, and students would not be obliged to attend the courses. Additionally, it was decided that exams would also be conducted through the distance education system to ensure a healthy assessment process for the students.

CHET facilitated the universities affected by the earthquake to collaborate with universities in other regions, enabling them to conduct academic and administrative assignments and work in the field of informatics between the universities (CHET, 2023). Gazi University, paired with KSU, organized scientific events, including training programs for educators and instructors, related to the distance education process. For some programs with an emphasis on practical education, CHET allowed students to continue their practical training at another university, subject to being limited to the spring semester only and under the status of special students, thus providing an opportunity for students to transfer credits for courses they successfully completed. To support the research and development activities of researchers in the disaster area, the Scientific and Technological Research Council of Turkey (STRCT) launched a project call titled "Disaster Zone Universities Special Call –A Thousand and One Efforts" aiming to contribute to the research works of academics in the region. With the Presidential Decree published in the Official Gazette on March 3, 2023, under the number 32121, it was decided that the contribution fee for students in the earthquake-affected regions

for the 2022-2023 academic year spring semester would be covered by the state and, if paid, would be refunded by the higher education institutions. On April 7, 2023, the KSU Library and Documentation Department opened the university library's reading room for research and study purposes, providing support to students residing in Kahramanmaraş and seeking suitable environments for their work. Moreover, post-disaster psychosocial support seminars and similar activities were organized at the university to contribute to the post-earthquake recovery process (KSU, 2023).

Observations regarding undergraduate music students

The earthquakes in Kahramanmaraş have brought forth various challenges and obstacles for undergraduate music students receiving education in the region. Compared to the pre-earthquake period, resource limitations, disrupted performances and activities, and communication difficulties have significantly manifested themselves after the earthquake. The post-disaster housing problems have made it difficult for students to access a safe and stable living environment. Damages and destruction occurred in the areas where students resided, and access to the spaces used for music education on campus may have been restricted, causing students to lose their routines and habits. These difficulties have hindered students from conducting the necessary work required for their music education, at least in the short term. Temporary housing areas established after the earthquake, housing assistance, opportunities for accommodation in different regions, or contributions made to increase the accessibility of instruments and resources have provided some solutions for students to continue their music education. The formation of solidarity and support networks among students has played a significant role during the post-earthquake period, creating opportunities for collaboration and sharing. The KSU administration and academics have endeavored to provide an environment that supports musical growth. However, despite these supports, it is possible to say that the uncertainties and insecurities caused by earthquakes can increase students' concerns about their future and negatively affect their motivation.

Theme 1. Opinions on the physical effects of the earthquake

Table 2. Provinces and shelters of the participants after the earthquake




Code System	House	Container	Hostel	Tent	TOTAL
 Kahramanmaraş	●	●		●	34
 Other Provinces	●●●		●	●	70
 TOTAL	97	4	1	2	104

Table 2 indicates that only 33% of the participants (n=34) continued to reside in Kahramanmaraş after the earthquake. The term "house" mentioned as the housing area is described as a temporary shelter by some of the participants.

Table 3. Post earthquake housing and transportation issues








Code System	House	Container	Hostel	Tent	TOTAL
 Problem free	●●●				19
 Less than a week	●	●			16
 More than a week	●●●			●	24
 One week to one month	●				14
 More than a month	●●●	●			25
 Ongoing problem	●		●		6
 TOTAL	97	4	1	2	104

Table 3 presents the post-earthquake housing situation of the participants. 19 participants reported no housing issues, 15 had housing problems for less than a week, 22 experienced housing problems for more than a week, 14 encountered housing issues for less than a month, and 22 faced housing problems for more than a month while staying at their homes. One participant who stayed in a container mentioned having housing issues for less than a week, and

three participants who also stayed in containers experienced housing problems for more than a month. Two participants who lived in tents reported facing housing problems between one week and one month. K40, who temporarily stayed in a student dormitory, indicated that they still hadn't found a permanent place to stay. It is evident that a significant majority of participants who stayed in their post-earthquake homes encountered housing and transportation problems for a period of one week to one month or even more. Many of these participants expressed difficulties in finding a suitable environment to continue their music studies.

