

THE COLLEGE EXPERIENCES OF THE UNDERGRADUATE STUDENTS
AND ACADEMICS BEFORE AND AFTER COVID-19: A
PHENOMENOLOGICAL INQUIRY

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY
NİLAY CANBOLAT

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN
THE DEPARTMENT OF CURRICULUM AND INSTRUCTION

AUGUST, 2024

Approval of the thesis:

**THE COLLEGE EXPERIENCES OF THE UNDERGRADUATE
STUDENTS AND ACADEMICS BEFORE AND AFTER COVID-19: A
PHENOMENOLOGICAL INQUIRY**

submitted by **NİLAY CANBOLAT** in partial fulfillment of the requirements for the degree of **Doctor of Philosophy in Educational Sciences, Curriculum and Instruction, the Graduate. School of Social Sciences of Middle East Technical University** by,

Prof. Dr. Sadettin KİRAZCI
Dean
Graduate School of Social Sciences

Prof. Dr. Zeynep SÜMER
Head of Department
Department of Educational Sciences

Prof. Dr. Cennet ENGİN
Supervisor
Department of Educational Sciences

Examining Committee Members:

Assoc. Prof. Dr. Gülçin TAN ŞİŞMAN (Head of the Examining Committee)
Hacettepe University
Department of Educational Sciences

Prof. Dr. Cennet ENGİN (Supervisor)
Middle East Technical University
Department of Educational Sciences

Assoc. Prof. Dr. Pervin Oya TANERİ
Middle East Technical University
Department of Educational Sciences

Assoc. Prof. Dr. Dürdane LAFÇI TOR
Erciyes University
Department of Educational Sciences

Dr. Elif ÖZTÜRK
Middle East Technical University
Department of Educational Sciences



I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name: Nilay CANBOLAT

Signature:

ABSTRACT

THE COLLEGE EXPERIENCES OF THE UNDERGRADUATE STUDENTS AND ACADEMICS BEFORE AND AFTER COVID-19: A PHENOMENOLOGICAL INQUIRY

Canbolat, Nilay

Ph.D., Department of Educational Sciences

Supervisor: Prof. Dr. Cennet Engin

August 2024, 324 pages

This study aimed at investigating college experiences of the undergraduate students and academics before and after Covid-19. To this end, a qualitative phenomenological study was carried out. In-depth interviews were conducted with 32 academics and 55 undergraduate students from nine departments at the Faculty of Arts and Science, who were selected by purposeful sampling and maximum variation sampling strategies. The data was analyzed by interpretive analysis.

The findings of the study shed light into the effects of Covid-19 on academic and nonacademic college experiences and provided implications for future practice and research. Both academic and nonacademic college experiences were significantly affected by Covid-19. Being caught unprepared for online learning, the university struggled to cope with that shift in terms of instructional practices. Due to the lack of interaction with the faculty and their peers/colleagues as well as adequate technological equipment and infrastructure, the students and academics had difficulty in managing online learning. Besides that, university atmosphere was affected dramatically. Interrupting the cultural transfer from seniors to freshmen and depriving the students from the campus life, the interaction out of class and extracurricular activities, online learning caused the loss of collective consciousness and sense of belongingness to the departments and the university. As a result, the views of the

students and academics regarding the nature of the university changed due to online learning.

Keywords: Covid-19, Higher Education, University, College Experiences, Emergency Remote Teaching



ÖZ

LİSANS ÖĞRENCİLERİ VE AKADEMİSYENLERİN COVID ÖNCESİ VE SONRASI ÜNİVERSİTE DENEYİMLERİ: BİR FENOMENOLOJİ ÇALIŞMASI

Canbolat, Nilay

Doktora, Eğitim Bilimleri Bölümü

Danışman: Prof. Dr. Cennet Engin

Ağustos 2024, 324 sayfa

Bu çalışma, Covid-19 öncesi ve sonrası lisans öğrencilerinin ve akademisyenlerin üniversite deneyimlerini incelemeyi amaçlamaktadır. Bu amaçla, çalışmada nitel araştırma yaklaşımı çerçevesinde fenomenoloji (olgubilim) araştırma deseni uygulanmıştır. Fen-Edebiyat Fakültesindeki dokuz bölümden, amaçlı örneklem ve maksimum çeşitlilik örneklem stratejileri ile seçilmiş 32 akademisyen ve 55 lisans öğrencisiyle derinlemesine görüşme yapılmıştır. Veriler yorumlayıcı analiz yöntemiyle incelenmiştir.

Çalışmanın sonuçları, Covid-19'un akademik ve akademik olmayan üniversite deneyimlerine etkilerini ortaya koymuş, ve gelecekteki uygulama ve araştırmalar için çıkarımlar sağlamıştır. Hem akademik hem akademik olmayan üniversite deneyimleri önemli ölçüde etkilenmiştir. Çevrimiçi öğrenime hazırlıksız yakalanan üniversitenin, öğretim uygulamaları açısından bu geçiş ile başa çıkmakta zorlandığı ortaya çıkmıştır. Fakülte üyeleri ve akranlarıyla etkileşim eksikliği yaşamının yanı sıra yeterli teknolojik donanım ve altyapının olmaması nedeniyle öğrenciler ve akademisyenler çevrimiçi öğrenimi yönetmekte sıkıntı yaşamıştır. Bunun yanı sıra, üniversite atmosferi dramatik bir şekilde etkilenmiştir. Çevrimiçi öğrenim, üst sınıflardan alt

sınıflara kültürel aktarımın kesintiye uğramasına ve öğrencilerin kampüs yaşamı, sınıf dışı etkileşim ve ders dışı faaliyetlerden mahrum kalmasına neden olmuştur. Bu da kolektif bilincin ve bölümler ile üniversiteye olan aidiyet hissinin kaybolmasına sebebiyet vermiştir. Neticede, öğrencilerin ve akademisyenlerin üniversitenin doğasına dair algıları, çevrimiçi öğrenme nedeniyle değişmiştir.

Anahtar Kelimeler: Covid-19, Yükseköğretim, Üniversite, Üniversite Deneyimleri, Acil Uzaktan Öğretim





To My Sun, Mete Güneş

ACKNOWLEDGEMENTS

This dissertation is a product of full of enlightening yet grueling process which was empowered by many. I owe a thank you for all of the people who made this product possible for me.

First and foremost, I am grateful to my family as I would not have been able to complete this dissertation without the help, support and encouragement of my beloved mother, Fehime, my father, Halil, my sister, Nilcan and my brother, Yusuf.

I would like to extend my sincerest gratitude to my supervisor, Prof. Dr. Cennet ENGİN for her guidance, unwavering encouragement, and understanding throughout this research. Her illuminating comments and suggestions have shaped my dissertation. I have learned so much from her throughout the process.

Besides my supervisor, I thank thesis follow up committee members Assoc. Prof. Dr. Gülçin TAN ŞİŞMAN and Assoc. Prof. Dr. Pervin Oya Taneri, and the members of the jury Assoc. Prof. Dr. Dürdane Lafçı Tor and Dr. Elif Öztürk for their constructive feedback, comments and valuable recommendations that increased the quality of this study. I also thank to my friend Dr. Özlem Yıldırım Taştı for her enlightening guidance and encouragement.

I owe a sincere thanks to all the participants for their contributions by sharing their perceptions, devoting their time, and welcoming me to do my research.

Special thanks go to my dearest friends, Elif Göy, Öznur Alver and Dilek Demirtaş for their encouraging words, feedback and thoughtful criticism, and to my mentors in life Belgin Yasionoğlu and Nil Uzun for their guidance and support. I also thank my colleagues, Dilek Kaya Bakay and Özlem Duran Atalp, for making this thesis reader friendly. I am very grateful for all their support and friendship.

Finally, my deepest thanks are to my lovely son, Mete Güneş, for being my

inspiration, light and motivation from the beginning to the end in this journey. Your smile made me continue this endeavor even during the times I was exhausted and lost my motivation to study. I hope I can make up for lost time and give you all my love, my son.



TABLE OF CONTENTS

PLAGIARISM	iii
ABSTRACT	iv
ÖZ	vi
DEDICATION	viii
ACKNOWLEDGEMENTS	ix
TABLE OF CONTENTS	xi
LIST OF FIGURES	xv
LIST OF ABBREVIATIONS	xvi
CHAPTERS	1
INTRODUCTION	1
1.1. Background to the Study	1
1.2. Purpose of the Study	5
1.3. Significance of the Study	6
1.4. Definitions of the Terms	8
REVIEW OF THE LITERATURE.....	9
2.1. The Concept of University	9
2.1.1. The History of University in Türkiye	20
2.2. College Experiences.....	24
2.2.1. Academic College Experiences.....	33
2.2.1.1. Instructional Practices	33
2.2.1.2. Technology-based Instructional Strategies	38
2.2.1.3. Emergency Remote Teaching	47
2.2.2. Nonacademic College Experiences.....	49
2.3. The Effects of Covid-19 on College Experiences.....	50

2.3.1. The Effects of Covid-19 on College Experiences at Turkish Universities.....	57
2.4. Summary of the Literature Review	61
METHODOLOGY	64
3.1. Research Design.....	64
3.2. Context of the Study.....	65
3.3. Participants	66
3.4. Data Collection Instrument	71
3.5. Data Collection Procedures	72
3.6. Data Analysis	74
3.7. Trustworthiness	79
3.7.1. Credibility.....	81
3.7.2. Transferability	82
3.7.3. Dependability and Confirmability.....	83
3.8. The Role of the Researcher	83
3.9. Ethical Issues.....	84
3.10. Limitations of the Study	85
FINDINGS	87
4.1. The Change in Academic College Experiences of Undergraduate Students and Academics Before and After Covid-19	88
4.1.1. Instructional Practices	88
4.1.2. Characteristics of Students Affecting Academic College Experiences ..	131
4.1.3. Characteristics of Academics Affecting College Experiences.....	153
4.1.4. Views of the Undergraduate Students and Academics Regarding Online Education.....	172
4.2. The Change in Nonacademic College Experiences of Undergraduate Students and Academics Before, During, and After Covid-19	194
4.2.1. University Environment	194

4.2.2. Views of the Undergraduate Students and Academics on The Changing Nature of the University.....	219
4.3. Summary of the Findings	230
4.3.1. Academic College Experiences of the Undergraduate Students and the Academics before, during, and after Covid 19	230
4.3.1. Nonacademic College Experiences of the Undergraduate Students before, during, and after Covid 19	232
DISCUSSION	234
5.1. Discussion of the Findings	234
5.1.1. Academic College Experiences of the Undergraduate Students and Academics Before and After Covid-19.....	234
5.1.2. The Nonacademic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19.....	251
5.2. Implications for Practice	256
5.3. Recommendations for Further Research	260
REFERENCES.....	262
APPENDICES	284
A. SEMI-STRUCTURED INTERVIEW QUESTIONS FOR STUDENTS	284
B. SEMI-STRUCTURED INTERVIEW SCHEDULE FOR ACADEMICS.....	286
C. HSEC APPROVAL FORM	288
D. INFORMED CONSENT FORM	289
E. INITIAL THEMES, CATEGORIES AND CODES	290
F. MEMBER CHECK FORM	298
H. CURRICULUM VITAE	299
I. TURKISH SUMMARY/TÜRKÇE ÖZET	300
J. THESIS PERMISSION FORM/TEZ İZLEME İZİN FORMU	324

LIST OF TABLES

Table 1 Types of Universities according to Imaginative Structures	11
Table 2 Background Information of the Students Selected for the Study.....	68
Table 3 Background Information of the Academics Selected for the Study.....	70
Table 4 Timeline for the Study	73
Table 5 The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before and After Covid-19.....	188
Table 6 The Summary of the Nonacademic College Experiences of the Undergraduate Students and Academics Before and After Covid-19.....	228



LIST OF FIGURES

Figure 1 The World Bank View of the Phases of Reopening	2
Figure 2 Three Challenges of a Changing World to Be Addressed by Curriculum ..	14
Figure 3 The Relationship between Philosophical Approaches to Curriculum Design in HE and Conceptualization of HE Curriculum	15
Figure 4 Salmon's Five-stage Model of Teaching Online	44
Figure 5 Four Phases of Educational Response to Remote Teaching and Learning .	49
Figure 6 Data Analysis Process	79
Figure 7 An Excerpt from the Codebook Featuring Interview Data Analysis.....	80
Figure 8 Academic and Nonacademic College Experiences of the Undergraduate Students and Academics	87
Figure 9 Themes regarding the Academic College Experiences of the Undergraduate Students and Academics.....	88
Figure 10 Categories regarding Instructional Practices of the Undergraduate Students and Academics	89
Figure 11 Subcategories regarding Teaching and Learning Process	93
Figure 12 Subcategories regarding Measurement and Evaluation.....	113
Figure 13 Categories regarding Characteristics of Students Affecting Academic College Experiences.....	132
Figure 14 Categories regarding Characteristics of Academics Affecting Academic College Experiences.....	153
Figure 15 Themes regarding the Nonacademic College Experiences of the Undergraduate Students and Academics.....	194
Figure 16 Categories regarding the University Environment	194
Figure 17 Categories regarding the Changing Nature of University	220

LIST OF ABBREVIATIONS

- CoHE:** Turkish Council of Higher Education
GISAM: Audio-Visual Systems Research and Application Center
METU: Middle East Tehnical University
ÖGEM: Center for Advancing Learning and Teaching, and
UZEM: Distance Education Application and Research Center



CHAPTER 1

INTRODUCTION

This chapter presents the background to the study, purpose of the study together with research questions, significance of the study, and definitions of the terms relevant for this study.

1.1. Background to the Study

As of late April, 2020, Covid-19 has affected education in all levels dramatically and caused serious concerns to worldwide education systems and unscheduled closure of schools in 180 countries, leaving over one billion learners out of school (Di Pietro et al., 2020; Onyema et al, 2020; World Bank, 2020). This led to learning loss, increased dropouts, decreased access to education and research facilities, job losses and increased student debts as well as higher inequality especially in disadvantaged groups in every stage of education. As stated by the The Organization for Economic Cooperation and Organization (OECD) report, the already existing opportunity gap has extended due to the various factors like the differences of parental support, the capacity of different types of schools providing remote learning environments, and the differences among students' motivation and skills to learn independently and online (Reimers, 2020).

Under such serious circumstances, the continuity of education in all levels is accepted as a vital issue because education is a milestone for psychological and social security of human beings and the society as well as economic stability (Sultanova et al., 2021). In order to overcome the crisis, necessary steps are taken into consideration for solving urgent problems faced in the pandemic, and adapting to the new reality effectively as soon as possible becomes significant for countries and institutions. Considering the effect of this educational disruption on the future of generations and the prospects of the communities, the OECD published a report to support educational decision-making processes to develop and implement effective education responses to the pandemic (Reimers, 2020).

Other organizations like the UNESCO and the European Commission stated

the downsides of Covid-19 on education sector and the need for all stakeholders (educational institution, educators and learners) to implement technology and improve their digital skills with response to the developing global trends and realities in education. Thus, a blended /rotating learning system is suggested, but it necessitates a change in both the quantity and quality of the teaching capacity, a revision in the curriculum, the adaptation of younger students to this model especially for the online learning part, and the arrangement of the structure of many existing school buildings to maintain physical distancing (Di Pietro et al., 2020).

As for the World Bank (2020b), in order to deal with the effects of school closures, remote education needs to be adapted as a first step, and then, schools should turn crisis into opportunity by preventing dropout, guaranteeing healthy school conditions, and using new techniques to enable rapid learning recovery in crucial areas when students are back in school. As the school system becomes stable, countries can use the recovery period to “build back better” by not repeating the failures of the pre-Covid systems, but instead building toward enhanced systems and accelerated learning for all students. To deal with long term costs, World Bank proposed three overlapping steps of recovery: coping, managing continuity, and improving and accelerating.



*Figure 1 The World Bank View of the Phases of Reopening
(as cited in the World Bank, 2020b, p.19)*

In the first phase, coping, as countries tackle sudden school closures, the priority

is to keep student health and safety and to prevent learning loss (the World Bank, 2020b). Schools try to provide supplemental nutrition or cash transfer programs to prevent hunger, support emergency remote learning programs to decline learning loss, enable communication and targeted financial support for at-risk students to decrease dropout rates, and employ their universities and other post-secondary institutions to get technology support. In the second phase, managing continuity, systems ensuring schools' reopening safely, minimizing student dropout and starting learning recovery should be built up. In the third phase, recovering and accelerating, by seeing crisis as an opportunity, build back systems should be formed stronger and more equitable than before. As the perspectives of the stakeholders will change after the Covid-19, there will be awareness of the need for working collaboratively with schools, the necessity of narrowing equity gaps, a better understanding of the digital divide- the differences in access to necessary equipment and devices, and training teachers to gain digital skills. In order to seize the opportunity of building back better, integrating aforementioned phases into regular processes such as a more effective use of technology in remote-learning, early warning systems for hindering dropout, pedagogy and curriculum to teach at the right level and constructing basic skills, providing support, including socioemotional support, for parents, teachers and students are vital.

Analyzing the effects of Covid-19 specifically on higher education and explaining the actions taken by governments and institutions to ensure the right to higher education, the UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC) noted that approximately 23.4 million higher education students and 1.4 million teachers only in Latin America and the Caribbean are impacted by the temporary cessation, and this forms nearly more than 98% of the region's population of higher education students and teachers (UNESCO IESALC, 2020). Besides that, the International Association of Universities shed light to the impact of the pandemic on the development of higher education and its challenges, strengths and implications in global, European and national levels in Asia, Europe and North America (Sultanova, 2021). The report declared that almost all higher education institutions are affected by the pandemic and have to switch to distance learning despite the problems of inadequate technical infrastructure and computer literacy. In order to prolong the continuity of higher education, universities use technology and provide online classes and learning experiences as a substitute for in-class time, but

many of them have difficulty because they lack the experience and time necessary to deliver new ways of instruction and assignments.

