

# Chapter 19

## University Student Perspectives Towards Distance Mathematics Education in the COVID–19 Process

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### **ABSTRACT**

*E-learning in mathematics education can be an approach that could provide much better learning environments in the pandemic. The COVID-19 cases have started to increase social anxiety and anxiety in many countries around the world. The current COVID-19 pandemic, which affects all countries, causes problems in economic and social fields, especially in education. The rapid growth of information communication technologies has led to the development and spread of the distance education system. Due to COVID-19, teachers and academics had to learn methods of teaching students using online resources, social media technology, and e-learning activities more effectively. The main purpose of this study is to collect students' views on distance education in mathematics lectures. This study will assist the planning and execution of the distance education carried out in universities during the COVID-19 outbreak. The population of this current study includes college students in a private university. The sample consists of 596 university students.*

### **INTRODUCTION**

In the current situation of the COVID-19 pandemic, economic and social problems have made it necessary to reorganize health services, social assistance, and especially educational activities. Individuals have been affected in many areas of life as a result of the restrictions applied with the protective measures. The restrictions made in the field of education, in particular, have directly caused different individual needs and demands, which has brought out the necessity of including individuals, children, and families

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in learning systems such as distance education. This change has also caused educators and students to experience online education.

Along with the technological developments of the 21st century, the lives of societies and humanity have changed, and all political, social, and economic fields have been under the influence of these developments. One of the most affected fields has been education which is one of the fields where learning activities are carried out the most.

The task of providing the necessary information for a certain purpose in education is expressed as teaching (Turkish Language Association [TLA], 2020). Today's education system is shaped by the information technologies in teaching, which has the function of organizing activities, providing materials, and guiding that will facilitate learning. While information is facts obtained through learning, research, or observation, technology is defined as all the tools and information that people develop to control and change their material environment (TLA, 2020). According to these definitions, technology provides information transfer in education. In short, technology replaces old or classical learning and teaching methods with new teaching methods. This view is supported by Döger (2016), who explains that the use of educational technologies has expanded, and the effective use of technology in education contributes to increasing the quality, richness, and impact of education, raises generations using technology and creates new learning opportunities for adults.

The rapid development of technology has supported and popularized individuals' habits of using developing technologies for educational purposes and meeting educational needs. The use of these technologies for educational purposes has revealed concepts such as distance education and mobile learning. Besides, it is an effective solution to offer an education model in which the sustainability of education is provided by distance education in pandemics, disasters, and extraordinary situations. Distance online learning has become an educational method to resort to, especially as we adapt to the new conditions presented by the COVID-19 pandemic. While 6.6 million students enrolled in distance learning in 2017, this number jumped to over 400 million students due to the spread of the pandemic (<https://www.techsmith.com/blog/distance-learning/>). Therefore, the sustainability of the right to education, one of the most basic rights of people, has been ensured by using the distance education model during the pandemic process.

## **Distance Education**

The development of information and communication technologies has enriched and expanded learning-teaching environments. Distance education, which is one of these learning environments, is a planned and designed comprehensive learning activity that provides users with many learning activities and eliminates time and space limits by applying special communication methods through electronic or non-electronic systems (Altıparmak et al., 2011).

In its shortest definition, distance education is a cost-friendly and interactive education model, which is carried out by using information and communication technology tools and equipment regardless of time and place (Gökbulut, 2021; Gökçe, 2008). Open and distance learning is a non-traditional form of education characterized by the separation of students and teachers in place or time (Modesto & Gregoriose, 2016). In other words, distance education is defined as an education and training system in which individuals, who are far from each other in terms of space are presented with knowledge; flexibility of time and space is provided, and communication and interaction are established through technological tools and applications (Aydemir, 2018). According to the definition by the Ministry of National Education, distance education is a teaching method in which communication and interaction between those

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