Some quotations;

"We live in a one-room house with my family, and I cannot study for my lessons or get the desired efficiency from my studies." (P13-1stG-Cello)

"Although our housing issue has been resolved, the problems inside the place where I stay, the lack of a separate room, and losing my motivation and energy negatively affect my studies." (P16-1stG-Vocal)

"We don't have instruments, and most of us are staying in rural areas due to the lack of a home and facing internet issues." (P17-3rdG-Vocal)

"I had to go to the institution for exams; it was impossible in the container, and now I cannot make music anywhere, even my workplace is not suitable." (P44-4thG-Vocal)

"I cannot do vocal practice due to personal space problems." (P57-4rdG-Vocal)

"Neighbors complain about my location." (P60-3rdG-Violin)











"The earthquake process was very difficult; I had problems with housing, clothing, and food, and witnessed others experiencing the same. Right now, it might be better, but it is not as effective as the school environment." (P83-3rdG-Violin)

"There is a sound insulation problem in the container, and I still don't have an internet connection to access course content quickly and adequately." (P89-1stG-Violin)

"The place I live is far from the city center, and I face problems with internet and printing, making it difficult for me to access course materials promptly." (P102-4thG-Violin)

Some participants also emphasized that these circumstances hindered their professional development and ability to engage in necessary studies for their music education.

Table 4. The participants' views about financial situation after earthquake and benefiting from support funds

Code System	Benefit from funds	Inability to benefit from funds	TOTAL
 Sufficient financial resources			43
 Insufficient financial resources			43
 Lack of financial resources			18
 TOTAL	35	69	104

In Table 4, it can be observed that more than half of the participants (59%) experienced financial problems after the earthquake, and a significant portion of these participants did not benefit from the support funds established after the earthquake. Additionally, some participants seem to have been unable to generate financial solutions for their needs after the earthquake.

"I am working to support myself financially after coming from Kahramanmaraş, which makes it difficult for me to focus on my studies and education." (P11-1stG-TFM Interp.)

"Financial resources are not suitable for studying" (P41-3rdG-Cello)

"I couldn't afford to rent a place, and I faced issues with internet, computer, and accommodation. I'm managing with the help of my friends"(P74-4thG-Cello)

Table 5. Participants' views about between post-earthquake financial situation and the availability of a suitable environment for conducting music studies.

Code System	Suitable environment	Lack of environment	SUM
Sufficient resource	17	27	44
Insufficient resource	24	18	42
No resource	14	4	18
SUM	55	49	104

Table 5 shows that a significant portion of the participants, who have sufficient financial resources, are unable to find a suitable environment for conducting their music studies. On the other hand, the majority of participants with suitable environments are facing financial constraints and struggles to find adequate funding. P14 (2ndG-Cello) stated, *"My instrument is still problematic, and we have three families living in our house."* K34 mentioned, *"We cannot play the instrument adequately due to crowded environments."* P43 (3rdGViolin) expressed, *"Since many relatives, including us, do not have homes, I am in a crowded living environment"* and P54 (4thG-Violin) stated, *"My earthquake-affected relatives came to stay, and I am finding it challenging to focus on my studies under these circumstances"*.

Table 6. Participants' views about the condition of musical instruments and benefiting from support funds.

Code System	Damaged instrument	Undamaged instrument	SUM
Supported by the fund	30	5	35
Not supported	13	56	69
SUM	43	61	104

When Table 6 was analysed that nearly half of the participants experienced damage to their musical instruments during the earthquake, but a significant portion of these participants benefited from support funds. It is evident that undergraduate music students in Kahramanmaraş were able to benefit largely from support initiatives conducted by institutions and organizations related to the damage suffered by their musical instruments during the earthquake. Many participants whose instruments were damaged frequently mentioned the condition of their instruments in their responses to various categories of questions.

Theme 2. Students' opinions regarding the emotional effects of the earthquake on their music education

In this section, the findings related to the emotional effects of the earthquake on students' music education, including their motivations, passion for music-making, self-confidence, music-making habits, and the normalization of their emotions after the earthquake, are presented in Tables 7, 8, 9, and 10.

Table 7. Participants' views about music-making habits after the earthquake and the passion for making music

Code System	Continuing habit	Decreasing habit	SUM
Increasing passion	1	3	4
Unchanging passion	35	13	48
Decrease in passion due to the environment	1	11	12
Temporary decrease in passion	1	2	3
Permanent decrease in passion	1	36	37
SUM	39	65	104

The data obtained from the questions related to the changes in participants' passion for music-making and their habits after the earthquake are presented in Table 7. The data indicate that a significant portion of the participants did not experience any changes in their passion and habits. However, some participants reported negative and lasting

changes. It was also observed that some participants used music as a means of healing, and others experienced temporary declines in passion and habits due to the environment or different reasons.