Not only instruction but also examinations are affected, causing disruption to students' learning routes and development (Schleicher, 2020). Although many universities have conducted online courses before the pandemic, few students consider it as the only alternative to physical in-person learning, and especially international students seem to deal with the reality of online learning even after the reopening of schools. They also lose the advantage of international mobility like international exposure, access to a foreign job market and networking. The crisis also exposes the worth of universities since students give tuition fees and their time not to get online content but to meet great people, have inspiring conversations with faculty, collaborate with researchers in the laboratory and experience the social life on campus. Besides that, the stakeholders face academic immobility and lack of funding for international projects (Singh & Chander, 2020). Even top-ranking universities like Harvard and Massachusetts in the USA, and Oxford, Cambridge and London School of Economics in the UK are affected financially negatively as they are urged to shift the mode of instruction to online. For instance, India is the second largest source of international students after China, but the number of Indian students studying overseas like the USA, Australia, the UK and Canada mainly decrease sharply because of the pandemic even though.

Immediate effects of the pandemic on higher education can be documented, but its effects on the long run cannot be predicted as there are not enough references of similar crisis (UNESCO IESALC, 2020). However, it is clear that the functions of HEIs are disrupted by the temporary cessation globally, especially in terms of academic continuity and financial sustainability, leaving students with some critical questions in mind: how long it will last, what immediate impact will be on daily life, what the costs and financial burdens will be, and lastly how learning continuity and international mobility will be affected (2020). In addition to students, teachers are also disturbed by this shift as the continuity of teaching depends on a virtual modality, or even worse, some experience the termination contracts by universities. Not only the teachers but also non-teaching staff, especially in private universities, may face with the possible reduction in the number of jobs due to the financial reduction caused by the cancellation of fees or reduction in student enrollment. Therefore, the pandemic causes

more complexity to higher education, especially in the regions where growth without quality, inequities in access and achievement, and the progressive loss of public financing take place.

In an already changing world where universities try to keep their roles and functions along with adapting to the current trends, Covid-19 has affected universities dramatically by causing a shift to distance learning, and so disturbing the college experiences of the stakeholders. Considered as the vital aspects determining the process and effectiveness of higher education (Pace, 1984), college experiences, the events that occur in the college environment, are affected by this sharp transition which lead to the disturbance of the events and experiences in facilities like classrooms, libraries, laboratories, dormitories, student unions, gyms, stadiums, studios, galleries, theatres, and auditoriums as well as any experiences not linked to any physical setting like interaction with faculty members, participation in student clubs and organizations, student friendships, informal conversations, and various relationships. As a result, considering the mission of universities not only providing instruction but also creating new learning environments where students have a chance to fulfill the aforementioned needs, this study aims at investigating the academic and nonacademic college experiences of the undergraduate students and academics before and after the phenomena, stating the perceived strengths and weaknesses of educational measurements, exploring the perceived changing nature of university, and promoting future implications regarding university life. Thus, this study can be a road map for policy makers and curriculum specialists to sustain academic and nonacademic college experiences in such emergency and to provide a robust educational environment.

1.2. Purpose of the Study

This phenomenological inquiry is adopted to describe the change in the academic and nonacademic college experiences of the undergraduate students and academics before and after Covid-19, and the following research questions guided the study:

“How have college experiences of undergraduate students and academics changed before, during and after Covid-19?”

- a) How have academic college experiences changed before, during, and after Covid-19?
- b) How have nonacademic college experiences changed before, during, and after Covid-19?

1.3. Significance of the Study

College is as a valuable place for students to participate in academic and nonacademic activities with the help of various facilities and resources, which helps them achieve learning outcomes as well as improve their intrapersonal development and interpersonal communication skills (Bai et al, 2022). It contributes to students' moral development (Newman & Newman, 1978; Pace, 1984; Rest & Narvaez, 2014), identity formation (Chickering & McCormick, 1973; Newman & Newman, 1978), political and social attitudes (Lottes & Kurilof, 1994); and their intellectual and personal development through nonacademic college experiences (Pascarella et al., 2004). Therefore, university has a great impact on students, and the extent it affects depends on three variables (Newman & Newman, 1978): 1) the amount of student-faculty interaction, 2) the identity status of students and 3) the degree of fit between student values and the college values.

Affected dramatically by the rapid shift from face-to-face education to online learning in the pandemic, college experiences have changed due to the decrease in the amount of student faculty interaction. Depriving the students from aforementioned gains, the lockdown caused not only the prohibition of physical lectures but also the inapplicability of using facilities like libraries, laboratories, sports activities as well as the change in communication channels (Aristovnik et al., 2020; Cao et al., 2020). Therefore, it has changed not only academic experiences like instructional practices, the use of the library, contacts with faculty members, course learning, writing, and science laboratory, but also non-academic experiences such as using facilities on the campus, having the opportunities for students' interpersonal relations and self-understanding, attending clubs and organizations, student unions, athletic and recreation facilities, personal experiences, and student acquaintances. As a result, this study stemmed from the need to describe the changed academic and nonacademic college experiences of the undergraduate students and academics before and after Covid-19 in order to contribute to the possible implications on an effective university life in a possible case of emergency or in post Covid period.

Though there are several studies carried on college experiences during the pandemic in international literature (Adedoyin & Soykan, 2023; Aristovnik et al., 2020; Barbour et al., 2020; Bozkurt & Sharma, 2020; Cao et al., 2020; Gamage, 2020; Hodges et al., 2020; Karalis & Raikou, 2020; Popa et al., 2020; Tang et al., 2021;

Tulaskar & Turunen, 2021; Varshney, 2020), there are few addressing the changes in college experiences before and after Covid-19. The studies are carried on the challenges faced by the students and academics in emergency remote teaching and provided some suggestions regarding those challenges which are categorized under three themes: technological, pedagogical and social (Abdelfattah et al., 2023; Bao, 2020; Elfirdoussi et al., 2020; Ferri, 2020; Karasneh, 2021; Mahmood, 2021; Mishra et al., 2020; Popa et al., 2020; Tang et al., 2021). Pedagogical and technological challenges focusing on instructional practices can be considered as academic college experiences while social challenges can be seen as nonacademic college experiences faced in the pandemic. On the other hand, considering the Turkish context, the national literature indicates that there are several studies focusing on academic college experiences, specifically on instructional practices during Covid-19 (Altınsoy & Boyraz, 2022; Karademir et al., 2020; Saraç, 2021; Tosun, 2021). However, regarding the effect of the pandemic on nonacademic college experiences, there are fewer studies.

Taking the existing literature into consideration, the researcher in this study serves to fill in the gap in national and international context by bringing a more comprehensive and holistic outlook covering the change caused by Covid-19 regarding both academic and nonacademic college experiences in Türkiye. It also aims to investigate the phenomenon with all its aspects by revealing the perceived challenges and opportunities of these changes caused by Covid-19 on university education, identifying the perceived change in the nature of university before and after the pandemic, and providing suggestions for future implications of online learning so as to form more equitable and robust post-Covid education systems at university.

Another contribution of the study will be on methodology, which enables the description of this phenomenon in educational context and implications for further research. In literature, researchers utilize both quantitative and qualitative research methods to explore the effects of Covid-19 on university (Abdelfattah et al., 2023; Altınsoy & Boyraz, 2022). While the quantitative studies lack in-depth and rich description, the qualitative ones might not as comprehensive and scientifically grounded (Altınsoy & Boyraz, 2022). Thus, this study includes detailed description of the changes caused by the phenomena.

1.4. Definitions of the Terms

College Experiences: “the events that occur in the college environment. Many of these experiences stem from events and conditions which the college makes possible and which at least in some respects are intended to facilitate student learning and development” (Pace, 1984, p.7). Academic college experiences include cumulative credit hours, time spent studying, courses taken, college grades, course-related interactions with peers, academic effort/involvement, use of computers and reading and writing involvement, whereas nonacademic college experiences consist of work responsibilities, on or off-campus residence, participation in intercollegiate athletics, social organizations, non-course-related interactions with peers, extracurricular involvement and participation in volunteer work, and educational degree plans.

Higher Education: Higher education is an umbrella term used for higher learning institutions including the university. These higher learning institutions could be organized in different ways, usually within a university or in a separate institution like university and other tertiary learning institutions. Higher education denotes a more holistic resonance as it encompasses all post-secondary or tertiary institutions. Coming all forms of professional institutions, higher education is a systematized tertiary learning and training activities and institutions such as conventional universities (arts, humanities, and science faculties), more specialized university institutions (agriculture, engineering, science, and technology) and also post-secondary institutions (polytechnics, colleges of education, and “grandes école) (Assié-Lumumba, 2005).

University: University is part of higher learning institution that may reward a degree or some sort of credential. It embodies both a higher learning institution and a community of scholars or persons. As a higher learning institution, it carries men and women to a high level of intellectual growth, leads to high-level research and a community of persons engaged in study and research. A university is a source of universal knowledge and highly skilled human power for the professions (Assié-Lumumba, 2005).

Emergency Remote Teaching: An attempt not “to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis” (Hodges et al., 2020, 13).

CHAPTER 2

REVIEW OF THE LITERATURE

In this chapter, the philosophies behind the concept of university are discussed. Along with this, academic and nonacademic college experiences are presented and followed by research on the lived college experiences of the undergraduate students and academics before and after Covid-19 worldwide as well as in Turkish context. Lastly, summary of literature review is provided.

2.1. The Concept of University

“What are universities for?” has been a question asked by numerous scholars over the centuries. Are universities mainly for conducting research which also teaches students along the way, or for educating students while conducting research alongside? Could it be possible to balance and integrate these two in order to have a new ‘ecology’ for higher education (Barnett 2009)? As Barnett (2011) states, what it is to be an ‘authentic’ university in the twenty-first century should be considered, and what a university, department, research and programs of study to be should be questioned within the complex and interrelated ecology of political, social, economic and cultural constraints.

With the Daring Report on the future of higher education by National Committee of Inquiry into Higher Education (NCIHE) in 1997, the aims of higher education are stated, and higher education is accepted as the key factor for determining the security of economic well-being of the country in the 21st century as well as for students’ fulfilling their academic, personal, vocational and professional potential (Stephenson & Yorke, 2012). In knowledge-based economy, a person’s capabilities are considered as prerequisites, so a student-led and teacher-supported approach should be adapted in higher education curriculum.

In a 2009 report to UNESCO, Altbach et al. (2009) examined trends in higher education and concluded that the academic changes of the late 20th and early 21st centuries are at least as dramatic as those in the 19th century when the research university developed and fundamentally reshaped the nature of the university

worldwide. The developments in recent years are more extensive as they are actually global and affect many more institutions and populations. Participation rates increase, and so does diversity in the student population and the nature of the programs. As a result, universities become more concerned about improving teaching and sustaining quality assurance of teaching as well as specializing to cope with academic and ethnic diversity (Biggs & Tang, 2011).

At this point, it can be stated that the Bologna Process has necessitated the member countries of the European Union to create national qualification frameworks to outline learning outcomes at different degree levels, with quality assurance systems (Biggs & Tang, 2011). Committed to the Process, 47 European countries have decided to form a European Higher Education Area (EHEA) which aims at cooperating internationally and exchanging academically in order to enable the mobility of students, graduates and academicians. Having similar concerns, universities worldwide set up a national qualifications framework and adopt one form or another of outcomes-based teaching learning (OBTL) like EHEA. For each of undergraduate and graduate degrees, learning outcomes describing what learners should know, understand and do under each qualification are defined in order to assure the quality and equivalence of the degrees to provide credit transfers fairly.

On the other hand, the researchers (Biggs & Tang, 2011) admitted that the Process is clearly a significant phase to improve teaching and learning on a massive scale, across the whole of Europe, but there are drawbacks. One of the vital characteristics of the university, which is the pursuit of excellence, can be hindered by benchmarking and credit transfer. Another drawback is that even though the Process does not explicitly prescribe an outcome-based approach, by putting emphasis on student-centered learning and lifelong learning as well as defining learning outcomes of different degrees, it causes a paradigm shift towards a more learner-centered approach to teaching and learning, and curricula to be designed accordingly. A criterion-referenced assessment is adopted, and not only assessment tasks but also teaching and learning activities are aligned to the outcomes.

Barnett (2011, p.88) criticized the idea of the university in the 21st century by asking “Where is the imagination?”. He claimed that the concept of the university is impoverished and limited due the criteria set up and linked with the university. By trying to open out the idea of university depending on the shifts and conceptions over

time, a university restricts itself to an atmosphere where even debating on issues is not welcomed and creditable ideas cannot be formed. For the author, the idea of university stayed as the metaphysical university by a reflective inquiry of the relationship between humanity and God, the Universe, Truth or Spirit and/or the State for some hundreds of years. That conception brought up the concept of the research university and respectively that of the entrepreneur university. In turn, the concept of the corporate university popped up. What is not expected is that instead of enrichment and broadening, the concept of university is narrowed down in time abandoning the presence of the universe. It closes in ideologically by pursuing narrow interests like the service of a national learning economy, spatially by putting emphasis on the engagement of the industrial and business, and ethically by catering for its own interests. In order to overcome this condition and come up with an opening of ideas of the university, Barnett (2011) advised a recovery of imagination by proposing five adequacy criteria, and proposed the ecological university tested under these five adequacy criteria, which results in the generation of additional ideas of the university. He named some types of universities according to imaginative structures as below (p. 91-92):

Table 1
Types of Universities according to Imaginative Structures

The Historic University (Past Being)	<i>The metaphysical university</i>
	<i>The civic university</i>
	<i>The liberal university</i>
	<i>The service university</i>
	<i>The research university</i>
The Ideological (Present Being)	<i>The entrepreneurial university</i>
	<i>The enterprise university</i>
	<i>The business-facing university</i>
	<i>The European university</i>
	<i>The open university</i>
The Actual University (Critical)	<i>The bureaucratic university</i>
	<i>The corporate university</i>
	<i>The marketized university</i>
	<i>The commodified university</i>
	<i>The capitalist university</i>
	<i>The performative university</i>

Table 2
Types of Universities according to Imaginative Structures (Cont'd.)

The Emerging University	<i>The borderless university</i>
	<i>The liquid university</i>
	<i>The super complex university</i>
	<i>The virtual university</i>
	<i>The networked university</i>
	<i>The therapeutic university</i>
The Dystopian University	<i>The soulless university</i>
	<i>The subservient university</i>
	<i>The selfish university</i>
	<i>The self-important university</i>
The Utopian University	<i>The anarchic university (or the iconoclastic university)</i>
	<i>The authentic university</i>
	<i>The dialogical university</i>
	<i>The ecological university</i>
	<i>The chrestomathic university</i>
	<i>The wise university</i>
	<i>The virtuous university</i>
	<i>The theatrical university</i>

Bridges (2000) notes that the factors defining university such as the identity of place, the identity of time, the identity of the scholarly community and the identity of student community have been challenged over the last two decades. Thus, students' experiences of university and the kind of learning has started to take place outside the official curriculum compared to a traditional university setting such as Oxford and Cambridge. He claims that there are five competing contemporary epistemologies which will determine the future of the formal undergraduate curriculum of the 21st century and these are:

a) the deconstruction of the subject

The modularization of the curriculum has caused the deconstruction of the scope and nature of knowledge in any discipline and its relationship with other disciplines, the best way to acquire the knowledge and the ways of assessment. Therefore, it has provided a more student-oriented curriculum, or a tailored degree, by taking courses on their personal interests, in any institutions they

prefer and whenever they want.

b) *the cross-curricular 'key' skills movement*

The urge for change has arisen out of a political and social concern which supports the view that economic competitiveness depends on the information industry and graduate workforce. There are four skills that graduates need to have: communication skills, numeracy, the use of information technology and learning how to learn.

c) *the learning through experience movement and the shift of the seat of learning outside the academy:*

The development of experiential learning as a part of university curriculum has challenged the role of the academics and led to different parties outside the university to be involved in the service of teaching undergraduate students in order to provide engagement of knowledge acquired at university and requirements of an organization

d) *the profoundly disruptive potential of web-based learning*

The developments of instructional technology have undermined the privileged position of university in terms of teaching and learning because universities are no more the only means of delivery of knowledge or the determinant of curriculum.

e) *nevertheless, the continuing power of the subject as a form of academic and organizational identity continues to exist.*

Barnett and Coate claimed that university cannot meet all the demands of a changing world; instead, there should be a learning society which prolongs the learning process throughout life, so learning how to learn is the key point at that point. The authors believed that “The self has to be continually remade in this milieu and the self has to be ready to become another self” (2005, p. 43).

Thus, in order to cope with the changes, university has to provide skills to meet needs, information processing and problem solving to relate knowledge with changes, and the powers of remaking the self (Barnett & Coate, 2005). It should also address three challenges of a changing world in 21st century: knowing (students' engagement with knowledge), acting (students' involvements in and interpretations of their own actions) and being (students' beings).

According to Barnett and Coate (2005), there is no considerable argument

about curriculum in the context of higher education (at least in the UK), but there is a discourse emerging and a significant effort in national and institutional curriculum change. Without negotiation and discussion of curriculum, the tacit idea of emerging curriculum is excessively narrow and restricted to economically productive skills. At this point, students are slightly associated in this dominant notion of curricula. They are only considered as potential holders of skills generating economic value rather than as human beings in their own right.

