The inner dynamics of transformation in education: Distance education

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Abstract. The aim of this research is to determine the opinions of academics working in education faculties about distance, i.e., online education. The research covers the faculty members who taught online courses at Hatay Mustafa Kemal University Faculty of Education during the 2023-2024 academic year. A semi-structured interview form, developed by the researcher and consisting of four questions, was used as the data collection tool. The study concluded that faculty members' technology experiences increased after the pandemic and the earthquake, equal opportunity among students improved, but communication in lessons decreased, and students experienced a loss of motivation.

1 Introduction

Advancements in information and communication technologies have laid the groundwork for the emergence of new approaches, models, and structures across various fields, including education [1,2]. Due to globalization, the development of technology has significantly transformed the traditional model, particularly in education [3, 4, 5]. In line with these advancements, distance education has started to offer effective alternatives to individuals striving to improve their knowledge and skills in the digitized world of the 21st century [6]. According to [7], distance education is a form of education that allows individuals to manage their own learning processes, providing more flexible and interactive learning environments compared to traditional education. [8] define distance education as the interaction between students and teachers located in different places through communication technologies. In the broadest sense, distance education includes educational activities carried out without the necessity for the teacher and learner to be in the same physical location, utilizing information and communication technologies [9].

The history of distance education dates back to 1728 when shorthand lessons were delivered by mail through the Boston Gazette, marking one of the first applications of distance learning [10, 11]. Later, developments in mass media introduced a new dimension to distance education, and tools such as computers, television, and radio played a crucial role in this process [12]. Particularly in 1982, the emergence of new instructional technologies gave significant momentum to distance education practices [12]. From this period onwards, for instance, Turkey initiated its first higher education distance learning programs with the establishment of the Open Education Faculty at Eskisehir Anadolu University [13]. Today,

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many educational institutions, especially universities, actively implement distance education practices.

Universities offer associate, undergraduate, and graduate programs via distance learning [14]. Students in these programs continue their education through digital teaching materials such as online lecture notes, interactive textbooks, and live lessons. Additionally, within the scope of distance education, the Ministry of National Education created the Education Informatics Network (EBA), a digital education platform that enables students to easily access course content during natural disasters such as earthquakes, floods, and fires, or under extraordinary circumstances [15].

Distance education gained rapid momentum during the COVID-19 pandemic [16]. During this period, distance learning was implemented across all levels of education to prevent students from falling behind or to compensate for learning losses [17]. At this point, distance education has become a necessity rather than a personal choice or political decision [18, 19]. On the other hand, while Turkey transitioned to full in-person education in the 2021-2022 academic year, the earthquakes cantered in Kahramanmaras, referred to as the 'disaster of the century,' once again shifted the country towards distance education [20]. Consequently, extraordinary situations such as the 2023 major earthquake in Turkey and the coronavirus pandemic have reaffirmed the importance and necessity of distance education [21].

Thus, understanding the effectiveness of distance education after natural disasters will be a guide for developing educational policies and practices. Consulting the opinions of academics on distance education will significantly contribute to strengthening education systems' resilience to disasters and similar situations, ensuring preparedness in disaster management, and developing rapid and effective intervention strategies. Therefore, the data obtained from this research will help understand the critical role of distance education, especially in times of crisis, and guide the development of robust educational strategies.

1.1 Purpose of the Study

The purpose of this study is to determine the opinions of academics working in faculties of education regarding distance, or online, education and to provide suggestions for solutions to the challenges encountered. Although academics are generally knowledgeable about technological issues and distance education, they may still face various challenges in practice. Therefore, another goal of the study is to reveal the current situation of academics, identify any problems they may face, and propose solutions to these problems.

1.2 Research Problem

The research problem can be framed as follows: What are the opinions of academics regarding distance, or online, education? To make the study more detailed and to analyze it thoroughly, sub-problems have also been included: (1) In your opinion, what does online distance education mean? (2) What are the advantages of online distance education? (3) What are the disadvantages of online distance education? (4) Do you feel competent regarding the technological skills required for online distance education?

2 Method

This section includes the model of the research, population and sample, data collection tools, data collection process, and data analysis, respectively.

2.1 Research Design

In this qualitative study, conducted to determine the opinions of academics about online distance education and to propose solutions for the challenges encountered during online education, the phenomenology design was employed. The qualitative research method prioritizes the study of social phenomena within their environments and is based on a theory-building approach [22]. Qualitative research is an approach where the researcher deeply analyses an action, event, process, or individual to provide in-depth information and develop an understanding of a particular situation [23]. Phenomenology is an inquiry approach that aims to define the meaning, structure, and essence of human experiences regarding a phenomenon, as described by the participants [23, 24]. The goal of phenomenological research is to uncover participants' lived experiences and the meanings they attach to these experiences by deeply exploring their thoughts and experiences on a specific phenomenon [25].