For instance,

K4 mentioned, "*A transitional situation has emerged*," K13 said,

"I cannot derive efficiency from my studies after the earthquake, so I do things reluctantly,"

"I lost a very close friend whom I have been together for 15 years, every music we used to sing and listen together deeply wounds me, but I believe I will be more passionate than before with time," (P14-2ndG-Cello)

"I am less enthusiastic now, and after the earthquake, I realized that the material resources provided by music are insufficient, and I even considered quitting," (P17-3rdG-Vocal)

"I thought there are more important things in life than music, so I took a break for a while," (P23-3rdG-Violin)

"Psychologically, I cannot immerse myself in music, I constantly think of the fears I experienced, and my enthusiasm is shattered," (P26-2ndG-Piano)

"My friends died, the places we used to play music collapsed, and this negatively affected my passion," (P34-1stG-Piano)

"Most of the time, my desire to make music feels purposeless, although I am now going on with life a bit more normally after 4 months since the earthquake, I still feel like everything can turn upside down at any moment," (P45-4thG-Violin)






"The dedication of my teachers to music and the passion for music among my friends used to inspire me greatly, of course, I want to practice even when I am away from school, but it's very difficult to focus on music during this recovery process." (P68-1stG-TFM Interp.)

On the other hand, some participants expressed an increase in their passion for making music,

"I have entered a greater inclination to make more music," (P27-2ndG-Piano)

"I want to play more, I want to make more music, my emotions are heightened, and I want to express them through music after the earthquake". (P55-1stG-Piano)

Table 8. Participants' views about social and musical activities and personal contribution through music to the healing process

Code System	Contributing through music	Not contributing	SUM
 Positive	4	17	21
 Negative	11	54	65
 Observation of musicians	2	2	4
 Indifference	1	13	14
 SUM	18	86	104

Participants' views about the cancellation, postponement, or occurrence of social and musical activities and participants' contributions to the post-earthquake healing process through music is presented in Table 8. A significant portion of the participants expressed their views on not canceling the activities and contributing to the healing process, but it was observed that they did not personally contribute through music. A few participants mentioned that the focus should be on considering the well-being of musicians in this process when asked about the occurrence or cancellation of social events. A small portion of the participants showed disinterest in the postponement or cancellation of social and musical events and making contributions to the healing process through music.

"The general anxious state of people prevents the occurrence of activities, and I find it reasonable." (P9-1stG-TFM Interp.)

"Social events should be held occasionally." (P17-3rdG-Vocal)

"We experienced a very painful disaster, unfortunately, the best decision could have been not to hold events." (P21-2ndG-TFM Interp.)

"First of all, physiological needs need to be met." K30 expressed, "It should be canceled, given the amount of suffering." (P23-3rdG-Violin)

"We were not in a state of mind to think about social events; we are gradually starting to consider such things." (P34-1stG-Piano)

"I think it is beneficial to cancel or postpone because I believe that people still have a fear of experiencing another earthquake." (P53-3rdG-Violin)

"It should stay like this for a while, but as musicians, we should be supported since we earn our living from these events." (P60-3rdG-Violin)

"After the earthquake, especially those who lost their loved ones were in mourning, and those who did not suffer loss of life or property experienced a great trauma. Therefore, the decrease in social mobility was better for me because after the earthquake, too many people, especially crowded places with strangers, made me more uncomfortable." (P62-3rdG-Violin)

On the other hand, P14 (2ndG-Cello) disagreed with the limited occurrence of social and musical events and said,

"I don't think it's right because it contradicts people's need for normalization."

P16 (1stG-Vocal) stated,

"Things like events and programs that keep us positive and cheerful in life are important. Restricting or canceling them leads to routine in our daily lives, and routine leads to being depressed, resulting in a big unhappiness." P9 (1stG-TFM Interp.) mentioned joining post-earthquake choirs,

P34 (1stG-Piano), P41(3rdG-Cello), P65(4thG-Violin) and P89(1stG-Violin) contributed to the post-earthquake recovery process through music.