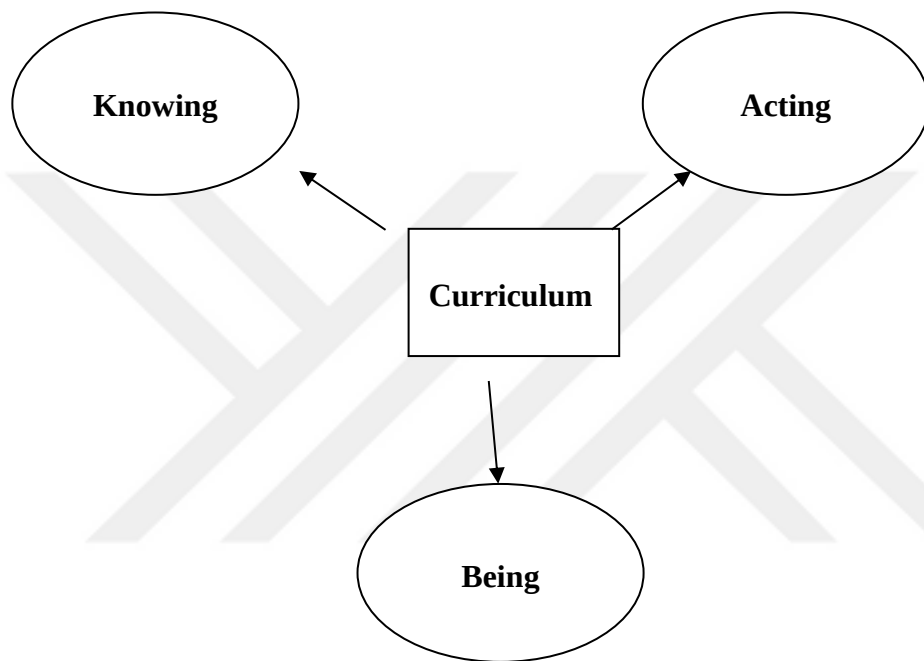


Figure 2 Three Challenges of a Changing World to Be Addressed by Curriculum
(adapted from Barnett & Coate, 2005, p.70)

By checking the educational scholars' views and being aware of the fact that the curriculum cannot be considered without the social context it belongs to, Barnett and Coate (2005) come up with some conceptualized higher education curricula such as curriculum as outcome, curriculum as special, curriculum as culture, curriculum as reproduction, curriculum as transformation, and curriculum as consumption. They also point out a broader conceptualization of curriculum: *the liberal education*.

Accordingly, one can relate the characteristics of conceptualized concepts of higher education curriculum stated by Barnett and Coate (2005) with five philosophical approaches to curriculum design in higher education (HE) described by Toohey (1999, as cited in Peach, 2010).

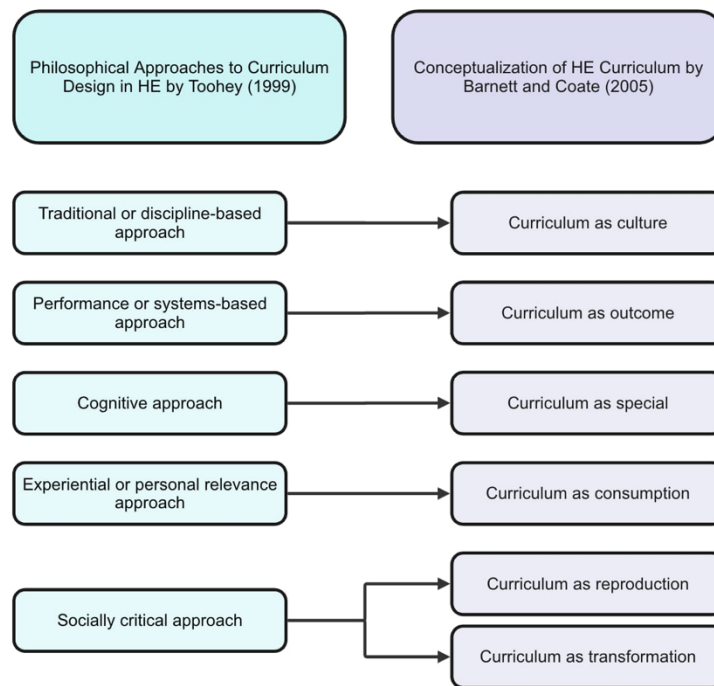


Figure 3 The Relationship between Philosophical Approaches to Curriculum Design in HE and Conceptualization of HE Curriculum

- 1) *traditional or discipline-based approach*: the content of curriculum is formed by the knowledge field and not necessarily linked to student interest, learning processes or current issues of society. Similarly, in conceptualization of curriculum as culture, Barnett and Coate (2005) state that the academic disciplines are still the basic of all academic activities, and transmission of the key knowledge to be mastered by students is the fundamental aim of curriculum. The study of the academic disciplines is at the same time a study of different academic cultures which are molded by disciplinary values, standards and rules of communication. Thus, curriculum is shaped by these different academic cultures within higher education. They (2005) provide a schema based on Barnett's (2000) notion of supercomplexity, which proposes that a higher education curriculum should nurture students and prepare them for a world of change and uncertainty (as cited in Peach, 2010).
- 2) *the performance or systems-based approach*: curriculum is based on competence and research necessary for effective professional performance

(Peach, 2010). Its purpose is to acquire learning objectives in behavioral outcomes, leading to a performance-led curriculum. The drawback of this kind of curriculum is that it ignores means by just focusing on ends. Process is discounted and outcomes pursued are skill-based in order to be assessed efficiently and easily.

As stated by Barnett & Coate (2005) in curriculum as outcome, subject benchmarks are formulated to indicate the intended outcomes with related reference points in order to be able to compare courses effectively, but curriculum should be reshaped by considering the learning outcomes. With the advent of a mass higher education as well as globalization, benchmarks and specifications are developed to identify the value of degrees through the skills they convey in a knowledge economy, and to simplify and make the curricula transparent. They are accepted as the reference and starting points for curriculum designers; however, benchmarking requires accountability and this transparency unintentionally creates extra administrative burdens on curriculum designers. Especially when designing inter-disciplinary courses, subject benchmarking may discourage them. Nevertheless, the subject-based nature of much of the UK higher education is maintained by the curriculum-as-outcome approach.

- 3) *Cognitive approach:* While skilled-performance is the goal of the performance or systems-based approach, the aim of the cognitive approach is to improve students' intellectual abilities and enabling them to be critical thinkers and effective problem solvers (Peach, 2010). Rather than covering key topics, the curriculum content is based on deep understanding of topics which provides complex ideas and enables cognitive development. Therefore, sharing knowledge is critical because knowledge is constructed personally and socially. The drawbacks of this approach are that it is difficult to implement it in a high student-staff ratio, decreased funding and bureaucratic pressures on academics. It is also criticized that intellectual development should not be the only aim in a curriculum because cognitive development alone is not enough for human beings to succeed in life as the development of a whole person considering emotional intelligence and moral development along with cognitive development needs to be the goal of a

curriculum.

In curriculum as special, Barnett and Coate (2005) note that subject benchmarks are only a guide for curriculum designers because they do not exhibit any detailed prescriptions of curriculum content. At this point, considering the breadth and depth of curriculum, the floor is given to academics, the discipline specialists, and academic freedom should be preserved. However, in terms of pedagogical changes, lecturers continue to be the main means of transferring knowledge and the leading pedagogical transaction is the one between a single lecturer and individual students, which is not preferable in professional fields where more flexibility and engagement of students in teaching and learning process take place (Barnett et al., 2001). In order to impart relevant knowledge and develop necessary skills in an allocated time, face-to-face interaction is sacrificed, which limits the time required for the innovative pedagogical strategies to develop.

- 4) *Experiential or personal relevance approach*: learning through experience and how people attribute meaning to this learning experience are key factors (Peach, 2010). Unlike a systems-based approach, the content of curriculum is not imposed, and in contrary, it is formed by learners to some extent to make it meaningful and useful so that they can take the responsibility of their educational development. Educator functions as a facilitator who help students reflect themselves as well as gain knowledge and develop skills necessary for their profession. Self-reflection and requirement of low student-staff ratio are common characteristics of both experiential and cognitive approaches. The drawback of this approach can be stated as time consumed for knowing each and every student for carefully planning of their learning paths, and flexibility and interpersonal skills that academics may lack. Lastly, this approach has a common characteristic with performance-based approach in that both require real experiences for professional development and values practical knowledge over theoretical one.

In curriculum as consumption as Barnett and Coate states (2005), in order to meet the market demands, universities compete with each other and see students as customers. In line with this, students try to get courses which

in turn benefit them most and enable them combat in labor market. In order to make the courses more appealing to students, academics provide courses covering necessary skills and knowledge for employment. Modularization is put forward to meet the demand of marketization of higher education, yet many academics criticize that modularization causes a decrease in social purposes that universities accomplish, and the knowledge fields should be maintained in universities. Still, the effects of outside interests directly or indirectly continue to influence the curriculum offered by universities as the demand of consumers of education needs to be considered.

- 5) *Socially critical approach*: Critical theory sets the ground for the socially critical approach which aims for student consciousness of current problems of the society and creating possible solutions to them, so the content of curriculum becomes social themes of the time and the goal of it is to uncover hidden values shaping society and its institutions and cultural products (Peach, 2010). Consideration of alternative perspectives towards current issues by challenging students critically is shared quality of this approach with the cognitive approach. It also responds to Barnett and Coates's (2005) curriculum as reproduction. Curriculum as reproduction conceals the concept of hidden curriculum in itself, which benefits some students more than the others and, in the end, causes the reproduction of the society as pointed out by Bernstein who examined the interaction of students and teachers by analyzing all pedagogical encounters in any context. Therefore, asking questions not only about the content but also about the delivery of curriculum is necessary at this point because educational processes cover underlying messages.

For Apple (1990, as cited in Peach, 2010), the knowledge of certain social groups overwhelms the others, and knowledge and interest of others are neglected, leading to reproduction of the society, which is also the basic concern of classical humanist curriculum. However, higher education undergoes a transition from elitism notion to mass education by providing diverse educational experiences to a great number of students nationwide and internationally. Like Barnett and Coate's (2005) 'curriculum as transformation', this approach considers the transformative potential of the

curriculum to authorize students, challenge inequalities and reveal hidden process within the curriculum (Pace, 2010).

In curriculum as transformation, in contrast to reproduction theories, empowerment theories accept the existence of inequalities but aim at challenging them with the help of pedagogical strategies rather than the curriculum (Pace, 2010). In time, theories of power relationships in classroom like the ones seeing students as passive receivers of knowledge and trying to exchange it vice versa shifted towards power relationships within classrooms which aims at empowering students. By revealing tacit educational processes in the classroom and within curriculum and by developing new approaches to the analysis of power relations depending on the social context of the time, the transformative approach focuses on the knowledge, ability and skills to be gained for employability and supports that transformation takes place when education contributes to students' lives.

These five approaches provide valuable insight about philosophies underlying higher education curricula; however, it does not mean that many curricula should only fit into one approach (Peach, 2010). In contrast, combining two or more through negotiation while designing a curriculum is more common like a problem-based learning curriculum which merges the experiential and the cognitive approaches. There could also be alternatives of philosophical foundations to any of those suggested by Toohey.

To illustrate, Young (1999, as cited in Peach, 2010) offers the concept of 'critical vocationalism', and claims that higher education should develop holistic, constructive, critical thinkers who can engage in professional training and with a personal and emotional state to carry on learning autonomously in the future. Therefore, curriculum is affected by many factors as mentioned above: the will to keep the depth of higher education, to preserve the academic fields and produce academicians, but at the same time to meet the demands of external factors by providing curriculum products and to empower students (Barnett & Coate, 2005).

In addition to Barnett and Coate (2005), Löfvall and Nygaard (2013) also stated that today's university education should provide students with necessary arrangements to help them gain "right" competencies rather than proving the right knowledge to

students. Equipping students with the ‘right’ competencies of 21st century skills, university needs to foster the development of a culture where students take active role in learning processes by empowering them in ‘learning to learn’. As defined by Nygaard and Holtman, learning is:

- 1) “never a simple repetition of previous learning. People learn based on their experiences and expectations.
- 2) both an individual and social process.
- 3) a contextual process tied to particular situations.
- 4) a process affected by the identity of the learner.
- 5) a process affected by the social position of the learner... and by the learner’s embeddedness in social collectivities.” (2008, p. 13-14, as cited in Löfvall & Nygaard, 2013, p.131).

Students’ active engagement in learning is considered as the quality of their learning experience (Pace, 1984). For the university to enable students to be active learners within a partnership and workplace-oriented culture, Löfvall and Nygaard (2013) proposed six areas to be addressed at university which would affect student culture such as classroom activities, online activities, campus design, teacher training, policy forums and university branding. Classroom activities depending on problem-based learning provide active participation of students and partnership in activities and discussions. Used effectively in online activities, digital technologies enhance interaction and socialization among students. As for campus design, an unstructured and spontaneous atmosphere outside of traditional study environments with the help of facilities on campus help students to form a culture. Moreover, systematic training of teachers is required to develop engaging activities and learner-centered actions. It is also crucial to address student culture in policy forums to benefit from divergent viewpoints and, if any, inconsistent policies. Lastly, how the university brands itself: knowledge providers or learning partners affect educational expectations and perspectives of students.

2.1.1. The History of University in Türkiye

The base of the Turkish university can be traced back to 1933 and the passage of Law 2252, which transformed the ‘Darulfunun’ into Istanbul University upon the report by Professor Albert Malche, a pedagogue at Switzerland Geneva University,

who was invited by Atatürk, the founder of Turkish Republic, to evaluate the ‘Darulfunun’ (Erdem, 2012). With the Law 2252, the organizational structure, administrative process, and academic and research programs were addressed (Akar, 2010). To achieve the university reform, talented students were sent abroad, and new higher education institutions like Istanbul University (1944) and Ankara University (1946) were established to implement plans. During this reform, Jewish academicians escaping from Germany due to Nazi regime supported the establishments of scientific, modern and democratic universities (Erdem, 2012).

With the passage of Law 4936 in 1946, the central administrative body was eliminated, and universities got autonomy in governance, including the authority to elect their own rectors and deans among the university faculty (Akar, 2010). Between 1955 and 1957, more universities were established such as Aegean University, Black Sea Technical University and Middle East Technical University, which were the first Turkish campus universities based on the American land-grant model (2010). In the 1960s, Turkish universities were recommended to plan according to Türkiye’s human resource needs, which were determined with a growth and development plan for the Mediterranean Region, based on the framework of an Organization for Economic Cooperation and Development (OECD) project (2010).

Starting from the late 1960s, radical student movements spread all over the world, and with the passage of Law 1750 in 1973, the administrative autonomy and academic freedom at universities were restrained (Akar, 2010; Şimşek, 1999). This caused a conflict between universities and the Democratic Party government in Türkiye, and so the establishment a number of universities between 1973 and 1981, without any plan to meet the demands of higher education, remembered as one of “unregulated growth, tumult and chaos.” (Şimşek, 2007, as cited in Akar, 2010, p. 448). As stated by Şimşek (1999), opening up several universities at different provinces caused students to move from one province to another for taking the examination exams and enrolling at university.

Thus, there arose a need for regulation (Şimşek, 1999), and following a military takeover in 1980, Law 2547, the turning point in Turkish higher education, founded out Turkish Council of Higher Education (CoHE), known by its Turkish acronym, YÖK, so as to route the important activities of higher education institutions like planning, organization, governance, instruction and research (Akar, 2010). As noted

by Tekeli (2010, as cited in Kalkan, 2019), the establishment of CoHE and the law 2547 caused a quite centralized and hierarchical organization of higher education. Having been considered as pure research institutions, the role of higher education was related to meeting practical and educational needs for the first time, which could be considered as the first step towards globalized higher education (Akar, 2010). In addition to the YÖK, the Inter-university Council and the Council of Turkish University Rectors are responsible for the coordination and planning of higher education policies (2010). To upgrade higher education in Turkey and gain a global reputation, in 1997, the YÖK, the World Bank and the British Council took a step to found an accreditation and quality assurance system in Turkey within the framework of a joint project entitled Developing a Resources Allocation Mechanism for Turkish Higher Education (Akduman et al. 2001, as cited in Akar, 2010).

The law 2547 also led to the establishment of private universities run by non-profit foundations and for a radical reorganization of higher education institutions in general such as the transformation of teacher-training institutions into four-year university faculties (Akar, 2010). However, Kalkan states (2019) that though accepted as economic growth in order to compete in global arena, privatization in higher education is thought to be damaging to such an area with other core values because private capital is more similar to market-forces and it takes the profit maximization as its fundamental value. He claims that economic support from the government to state universities stays stable or decreases. Upon the unplanned growth in higher education institutions and the student enrollment between 1980 and 1995, the quality of the Turkish higher education system generally caused a substantial decline in quality in many aspects such as “quality of instruction, quality of both undergraduate and graduate programmes, quality of faculty, quality of research and publication, quality of student services and educational materials, and the quality of physical facilities” (Şimşek, 1999, p. 150).

To cope with faculty shortage, Law 2547 was amended to let newly founded universities to hire Ph.D. candidates at prestigious universities as research assistants (Akar, 2010). Moreover, a Faculty Development Program (OYP) was funded to prepare academics with the help of an intensive, fast-track graduate program (2010). In order to meet increasing demands for higher education, Law 2809 was established in 1983 in order to make foundation universities share their at least 15% of student

population with full-paid scholarship (2010).

Kalkan (2019) carries out a grounded theory on the concept of transformation of higher education and the changing trends in Turkish higher education from 2012 to 2018 in terms of politics and policies. By analyzing the policies and parliamentary discussions on higher education related to this period, the study claims that crucial changes have occurred after the early 2000s due to Türkiye's rushing articulation to international market-led inclinations in higher education by a certain neoliberal rationality. The key indicators of the transformation are massification, quantification, administrative changes, and economic development-oriented arrangements of the structure, human labor, and productive activities relating to higher education.

Massification is the expansion of higher education in terms of the number of students, which also provides democratization, equal access, employment, rights, diversification (Kalkan, 2019). In recent years, massification has brought the paradigm of the quality vs quantity in higher education, and the thing discussed became the number of publications regarding academic productivity and virtue. "The modern idea of the university which revolves around a rigorous occupation with the knowledge as a process, today is replaced by an appeal to pace and quantity which come to define the very earnings of the academicians instrumentally" (Kalkan, 2019, p.139).

