

EDUCATIONAL EFFICIENCY AT UNIVERSITIES IN THE COVID-19 PROCESS AND THE EXAMPLE OF TURKEY

¹BARIS BULUNMAZ, ²RAMAZAN BILGE

¹Prof. Dr., Istanbul Topkapı University, Faculty of Economics, Administrative and Social Sciences,
Department of New Media and Communication, TURKEY

²Res. Asst., Istanbul Topkapı University, Faculty of Economics, Administrative and Social Sciences, Department of New
Media and Communication, TURKEY

E-mail: ¹barisbulunmaz@topkapi.edu.tr, ²ramazanbilge@topkapi.edu.tr

Abstract - The development of technology and the diversification of communication methods have created rapid changes in the dynamics of business and social life. While the ways of doing business in business life and the methods of reaching the end consumer or user of the product and service differ, on the other hand a situation has been encountered in the behavior patterns of individuals and in the processes of mutual interaction, far from the habits of the past years in social life. Especially with the completion of the adaptation process in a very short period of time that a reality independent of the time and place created by internet technologies, the opportunity to reach the produced content and information from different platforms has emerged. The existence of this situation, which can be defined as new media from a wide perspective, has enabled almost all buyers and senders or producers and consumers to communicate with each other simultaneously. This new order has affected all the countries of the world and all the sectors in business life there. The pandemic, announced by the World Health Organization in March 2020, has accelerated the digitalization process even more. The education sector has also been one of the sectors most affected by the reflections of this digitalization. In this paper, a research conducted on the distance education methods implemented in universities in Turkey and the advantage of university students in terms of efficiency during the pandemic process, and the obtained data were analyzed from different perspectives.

Keywords - Education, Covid-19, University, Efficiency, E-Learning.

I. INTRODUCTION

The Covid-19 pandemic, which has affected the whole world and, unlike the recent epidemics, has shown its effect in all continents and geographies, causing more than 300 million people to get sick and more than 5.5 million people to die; after the first death in the city of Wuhan, People's Republic of China in January 2020, it was declared as a global epidemic by the World Health Organization on March 11, 2020. Over a year, all countries have taken decisions within the framework of their own policies and have tried to protect themselves from the negative effects of the epidemic through various practices ranging from full closure to partial closure. While this process was going on, there were great upheavals in the axis of national economies, capital markets, monetary policies, supply chains, production methods and international politics due to the cessation of life. The crisis processes experienced in all sectors involved in business life, from agriculture to industry, from banking to education, from automotive to fast moving consumer goods sector, necessitated the implementation of strategies put forward by new and dynamic decision-making processes. As a natural consequence of a period when people reduced contact with each other, moved away from indoor and outdoor spaces, and stayed at home, the education sector became one of the sectors most affected by this process. Regardless of being a public or private institution, all educational institutions, from pre-school to higher education, have moved their educational practices to virtual environment as much

as digital opportunities provided, in order to be minimally affected by the devastating effects of the Covid-19 pandemic. In Turkey, face-to-face education applications were put on hold, and distance education applications were made by using all the opportunities of digital technologies in order not to disrupt the education process of individuals of all ages and to continue education-training activities. In this research, after the pandemic in university education in Turkey was declared by the World Health Organization as a global epidemic since March 2020, it is aimed to reveal the methods by which distance education practices in universities have been carried out and to determine to what extent university students, who are the most important part of this process, have benefited from these practices.

II. LITERATURE REVIEW

The Covid-19 pandemic, which emerged in the spring of 2020, has affected the world in an unprecedented way. Families were frightened by the news of death coming from almost every part of the world, and the hospitals were full [1]. The effects of the epidemic were not only limited to the field of health, but also created short and/or long-term negative effects in all sectors. Especially educational institutions have started to change their current dynamics by trying to keep up with the new order created by the pandemic. Due to restrictions and measures, educational institutions have entered the distance education process. Especially since the fall of 2020, education has been carried out completely or partially online

[2]. It would be wrong to evaluate the actions taken as short-term solutions against the pandemic period, because it is possible to say that long-term studies were already carried out due to the digital revolution before the pandemic period. In this context, the main issue to be looked at is not the methods of education during the pandemic period, but the level of efficiency achieved by the students in this period, who are trying to adapt quickly.