Table 9. Participants' views about music-making habits and self-confidence




Code System	Continuing habit	Decreasing habit	SUM
 Decreasing self-confidence	13	51	64
 Unaffected self-confidence	27	13	40
 SUM	40	64	104

Table 9 presents the data regarding participants' views about music-making habits and self-confidence after the earthquake. Based on the findings, there is a significant correlation between the decrease in music-making habits and the negative changes in self-confidence after the earthquake. Participants expressed that they lost their previous motivation and confidence due to the experiences they went through during the earthquake.

"I unintentionally lost my previous motivation, the experiences affected my illness, and I couldn't play the violin for a while." (P25-2ndG-Violin)

"I can't emotionally connect to music; fears constantly come to my mind, and my enthusiasm diminishes." (P26-2ndG-Piano)

"I still haven't emotionally and mentally recovered fully; living with the loss of many people I know closely is heavy, and moving forward with a void that can't be filled is not easy, be it good or bad." (P38-3rdG-Vocal)

"I don't even play my instrument anymore; there is always stress and anxiety; those moments and times come to my mind." (P61-4thG-Cello)

It is evident that the participants' self-confidence has been negatively affected, and many of them believe that this loss of self-confidence is permanent.

To assess the overall emotional state related to the emotional variables, the responses to questions in this category were analyzed using word analysis. The results were then presented in Table 10, showing the words, degrees, frequencies, percentages, number of surveys they appeared in (documents), and the emotional contexts (effects) in which the words were used.

Table 10. The most frequently used words and their frequencies in responses to questions related to emotional variables

Word	Degree	Frequency	%	Documents	Impact
Have problems	1	171	6,74	96	Negative
Home	2	107	4,22	98	Negative
Problems	3	105	4,14	104	Negative
Financial	4	104	4,10	104	Negative
Education	4	104	4,10	104	Negative
Arrangement	6	78	3,08	78	Negative
Effecting	6	78	3,08	78	Negative
Sleeping	6	78	3,08	78	Negative
Motivation	9	72	2,84	70	Negative
Negative	10	64	2,52	59	Negative
Source	11	61	2,41	61	Negative
Not have problems	12	56	2,21	48	Pozitive




The participants' expressions were analyzed, excluding words like "and, as if, maybe" that do not carry a specific meaning on their own. It is observed that the most frequently used words are largely associated with negative contexts, such as "struggling, home, problems, economic, undergraduate, organization, affected, sleep, motivation, negative, and resources." The word "not experiencing" which does not contain negativity, or positive expressions, was used after the 11 negative words. The words "problems, economic, and undergraduate" were used in all the answered surveys and are mostly present in negatively coded expressions.

Theme 3. Students' views on the effects of the earthquake on accessibility of education

In this section, the participants' post-earthquake cognitive variables have been addressed. The meaningful relationships in the data concerning interactions with instructors, responsibilities, course materials, distance learning process, and resumption of face-to-face education have been compiled and interpreted in Tables 11, 12, 13, 14, and 15.

Interaction with instructors and students' motivation

Table 11. Participants' views about interaction with instructors and students' motivation




Code System	Providing motivation	Lack of motivation	SUM
 Establishing interaction	56	9	65
 Non-interactivity	28	11	39
 SUM	84	20	104

From Table 11, it can be inferred that a significant majority of the participants do not encounter any issues in interacting with their instructors, and the instructors are capable of providing adequate motivation support for the

participants' music studies. While there are some participants who report not receiving enough motivation support or facing difficulties in effective communication with their instructors, a considerable number of them still acknowledge that sufficient motivation is provided during the lessons by the instructors. It is also evident that many students who are unable to continue their music-related activities due to post-earthquake responsibilities such as family, work, and home, do not experience problems in interacting with their instructors.