Three significant conditions of the transformation of higher education in Turkey due to administrative changes are noted as the effect of the global actors, the legacy of higher education in Turkey, and the 2002-2018 era marked by the political party JDP by Kalkan (2019). The contemporary political condition is considered as the fundamental points of the mobilization, which aims at rearranging Turkey's higher education, and centralization, which declines the autonomy of the universities by lifting the elections of rectors (2019). With the European University Association's 2007 Lisbon Declaration in 2007, students at Turkish universities were brought into the university governance process; however, students did not feel themselves as a part of the decision-making process at universities (Kuruzum et al. 2005, as cited in Akar, 2010).

On the other hand, for economic growth, there is a tendency to utilize higher education for creating a workforce by using the terms "human resource, market demands, labor force planning" driven by private corporation's workforce expectations (Kalkan, 2019, p. 141). Besides that, technological advancements and

increase in activities of research and development contribute to economic growth of the country, which causes some questions related to the function of higher education for the good of the society or marketization. With specialized university, the role of higher education changes from a modernist belief in the universal nature and applicability of the knowledge, valid for the early republic periods in Turkey, to an economic liberalism which means a competition for the drives of national economic growth.

For Akyol and Arslan, with the advancement in technology and science, educational philosophy has changed in recent decades, paving the way to an educational vision which is “more liberal, egalitarian, supportive of the development of individual's imagination and creative thinking skills, interdisciplinary, learning-oriented, and aware of individual differences” (2014, p. 74). However, Demir and Aydın (1997, as cited in Sümer et al., 2012) pointed out that even though the aim of whole student development is endorsed through laws and regulations, the Turkish higher education system persistently highlight intellectual development over and above other developmental domains.

Akyol and Arslan (2014) state that the function of higher education should be reconsidered to meet the changing social and individual needs while remaining loyal to the country's education philosophy. At that point, instead of rapidly increasing schooling rates, the quality of education should be kept by diversifying the organization of higher education systems (2014). Due to the governmental and commercial powers joining in the governing processes of higher education, higher education is being obliged to assess itself or to be assessed by others (Barnett, 1992, as cited in Cheng, 2001). Differing in goals, general climate, rules and regulations, curriculum, teaching and evaluation, a sense of community and student faculty relationships, universities need to be examined by college experiences, which are formed by all those aspects (Chickering & McCormick, 1973).

2.2. College Experiences

College experiences are “the events that occur in the college environment. Many of these experiences stem from events and conditions which the college makes possible and which, at least in some respects, are intended to facilitate student learning and development” (Pace, 1984, p. 7). Major works of pioneers on this topic are Tinto's

theory on the degree to which students feel unified into campus life and thus maintain a commitment to course completion; Astin's input–process–output model; Pascarella's generalized causal model including measures of institutional features and quality of effort; and lastly Pace's theory stating that student growth and development is driven from the joint influences of the institutional environment as perceived by the student and the effort expended by the student (Tam, 2002). These works are based on either developmental or college impact theories (Davis & Murrell, 1993, as cited in Tam, 2002, p. 212).

While developmental theories focus on the examination of developmental and psychological changes within students as in the works of Chickering (1969) and Erikson (1963; 1968), college impact theories emphasize the significance of the interaction between students and the institutional environment, the processes of students' college experience, and the influences of the environment and experience on student change and development as in the works of Astin (1993), Pascarella (1986; 1991), and Pace (1987; 1990; 1992) (as cited in Tam, 2002, p. 212).

The conceptual work of the scholars indicated four types of influences to be considered to accurately evaluate the impact of college on students (Astin, 1993; Chickering, 1969; Pascarella, 1985; Pascarella & Terenzini, 1991, as cited in Pascarella et. al., 2004, p. 256-257):

- (1) student demographic or precollege characteristics (sex, ethnicity, age, family income level, secondary school grades, volunteer work in high school)
- (2) organizational or structural characteristics of the institution attended (precollege composite cognitive development of students)
- (3) students' academic experiences (cumulative credit hours; time spent studying; courses taken like science, mathematics, social sciences, technical/pre-professional, arts and humanities, and natural sciences and engineering; college grades; course-related interactions with peers; academic effort/involvement; use of computers; and reading and writing involvement)
- (4) students' nonacademic experiences (work responsibilities; on or off-campus residence; participation in intercollegiate athletics; social organizations; non-course-related interactions with peers; extracurricular involvement; and participation in volunteer work; educational degree plans)

Chickering and McCormick (1973) investigated the effect of college

experiences on student identity with regard to twelve factors: autonomy, practical outlook, impulse expression, personal integration, estheticism, complexity, thinking introversion, religious orientation (liberalism), theoretical orientation, anxiety level, altruism, social extroversion, masculinity-femininity and response bias. They found out that there is a direct link between college experience and student identity. Thus, the characteristics of the students entering these diverse colleges change dramatically, but at the same direction, too. More specifically, students' autonomy, awareness, integration, understanding of estheticism, sensitivity, tolerance, and religious views through liberalism increase with the help of college experiences, while concerns of material possessions decrease. The change happens when college experiences do not focus on lectures, memorizing, and extrinsic motivation, but instead on greater proportions of class time for open exchange among students and between students and instructors, on class assignments necessitating the exercise of more complex mental activities, and on intrinsic motives. Lastly, the fit between institutional characteristics and student characteristics at entrance enables development almost equally in each setting. Upon analyzing sub-groups of similar students within institutions, different forms of change are observed regarding factors like college climate, student characteristics, teaching practices and study activities, and student-faculty relationships.

“The meaning of things is formed in the context of social interaction and is delivered by the person from that interaction” (Blumer, 1969, p. 5, as cited in Löfvall & Nygaard, 2013, p. 128). University is a social organization, and value change occurs in two ways: the effects of educational environment and the effect of individual differences on value orientation (Newman & Newman, 1978). The authors claimed that university has a great impact on students, and the only criteria is to what extent it affects depending on three variables: 1) the amount of student-faculty interaction, 2) the identity status of students and 3) the degree of fit between student values and the college values. They define college as a complex psychosocial ecosystem formed by change in value system during college years and principles underlying socialization, and they resemble identity to an anchor enabling human beings with vital experience of continuity in social relationships. Thus, they investigate the effect of college on students' identity formation which includes the integration of earlier knowledge and perceptions of self, recognition of current skills, talents and resources, and cultural

adaptation.

Newman and Newman (1978) point out that aesthetic, religious, economic, theoretical, practical and social values dominate colleges, and values of students change till the end of four-year college experience depending on the interaction between the individual and the environment. Based on students' needs and college expectations, students have a chance for experimentation with values, the creation of a new and interdisciplinary major, or the investigation of a variety of learning experiences outside the classroom. For example, depending on department and curriculum, value change happens from aesthetic to religious and theoretical at the departments of sciences, while vice versa at the departments of humanities. Therefore, exposure to experimentation with values determines the participation of students in the world citizenry, and daily interactions with culture carriers (all stakeholders at university) of college culture contribute to value systems of students. The more faculty-student interaction, the greater influence on value change. Not only faculty-student interaction, but also identity status of students while engaging in college culture plays an important role in value change.

Astin (1974) proposed an input–environment–outcomes model to assess the impact of college on students' development and growth as evidence of institutional success or excellence, which can be considered as the institution's ability to enable a positive change in students, and thereby should be measured regarding the growth and development of the students overtime (as cited in Tam, 2002). The model is based on a three-dimensional taxonomic system: 1) outcomes (cognitive vs. affective), data (psychological vs. behavioral) and time (short term vs. long term) (as cited in Chen, 2001). Using the model, Astin investigated the change or development in the student during college by comparing outcomes with inputs under varying environmental conditions (Tam, 2002). To determine the impact of the environment on outcomes, he first compared the outputs with the inputs consisting of the entry characteristics of the students like pre-university examination results, reasons for attending university, socioeconomic status, life goals, and demographic variables. Whereas outcomes refer to the change and development in students on various cognitive and affective qualities over time, the environment consists of diverse programs, policies, faculty, peers, and educational experiences that the student is exposed to.

Intellectual and personal development of college students depends on

extracurricular involvement and interaction with peers (Pascarella et al., 2004). At that point, students' degree of commitment is crucial because there are some who have already strongminded their values, whereas some others who are uncertain with their values are open to experimentation with values (Newman & Newman, 1978). Lastly, the degree of fit between student values and the college values needs to be considered in value change because the greater similarity between students' values and college culture is, the less possibility for value change, while there is more discrepancy between them, the more opportunities for value change appear.

For Rest and Narvaez (2014), there is a direct link between college experience and moral development; that is, moral development is an outcome of liberal education, and university has a role as important as contributing to intellectual development of students, which is in moral development of students. It is the responsibility of universities to demonstrate how they touch the lives of students in ways that society values with the help of college experiences. Comparing seniors with freshmen, undergraduates with high school graduates, and highly involved students with low involved students in college experiences, the researchers stated that there is a direct and positive effect of collage experiences on moral development of students, the extent of which depends on the personality of a student.

Lottes and Kurilof (1994) investigated to what extent students changed their political and social attitudes during college, namely, by the influences of religion, gender, membership in a community, and time in college. Results indicated that students as seniors are more liberal, socially conscious, tolerant to homosexuality and feminism, whereas they show less male-dominant attitudes than they did as freshmen. This is because, by means of college experiences, students interact with various groups of peers and personnel, and have chances of experiencing occasions broadening their horizons. Therefore, according to social scientists, students tend to become more open, humanitarian, altruistic, tolerant and liberal.

Based on early research by Spady (1970, 1971) and Tinto (1975), freshmen experience programs which enable students to have a smooth transition from high school to university are designed on the premise that "the processes of social and academic integration are critical influences on student persistence" (Pascarella & Terenzini, 1979, p. 197). To increase retention at university, "freshman experience" programs are implemented to help freshmen enhance their socialization and

integration into the college communities, prosper both socially and academically, and in turn, to reduce attrition rates (Noble et al., 2007). The researchers aim to measure the effects of ESSENCE program, implemented in the fall of 1998 at University of South Alabama, on student success regarding GPAs and graduation rates. The study indicated that the program improved students' GPAs and the likelihood of graduating in five years relative to other experiences.

Noting college experiences as one of the most significant aspects determining the process and effectiveness of higher education, Pace (1984) discussed the development and use of the College Student Experiences Questionnaire assessing the quality of students' effort and the fulfillment of college-related goals and objectives. The most noticeable events and experiences are gathered around a number of equally common facilities like classrooms, libraries, laboratories, dormitories, student unions, gyms, stadiums, studios, galleries, theatres, auditoriums, etc. In addition, experiences not linked to any physical setting are also of foremost importance in college life such as interaction with faculty members, participation in student clubs and organizations, student friendships, informal conversations, and various relationships. For evaluating educational programs, educational experience needs to be taken into consideration because the value of the experience is hereditary in the experience itself. Thus, the whole experience of university is value-added because every event happening in college and contributing to student learning and development is a value-added event.

While colleges are responsible for providing various sources and facilities, the programs and procedures, the incentives and standards in order to help student learning and development, students are responsible for the amount, scope, and quality of effort they devote to their own learning and development, and precisely for using the facilities and opportunities available at the college, in order to have a good education (Pace, 1984). Therefore, there should be a consistency between "what the institution offers and what the students do with those offerings" for the sake of achieving student outcomes (1984, p. 10). At that point, administrators and faculty need to operate by observing student behavior, dealing with it, stimulating it, rewarding it each and every day.

The inventory of the campus experiences of undergraduates consists of fourteen quality of effort scales, aspects of college life/experience, and 142 activities from activities requiring relatively little effort to ones requiring much more effort and

initiative. The questionnaire includes educational facilities like classrooms, laboratories and library; cultural facilities like art, music, theater; recreational facilities like gyms, student unions; and residence facilities like dorms. Besides, it covers personal and interpersonal experiences at college such as “experience with faculty, clubs and organizations, experiences in writing personal experiences (related to self-understanding), student acquaintances, topics of conversation, and information in conversations” (Pace, 1984, p. 10).

The quality of effort scales in the inventory can be categorized under two headings: academic and nonacademic (Pace, 1984). While academic and intellectual activities include the use of the library, contacts with faculty members, course learning, writing, and science laboratory, the use of non-academic facilities on the campus and the opportunities for students’ interpersonal relations and self-understanding cover cultural facilities, clubs and organizations, the student union, athletic and recreation facilities, personal experiences, and student acquaintances. Lastly, comparing five types of institutions such as doctoral granting university public comprehensive college, private comprehensive college, liberal arts college type I and liberal arts college type II, there is not much difference in student activities with respect to Course Learning, Experience in Writing, Information in Conversations, or Personal Experiences. However, liberal arts colleges among others have superiority on scales on academic experiences like library, experiences with faculty, and science laboratory, and nonacademic ones like conversation topics, student acquaintances, and art, music, theater, clubs and organizations, and athletic and recreation facilities. Therefore, they show greater progress in general education, literature, and arts.

The inventory was field-tested by Sümer et al. (2012) with 769 undergraduate students at a Turkish campus university based on the American land-grant model, and it provided the reserachers with cross-cultural comparative data which compares and contrast Turkish and American students. It was found out that the values and lifestyles of Turkish students were more close to individualism, and so to the Western cultures (Karakitapoğlu-Aygün & İmamoğlu, 2002, as cited in Sümer et al., 2012); however, the psychometric similarities may not be repeated with the students of other universities which do not adopt the same educational standards and practices. As for the Quality of Effort scales, Turkish students reported higher levels of engagement and involvement in with the library, faculty, campus facilities, and clubs and organizations

thanks to the university's modern campus providing many facilities and activities. On the other hand, the students showed lower levels of engagement in course learning. Regarding Gains Estimates, they had significantly lower gains compared with their counterparts because of the focus of Turkish education system on intellectual development instead of holistic student development. In terms of the Additional Indices, Turkish students had lower scores in active learning and in developing a capacity for life-long learning because of the fact that the Turkish educational system emphasizes what students know rather than how to use that knowledge and due to deductive approaches like lecturing and recitation in autocratic classrooms. On the other hand, they got higher scores in student-faculty interactions.

Pascarella et al. (2004) conducted a study on effect of the level of parental education on college students' experiences. They compared first generation students with two other groups: students with high parental postsecondary education; and students with moderate parental postsecondary education. The results indicated that the level of parental postsecondary education has an important influence on the academic selectivity of the institution a student attends, the nature of the academic and nonacademic experiences a student has during college, and, to a modest extent, the cognitive and noncognitive outcomes of college. Besides that, there are differences between first-generation and other college students in the influence of specific academic and nonacademic experiences on the outcomes of college because first-generation students are less likely to live on campus, and so to attend extracurricular activities and have an interaction with peers in nonacademic contexts.

Moreover, their choices about institutions and involvements in college experiences enabling educational progress and benefits are affected by family cultural capital (2004). On the other hand, in terms of cognitive and noncognitive outcomes, there is not a significant difference between the groups. College experiences have a greater impact on first-generation students compared with those whose parents have had some college exposure. Therefore, institutions and policy makers should keep in mind the need to increase first-generation students' involvement in the academic and nonacademic activities where students can be exposed to the campus culture. Moreover, first-generation students tended to get significantly greater educational benefits from engagement in academic or classroom activities which help them gain cultural capital. They can gain some skills and competencies such as critical thinking,

writing skills, openness to diversity, learning for self-understanding, determination for academic success, inclination for higher-order cognitive tasks, and degree plans.

Another study was carried out on first-generation students to evaluate how college experiences affect cognitive outcomes among racial/ethnic populations (Iorio, 2020). The researcher notes that college experiences have different effects on different racial/ethnic populations (Edens et al., 2015; Kim et al., 2014; Flowers & Pascarella, 2003; Kugelmass & Ready, 2011, as cited in Iorio, 2020). By using a factor scale consisting of areas such as general and discipline-specific knowledge, critical thinking skills and problem-solving skills, cognitive outcomes were measured. It was found out that college environments affect cognitive outcomes in disparate amounts regarding the ethnicity of the students depending on the preparedness of the students to college, the extent of being exposed to racism at college. In order to cope with discrimination, inequality, and racism, the classroom and the campus environment are crucial to enable those students to have a sense of connectedness.

According to Hu and Kuh (2003) and Pace (1985), the more resources and learning opportunities college students utilize and the more they devote themselves to learning, the more benefits they are likely to get in terms of student learning and development (as cited in Bai et. al, 2022). Bai, Bantsimba and Luo (2022) explored the impact of college experiences on student learning outcomes by asking 17,609 undergraduates from 23 Chinese colleges/universities to fill in the Chinese version of the College Student Experiences Questionnaire. The results of the study indicated that academic and social activity involvement is an important factor affecting student learning outcomes, so college is as a valuable place for students to take the advantage of various facilities and resources and to actively attend academic and social activities, which improves intra-personal development and interpersonal communication skills. On the other hand, family background does not have a significant effect on student learning outcomes. The results highlighted the significance of providing high-quality college experiences and necessitated policymakers and practitioners to support student learning outcomes by enhancing students' participation in social and academic activities. Considering the importance of college experiences, there arises a need to check them in detail as noted by the literature under two categories: academic and nonacademic college experiences in order to fully understand the perceived effect of them on the students and academics before and after the pandemic.

2.2.1. Academic College Experiences

In line with the aim of this study, under academic college experiences, literature related with instructional practices which was in the center of academic college experiences are presented. Besides that, technology-based instructional practices, and emergency remote teaching which was adopted during Covid-19, are presented.