Covid-19 has created many obstacles such as educational efficiency, financial and social aspects of universities. In this period, the restrictions brought to ensure the safety of academic and administrative staff and students greatly limited the realization of other basic services/activities. Staff dismissals, reduced salaries, closure of academic programs/departments are just some of these restrictions [3]. As it can be seen, the education-teaching process during the pandemic period affected not only institutions but also students and educators. In this period, institutions that switched to online education resorted to different ways to maintain and increase educational efficiency. In online education, when factors such as content acquisition-creation, collaborative learning, age of institutions, academic backgrounds of institutions and predisposition to online education [4] are taken into account, it is not possible to say that every institution has adapted to the pandemic period at the same level. For this reason, it is worth emphasizing that the measures taken for the “urgent distance education” call announced to educational institutions around the world with the pandemic period should increase/protect the efficiency of institutions, educators and most importantly students. In this context, UNESCO Turkey National Commission shared ten suggestions in order to carry out the distance education process more efficiently and healthily during the pandemic period [5]:

- Make the appropriate choice of means, observing the state of preparation
- Make sure that the distance education programs prepared are inclusive
- Take precautions to protect data privacy and security
- Prioritize solutions to psycho-social challenges before teaching
- Create a timeline for distance education programs
- Provide educators and families with the necessary support for the use of digital tools
- Blend appropriate approaches and limit the number of applications and platforms
- Develop rules for distance learning and monitor students' learning progress
- In distance education, determine the duration of the lessons in accordance with the skills of the students
- Build communities and improve connectivity

It can be said that the items explained above include the measures that institutions should take for a smooth application of the distance education process and the measures related to the adaptation of educators, families and students to the process. Considering the importance of digital technologies during the pandemic period, the reliability of local power sources, internet connection, and most importantly, the digital skills of educators and students can be considered as determining factors for a healthy distance education process. Hence, supporting actions such as integrated digital learning platforms, massive online courses or broadcasting via television should be taken to make distance education more efficient. At this point, some of the students may have problems accessing digital tools. In order to minimize or eliminate this problem, it is of great importance for educational efficiency to bring a solution that includes low-income families and distance education programs that include every student.

Since the education process takes place in digital environments during the pandemic period, a great deal of attention should be paid to data security when sharing any data or uploading educational resources to the web with other individuals and organizations. It is particularly necessary to ensure that students do not neglect data privacy while using the applications or platforms. In addition, use of digital media has brought along a process that causes students to be isolated from social environments. Therefore, creating environments that can keep educational institutions, parents, educators and students in interaction is necessary both for overcoming psycho-social difficulties more easily and protecting/increasing educational efficiency.

In order to maintain educational efficiency and provide maximum benefit to students, synchronous and asynchronous learning tools and environments need to be identified. Directing students to different platforms can be confusing and reduce productivity. For this reason, determining simple environments without overloading students and continuing their education from the environments determined throughout the process can be seen as a positive step for both institutions and students. In this process, students can be asked for feedback prior to, during and afterwards. In line with the feedback received, improving actions can be taken for students to use the system and to progress more efficiently in the learning process.

With the onset of the pandemic, the rapid transition to distance education has also brought the concept of “urgent distance education” to the surface. In this process, it has been an important question mark for researchers whether the students and the learning process are sufficiently focused while applying emergency distance education. Support communities formed by states and educational institutions have shared their knowledge and experience in order to

realize an efficient and meaningful education-teaching process. However, another problem that existed before the pandemic and has become more evident in this period: Digital Abyss. It has been observed that many of the students suffer from a lack of access to digital technologies and educational opportunities offered during the pandemic period. Therefore, expanding student participation and ensuring social equality in order to increase student productivity in distance education is also very important for the next possible new pandemic periods [6]. One of the most important duties of the states, the institutions to which the students are affiliated and even the parents is to increase the technological opportunities that students have at their homes. In this sense, it is important for the states to facilitate access to technological tools such as computers, internet and smart phones in order to eliminate the existing limits that may occur in distance education.