Concentration and performance anxiety




Table 12. Participants' views about concentration and performance anxiety during distance learning

Code System	Concentration	Lack of concentration	SUM
 Anxiety	7	75	82
 Unchanged condition	6	16	22
 SUM	13	91	104

During the distance learning process, participants were asked questions about their ability to concentrate on the lessons and their overall opinions about the courses. Table 12 reveals that a significant portion of the participants experienced concentration problems related to distance learning courses after the earthquake, and they also had performance anxiety regarding their grades and academic success. When the data in Table 12 is correlated with other findings, it is observed that a large majority of participants who experienced academic anxiety had no problems with interacting with instructors and found the motivation support provided to be sufficient. More than half of the participants with academic anxiety (55%) stated that they had a suitable environment for studying. Among these participants, nearly one-third (32%) experienced housing problems lasting more than a month, about half (49%) faced housing issues for less than a month, and a small portion (19%) had no housing-related problems. 80% of the participants with academic anxiety reported that they could not allocate enough time for music practice, and 60% stated that they faced financial constraints or could not find adequate resources.

Distance learning and professional development

Table 13. Participants' views about distance education, theoretical, and practical courses, and contribution to professional development

Code System	Sufficient practical application	Insufficient practical application	SUM
 Sufficient theoretical knowledge	20	6	26
 Insufficient theoretical knowledge	6	72	78
 SUM	26	78	104




Separate questions were directed to the participants regarding their views on theoretical and practical courses conducted through remote education after the earthquake. In Table 13, it can be observed that a significant portion of the participants (69%) expressed that the theoretical and practical courses conducted through remote education after the earthquake did not provide sufficient contribution to their professional development. Among the participants who considered the acquired theoretical knowledge to be insufficient and not lasting, 29.5% were at the undergraduate level 1, 17.9% at undergraduate level 2, 26.9% at undergraduate level 3, and 25.6% at undergraduate level 4. On the other hand, participants who believed that the practical courses did not contribute sufficiently to their professional development consisted of 28.2% at undergraduate level 1, 20.5% at undergraduate level 2, 24.4% at undergraduate level 3, and 26.9% at undergraduate level 4.

When the data in Table 13 is related to other variables, it can be observed that a significant portion of the participants who expressed negative views about theoretical and practical courses are the same participants who did not experience any damage to their musical instruments. The number of participants who reported having appropriate conditions to conduct their studies and did not experience any interaction problems with instructors was higher among those with negative views. More than half (59%) of the participants with negative views stated that they could not allocate enough

time to their studies. The majority of negative views were expressed by participants who also had concerns about their course grades and faced concentration problems during the remote education process. Interestingly, despite the decrease in their music practice habits, many participants with negative views reported that their passion for music did not decrease.

Accessing educational material




Table 14. Accessing to educational materials after the earthquake

Code System	1st year	2nd year	3rd year	4th year	SUM
 Accessible materials	9	8	10	11	38
 Inaccessible materials	17	13	18	18	66
 SUM	26	21	28	29	104

From Table 14, it can be observed that the majority of the participants experienced problems accessing post-earthquake educational materials such as notes, recordings, books, internet, or other educational resources. It is evident that participants with insufficient financial resources or those who couldn't find necessary materials were predominant. Additionally, most participants whose instruments were undamaged also faced difficulties in accessing educational materials. Among the 66 participants who reported problems accessing materials, 25 mentioned that they did not experience housing-related issues or faced such problems for less than a week. Out of the 49 participants who expressed concern about their academic performance and grades, a significant number also faced challenges in accessing educational materials.

Some participants stated that they couldn't acquire materials due to their severely damaged homes in Kahramanmaraş or difficulties in finding suitable accommodation in rural areas. Others mentioned specific challenges in accessing books, the internet, instrument accessories, and notes.

Table 15. Resumption of face-to-face education and students' ability to readjust to the process

Code System	1st year	2nd year	3rd year	4th year	SUM
 Face-to-face education compatibility	11	8	12	12	43
 Inability to adapt to face-to-face education	15	13	16	17	61
 SUM	26	21	28	29	104

From Table 15, it is evident that the majority of the participants expressed that they would face various challenges in readjusting to the education process when transitioning to face-to-face education. Those who anticipate facing challenges mostly stated that their self-confidence has been negatively affected, and they are concerned about not being able to acquire professional practical skills after the earthquake. It was found that 60% of the participants who mentioned potential difficulties in readjusting to face-to-face education were residing outside of Kahramanmaraş after the earthquake.

Conclusion and Discussion

The research has found that earthquakes have significantly negatively impacted the career development of music students. It is possible to argue that addressing these impacts in physical, emotional, and educational dimensions could contribute to the sustainability of music students' education in the aftermath of natural disasters. Ofei and Didham (2014) state that high-quality education is necessary to make progress in all dimensions of sustainable development (p. 27). In this context, it is clear that academic disruptions that may occur due to natural disasters or other reasons in students' education could have implications not only for their personal career development but also for societal well-being.