2.2.1.1. Instructional Practices

Instruction is the deliberate arrangement of learning conditions to promote the attainment of some intended-goals (Driscoll, 1994, as cited in Smith & Ragan, 1999). The rationale behind instructional practices depends on an instructional design, which is “the systematic and reflective process of translating principles of learning and instruction into plans for instructional materials, activities, information resources and evaluation” (Smith & Ragan, 1999, p.2). Instructional design models are driven from the work of pioneers such as Robert Gagné, Robert Mager, David Ausubel, and Jerome Bruner and based on philosophies, theories and research findings in addition to experience-based reasoning (Briggs, 1970). Some instructional design models are the Dick and Carey’s instructional design model, Smith and Ragan’s instructional design model, instructional design model by Morrison, Ross, Kalman and Kemp, and the ADDIE instructional model.

Dick and Carey (2005) describe a system with a set of interrelated parts to work together toward a defined goal, which are the input, output, and feedback. Their instructional design model provides a systemic perspective including different mechanisms of the instructional system like the instructor, the learners, the instructional materials, and the learning environment. These mechanisms interact with each other to achieve the instructional goals. There are nine steps in the Dick and Carey’s instructional design model:

- 1) “Identify instructional goal(s).
- 2) Conduct instructional analysis.
- 3) Analyze learners and contexts.
- 4) Write performance objectives.
- 5) Develop assessment instruments.
- 6) Develop instructional strategy.
- 7) Develop and select instructional material.

- 8) Design and conduct the formative evaluation of instruction.
- 9) Revise instruction” (Dick & Carey, 2005, pp. 6-7).

Smith and Ragan’s instructional design model consists of three aspects: analysis, strategy and evaluation (Smith & Ragan, 1999). In analysis, learning contexts, learners and learning task are defined and test items are written. Accordingly, in strategy, organization strategies, delivery strategies and management strategies are determined, and instruction is written and produced. In evaluation, formative evaluation is conducted and instruction is revised. In their model, the researchers propose an interrelatedness and congruence among those aspects, in that the design model should be nonlinear and interwoven.

Instructional design model by Morrison et al., (2013) consists of nine elements, which form a logical clockwise sequence but have an oval shape to show the individual elements not being predetermined and at the same time being interdependent to each other:

- 1) Identify instructional problems and specify goals for designing an instructional program.
- 2) Examine learner characteristics that will influence instructional decisions.
- 3) Identify subject content; analyze task components related to stated goals and purposes.
- 4) Specify instructional objectives
- 5) Sequence content within each instructional unit for logical learning.
- 6) Design instructional strategies so that each learner can master the objectives.
- 7) Plan the instructional message and develop the instruction.
- 8) Develop evaluation instruments to assess objectives.
- 9) Select resources to support instruction

Besides that, the authors (2013) underlined seven basic premises for the instructional design processes: a) The ID process requires attention to both systematic procedure and specificity, b) The ID process usually starts at the course development level, c) The instructional designer and planning team develop an ID plan primarily for use, d) While planning, every effort should be made to provide for a level of satisfactory achievement for all learners, e) The success of an instructional product depends on the accuracy of the information flowing into the ID process, f) The ID

process focuses on the individual rather than the content, and g) There is no single best way to design instruction and learning activities.

Another systematic instructional design model is the ADDIE, an umbrella term used for instructional systems development (ISD) models, the acronym of which refers to the five major phases in the generic process: analysis, design, development, implementation, and evaluation (Molenda, 2003). However, the steps are sequential but also iterative, and in each step, practitioners need to select and complete appropriate tasks. The ADDIE model is commonly used in course design and training programs because its focus is on performance-based learning and adopts a learner-centered approach. Thus, the model enables the course or program to be meaningful for learners (Peterson, 2003). The steps of the model are:

- 1) Analysis: determine instructional goals through needs analysis.
- 2) Design: plan a strategy for developing the instruction.
- 3) Development: generate learning resources like lesson plans and materials.
- 4) Implementation: conduct the delivery of the instruction; prepare the learning environment and engage the students.
- 5) Evaluation: measure the effectiveness and efficiency of the instruction with formative and summative evaluation.

The ADDIE model is “context sensitive, proactive, interactive and is a vehicle for communicating ideas to all stakeholders” (Branch, 2009, p.4). As one of the instructional design models which is based on individual learning, the model has immediate and long-term phases and focuses on performing authentic tasks, complex knowledge, and genuine problems. Thus, it promotes high fidelity between learning environments and actual work settings. Especially when a lack of knowledge and skills causes a performance gap, the ADDIE model can be applied to close that gap.

In addition to commonly used-instructional models guiding instructional practices, there is a need to consider various types of instructional methods commonly used in higher education, which are appealing to different learning styles and objectives in order to provide students with 21st century skills (Enkenberg, 2001). Some common types of instructional methods are lecture-based instruction, seminars, discussion-based instruction, case studies, project-based learning, online and hybrid courses, flipped classroom model, independent study, collaborative learning, experiential learning, and internships and fieldwork.

To begin with, lecture-based instruction is one of the most widely used methods, where instructors deliver large amounts of content to a large group of students (Bligh, 2000; Brown & Race, 2005; Cashin, 1985; Charlton, 2006, as cited in Kay & MacDonald, 2016). As noted by Kay and MacDonald (2016), this traditional method is effective in terms of introducing and elaborating knowledge in especially crowded classes. It facilitates learning since students know where to direct their energy to. On the other hand, compared to lecture-based learning, seminar-teaching method is also commonly used in higher education because of being more interactive (Zeng et al., 2020). Seminars have smaller groups of students engage in detailed discussions about specific topics, and they encourage active participation and critical thinking. Active involvement is essential to benefit from this type of instruction.

Another widely used one is discussion-based classes, in which students are expected to take part in debates and discussions, often based on assigned readings or case studies, rather than being passive listeners (Gibson, 2009). The researcher (2009) points out that discussion-based classes create a dynamic learning environment where students learn from each other's perspectives and improve their ability to reason and communicate more effectively. Alghamdi (2013) claims that online discussion can be used as a supplement to in-class discussion to enhance students' achievement and learning in higher education.

Case studies are an instructional method which includes the detailed examination of real-life or hypothetical scenarios, and they are essential to have students deal with complex situations in which they need to use their knowledge to overcome a problem in the given scenarios. (Yin, 2018). Analyzing given cases, students can apply their theoretical knowledge and develop problem-solving skills. According to Kantar and Sallian (2018), this type of instruction is effective in the field of medicine because it improves the skill of reflecting in students.

Project-based learning (PBL) is another common method since it has students work on projects which require integrating and applying their knowledge to come up with solution to real-world problems (Guo et al., 2020). This process of creating new knowledge by using the input enables students to test and achieve their ideas in the way they want, which improves their skills necessary for their future career (2020). Kokotsaki et al. (2016) highlight that PBL encourages active learning and collaboration as students are expected to work effectively in teams, manage their time,

and apply theory into practice.

Online and hybrid courses have been preferred more commonly since Covid-19 pandemic. They offer flexibility and accessibility and appeal to a wide range of students with different needs and expectations (Allen & Seaman, 2014). Online courses benefit from various multimedia resources and interactive tools, while hybrid courses combine online and in-person elements so that they can offer a balanced way. Both of them can facilitate learning with the help of diverse resources offered in multiple ways to cater the needs of students with different learning styles. Therefore, they are getting more and more popular because of the advances in technology. According to Kebritchi et al. (2017), one of the requirements to enhance learning is that learners must be self-motivated and self-regulated to get more benefits.

The flipped classroom model differs from traditional methods in that students first engage with new material outside of class via reading texts or audiovisual materials; and then, they join activities in class to delve into the new material (Elazab & Alazab, 2015). As noted by many reserachers, flipped classroom increases students engagement and motivation (Azemi, 2013; Critz & Knight, 2013; Hoffman, 2014; McLaughlin et al., 2014, as cited in Kay & MacDonald, 2016). Class time becomes more effective since it involves interactive activities like discussions and problem-solving rather than providing information. (Elazab & Alazab, 2015). This model promotes more effective use of class time, allowing students to apply their knowledge actively and saving time by not answering basic and repetitive questions. In order to increase the efficiency of flipped classroom model, a quick one to two-question formative assessment should be used to measure content learned from the video (Scott et al., 2016).

Independent study is a method which allows students to pursue topics of personal interest (Hockings et al., 2018). Students get guidance from a faculty member to carry out in-depth research on topics that they have chosen. This approach facilitates personalized learning since students take responsibility for their own learning, choose and set their own objectives by deciding what, as well as, when and how to learn. On the other hand, collaborative learning is another method which is becoming more and more popular. It involves group work and peer interaction, so it encourages students to learn from one another and work together to achieve common goals (Johnson et al., 2014). It results in a deeper understanding of the material via being exposed to diverse

perspectives. Collaborative learning enables students to catch both academic and professional success by developing teamwork, communication, and problem-solving skills.

Lastly, another commonly used type of instruction in higher education is called experiential learning, which means learning through direct experience (Kolb, 1984). Students benefit from simulations, service learning, or fieldwork. This approach combines theoretical knowledge with practical use of it, emphasizing the relevance of learning (Jonathan & Laik, 2021). Kolb (1984) points out that engaging in real-world activities and reflecting on those experiences, students gain a deeper understanding of the subject matter. Thus, internships and field work enable students to use their academic knowledge in real-like contexts (Silva et al., 2016). They offer students hands-on skills and networking opportunities, so they are vital for career development, and provide significant benefits to students with respect to employability, particularly for students from polytechnic institutions.

2.2.1.2. Technology-Based Instructional Practices

Upon analyzing instructional models and considering commonly used instructional methods at university, there is a need to examine technology-based instructional practices in order to fully understand the effect of online learning on academic college experiences. Morrison et al. define technology-based instruction as “the use of computers and other electronic devices to communicate the instruction to the student and to allow students and instructors to communicate with one another” (2013, p. 222). They gave an example to technology-based instruction with distance education where asynchronous and synchronous lessons can be conducted.

On the other hand, Morrison et al. (2013) state that technology may provide a more efficient instruction but not an effective one by claiming that technology may not surpass the effectiveness of other delivery modes, and the effectiveness of educational technology depends on to what extent it enables teachers and students to achieve instructional goals. They focus on individualized instruction and group-paced distance education instruction by providing instructional design considerations. They named individualized instruction more specifically as individualized computer or web-based learning (CBL), and suggested five types of CBL: drill-and-practice, tutorials, simulations, games and hypermedia. All types of CBL have some characteristics in

common. First, an individual student generally works on the instruction by himself/herself, despite working together with peers on a task (asynchronously). Second, the instruction is self-paced because the student can determine the pace of his/her learning by just clicking on a button to move forward/backward or by continuing after providing a response. Third, the instruction can adapt to the individual by enabling different responses to various answers. Fourth, the learner has a chance to choose the sequence, context, or number of examples to study because each has a unique path through the instruction. Besides that, there are six design considerations for individualized CBL, and these are interface design, learner control, feedback remediation, designing interactions, and using multimedia. On the other hand, for group-based distance instruction, they suggested a virtual classroom, where synchronous lessons are available. One example for group-based approach is Communities of Inquiry method (CoI) which necessitates cognitive presence, social presence and teaching presence. Lastly, they warn distance instruction designers to refrain from creating shovel ware (repackaging existing materials) but instead to prepare instruction carefully and effectively.

Researchers in educational technology, in the subdiscipline of online and distance learning, carefully defined terms over the years to distinguish between the instructional designs developed and implemented: distance learning, distributed learning, blended learning, online learning, mobile learning, and others (Barbour & LaBonte, 2015; Irvine, 2020, as cited in Barbour et al., 2020). Means et al. (2014) clarifies the terms used for distance learning and online learning as stating the former is a broader term used for any instruction in which the learner and the instructor are physically separated while the latter is the subcategory of distance learning, which is used for a learner's interaction with content and/or people via the Internet for the purpose of learning. The term online learning can be used interchangeably with Web-based learning, cyber learning, or e-learning. Even though having much in common with computer-based learning, distance learning, and open educational resources, online learning differs from these concepts because learning can be part of a formal course or program or simply something learners follow for their own interests.

For Gustafson et al. (1997), instructional development includes the determination of instructional strategies, motivation elements and learner actions. Thus, instructional strategies, "the means by which the content and skills are

transferred from the training delivery vehicle (instructor or CBT or video or Web) to the learner” need to be determined (as cited in Branch, 2009, p.186). Extracted from major works adopting theories or philosophies of instruction, Gibbons proposes a complete instructional strategy design consisting of plans in all twelve dimensions, without any of which, a strategy lacks specificity and completeness (2020):

- (a) *a set of time-defined events*, duration of which depend on the attention, motivation span, and capability of the learner;
- (b) *a physical or virtual setting*,
- (c) *a social milieu*, where people interact as in collaborative group or team-based learning and the phenomenon of communities of practice,
- (d) *roles for participants* in a learning group, an example of which is reciprocal teaching in which role assignment shifts from the teacher to the learner, and the role of teacher is mentoring,
- (e) *roles for learning companions*, as suggested in constructivism, usually a teacher, but also a friend, a classmate, a group of other learners, a live tutor, or a computerized tutor contributing to the development of the skill,
- (f) *goals*, the first consideration in event formation, often to the extent that the goal becomes the main basis for event formation,
- (g) *activity elements*, used as an object of “conversation” enabling thinking and depth of thought,
- (h) *information elements*, forming a framework for kinds of information, and representation of it to the learner as in problem-based learning,
- (i) *interaction guidelines*,
- (j) *communication infrastructure*, as in online learning, collaborative learning over distances, multi-user forms of games and simulations, and questions of blended learning.
- (k) *assessment elements*, as in the ultimate computer-based instructional system where free-form questions and statements are input by students and analyzed by the system,
- (l) *an algorithm or rule for event sequencing*, which is fixed, algorithmic, or learner-selected evolve the simplified skills toward the goal skill as in the “increasingly complex microworld” (ICM) paradigm.

Means et al. (2014) identifies nine dimensions of online learning, each of which

has numerous options, highlighting the complexity of the design and decision-making process. The nine dimensions are:

- 1) modality (fully-online, blended, web-enabled)
- 2) pacing (self-paced, class-paced, class-paced with some self-paced elements)
- 3) student-teacher ratio (< 35 to 1 36–99 to 1 100–999 to 1 > 1,000 to 1)
- 4) pedagogy (expository, practice environment, exploratory, collaborative)
- 5) teacher role online (active instruction, online, small presence online)
- 6) student role online (listen or read, complete problems or answer questions, explore simulation and resources, collaborate with peers),
- 7) online communication synchrony (asynchronous and synchronous, asynchronous only, synchronous only, none)
- 8) role of online assessments (determine if the student is ready for new content, tell system how to support the student, provide student or teacher with information about learning state Input to grade, identify students at risk of failure)
- 9) source of feedback (automated, teacher, peers)

Shedding light to the growing place of online instructional practices in higher education, Keeton (2004) compares and contrast online education with face-to-face education with regard to the combination of principles from Chickering and Gamson (C&G)'s seven principles for good practice in undergraduate education, and the Sheckley, & Krejci-Griggs (KS&G) material as below:

- “1. Good practice encourages student-faculty contact: Make learning goals and one or more paths to them clear.
2. Good practice encourages cooperation among students: Use extensive and deliberate practice.
3. Good practice encourages active learning: Provide prompt and constructive feedback.
4. Good practice gives prompt feedback: Provide an optimal balance of challenge and support that is tailored to the individual student's readiness and potential.
5. Good practice emphasizes time on task: Elicit active and critical reflection by learners on their growing experience base.
6. Good practice communicates high expectations: Link inquiries to genuine

problems or issues of high interest to the learners (thus enhancing motivation and accelerating their learning).

7. Good practice respects diverse talents and ways of learning: Develop learners' effectiveness as learners early in their education.

8. Create an institutional environment that supports and encourages inquiry” (as cited in Keeton, 2004, p. 76).

Regarding aforementioned principles in online learning, the author (2004) noted that the ones focusing on the process of learning rather than the assessment of outcomes are recognized more by teachers. Teachers focus on creating an atmosphere conducive to interaction and exchange by keeping students' attention, by being responsive to students needs without individualizing the class for each student, and by presenting interesting and current material to students. Moreover, promoting inquiry and interaction with students in every opportunity, teachers carry out a dynamic learning community model where students voice opinions, share experiences, and question ideas, rather than the alternative teacher-controlled or pre-designed instructional systems. Lastly for assessment, a new tool might be preferred by teachers to easily create quizzes and tests providing instant feedback for the student and so to assess learning throughout the course as well as increasing the number of assessment tools.

The results of the study are listed by the author (2004) as below:

- a) adult students' learning and persistence depends mostly on the individual teacher's capability of applying those principles;
- b) except for the syllabus, students need additional support to fulfill the objectives of the course;
- c) students in online education expect teachers to be more eagerly and punctually available at non-class times than F2F students expect of teachers in responding to the students' communications;
- d) to get the largest learning effects, five or more of the full range of instructional principles need to be actively used;
- e) an effective online education is more time-consuming than F2F.

Online instructional strategies consist of methods and approaches to determine the organization of learning activities, course content, and student engagement in online courses (Bonk & Dennen, 2003, as cited in Yang, 2017). These strategies are

(1) endorsing interactivity through asynchronous and synchronous communication or delivery; (2) facilitating the application of concepts; (3) using video demonstrations; and (4) conveying a strong social presence or a sense of belonging to a learning community. Therefore, effective online course design consists of clear course objectives, good alignment between course objectives and assessments, consistent module structure, a variety of assignments and learning activities, and a good balance between theory and applications.

For assessment and engagement, most effective assessments include frequent, formative assignments, as well as projects, portfolios, peer evaluations, and self-assessments, which help instructors evaluate student progress and inform the delivery and design of other instructional plans and assessments (Yang, 2017). Immediate feedback to assignments enhances students' learning. Lastly, there are two means of communication between students or between students and teachers: synchronously or asynchronously. While the former lets students to meet their needs and concerns immediately during the learning process, the latter provides a more flexible learning schedule for students to reflect on their own learning. On the other hand, students may not be pleased with the delayed response to their questions by teachers, so they may not find teachers approachable and peers collaborative in learning process. In order to create a good sense of social presence in online courses, students need to feel the presence of instructors' support, have a good rapport with them to encourage discussion or feedback, and friendly and welcoming messages to keep students up-to-date on course activities.