The measures taken for the difficulties encountered in distance education during the pandemic period should also be inclusive for the new challenges awaiting the world. Blending and sustaining face-to-face and online learning activities, and the effective use of multiple learning approaches in learning systems are very important for the education system of the future. In parallel with the development of technology, new digital tools and methodologies should be introduced to the academic staff of the institutions. In other words, the appropriate transformation of digital mindsets into developments, can be considered a prerequisite for making online learning more integrative. Similarly, the importance of investing in cloud services in order to increase the quality of education and ensure that students reach the highest level of efficiency in the education process is emerging [7]. As a result, there has been a process in education that both institutions, educators, students and parents have not encountered before. Everyone has a great responsibility to ensure that the professional success of the students continue to increase and to ensure the continuity of the efficiency in the lessons. It should not be forgotten that in order to eliminate the loss of learning, it is necessary to adapt to the digitalization process, to be open to all kinds of innovations to ensure digital equality, and to ensure access to resources for everyone.

III. RESEARCH METHODOLOGY

In this research, it is aimed to pin down which methods are used in distance education applications in universities in Turkey and to determine the extent to which university students who are in the most critical place of this process have benefited from these applications and achieved efficiency. In this context, the question that “What is the efficiency level of university students, who are the recipients of distance education applications created by the pandemic process?” has been asked. Then, a sample

was formed from 58 universities in Istanbul among 207 universities in Turkey, which constitute the main body of the research project. In choosing the sample of the research as universities in Istanbul; reasons such as Istanbul reflecting a picture of the whole of Turkey due to its cosmopolitan structure, having students from every city of the country, Istanbul hosts the highest number of higher education institutions in Turkey in terms of the number of both state and foundation universities/foundation vocational schools, were particularly influential. While creating the sample of the research, 1.604 students were taken as a sample group accounting for a two-thousandth ratio out of a total of 802.131 students who are taking part in daytime and evening education. In this context, in order to obtain both qualitative and quantitative data and to evaluate the analysis process in a meaningful integrity, a questionnaire was created with an objective to determine the efficiency of online education process for university students and the questionnaire was applied to the students. The questionnaire applied to the students was structured entirely to determine the extent to which university students benefited from distance education applications, the problems they encountered and the efficiency they achieved. Thus, in accordance with the purpose of the research, a data is obtained in each component of the distance education process and thanks to the data obtained, processed and analyzed, it has been possible to make meaningful, valid and reliable determinations about how the distance education process is carried out and the level of efficiency achieved during this process.

While these question groups were being structured, 57 propositions were prepared within the scope of student evaluations in the distance education process during the pandemic period. Participants responded to the propositions asked to them within the scope of the study by choosing one of the options “Strongly Disagree: 1, Disagree: 2, Undecided: 3, Agree: 4, Totally Agree: 5” within the framework of the 5-point Likert Scale.

IV. RESULTS

The survey form for measuring the productivity level of university students in distance education applications, the findings obtained from the eighteenth, twentieth, twenty-first, fortieth, forty-first, forty-second, forty-fourth, forty-fifth, forty-sixth and fifty-seventh propositions were evaluated.

	Frequency	Percent
Strongly Disagree	236	14,7
Disagree	211	13,2
Undecided	289	18,0
Agree	400	24,9
Totally Agree	468	29,2
Total	1604	100,0

Table1: “The lessons were more comfortable in distance education”

In the eighteenth proposition, “The lessons were more comfortable in distance education”, the majority of the students think that the lessons in distance education were more comfortable compared to face-to-face education. During the distance education process, the course durations have been revised in accordance with the online environment. Therefore, the lessons were shorter than in face-to-face education. At the same time, the fact that the students were able to participate in the lesson from home or any environment they were in, without wasting their time on the road or changing the physical environment, was effective in thinking that the lessons were comfortable. In addition, it can be said that educators are more understanding and flexible towards students in this process, as distance education has been switched due to the Covid-19 pandemic that has affected the whole world.