The most significant physical effects of earthquakes on music students have been determined as damage to their instruments, housing problems, and limited access to suitable spaces for music practice. Changes in the students' socio-economic status and housing problems have also been found to have negative emotional effects on them, resulting in reduced interest in classes and music. The magnitude and sudden occurrence of the earthquake have led to increased

anxiety and stress among students. This has had adverse effects on music practice and performances. It has been identified that the losses caused by the earthquake have heightened feelings of depression and grief among students. This has weakened their connection with music and diminished their motivation. The chaos and damage caused by the earthquake have been found to disrupt music education. Following the transition to remote learning, it has been observed that some students have encountered difficulties in accessing education due to inadequate equipment or materials.

Music, being a special art that combines emotion and learning, has faced a unique challenge as earthquake circumstances have directed music students towards remote education. While remote education generally offers several advantages, it has also revealed significant disadvantages for music students. Playing instruments or delivering vocal performances constitutes fundamental aspects of music education. However, in remote education, students might lack the physical presence of instructors or the ability to use their instruments. It has been noted that this limitation can hinder students' opportunities for developing their musical abilities and engaging in practice. Considering that music is frequently performed in groups, remote education can pose challenges for these collaborative activities. Students may not be physically present in the same location to play together or showcase vocal performances, which restricts their opportunities for collaboration. Additionally, it has been concluded that remote education may not be as effective as in-person instruction in providing the feedback students need to observe the progress of their performances.

The most crucial decision regarding the continuity of education in universities after the disaster is the implementation of distance education. Due to the extensive coverage of the disaster, this decision was applied throughout the country, consequently affecting university education nationwide. Besides providing knowledge acquisition, face-to-face education also contributes significantly to gaining practical experiences and professional development. Considering that music students need to practice their instruments and gain stage experience, it is evident that distance education has some disadvantages for these students. It was found that students facing housing problems and instrument damage were not able to study regularly. It was also observed that some students could not benefit from the support funds after the earthquake. Additionally, some students faced difficulties in accessing course materials. While distance learning facilitated course accessibility, individual challenges faced by students hindered them from consistently attending classes. Therefore, it is concluded that addressing students' physical conditions and basic needs is essential for the effective continuity of education.

In a study by Baloglu, Harris, and Karagözoğlu (2015) on the effects of the 1999 Marmara earthquake on university students, it was revealed that 83.6% of students expected another severe earthquake in the near future, and over 67% believed they would lose their lives during an earthquake (p. 125-136). Similar findings were observed in this study, where students also experienced a second earthquake fear or stress disorder. Students who had negative changes in their passion and habits for music also experienced a loss of self-confidence. These conditions negatively affected their dedication to classes and academic performance. Students who did not contribute to the post-disaster recovery process experienced emotional negativity. It is likely that students who experienced a decline in their music habits also faced deficiencies in their musical practices, which adversely affected their musical development. The fact that students predominantly experienced negative emotions after the disaster resulted in adverse consequences for their career development.

The inability of students to find a suitable environment for music practice resulted in a decrease in their concentration. Students who expressed dissatisfaction with the theoretical and practical classes attributed their feelings to distance education. Particularly, face-to-face practical classes significantly contribute to students' musical development. It was observed that academic staff provided sufficient motivation support to students, and students found this motivation mostly adequate. Considering that academicians were also affected individuals after the earthquake, this situation positively contributed under the current conditions. In conclusion, it was determined that students mostly experienced negative emotions after the earthquake, which resulted in certain adverse consequences for their career development. The findings of the study are consistent with previous research, indicating that emotional negativity following disasters has detrimental effects on students' career development.

Decisions to maintain education through distance learning provide conveniences in terms of educational accessibility. Considering students who believe that theoretical and practical courses do not sufficiently contribute to their professional development in distance education, it is concluded that new methods should be developed within this system. Students who face difficulties in accessing courses and materials are also facing housing-related problems, which could lead to academic performance-related anxiety. The disruption of students' stage experiences during the post-earthquake period had negative effects on musical practices.