As the drawback of online education, the lack of appropriate and deep interaction due to stakeholders' being in different geological locations can easily lead to a sense of isolation and frustration and a high dropout rate in online courses (Willging & Johnson 2004, as cited in Yang, 2017). Interaction in online classes, enabling students to be active and collaborative learners, includes three directions: student-to-instructor, student-to-content, and student-to-student interaction. As for student-to-instructor interaction, a dialog between students and the instructor, as well as the engagement of the students and instructor in the learning and teaching process take place, whilst student-to-content interaction means the amount of applicable interaction occurring between the student and the content (e.g., texts, audios, and videos). Lastly, student-to-student interaction includes the dialog and exchanges

among diverse participants in an online course. With the help of these interactions, students can improve their critical thinking skills and with the application of course content, they can enhance higher level cognitive skills.

Taking a more constructivist approach to online teaching and learning, Salmon (2004a) states the main role of a teacher, the e-moderator, is to endorse human interaction and communication by means of modeling, conveying, and building of knowledge and skills. Being more like a facilitator, a teacher needs to be learner-centered and design courses accordingly to enable interaction, engagement, flexibility, and feedback rather than just content delivery. The author (2004b) proposed a five-stage model of teaching and learning online as seen in Figure 4.

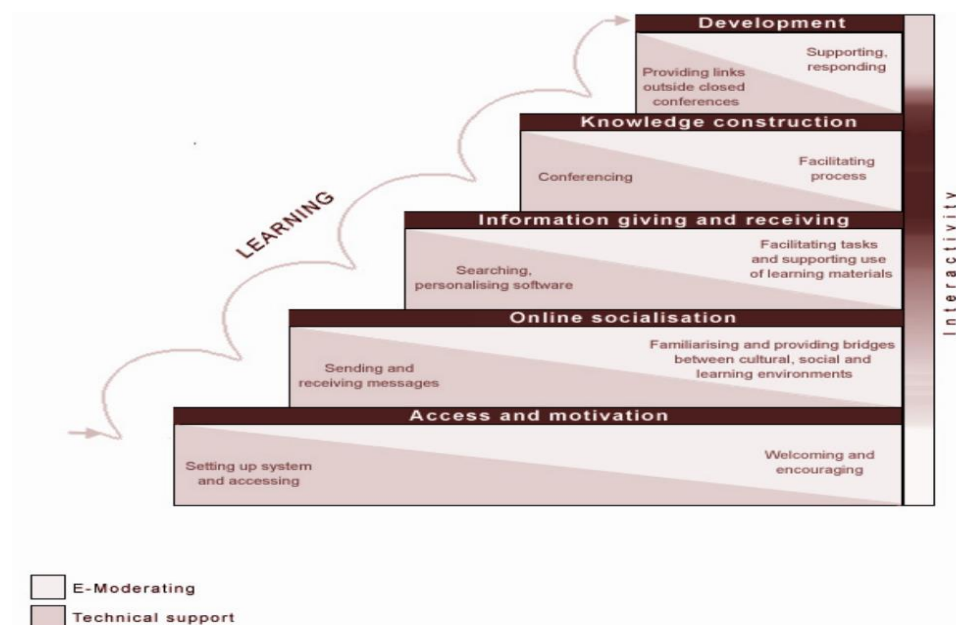


Figure 4 Salmon's Five-stage Model of Teaching Online (Salmon, 2004b, p. 63)

Salmon's model is a visual representation of the progression of online learning, depicted as a staircase with five distinct stages (Salmon, 2004b). Each stage builds upon the previous one, and they are: 1) access and motivation, 2) online socialization, 3) information giving and receiving, 4) knowledge construction, and 5) development. According to the model, Step 1, the basic step, is access to online capabilities. Stage 2 is students' forming an online identity and finding counterparts to interact with. Stage 3 is to exchange information about the course with each other and cooperate with one another to reach each individual's goals. In Stage 4, group discussions and collaborative interactions take place and in the last stage, Stage 5, is characterized by participants' seeking achievement of personal goals, integrating online learning with

other modes of learning, and reflecting on the learning processes.

The model emphasizes the importance of both individual and collaborative learning Salmon (2004b). It not only highlights the role of technology in facilitating learning but also acknowledges the importance of human interaction. It suggests a gradual progression through the stages, with each stage building upon the previous one. According to Salmon (2004b), designing courses using this model encourages effective group discussions and other collaborative activities, as well as supporting individual development.

Goodyear et al. (2001) points out the roles of the teachers in online learning as follows: a process facilitator who provides various online activities to support student learning; an adviser/counselor who focuses on each individual, offering guidance to help them to increase their engagement in the course; an assessor who grades, provides feedback, and validates students' work; a researcher who produces new knowledge regarding the content areas being taught; a content facilitator who helps the learner to form an understanding of course content; a technologist who helps to make technological choices that develop the environment offered to students; a designer who designs useful online learning tasks; and a manager/administrator responsible for learner registration, security, record keeping, etc.

For Salmon (2004a), there are four categories of e-moderators' roles: pedagogical, managerial, technological, and social. The most critical functions are managing the learning environment and motivating students in their learning. Whether online or face-to-face, education needs to meet individual students' different necessities and preferences as they learn. At that point, providing feedback plays a crucial role because students are still in need of more direction and guidance. Therefore, shared responsibilities with students done early and thoughtfully in the design of the course may help the teaching and learning process run smoothly. In addition, there should be a well-structured syllabus explaining the expectations from the students regarding the course and assessments. For universities and colleges, the author (2004b) proposes two approaches for professional development of the staff: 1) to improve the technical knowledge of the academics to design and implement online courses, and 2) to enable the academics to deliver online teaching and facilitating successfully as well as supporting the students online, which necessitates the recruitment of instructional designers, graphic designers, computer technicians,

multimedia programmers, audio-visual technicians, editors of text, e-librarians and resource providers.

As for online assessment, Buchanan (2004) proposed various strategies ranging from participation techniques to online group work, peer and self-assessment, and journals and portfolios to evaluate students' learning thoroughly. The author described the advantage and disadvantages of each technique, and she also introduced the role of online mentoring as an additional strategy for assessment, proposing a mentoring program where as mentor follows the learning process of the mentee so as to share it with the instructor of the course. While online participation is advantageous because it can be quantified, can be analyzed for intellectual synthesis and can encourage higher quality work and deeper engagement with course materials, it has also some disadvantages as it can be quantified and time intensive for instructor and students if not appropriately defined and explained. As for portfolios and journals, it can be stated that they show progression over time, provide large amount of data, promotes engagement and reflection, provide many ways to show students' learning and facilitate greater dialogue between students and instructors.

On the other hand, a typical university semester may hinder to see the change over time; instructors may not know which part reveals learning; it is time consuming with large classes; it pushes instructors to provide clear guidelines; and students may miss the point of the exercise (Buchanan, 2004). Besides that, self-assessment can also have both pros and cons. Whereas self-assessment provides greater student autonomy and self-control, an ability to reflect themselves and their learning, facilitates the dialogue between instructors and students at student level, and requires instructors to be clear in goals and objectives reflected to students, it may cause students to be more concerned about grades rather than learning process and to be unsure about the unknown parts as well as instructors to prepare precise guidelines and to be clear in goals and objectives reflected to students. Lastly, peer assessment and group work may encourage students to work harder to 'face' their peers, can create a more collegial environment, and help instructors to facilitate and run learning process among the students, whereas they may cause a grade inflation or harsher grading, a hostile environment, and the possibility of unfair distribution of workload if peer grading on group work is not used.

Regarding students' experiences, Kırmızı (2015) conducted a study with

undergraduate students in distance education to determine the effect of learner readiness on student satisfaction and academic achievement in an online program at university. Learner readiness includes five sub-dimensions such as computer/internet self-efficacy, self-directed learning, learner control, motivation for learning, and online communication self-efficacy. According to the results of the study, distance education students think that their courses back up their educational and professional development, and they were satisfied with the level of interaction provided in online courses. Regarding computer and Internet self-efficacy, they comfortably use the Internet effectively as well as online learning software, and finally feel confident in performing the basic function of office programs. In terms of self-directed learning, the most important predictor of success in online education, students are highly motivated and so they can set goals, conduct their own study plan and have high expectations from their learning. Therefore, they seem highly satisfied with their online communication self-efficacy.

Stated that knowledge and skills settled for teaching face-to-face classes are not adequate for teaching online and even more challenging to teach science, technology, engineering and math (STEM) courses, which necessitates hands-on activities and live demonstrations, Yang (2017) conducting a study on the effectiveness of the instructional strategies and the online course design features in an online statistics course from the students' viewpoints. The results of the study revealed that a range of instructional strategies (case studies, video demonstrations, instructor's notes, mini projects, and an online discussion forum) and course design features (consistent structure, various resources and learning activities, and the application focused course content) were effective and enabled students to learn statistics online.

Especially for hands-on activities in science courses, no matter is they are synchronous or asynchronous, it is difficult to conduct online courses, and in order to cope with this problem as much as possible, instructors should design problem-based courses where they integrate live presentations, laboratory tutorials and simulations, discussions, and peer collaboration (Yang, 2017). Moreover, they put emphasis on practice rather than abstract theories in such courses with the help of software to underline authentic application of concepts, methods and procedures. Using video demonstrations can also enhance teaching STEM courses online by allowing physical demonstrations of new software and difficult concepts for students.

2.2.1.3. Emergency Remote Teaching

A new concept regarding online learning emerged during the Covid-19 pandemic, which is called emergency remote teaching, ERL, but at the same time, the term is used by some scholars as pandemic pedagogy or emergency remote learning alternatively (Tulaskar & Turunen, 2021). The term is named in the Covid-19 pandemic which caused an instant instructional delivery from face-to-face education to online education disregarding much planning and deliberate attention required for online education in terms of teacher preparation, infrastructure, education policy, and resources (Adedoyin & Soykan, 2023; Barbour et al., 2020; Bozkurt & Sharma, 2020; Hodges et al., 2020; Tulaskar & Turunen, 2021). The aim was not to recreate a healthy educational ecosystem, but to provide temporary access to instruction, so there are various models of instructional models like mobile learning, radio, blended learning, or other solutions that are contextually more feasible. Instead of conventional structural design of the courses, the content is transformed quickly into virtual experience using PowerPoint presentations, videos, and screen captures (Tulaskar & Turunen, 2021).

For Barbour et al. (2020), the minimum duration for planning, preparation and development of an online course is three to six months before its delivery while teachers become adequate after the second or third repetition of that course; however, in the pandemic, the shift was so quick that teachers could not have time to adapt themselves and their courses to online education in order to provide an effective learning environment to students. There are four phases of emergency remote teaching as stated by Hill (2020) and Kelly (2020a) (as cited in Barbour et al., 2020):

Phase 1: Rapid Transition to Remote Teaching and Learning.

Phase 2: (Re)adding the Basics.

Phase 3: Extended Transition During Continued Turmoil.

Phase 4: Emerging New Normal.

Emergency remote teaching happens during phase one and continues into phase two as seen in Figure 5. By transiting to simply remote teaching, it continues to take place in phase three. Lastly, in phase four, new normal emerges and face-to-face teaching continues in the classroom and/or planned online learning. Thus, the model highlights the challenges and complexities of shifting to online education during a crisis. It emphasizes the importance of equity, accessibility, and student support

throughout the transition, and suggests a gradual evolution of online learning practices, with each phase building upon the previous one.

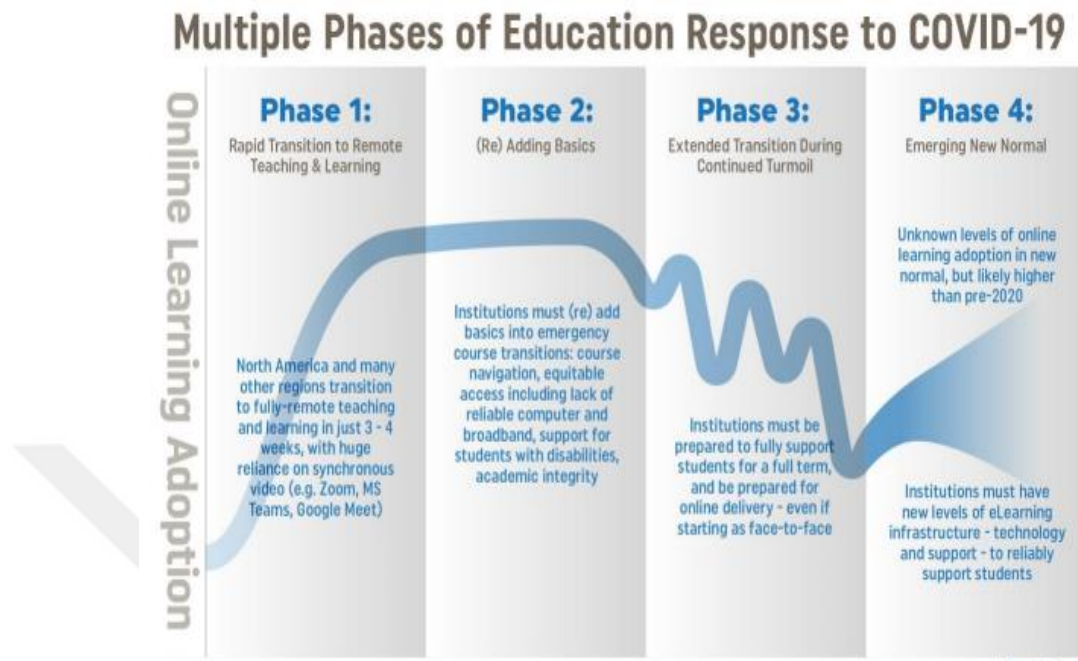


Figure 5 Four Phases of Educational Response to Remote Teaching and Learning (retrieved from Barbour et al., 2020, p.3)

Despite seeming alike with online distance education in some practices, emergency remote teaching should not be put in the same equation, and calling it online distance education or online learning should be approached with caution because it was a temporary change for instruction and curriculum delivery due to Covid-19 crisis. (Tulaskar & Turunen, 2021). However, unaware of this difference, many researchers have used the term online education, online learning, or distance education interchangeably with emergency remote teaching as seen in the studies below. In this regard, the term online education is used in this study as an umbrella term to refer to instructional practices regarding emergency remote teaching and other terms related with distance education as understood by the participants of the study.

2.2.2. Nonacademic College Experiences

Nonacademic college experiences consist of work responsibilities, on or off-campus residence, participation in intercollegiate athletics, social organizations, non-course-related interactions with peers, extracurricular involvement and participation in volunteer work, and educational degree plans (Pace, 1984). Campagna (1969)

investigated the effect of nonacademic college experiences on overall growth of the students. The study noted that there is a positive impact of nonacademic college experiences and students' participation on their overall growth. Checking the satisfaction of students regarding nonacademic college experiences, the researcher also found out that there is a positive correlation between satisfaction and channels for creative activities, opportunities for social exchange and increased tolerance on ethical, philosophical, and religious issues. Besides that, students found chances for self-discovery and self-insights as providing the greatest personal satisfaction, they ranked social life last. Lastly, it is clear that personal growth is the most important aspect of education for students, and it depends more on non-academic experiences than on academic ones. Therefore, it is the duty of colleges to enable students with an atmosphere and experiences to develop their social, intellectual, personal, physical competence as well as academic competence. For the establishment of more and more fulfilling extra-curricular opportunities, there need to be more facilities provided and more time allocated for these types of activities.

Lotkowski et al. (2004) prepared a policy report to investigate the influence of non-academic factors, alone and joint with academic factors, on student retention and performance at university. They noted that non-academic factors like academic-related skills, academic self-confidence, academic goals, college commitment, social support, certain contextual effects, and social engagement as well as academic factors like high school grade point average and assessment scores, and socioeconomic status (SES) have a positive impact on college retention. They provided administrators and policymakers with some suggestions to consider both academic and non-academic factors in the design and implementation of retention efforts.

Considering the nonacademic experiences as important as academic college experiences, the studies regarding the effects of Covid-19 on both the academic and nonacademic college experiences of the stakeholders in the pandemic need to be investigated.

2.3. The Effects of Covid-19 on College Experiences

Analyzing various studies conducted on the effect of the pandemic on higher education, Sultanova (2021) stated that students and academics have different perspectives regarding distance education as students have a more positive tendency towards distance education. On the other hand, both parties have health problems due

to the lack of social isolation. Academics also experience heavy workload and stress caused by the transition to distance education. Besides that, universities face financial losses led by the drop in the number of international students, and education become less accessible for an average person. Lastly, there appears suspicion for scientific research, which causes the requirement for open access to scientific research.

The Covid-19 pandemic caused the closure of higher learning institutions and a major shift from traditional classroom-based teaching and learning to online education (Mseleku, 2020). The researcher reviews the literature to understand whether this shift produces positive e-teaching and e-learning outcomes as well as challenges and opportunities. While abundant studies have been published on the pandemic, only few of them report the depth of e-learning and e-teaching outcomes, related challenges and opportunities during the pandemic. The literature presented a number of learning and teaching challenges faced by academics and students such as the inadequacy in access or use of online learning and teaching tools, difficulties experienced by students in rural areas and the ones from low-income families, and psychological problems like stress, depression and anxiety.

Adedoyin and Soykan (2023) pointed out the fast transformation to online education should not be called online learning but emergency remote education. The researchers stated that there is a need to address computer literacy, educational institutions should form separate digital platforms to teach digital skills, students need to be motivated to gain those skills, researchers in educational technology should develop alternative assessment tools, and instructors should develop a structure online learning model. Besides that, educational institutions can collaborate with telecommunication companies to limit the cost of the Internet connection.