	Frequency	Percent
Strongly Disagree	137	8,5
Disagree	196	12,2
Undecided	317	19,8
Agree	460	28,7
Totally Agree	494	30,8
Total	1604	100,0

Table2: “I think I have a deficiency in applied courses”

In the twentieth proposition, “I think I have a deficiency in applied courses”, the majority of students think that they have a deficiency in applied courses. It has become extremely difficult or not possible for some departments and courses to conduct applied courses in the distance education process. For this reason, students think that they have a deficiency in these lessons due to the fact that practical lessons cannot be carried out as efficiently as in face-to-face education. Practical lessons, in which physical participation is so important that it cannot be ignored, seem to have been greatly affected by the negativities of the pandemic period, and this seems to have prevented students from gaining experience.

	Frequency	Percent
Strongly Disagree	306	19,1
Disagree	322	20,1
Undecided	305	19,0
Agree	379	23,6
Totally Agree	292	18,2
Total	1604	100,0

Table3: “I think I have a deficiency in theoretical lessons”

In the twenty-first proposition, “I think I have a deficiency in theoretical lessons”, the opinions of the students about whether they have deficiencies in theoretical lessons have very close ratios to each other. Theoretical courses are more suitable for the distance education process compared to the applied courses. However, the students think that they have deficiencies in the theoretical lessons in terms of the

competence of the instructor, communication methods, whether he or she has used an interactive method and the course functioning.

	Frequency	Percent
Strongly Disagree	437	27,2
Disagree	403	25,1
Undecided	399	24,9
Agree	207	12,9
Totally Agree	158	9,9
Total	1604	100,0

Table4: “I think that the trust between the educator and the student is strengthened during distance education”

In the fortieth proposition “I think that the trust between the educator and the student is strengthened during distance education”, the majority of the students think that the trust between the educator-student is not strengthened during the distance education. In the distance education process, unlike face-to-face education, the social and direct communication between the educator and the student has been interrupted. No matter how much the instructors kept the communication channels open or shared their personal contact information with the students, they could not prevent communication breakdowns and interaction problems from time to time. Therefore, when the fact that students who focus only on passing the courses stated that they cheat easily in exams is taken into account, it is seen that they do not have a positive opinion about strengthening their trust with the educator. The high rate of undecided people on the subject suggests that personal experiences predominate and that there are different opinions about the instructors.

	Frequency	Percent
Strongly Disagree	174	10,8
Disagree	247	15,4
Undecided	389	24,3
Agree	458	28,6
Totally Agree	336	20,9
Total	1604	100,0

Table5: “The resources shared in the digital environment were quite efficient”

In the forty-first proposition, “The resources shared in the digital environment were quite efficient”, the majority of students think that the resources shared in the digital environment are efficient. However, the rate of those who state that they are undecided about this proposition is not to be underestimated. While the students who benefited from online resources both in terms of courses and within the framework of their personal interests gave a positive response, students who did not benefit from any resources shared in the digital environment tended to state that they were undecided because they did not have an opinion. This situation shows that distance education applications should be handled within their own

ecosystem and the importance of integrating digitalization into the practice of education processes.

	Frequency	Percent
Strongly Disagree	659	41,1
Disagree	302	18,8
Undecided	269	16,8
Agree	168	10,5
Totally Agree	206	12,8
Total	1604	100,0

Table6: "I think it is necessary to switch to a completely distance education application in the ongoing process"

In the forty-second proposition, "I think it is necessary to switch to a completely distance education application in the ongoing process", students do not favor the transition to a completely distance education application in the ongoing process. Considering that the students are generally not able to achieve efficiency in both applied and theoretical courses, it is seen that they have a negative opinion against conducting education entirely online.