Recommendations

For Future Research

The data collected at the 5th month after the earthquake covers approximately a 5-month period and is a cross-sectional study, thus it does not include data from the later period. Therefore, long-term studies should be conducted and included in the literature. Moreover, the research should not be limited to Kahramanmaraş alone; separate studies should be conducted for other cities affected by the earthquake. Additionally, conducting quantitative studies on the general condition of students in the earthquake-affected cities would provide significant contributions to the literature. Examining different concepts and dimensions in these studies would reveal different aspects of the situation.

Recommendations for Practitioners

It is evident that students studying music education have different needs compared to other university students. Similarly, separate strategies should be developed by the government and institutions for disciplines with specific requirements. Ensuring sufficient motivation among students will enhance their success in classes and support their self-confidence and emotional well-being. In addition to the motivation efforts made by academics in distance learning, the support provided by the government and institutions in this regard should be increased. The platforms used in distance education should be customized according to the students' fields of study. This could contribute to their professional development. The development of educational programs should include specific training on natural disasters.

Limitations of Study

This research was conducted between June 2023 and July 2023 and was limited to undergraduate music students in Kahramanmaraş.

Acknowledgement

I extend my get-well-soon wishes to all students affected by the earthquake. I express my gratitude to the students of the Music Department of Kahramanmaraş Sütçü İmam University Faculty of Fine Arts, the Department of Music, the Faculty Dean, and the University Rectorate for their voluntary participation in my research.

Biodata of Author



Alper Şakalar was born in 1984 in the Elbistan district of Kahramanmaraş, Turkey. After completing his primary and secondary education in his hometown, he gained admission to the Department of Music Theory at İnönü University Faculty of Fine Arts. Following his undergraduate studies, he relocated to Antalya. During this period, he completed his master's and pedagogical formation training. In 2016, he was accepted into the Music and Performing Arts Ph.D. Program at Yıldız Technical University, where he continued his academic journey in Istanbul. In 2018, Şakalar began teaching vocal and individual voice training courses at Kahramanmaraş Sütçü İmam University Faculty of Fine Arts, Music Department. In 2023, he earned the title of associate professor. Şakalar has a multitude of scientific and artistic works, as well as national and international awards to his name."

References

Adigüzel, O, Batur, Z. H., Erdoğan, A., Sönmez Özkan, D. & Ekşili, N. (2014). Holland's Theory of Careers and Vocational Choice. Proceedings of Regional Economic Development, Bosne i Hercegovine, 565-575.