The qualitative study conducted by Ferri (2020) aimed at analyzing the opportunities and challenges of emergency remote teaching during Covid-19. The results point out technological challenges like the unreliability of Internet connections and inadequate electronic devices; pedagogical challenges like lack of computer literacy, the deficiency of structured content versus the abundance of online resources, students' lack of interactivity and motivation, and teachers' lack of social and cognitive presence; and social challenges like loss of human interaction among stakeholders, and the lack of available physical spaces at home and the lack of support of parents. In order to cope with these challenges, there should be reliable network

infrastructure, more affordable devices such as tablets or computers, and diverse modalities like telecourses, TV, radio, online courses. Besides that, teachers and students need to be provided with systematic training programs to improve computer literacy. There should also be a consistent plan to develop structured and planned materials and to use more adequate e-learning platforms to maintain students' attention. Moreover, students' feedback should be taken into consideration by consistent communication with students to prevent them from feeling isolated and confused. In order to enable interaction among stakeholders, a blended approach should be adopted and face-to-face lessons should complement online lessons. Furthermore, technologies using virtual reality need to be improved to become widely accessible and so more engaging and inclusive. The use of artificial intelligence can be reinforced to encourage personalized, inclusive and participatory online learning and more inclusive tools, platforms and devices can be developed for people with disabilities. Therefore, all stakeholders taking part in education such as policymakers, enterprises, experts, schools, students and families should cooperate closely to develop accessible and smart learning environments, educational resources and tools as well as maintaining the sociality, inclusiveness and accessibility of education.

Varshney (2020) stated that Covid-19 caused an impact on the operational aspects of higher education, which urged universities to depend on online education and to create new ways of teaching all of a sudden. The researcher aimed to explore the striking features of the new normal of higher education as well as the technological advances to be used in online education in order to foster student engagement in spite of the challenges of digital access. Moreover, the study focused on the paradigm shift in the delivery process of education and the roles of teachers and students. Thus, the study provides implications of this shift on transformation of teaching and learning, and the policy imperatives in order to enable sustainability and excellence in education.

Tang et al. (2021) conducted a study to investigate students' readiness for live online learning in line with five core factors such as technology readiness, self-directed learning, learner control, motivation for learning, and online communication self-efficacy. According to the study, during the coronavirus outbreak, gender differences were reduced because students are forced to learn more initiatively. Besides that, students studying at a higher education degree level may have higher expectations of

their academic achievement and were significantly different in their online learning readiness. As for future implications, more virtual activities should be considered to enhance the motivation for students undertaking lower-level degrees, and encouragement of student-to-student interactions can be considered.

A case study carried out by Bao (2020) highlighted five effective instructional practices at university in online education such as (a) high relevance between online instructional design and student learning, (b) effective delivery on online instructional information, (c) adequate support provided by faculty and teaching assistants to students; (d) high-quality participation to improve the breadth and depth of student's learning, and (e) contingency plan to deal with unexpected incidents of online education platforms.

Like Bao (2020), Mahmood (2021) revealed some similar suggestions. First of all, the study indicated that interaction between teachers and students is quite important for an effective lesson, so teachers should have slow speech and use their pitch effectively. They also need to conduct interactive courses and share materials with students with the help of transforming a large-class lecture course to smaller modules, recording courses and getting help from assistants. By getting feedback from students, teachers should improve students' learning abilities, and they need to improve their critical thinking skills, creativity and practicality. Lastly, teachers should provide flexible teaching and assessment policies. Besides teachers, HEC should provide efficient technical infrastructure with the help of telecommunication industries.

Mishra et al. (2020) conducted a study to portray instructional strategies in online teaching-learning adopted by the Mizoram University during Covid-19, and suggested some implications to transform the existing resources of educational institutions effectively from formal education into online education by means of virtual classes and other key online tools in this continually shifting educational landscape. Students showed a lack of interest and attention in online classes because they were not used to learning with smartphones and computers, but they found videos uploaded by the teachers effective as they have a chance to watch them again, pause and take notes when needed. While content with teachers' readiness for online education, students were not satisfied with online classes to understand the conceptual knowledge and discourse activities and the teachers' teaching speed that they could not keep up with. Lastly, students expected their teachers to form friendship and use voice call to

enhance the environment of the groups, apps or any platform along with making learning personalized experience for students.

As for technological infrastructure of students which is the major challenge while teaching, the researchers (2020) pointed out that online teaching felt like teaching to a blank wall due to videos and audios watched asynchronously. Other challenges stated by teachers were level of understanding, lack of scope for meaningful interaction, the range for innovative teaching, and mechanical conduct of classes basically because of teachers' inability to read the face and mood of students, and so to change the teaching pattern. Some of them could not determine whether students actively participate in the course or switched on the computer for the namesake. Besides that, both teachers and students expressed a lack of motivation as immediate feedback was not available in the online teaching-learning transition stage. Moreover, teachers regretted that the laboratory activities for research during the lockdown period could not be carried out and so they demanded simulation techniques in laboratory practical. Nevertheless, they could not continue their research projects and doctoral/post-doctoral research activities because they could not collect data due to subsequent lockdowns. Lastly, teachers had to work harder to prepare handouts and course materials.

Elfirdoussi et al. (2020) conducted a qualitative study to investigate and assess the distance learning during Covid-19 in Morocco. The researchers collected data from 3037 students and 231 professors from 15 universities to get their ideas about the limitations of e-learning platforms and how they were used at universities. The results of the study pointed out that both the academics and the students found online learning not more interesting than face-to-face education, and the academics should conduct at least 50% of their teaching face-to-face. Besides that, the latest technology needs to be used to increase the learning process and interactions among the academics, students, and technicians. While reducing the cost of education, online learning increases the responsibilities of the academics as they are expected to adapt their pedagogical approaches and in their teaching materials to online learning and provide accountability for the students to learn. For the learning process to be smooth, technological equipment and infrastructure is needed and using smartphone can be a good option for the students to study anywhere and anytime, especially for the ones from suburban areas or other cities.

Gamage (2020) reviewed numerous measures taken by universities to deliver teaching and laboratory practices in distance education at the departments of engineering and at the departments of science and technology. The results indicated the importance of social bonds that the students form at university environment as well as the use of campus facilities including laboratories. Therefore, enabling the students to form that bond but with a different format as in online education is necessary so as to build a community learning. Thus, the universities need to consider the well-being of the students. Besides that, online education deprives the students of the laboratories which contribute to the development of social skills and communication skills necessary for scientists and engineers to carry out a team work. This may cause the students to become more disengaged with their peers and networks. Therefore, a high quality of online educations should be delivered by the academics who alter their instructional strategies and base them on interactivity and engagement by means of Salmon's five-stage model of teaching online. In case of access to the Internet and adequate technical infrastructure, laboratory courses can be carried out online by utilizing cutting-edge virtual reality technology; however, inequality arises because distance education enables the developed countries to work remotely, whereas leaving the underdeveloped ones at a disadvantaged position.

Popa et al. (2020) conducted a study on teaching and learning experiences in online education under crisis conditions, such as those caused by Covid-19. The results of the study point out that the features to become a priority in online education are the ones concerning primarily the didactic quality of the learning experience which are interaction between academics and students, student motivation, stimulation for obtaining feedback in real time and developing the pedagogic design. On the other hand, making study materials available for students is considered enough at first, but indeed, this feature, knowledge reporting, counts the least. This didactic behavior makes education learner-centered, providing students with the quality of an emotional partner in the educational process. The researchers lastly note that although the crisis, Covid-19 has ended, it paths the way for multiple institutional evaluations and a review of teacher training at university by reconsidering the role both of digital competencies and didactic ones.

Another review of literature concerning the in-depth revision of previous studies published in 2020 and 2021 was conducted by Abdelfattah et al. (2023) to

review critical challenges and factors affecting the effective use of electronic learning systems at higher education institutions. The review revealed some technological, organizational and behavioral issues regarding e-learning during the pandemic. It indicated that students' acceptance of e-learning depends on their self-efficacy, subjective standards, satisfaction, anxiety and prior familiarity with computers, and students decide to use e-learning according to relative benefits, observability, trialability, compatibility, complexity and satisfaction. The factors that enhance e-learning are academics' staff competency in learning technologies, student familiarity with computer systems and educational institutions' technological infrastructure. The application of online learning is widely investigated in literature, and critical issues affecting successful implementation of online learning are stated. Besides, psychological factors like attitude, behavior, acceptance and motivation as well as technological factors like digital tools, facilities and infrastructural preparedness are noted. Lastly, factors affecting online learning in different contexts like school, college and university were stated as teacher perception, student behavior and parent attitude which are based on their knowledge and skills.

In the study of Karasneh (2021), the online learning experiences of academics during Covid-19 and the perceived barriers are investigated. The result of study indicates that the basic barriers of online education are considered as poor internet connection, lack of technological equipment and family atmosphere. Besides that, technical competency is seen as an area to be developed. Lastly, in-service training and inter-departmental communication are suggested for the success of online teaching during the Covid-19 pandemic.

Paudel (2021) conducted a quantitative study by collecting data from the students and academics regarding the benefits, challenges and strategies of online education in Covid-19. The study revealed that fostering online research, having a global network and reaching various resources are the advantages of online education, whereas time management, low Internet connection and providing students and academics more freedom are the challenges. Besides that, academics need to have time management skills and computer literacy. Lastly, the study noted that participants accept online learning as an alternative to traditional education, and find blended learning effective to be applied.

The lockdown in Covid-19 caused not only the prohibition of physical lectures

but also the inapplicability of using facilities like libraries, laboratories, sports activities as well as the change in communication channels (Aristovnik et al., 2020; Cao et al., 2020). Deprived of social life and social and physical contact with peers and faculty, students experienced adverse emotions like frustration, boredom, anxiety, confusion, anger (Aristovnik et al., 2020; Karalis & Raikou, 2020). As a result, they become at a risk of experiencing social isolation and mental health disorders.

As seen in international literature, there are various studies focusing on academic and nonacademic college experiences during Covid-19 with the challenges and parts to be improved as well as suggestions for future implications; however, there is a need to focus on the change to compare and contrast college experiences before and after the pandemic.

2.3.1. The Effects of Covid-19 on College Experiences at Turkish Universities

According to CoHE, Türkiye homes the largest higher education student population in Europe with 207 universities and a total of nearly 8 million students. Due to Covid-19, as of March 16th 2020, universities in Türkiye have suspended face-to-face education, and replaced it with digital online platforms (Saraç, 2021; Tosun 201). Responsible for strategic planning, coordination, supervision and monitoring all universities in Türkiye, CoHE noted that it has approached this process with agile management, strong coordination, flexible decision-making and diverse cooperation. In order to cope with the challenges faced by students during emergency online education, digital communication skills of students have been built, and stress caused by technology and social isolation have been reduced. CoHE states that two years before the pandemic, an intensive program called Digital Transformation Project at Universities had already been applied to academics and university students, and following the pandemic, it is adopted by governmental bodies to increase digital skills of faculties and staff, especially in newly established universities in rural areas.

Believing in the importance of considering the needs and concerns of stakeholders in higher education, CoHE has conducted a research study on the effects of online education and perceptions of students and academics in order to investigate the opportunities and challenges of the sudden and compulsory transition to online education, and accordingly create new educational models after the pandemic (Saraç, 2021). The data collected from 1,255,022 students and 27,820 academic staff from 207

universities from all the regions of the country. The results of the study indicate that most students benefited from online teaching materials in their courses and found them suitable because almost all of them could reach electronic devices to follow online classes and online assignments. Regarding academics' perspectives, it can be stated that they spent more time preparing course materials, and they thought that there was a decrease in student participation. While some of them claimed that their academic activities and research were negatively affected, most of them believed that they improved their technological and pedagogical skills. For the spring term of 2021, most students and academics preferred to have online or blended education, and after the pandemic, they noted that blended education could be carried out.

For Saraç (2021), half of the students and academics are not satisfied with online education in terms of efficiency and quality, which needs to be considered carefully and to develop online education by helping academics gain more experience and students feel more motivated and supported. For the applied courses, necessary accessibility to labs and practical training should be met. In this regard, in the spring term, courses in health sciences are administered with face-to-face education. Seeing online education as a good opportunity with more flexibility, students and academics will pave the way for the development of digital higher education in Türkiye. Besides that, the study carried out by Tufan (2020) to analyze the impact of the pandemic on higher education institutions in Türkiye pointed out that the pandemic mostly affected education-teaching methods, research, internationalization and mobility. The study also focused on the response of CoHE to the pandemic under four phrases: close monitoring, preparing, action and new normalization.

Considering the measurements taken by CoHE and distance education practices of the universities in Türkiye, Tosun (2021) provided recommendations regarding the distance education operations of universities such as encouraging distance education among stakeholders to ensure positive thoughts and attitude, sustainable technical support, sustainable academic support and communication, sustainable psychological support, legal regulations and restructuring, strengthening technical infrastructure, determining cyber security strategies, and ensuring sufficient number of qualified personnel. Lastly, she pointed out that societies rely on their universities, and there are various missions from meeting the needs of the society to information production centers for the development of the country and the world in

every field, especially science, technology, art and literature. Therefore, the adaptation to urgent situations like distance education during the pandemic determines the success of them. As a result, the pandemic has provided the universities in Türkiye and worldwide to evaluate themselves regarding the scope of distance education in terms of effective education, management, communication, evaluation, leadership, ethics and cyber security.

Karademir et al. (2020) conducted a study on the challenges of Covid-19 on Turkish universities to examine the experiences and opinions of the stakeholders (academics, managers of distance education centers, students, and parents), and to offer solutions to emerging issues. The study shows that Covid-19 has mostly psychological effects on individuals, and the fact that institutions are quite dependent on traditional means of instruction. Even though many of them have tried to implement distance education, the quality of instruction is rather questionable, and so is the quality of learning outcomes. The shift from traditional to distance education points out the difference between the experienced and inexperienced academics in digital literacy more apparently. In light of the results, the authors provide some recommendations to national and international policymakers. They suggest individual and group therapy sessions to cope with psychological effects of the pandemic, sufficient infrastructure to implement quality distance education, standards to be set for distance education courses, the application of Analysis, Design, Development, Implementation and Evaluation Model (ADDIE) to increase the quality of distance education, training activities for academic to improve their digital literacy, and alternative assessment models to be administered.

By a systematic review of literature, analyzed 123 articles published between 2000-2022 regarding educational practices at Turkish universities, Altınsoy and Boyraz (2022) noted that most of the studies adapted a qualitative research methodology to analyze the phenomenon its natural context, but there was also the overuse of both quantitative and mixed research methodologies because of the convenience of preparation, data collection, and cost-effective nature. Apart from methodology, the aim of the studies was mainly about the effect of Covid-19 on teaching and learning processes. For students, flexibility of time and place and improved time management skills are regarded as strengths of online education, whereas communicational problems, limited interaction, motivational problems, lack

of technological knowledge, participation problem, and absenteeism are considered as drawbacks of distance education. On the other hand, parental support is seen as both positive and negative factors for students in distance education. For academics, additional workload, traditional teaching methods, insufficient feedback and lack of experience, limited technological pedagogical and content knowledge, and inability to adapt to distance education can be stated as challenges. Thus, teacher training courses should be provided in terms of technology integrated teaching and distance education so that they can avoid inadaptability and have flexibility. As for instructional practices, achieving course objectives and appropriate content are seen as positive aspects while assessment can be seen as more challenging in distance education due to reliability and validity issues. On the other hand, providing students and academics with an alternative assessment to summative assessment is regarded as an advantage. Moreover, there arise material-oriented problems caused by teachers' learning towards face-to-face teaching and traditional learning materials, having lack of technological content knowledge and restricted guidance as well as students' limited self-directed learning abilities to search and use additional digital resources and materials. In terms of practical courses such as music, science, and English language teaching, distance education is found out inappropriate for sure. In addition to teaching and learning processes, issues related to personal factors like anxiety, negative attitude and perception of ineffectiveness are counted as the reason behind students not preferring distance education (Bali & Liu, 2018; Kemp & Grieve, 2014; Sticklen & Amato-Henderson, 2021, as cited in Altinsoy & Boyraz, 2022). Lastly, for contextual factors, lack of infrastructure and internet connection are major problems for distance education. Therefore, the policymakers, experts, and all other shareholders are recommended to focus on these issues and take necessary precautions as such an extraordinary event may reoccur in the future.

Taking national literature into consideration, there seems to be studies on academic experiences, specifically on instructional practices, stating the strengths and weaknesses of online education; however, there is a need to investigate nonacademic college experiences as well as the change in academic and nonacademic experiences of the stakeholders. Besides that, there is a need to focus on the change in the nature of the university and future implications for a robust college experience in emergency.

2.4. Summary of the Literature Review

“What are universities for?” has been a question asked by numerous scholars over the centuries, but answering this question has gained importance when the research university developed and fundamentally reshaped the nature of the university worldwide (Altbach, Reisberg & Rumbley, 2009). Being accepted as the key factor for determining the security of economic well-being of the country in the 21st century as well as for students’ fulfilling their academic, personal, vocational and professional potential (Stephenson & Yorke, 2012), universities become more concerned about improving teaching and sustaining quality assurance of teaching as well as specializing to cope with academic and ethnic diversity as indicated by the Bologna Process (Biggs & Tang, 2011). However, university cannot meet all the demands of a changing world; instead, there should be a learning society which prolongs the learning process throughout life. Thus, university needs to foster the development of a culture where students take active role in learning processes by empowering them in ‘learning to learn’ (Barnett & Coate, 2005; Löfvall & Nygaard, 2013). Regarding the literature on the purpose of the university, there is a need to investigate the changing nature of the university before and after Covid-19 by considering the perceptions and experiences of the stakeholders.