	Frequency	Percent
Strongly Disagree	348	21,7
Disagree	234	14,6
Undecided	342	21,3
Agree	308	19,2
Totally Agree	372	23,2
Total	1604	100,0

Table7: "I would like the theoretical lessons to be done remotely and the applied lessons face-to-face in the ongoing process"

In the forty-fourth proposition, "I would like the theoretical lessons to be done remotely and the applied lessons face-to-face in the ongoing process", the rates are close to each other. It is seen that the students who partially express a positive opinion on the continuation of distance education support the separation of theoretical courses and practical courses to be carried out remotely and face-to-face respectively. While theoretical courses are considered more suitable for distance education, students also reported that the effect of not being able to practice in applied courses is negative.

	Frequency	Percent
Strongly Disagree	339	21,1
Disagree	310	19,3
Undecided	541	33,7
Agree	225	14,0
Totally Agree	189	11,8
Total	1604	100,0

Table8: "The institution where I studied took the necessary actions for practical lessons during the distance education process"

In the forty-fifth proposition, "The institution where I studied took the necessary actions for practical

lessons during the distance education process", the high rate of undecided people and the low number of participants are striking. In terms of applied courses, it is accepted by both academicians and students that distance education systems are insufficient, ineffective and create obstacles to teach these courses. When it comes to applied courses, students reported that they were undecided considering the institutions they were educated in. The reason for this is that no guiding regulation has been put into practice on how to implement the practices included in the applied courses during this pandemic process where there are ambiguities and uncertainties. Institutions seem to be left to their own fate. As seen in the universities participating in the study, it can be thought that although universities must take similar actions, they implement the practices according to their own calendars or with different methods. Students' preference for distance education seems to be 'understandable' from their own point of view for reasons such as passing classes more easily, spending more time for themselves, and being more economical, however, students may not be able to decide which side of the scales weighs more, considering that distance education is inefficient for applied courses and may have selected the "I am undecided" option.

	Frequency	Percent
Strongly Disagree	500	31,2
Disagree	296	18,5
Undecided	461	28,7
Agree	171	10,7
Totally Agree	176	11,0
Total	1604	100,0

Table9: "Applied courses in distance education were productive"

In the forty-sixth proposition, "Applied courses in distance education were productive", the majority of students think that applied courses in distance education are not productive, while the rate of those who are undecided is at a substantial level. Students who were undecided about taking the necessary actions for the applied courses in the distance education process in the institution where they were educated also expressed undecided or negative opinions about the efficiency of the applied courses in distance education. This situation seems to support the answers, ratios and explanations given to the previous proposition very clearly.

	Frequency	Percent
Strongly Disagree	184	11,5
Disagree	138	8,6
Undecided	489	30,5
Agree	309	19,3
Totally Agree	484	30,2
Total	1604	100,0

Table10: "I did not have the opportunity to practice applied classes during the distance education process"

The answers to the fifty-seventh proposition “I did not have the opportunity to practice applied classes during the distance education process” were one of the answers that indicated the highest percentage of decisiveness among the answers to all the propositions. In addition, the rate of those who agree with the proposition is at a very high level. In applied courses, it is extremely important that applications can be made by students in distance education processes, and that information and what has been learned can be put into practice. The fact that applied courses have a different formation due to their nature and bring with them the necessities of experience cause students to have a negative perception about applied courses in the distance education process.

V. CONCLUSION

When a general evaluation is made in terms of the efficiency obtained by university students from distance education applications, it can be said that it is very difficult to make a clear distinction between black and white, and the existence of a surface covered by gray areas is dominant. Students have a negative opinion, especially due to the decrease in the socialization process, the disappearance of mutual interaction, and the feeling of alienation from the identity of being a university student. However, it is seen that they tend to have a positive view in terms of increasing the time they devote to themselves, being able to work in a job outside the university, and bringing the economic parameters to more controllable levels. On the other hand, depending on factors such as the methods of controlling the communication processes of the academicians, the content of the course, the way the course is taught, the integration of digital factors, the use of digital resources, the students' views on the courses and the efficiency of the courses have become more prominent. For this reason, it is thought that students make evaluations that dominate the subjective side of a particular situation through individual examples and experiences, rather than views that will fall into a general concept. In addition, it can be said that the thick line between theoretical courses and applied courses has become much clearer, and when it is considered in terms of assessment and evaluation methods, the idea of 'easy' comes to the fore against the exams and grading system, therefore the perception of 'passing the course' rather than learning. In short, as a result of this study, in which many different components are handled together and melted in the same pot, suggestions for increasing efficiency and creating a more qualified education culture in the distance education process, which can be considered as the manifesto of the research, are given below:

- Not treating distance education units as just a 'Center' within universities, ensuring employment of personnel who can meet the workload in terms of human resources

- Strengthening the technical infrastructure, especially making institutional investments to increase the speed of internet data flow
- Based on the fact that the priority is to increase the quality of educational activities, creating a coordinated integration for the use of different digital platforms instead of the necessity of using a centralized system
- In accordance with a matrix management approach, the control mechanism is effectively programmed and transparent principles are determined in a much more concrete way
- For the teaching of the lessons, within the framework of ethical values, the application of the inspection and control mechanism with a majoritarian understanding
- Consideration of examination methods, grading styles and course passing criteria together with the function of 'learning' and institutional effort to internalize the responsibility that should come to the fore
- Establishing universal principles based on knowledge and emphasizing the understanding of 'we' for cooperation between universities
- Determining and implementing concrete criteria to increase the digital competencies of academics
- To reveal the differences between distance education practices and face-to-face education methods more clearly and to create a comprehensive education program for the creation of digital content
- Carrying out studies for the institutionalization of ethical principles for both academic and administrative staff and students, and creating a more functional and multi-participant strategy for the establishment of the legal infrastructure
- Developing systems that will increase students' awareness of the course in terms of theoretical courses and applied courses
- Revising the course contents in a way that is suitable for mutual interaction in the courses
- Reconstructing the fictional arrangement of watching, using and sharing the lecture recordings
- Being aware of the advantages and disadvantages of distance education and adopting a one-sided approach will contribute to the creation of institutional memory
- Internalizing that the requirements and competencies of the digital world will be formed much more efficiently, not by creating a culture of objection, but by disseminating the culture of discussion
- Finally; being aware of the difficulties of creating the advantages and aura of the social environment created by face-to-face education in distance education, but considering the 'luxury' of being independent of time and space, brought by digitalization, within a strategic plan to create both an individual and an institutional unity,

strive for multi-dimensional and multi-layered practice so that an integrative culture can be established rather than exclusionary.

REFERENCE

- [1] Holland, C., Chappel-Aiken, L., Tyson, T., & Sherrod, D. "COVID-19 Challenges: Lessons Learned in an HBCU Nursing Education Program", *Journal of Best Practices in Health Professions Diversity*, vol. 14, no. 1, pp. 82-92, 2021.
- [2] Badiru, A. "A Vision for Engineering Education Post-Covid-19", *ASEE Prism*, vol. 30, no. 2, p. 46, 2020.
- [3] Kelly, A. P., & Columbus, R. *College in the Time of Coronavirus: Challenges Facing American Higher Education*. USA: American Enterprise Institute, 2020.
- [4] Badia, A., Garcia, C., & Meneses, J. "Approaches to Teaching Online: Exploring Factors Influencing Teachers in a Fully Online University", *British Journal of Educational Technology*, vol. 48, no. 6, pp. 1193-1207, 2017.
- [5] UNESCO Turkish National Commission. (2020). "10 Suggestions for Planning Distance Education Solutions", Accessed 13 July, 2022, Retrieved from <http://www.unesco.org.tr/home/AnnouncementDetail/1453>.
- [6] Bozkurt, A., & Sharma, R. C. "Emergency Remote Teaching in a Time of Global Crisis due to Coronavirus Pandemic", *Asian Journal of Distance Education*, vol. 15, no. 1, pp. I-VI, 2020.
- [7] Rof, A., Bikfalvi, A., & Marques P. "Pandemic-accelerated Digital Transformation of a Born Digital Higher Education Institution: Towards a Customized Multimode Learning Strategy", *Educational Technology & Society*, vol. 25, no. 1, pp. 124-141, 2022.

★ ★ ★