- Baloğlu, M., Harris, M. B., & Karagözoğlu, C. (2005). The Psychological Effects of an Earthquake on Turkish College Students. *Hasan Ali Yücel - Education Faculty Journal*, 2, 125-136.
- Baltacı, A. (2017). The Miles-Huberman Model in Qualitative Data Analysis. *Abi Evran University Journal of Social Sciences Institute*, 3(1), 1-15.
- Cengiz, S., & Peker, A. (2023). Examination of Depression Levels in Adult Individuals After the Earthquake. *TRT Academy Journal*, 8(18), 653-668.
- Chalkley, B. (2006). Education for sustainable development: continuation, *Journal of Geography in Higher Education*, (30)2, 235-236.
- Erdoğan, B. (2023). Sociology of Earthquakes: Social and Cultural Aspects of the 6th February Disaster. *TRT Academy Journal*, 8(18), 719-725.
- Higher Education Council (CHET). (2023). *Questions and Answers Regarding the Spring Semester Education and Training*. <https://www.yok.gov.tr/Sayfalar/Haberler/2023/yuksekokretim-kurumlarimizda-2022-2023-bahar-yariyili-egitim-ve-ogretimine-iliskin-sorular-ve-cevaplar.aspx>
- Kadioğlu, M. (2008). Methods to Increase Disaster Awareness in Society. *Ministry of Internal Affairs of Turkey, Japan International Cooperation Agency (JICA) Turkey Office*. Publication No:2, 251-276.
- Karabacak Çelik, A. (2023). Examination of Trauma Symptoms, Hope, and Well-being After the Earthquake. *TRT Academy Journal*, 8(18), 575-591. Doi: 10.37679/trta.1275268
- Kahramanmaraş Sütçü İmam University (KSU). (2023, July). *History*. KSU Faculty of Fine Arts Website Homepage. <https://www.ksu.edu.tr/default.a> <https://guzelsanatlar.ksu.edu.tr/Default.aspx?SID=21653spx?DID=KSU&MI=280>
- Kahramanmaraş Sütçü İmam University (KSU). (2023, July). *Announcements*. KSU Internet Site Homepage. <https://www.ksu.edu.tr/default.aspx?DID=KSU&MI=280>
- Kahramanmaraş Sütçü İmam University (KSU). (2023, July). *Our History*. About Us. <https://www.ksu.edu.tr/Default.aspx?SID=16528>
- Kahramanmaraş Sütçü İmam University (KSU). (2023, July). *Completed Projects*. KSU Directorate of Construction and Technical Department Website. <https://yapiisleri.ksu.edu.tr/Default.aspx?SID=21765>
- Kahramanmaraş Sütçü İmam University (KSU). (2023, July). *Historical Development*. KSU 2022 Institutional Internal Evaluation Report. https://kalite.ksu.edu.tr/depo/belgeler/KIDR%20YÖKAK_2307171202523869.pdf
- Kardaş, F., & Tanhan, F. (2018). Examination of Post-Earthquake Stress, Post-Traumatic Growth, and Hopelessness Levels in University Students Experiencing the Van Earthquake. *YYU Journal of Education Faculty*, 15(1), 1-36. <http://dx.doi.org/10.23891/efdyyu.2018.60>
- Law, M., & Sissons, L. (1985). The challenge of distance education. *New Directions for Adult and Continuing Education*, 1985(26), 43-54
- Mohanty, A., Dash, D. (2018). Education for sustainable development: A conceptual model of sustainable education for India. *International Journal of Development and Sustainability*. 7(9), 2242-2255.
- Ofei P., Didham R. J., (2014). Quality Education for Sustainable Development: A Priority in Achieving Sustainability and Well-Being For All. *Institute for Global Environmental Strategies*. 1-12. <http://www.jstor.org/stable/resrep00748>
- Powell, T., Li, S. J., Hsiao, Y., Ettari, C., Bhandari, A., Peterson, A., & Shakya, N. (2019). Investigating the aftershock of a disaster: a study of health service utilization and mental health symptoms in post-earthquake Nepal. *International Journal of Environmental Research and Public Health*, 16(8), 1369. <https://doi.org/10.3390/ijerph16081369>
- Republic of Turkey Ministry of Interior Disaster and Emergency Management Presidency (AFAD). (2023). *Preliminary Assessment Report on the 6th February 2023 Pazarcık (Kahramanmaraş) MW 7.7 and Elbistan (Kahramanmaraş) MW 7.6 Earthquakes*. https://deprem.afad.gov.tr/assets/pdf/Kahramanmaras%20%20Depremleri_%20On%20Degerlendirme%20Raporu.pdf
- Republic of Turkey Presidency Strategy and Budget Directorate. (2023). *The Damage Caused by the Earthquake*. <https://www.sbb.gov.tr/wp-content/uploads/2023/03/2023-Kahramanmaras-ve-Hatay-Depremleri-Raporu.pdf>
- Sabah Newspaper. (October 11, 2022). *Turkish Folk Music Feast from Metropolitan Chorus*. Kahramanmaraş News. <https://www.sabah.com.tr/kahramanmaras/2022/10/11/buyuksehir-korosundan-turk-halk-muzigi-ziyafeti>
- TRT Haber. (February 4, 2020). *Tasavvuf Music Concert in Kahramanmaraş*. Current News. <https://www.trthaber.com/haber/guncel/kahramanmaras-tasavvuf-musikisi-dinletisi-458758.html>
- World Health Organization (WHO). (2023, July 21). *Earthquakes*. https://www.who.int/health-topics/earthquakes#tab=tab_1
- Yıldırım, S. (2023). An Observational Study on the Psychosocial Impact of the 6th February Kahramanmaraş Earthquake and the Importance of Sustainable Intervention for Earthquake Victims. *Anasay Journal*, 133-153.
- Yılmaz, A. (2012). Problems Encountered in Disasters in Turkey. *Manas Journal of Social Studies*, 1(1), 61-80.
- Zapalska, A. M., Zelmanowitz S., Jackson H., LaMonica C., Heckman K., & Mrakovcich K. (2020). Development of Effective Distance Learning in Response to Covid-19 Pandemic. *International Journal for Infonomics*, 13(2), 1992-2004.