2.2 Population and Sample

The study group of this research consists of 20 academics working as faculty members at Hatay Mustafa Kemal University's Faculty of Education. All the academics who participated in the study are faculty members, and they teach their courses online. Some demographic characteristics of the participating faculty members are presented in Table 1.

Table 1. Demographic characteristics of the academics participating in the study

Variables		N	%
Gender	Female	9	45.0
	Male	11	55.0
Professional Seniority	5-10 years	5	25.0
	11-20 years	5	25.0
	21-30 years	6	30.0
	Over 31 years	4	20.0
Total		20	100

Of the total 20 academics who participated in the study, 45.0% (n=9) are female, and 55.0% (n=11) are male. Regarding professional seniority, 25.0% (n=5) have 5-10 years of experience, 25.0% (n=5) have 11-20 years, 30.0% (n=6) have 21-30 years, and 20.0% (n=4) have over 31 years of experience. All the academics participating in the study are faculty members who actively teach online distance courses.

2.3 Data Collection Tool

In this study, aimed at determining the opinions of academics regarding online distance education and proposing solutions to the challenges encountered during online education, a semi-structured interview form developed by the researcher was used as a data collection tool. The interview form consists of two sections. The first section includes demographic variables related to the participants, while the second section comprises four questions related to the research.

To obtain the opinions of the academics, contact was made prior to the interviews, and mutually convenient days and times were scheduled. The interviews were conducted as planned on the scheduled dates and times, with each interview lasting approximately 15-20 minutes.

2.4 Data Collection & Analysis

The data obtained from the interviews with the participating academics were analysed using the content analysis method, one of the qualitative research methods. As a result of the content analysis, relevant codes were extracted or identified, and the most appropriate themes for these codes were determined. The findings of the study were presented in tables to enhance clarity. Each academic interviewed was coded as T1, T2, T3… up to T20.

3 Findings & Discussion

As a result of the content analysis of the responses obtained from the interviews conducted with academics, the themes of "what online distance education means," "advantages of online distance education," "disadvantages of online distance education," and "technological competencies used in online distance education" were tabulated.

The findings regarding the first sub-problem of the research, which is what online, distance education means for academics;

Table 2. Academician's views on what online and distance education means

Themes	Categories	N	Sample Views from Academics
Meaning of Online Distance Education	Method	14	T7: "It is a method used when there is a problem in education and training when education is disrupted." T15: "It is the savior method of education when education and training cannot be carried out due to adverse conditions."
	Learning-teaching	10	T2: "It is easy in learning-teaching and education. It is the method of difficult conditions." T17: "It is learning and teaching with technological systems independent of time and place."
	Freedom	7	T6: "It is freedom and liberty in education and training when the time comes." T11: "It is acting freely in accordance with the rules in time, place, education, technology and education."

Academics perceive online distance education as a teaching method, a learning-teaching approach, and a form of freedom in education. It can also be described as providing education through technological means during challenging times.

The findings regarding the academicians' views on the advantages of online and distance education, which is the second sub-problem of the research;

Table 3. Academic's views on the advantages of online education

Themes	Categories	N	Sample Views from Academics
Advantages of Online Distance Education	Independence from time and place	15	T3: "You can easily attend classes from anywhere. Regardless of time and place." T12: "If you have technological equipment, you don't have a time and place problem."
	Enabling technological developments	10	T13: "I have more technical knowledge in terms of technology. I feel more competent in terms of technology. I have become technologically literate." T18: "When you have to teach a lesson with technology, you learn technology. I learned it too."
	Facilitating individual learning	7	T7: "Students can learn on their own thanks to technology in distance education. It teaches students how to learn." Ö16: "Since students attend classes individually from different places, they learn to learn on their own."
	Replicability	6	T2: "Since the lessons are recorded in the system, they can be watched over and over again later." T14: "When a student does not understand a lesson, cannot participate in the lesson, or forgets the topic, they can watch the lesson over and over again."

Academicians' thoughts on the advantages of online education consist of themes such as being independent of time and place, encouraging technological developments, providing individual learning, teaching how to learn, and the replicability of courses.

The findings regarding the academicians' opinions on the disadvantages of online and distance education, which is the third sub-problem of the research;

Table 4. Academic's views on the disadvantages of online distance education

Themes	Categories	N	Sample Views from Academics
Disadvantages of Online Distance Education	Technological infrastructure issues	13	T4: "Sometimes, reasons such as internet connection problems, power outages, and technical problems prevent lessons from being held on time." T14: "Not being able to connect to lessons from everywhere, technological deficiencies, not all students having sufficient infrastructure, and

			lack of technological knowledge can prevent effective lessons.”
	Communication and interaction problems	11	T9: “Since not all students attend lessons or because participation in lessons is low, announcements made in lessons or research assignments given cannot be announced to all students due to lack of communication.” T12: “Since students are not in the same environment, their communication is low, therefore, information exchange decreases, and this situation negatively affects students’ academic success.”
	Teacher-centred classes	8	T15: “Since lessons are under the control of the teacher and the teacher teaches and conducts the lessons, the lessons are teacher-centred, that is, they are conducted according to the behaviourist theory, which decreases student success.” Ö18: “Since the teacher teaches the lessons, students come to lessons unprepared, study less, and this decreases student academic success.”
	Low participation	5	T1: “The fact that lessons can be watched again and again seriously reduces participation in the lesson. However, the lesson is learned in the lesson.” T15: “The confidence that the lessons are recorded gives students psychological relief, which negatively affects students’ participation in the lesson.”

It has been determined that academicians' opinions about the disadvantages of online education are technological infrastructure problems such as internet connection and power outages, lack of communication and interaction between student-student or student-teacher, and the fact that the lessons are taught according to behaviorist theory, that is, teacher-centered, and participation in the lessons is limited with the assurance of watching later.

The findings regarding the opinions of academicians regarding the use of technological systems in online and distance education, which is the 4th sub-problem of the research;

Table 5. Academicians’ opinions on technological competencies used in online and distance education

Themes	Categories	N	Sample Views from Academics
Technological Competencies	Conducting lessons	16	T7: “I can do my lessons very well. I don’t have any difficulty while doing my lessons. I can use technological equipment easily.”

			T10: "Although I had problems at first, I later learned how to do the lessons through trial and error."
	Technological infrastructure competency	13	T6: "I can install the necessary programs on my computer and run them. If there is a technical problem, I can solve it if the problem is not too big." T17: "I can do it without any help when installing technological devices. However, when software is needed, I get technical support from outside."
	Self-confidence	10	T9: "Doing my lessons remotely has increased my self-confidence. The feeling of success is great." T19: "When I teach a lesson via distance education, if I find the lesson I teach successful and I am satisfied, my self-confidence increases, and I feel very happy. "

Academicians' opinions on the disadvantages of online, distance education were determined to be technological infrastructure problems such as internet connection and power outages, communication interaction problems between student-student or student-teacher, the teaching of lessons according to behaviourist theory, that is, teacher-centred, and limited participation in lessons with the assurance of watching later.

4 Conclusion & Recommendations

In this section of the research, findings derived from the responses of academics to the research questions on online, remote education, as well as conclusions based on these findings and recommendations addressing the identified issues, are presented.

4.1 Conclusions

Natural disasters or various diseases that have occurred worldwide in recent times have once again highlighted the importance of online, remote education. Countries must always plan their curricula in a way that ensures preparedness for online, remote education under all possible circumstances (Sarigoz & Ozgur, 2024). This study aimed to determine the role of technology in online, remote education, the challenges encountered, the advantages and disadvantages of remote education, and what online, remote education means for academics.

It was found that academics view online, remote education as a teaching method, a learning-teaching approach, or even as a form of freedom or convenience in education, as well as technological education. Based on the views of the academics, online, remote education is also seen as a method of using technological tools to continue education in situations where traditional teaching is not possible. Consequently, online, remote education is considered an alternative teaching method when normal circumstances do not allow for in-person education.

Regarding the advantages of online, remote education, academics highlighted several benefits: independence from time and place, reduced costs, opportunities for technological development, access to technological resources, fostering individual study and learning,

learning how to learn, and the ability to reinforce or better understand content through repeated viewing.

However, the disadvantages of online, remote education, as noted by the academics, include issues such as internet connectivity and power outages, technological infrastructure problems, communication and interaction challenges between students and instructors, the predominantly teacher-cantered nature of lessons based on behaviourist theory, leading to low student participation, the inability to learn through hands-on experience, and limited or decreased attendance in classes due to the option of watching recorded sessions later.

To effectively deliver lessons via online, remote education, it is essential to be technologically literate. Therefore, the self-efficacy of academics regarding the use of technology is crucial. When examining the thoughts of participating academics on their self-efficacy in using technological systems in online, remote education, it was concluded that they feel sufficiently competent in delivering lessons with technological tools, using technological equipment, assembling and disassembling hardware components, understanding the technological infrastructure, and solving basic technological problems.

4.2 Recommendations

Remote education has now become an indispensable method in teaching and learning. Therefore, teacher candidates should be taught how to effectively implement online, remote education in a practical manner during instructional technology courses at universities.

For academics or teachers who feel inadequate in online, remote education, in-service training or seminars should be provided by relevant institutions to address these gaps.

Since online, remote education is predominantly used after natural disasters, all countries should continuously plan and maintain readiness for online, remote education, as if a natural disaster could occur at any moment.

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