In line with the aforementioned changes in the concept of university, universities differ in terms of goals, general climate, rules and regulations, curriculum, teaching and evaluation, sense of community and student faculty relationships, and all of which determine college experiences of students, the events that occur in the college environment (Chickering & McCormick, 1973). College is as a valuable place for students to take the advantage of various facilities and resources and to actively attend academic and social activities, which improves intra-personal development and interpersonal communication skills (Bai, et. al, 2022), provides value change in two ways: the effects of educational environment and the effect of individual differences on value orientation (Newman & Newman, 1978; Pace, 1984), enables identity formation of students (Chickering & McCormick, 1973; Newman & Newman, 1978), helps to form their political and social attitudes (Lottes & Kurilof, 1994), affects their moral development (Rest & Narvaez, 2014), and lastly offers their intellectual and personal development by nonacademic college experiences (Pascarella et al., 2004); on learning outcomes (Bai et al., 2022). Therefore, university has a great impact on

students, and the only criteria is to what extent it affects depending on three variables (Newman & Newman, 1978): 1) the amount of student-faculty interaction, 2) the identity status of students and 3) the degree of fit between student values and the college values. Disturbed dramatically by Covid-19, both academic and nonacademic college experiences need to be examined so as to provide suggestions for future implications, so this study aims at shedding light on the changing college experiences before, during, and after Covid-19.

Considered as an academic college experience in literature, instructional practices, specifically emergency remote teaching as adopted in Covid-19, were addressed for the study because Covid-19 caused the instant instructional delivery from face-to-face education to online education disregarding much planning and deliberate attention required for online education in terms of teacher preparation, infrastructure, education policy, and resources (Adedoyin & Soykan, 2023; Barbour et al., 2020; Bozkurt & Sharma, 2020; Hodges et al., 2020; Tulaskar & Turunen, 2021). Extracted from major works adopting theories or philosophies of instruction, some researchers proposed online instructional strategies applicable or specifically designed for higher education (Gibbons, 2020; Keeton, 2004; Means et al., 2014; Salmon, 2004a; Yang, 2017). However, specifically for emergency remote teaching, four phases are stated: Phase 1: Rapid Transition to Remote Teaching and Learning; Phase 2: (Re)adding the Basics; Phase 3: Extended Transition During Continued Turmoil; and Phase 4: Emerging New Normal (Hill & Kelly, 2020 , as cited in Barbour et al., 2020)

Besides that, nonacademic college experiences have a more positive impact on students' overall growth compared with academic ones (Campagna, 1969). Therefore, it is the duty of colleges to enable students with an atmosphere and experiences to develop their social, intellectual, personal, physical competence as well as academic competence. However, both academic and nonacademic college experiences were disrupted due to the emergency remote teaching caused by Covid-19. The lockdown led to not only the prohibition of physical lectures but also the inapplicability of using facilities like libraries, laboratories, sports activities as well as the change in communication channels (Aristovnik et al., 2020; Cao et al., 2020). Therefore, the study emerged from the need to check the extent of this disruption from the lenses of the stakeholders considering the challenges and suggestions arouse in the pandemic.

Lastly, universities should develop “building back better” strategies which include effective remote learning strategies to provide learning continuity with multiple education technology solutions and to support to students, teachers and parents (World Bank, 2020a). In international literature, there are studies investigating the challenges and opportunities faced in emergency remote teaching pointed out three kinds of challenges faced by the students and academics: technological, pedagogical and social challenges (Abdelfattah et al., 2023; Ferri, 2020; Mishra et al., 2020; Mseleku, 2020) and providing suggestions to cope with them (Abdelfattah, et al., 2023; Adedoyin & Soykan, 2023; Bao, 2020; Elfirdoussi et al., 2020; Ferri, 2020; Gamage, 2020; Karasneh, 2021; Mahmood, 2021; Mishra et al., 2020; Popa et al., 2020; Tang et al., 2021). Along with international literature, in national context, there are studies on the strengths and weaknesses of online education (Altınsoy & Boyraz, 2022; Karademir et al., 2020; Saraç, 2021; Tosun, 2021). Finally, review of previous research indicated that the studies on college experiences during Covid-19 in national and international context were mostly conducted qualitatively and focused on college experiences during the phenomena rather than focusing on the change in college experiences before, during, and after Covid-19. In addition, there were several studies on academic college experiences but fewer studies on nonacademic ones, indicating the need to consider the phenomena more holistically by comparing and contrasting both academic and nonacademic college experiences in Turkish context with a comprehensive and scientifically grounded qualitative study.

From this perspective, the literature informs this study conceptually and methodologically along with indicating the areas to be considered for more equitable and robust post-Covid education systems at university. Taking the existing literature into consideration, as a result, the researcher in this study brings a more comprehensive outlook to the effects of Covid-19 on the changing college experiences of the undergraduate students and academics in Türkiye by investigating the phenomenon with all its aspects including the perceived strengths and weaknesses of online education, the perceived changes in the nature of university before and after the pandemic, and future implications.

CHAPTER 3

METHODOLOGY

In this chapter, research design, research questions, data sources, data collection instruments, data collection process, and data analysis procedures are presented. The chapter concludes with a discussion of trustworthiness addressing reliability and validity issues in qualitative research, and limitations of the study.

3.1. Research Design

As Corbin and Strauss (1990) claim, a qualitative research design is particularly more effective in providing findings on certain situations that cannot be adequately described through a quantitative research design, and it is also used to understand unknown phenomena as well as to get new perceptions about already acknowledged matters. A phenomenon can be in the form of experiences, perceptions, tendencies and concepts (Yıldırım & Şimşek, 2018). As noted by Creswell (2007), what all participants have in common as they experience a phenomenon needs to be described and then these common experiences should be understood to develop practices or policies, or to have a deeper understanding about the features of the phenomenon. For van Manen (1990), phenomenology is the study of the lived experiences of persons, and the view that these experiences are conscious ones, and for Moustakas (1994), it is the development of descriptions of the essences of these experiences, not explanations or analyses. Focusing on truths rather than truth, this study constitutes for phenomenological research to disclose the lived college experiences of the undergraduate students and academics before, during, and after Covid-19 through their own lenses.

Phenomenological research is a systematic attempt to reveal and describe structures of conscious lived experience to reach a deeper understanding of the nature or meaning of experiences of phenomena (Giorgi 1985; Husserl 1970; Merriam, 2009; Moustakas 1994; van Manen 1990). By means of phenomenology, one can have deep insight into the phenomena with experiences, perspectives and concepts constructed by participants (Yıldırım & Şimşek, 2018). Therefore, by utilizing a

phenomenological design, the researcher aims to understand the effect of Covid-19 on academic and nonacademic college experiences of the undergraduate students and academics through their own voices because there is a need to explain the phenomenon from the lenses of the directly affected ones at a deeper level. Thus, she can describe the change in college experiences due the pandemic throughly to provide some suggestions for a healthy educational system in such emergency.

As other qualitative research designs, phenomenology has a bottom-up approach, where the aim of the researcher is not proving hypothesis but building abstractions from the particulars in a certain context (Bogdan & Biklen, 2007). As stated by Patton (2002), even if our first understanding of phenomena comes from our experiences, it is necessary to describe, explicate and interpret them to make sense of the world and understand the essence of the phenomena. In order to understand the meaning of experiences of individuals who have experienced or lived the phenomenon, it is required to gather data in natural settings (Creswell, 2007), and to examine how people who experience the phenomenon “perceive it, describe it, feel about it, judge it, remember it, make sense of it, and talk about it with others” (Patton, 2002, p. 104) because there is always an intentional act and one needs to see the relationship between the object and the appearance of the object in one's consciousness in phenomenological studies (Moustakas, 1994). At that point, the researcher can clearly investigate the college experiences of the students and academics at their natural setting and understand how they attributed a meaning to those experiences and how they perceived the phenomena.

3.2. Context of the Study

With regard to these issues, in order to have rich and in-depth information of the relevant phenomenon in an utmost natural environment, the study is carried out at Middle East Technical University (METU), one of the most prestigious state universities in Türkiye. METU is one of the state universities which provides its stakeholders with various sources and equipment by means of the funds and income from academic research projects. Besides, it is the one which has the students who have the highest scores from the university entrance exam in Türkiye, the qualified academics who pursued their careers at least for some time abroad so as to have practice in different educational systems, and the campus which provides many facilities and socialization for the stakeholders as one of the first campus universities

in Türkiye based on the American land-grant model.

This study targeted the undergraduate students and academics of the Faculty of Arts and Science at METU. The faculty consists of nine departments, which are biological sciences, chemistry, history, mathematics, philosophy, psychology, physics, sociology and statistics. The faculty has approximately 3880 undergraduates along with 440 master and 390 PhD students, who are enrolled in its programs.

The Faculty of Arts and Sciences offers undergraduate programs that last four years. The curriculum of its programs has a mix of core courses, electives and some laboratory and practical work offered to the other faculties at the university as well. It provides students with theoretical and practical education opportunities and helps them to have successful careers in various fields all around the world. Therefore, having a fundamental function at university, the faculty can be seen as a representative of the phenomenon which can provide the researcher with a deep insight in college experiences from the lenses of the students and academics.

3.3. Participants

As qualitative methods require in-depth information on small samples, purposeful sampling was utilized in this study as the objective was to choose information-rich cases which will elaborate the questions under study (Patton, 2002). The participants in the study were carefully chosen among the ones who have all experienced the phenomenon in question, so that the researcher, in the end, can form a common understanding (Creswell, 2007). As indicated by Creswell (2007), it is essential that all participants have experience of the phenomenon being studied, and specifically criterion sampling is a good way to utilize when all individuals studied represent people who have experienced the phenomenon. At that point, the researcher selected the people representative of the phenomenon to be studied, who were academics working at the faculty for at least three years before the pandemic and the undergraduate students who were juniors and seniors studying at the university for at least two years before the pandemic, so that she could catch all instances related to each concept so as to get representatives for each one, which promotes consistency by means of criterion sampling.

For the study, maximum variation sampling strategy which lies in the nature of phenomenology was applied then in order to select the participants considering their gender, title, department, experience year/grade, experience with technology,

experience with online learning, and subject taught in order to identify common patterns as the objective of this sampling strategy is to grasp the central themes or principal outcomes that intersect a great deal of participants (Patton, 2002).

Considering the required sample size, the number of participants proposed in phenomenological research is varied among researchers. When it is around 7-10 according to Yıldırım and Şimşek (2018), it ranges from 5 to 25 for Creswell (2007) and Polkinghorne (1989) while it is optimal from 10 to 15 participants but can be extended to 25 participants for Tesch (1984). On the other hand, for qualitative research, an important sample size issue involves saturation of information, which means that the researcher needs to continue to collect data till there is no other category coming out (Glaser & Strauss, 1967; Strauss & Corbin, 1998).

In line with this, from June to September 2022, till the data saturation was reached, 32 academics and 55 students of juniors and seniors (3rd and 4th year students) who have experienced teaching and learning processes before, during, and after Covid-19 were interviewed for the study, so that they can compare and contrast the college experiences at university before, during and after Covid-19, and they can describe the change they experienced through their own lenses (*See Table 2 and 3*). The number of participants at each department varied depending on the availability of academics and undergraduate students, data saturation and volunteerism to participate in the study. In order to provide data saturation, the researcher included participants continually till the data set was completed.

Thirty-two academics and fifty-five undergraduate students in total, working and studying at the Faculty of Arts and Science at METU participated in the study. As seen in Table 3.1 and 3.2, five academics ($F=5, M=0$) and seven undergraduate students ($F=4, M=3$) from the department of Chemistry; five academics ($F=0, M=5$) and eight undergraduate students ($F=4, M=4$) from the department of Mathematics; four academics ($F=3, M=1$) and six undergraduate students ($F=3, M=3$) from the department of Statistics; four academics ($F=0, M=0$) and six undergraduate students ($F=0, M=6$) from the department of Physics; three academics ($F=1, M=2$) and six undergraduate students ($F=5, M=1$) from the department of Biological Sciences; three academics ($F=2, M=1$) and four undergraduate students ($F=1, M=3$) from the department of History, three academics ($F=2, M=1$) and eight undergraduate students ($F=5, M=3$) from the department of Sociology; three academics ($F=0, M=3$) and

three undergraduate students ($F=2$, $M=1$) from the department of Philosophy; and two academics ($F=2$, $M=1$) and seven undergraduate students ($F=7$, $M=0$) from the department of Psychology participated in the study.

One can see that there was nearly an even distribution among the gender of academics and students as seventeen academics were female and fifteen were male while twenty-four students were females and thirty-one males. However, when the within group characteristics were considered at each department, it was found out that the opposite sex was absent at three departments (Chemistry, Math and Physics) for academics and two departments for students (Physics and Psychology) since these groups were totally composed of either male or female students.

Table 3
Background Information of the Students Selected for the Study

<i>The Humanities</i>	<i>Departments of</i>	<i>Age</i>	<i>Grade</i>	<i>Gender</i>
History	ST34	24	4	M
	ST35	26	4	M
	ST36	24	4	M
	ST37	23	4	F
Sociology	ST38	24	4	M
	ST39	24	4	F
	ST40	23	3	M
	ST41	23	3	M
	ST42	23	4	F
	ST43	24	3	F
	ST44	22	4	F
	ST45	27	4	F
Philosophy	ST46	23	4	F
	ST47	24	3	F
	ST48	25	4	M
Psychology	ST49	24	4	F
	ST50	24	4	F
	ST51	23	4	F
	ST52	22	4	F
	ST53	23	4	F
	ST54	22	4	F
	ST55	23	4	F

Table 2
Background Information of the Students Selected for the Study (Cont'd)

The Departments of Science		Age	Grade	Gender
Chemistry	ST1	23	4	F
	ST2	23	4	F
	ST3	22	3	M
	ST4	23	4	M
	ST5	25	4	M
	ST6	23	4	F
	ST7	23	4	F
Math	ST8	23	4	F
	ST9	24	4	F
	ST10	26	4	M
	ST11	20	4	M
	ST12	25	4	M
	ST13	24	3	F
	ST14	24	4	M
	ST15	21	3	F
Statistics	ST16	27	4	M
	ST17	24	4	M
	ST18	24	4	M
	ST19	24	4	F
	ST20	24	4	F
	ST21	25	4	F
Physics	ST22	26	4	M
	ST23	24	4	M
	ST24	23	4	M
	ST25	23	4	M
	ST26	24	3	M
	ST27	24	4	M
Biology	ST28	25	4	M
	ST29	23	4	F
	ST30	25	4	F
	ST31	23	4	F
	ST32	23	4	F
	ST33	23	4	F

The age of the students ranged from 22 to 27, and they were third or fourth grade

students who experienced the university life for at least two years before Covid-19 while the age of the academics ranged from 27 to 70, most of whom were above 40 ($N=27$). The academics participated in the study pursued their careers at least for some time abroad and their teaching experience at university varied from 3 to 32 years. Most of them ($N=22$) had at least ten years of experience at university, and 12 of them had a 20-year and above experience. They had various positions at university as research assistant ($N=2$), doctor ($N=6$), assistant professor ($N=7$), associate professor ($N=1$), and professor ($N=16$). In addition to the requirements of their positions, 12 of them had administrative duties as department chairs, assistant chairs or club advisors during Covid-19, which provided detailed information about the administrative side of the lived experiences during online education as well. Besides that, the undergraduate students' and academics' experience in online education before Covid-19, if any, was also considered.

Table 4
Background Information of the Academics Selected for the Study

Department		Position	Age	Teaching Experience	Gender
Chemistry	A1	Ass. Prof. Dr.	45	5	F
	A2	Prof. Dr.*	50	28	F
	A3	Ass. Prof. Dr.	42	10	F
	A4	Dr.	40	3	F
	A5	Research Assistant	34	5	F
Math	A6	Prof. Dr.	70	50	M
	A7	Prof. Dr.*	55	28	M
	A8	Ass. Prof. Dr.	47	22	M
	A9	Dr.	39	5	M
	A10	Dr.	34	11	M
Statistics	A11	Prof. Dr.*	46	18	F
	A12	Research Assistant	27	5	M
	A13	Prof. Dr.*	48	15	F
	A14	Ass. Prof. Dr.	45	22	F
Physics	A15	Prof. Dr.	62	32	M
	A16	Prof. Dr.*	46	3	M
	A17	Prof. Dr.	52	22	M
	A18	Prof. Dr.	58	10	M
Biology	A19	Prof. Dr.	63	33	F
	A20	Prof. Dr.*	64	6	M
	A21	Prof. Dr.	43	9	M

Table 5
Background Information of the Academics Selected for the Study (Cont'd)

History	A22	Ass. Prof. Dr.	56	30	F
	A23	Dr.*	53	28	M
	A24	Dr.*	52	16	F
Sociology	A25	Prof. Dr.*	49	18	F
	A26	Ass. Prof. Dr.	60	20	M
	A27	Prof. Dr.	70	38	F
Philosophy	A28	Dr.	43	3	M
	A29	Ass. Prof. Dr.	43	5	M
	A30	Assoc. Prof. Dr.*	39	13	M
Psychology	A31	Prof. Dr.	47	16	F
	A32	Prof. Dr.*	47	17	F

*Academics with administrative duties

3.4. Data Collection Instrument

As stated by Stake (1995, p.64), “the interview is the main road to multiple realities” (as cited in Fitzpatrick et al., 2004, p.348). Since qualitative instruments are formulated to find answers to how questions and as it is possible to ask more questions when needed, through the interviews, the lived experiences, thoughts, beliefs and feelings of the stakeholders in a natural environment were reached (Wellington & Szczerbinski, 2007). Often data collection in phenomenological studies consists of in-depth interviews and multiple interviews with participants (Larsen & Adu, 2022).

For Van Manen (1990), the interview in phenomenological research has two main purposes: (1) to explore and gather experiential narrative material that may serve as a means for developing a richer and deeper understanding of a human phenomenon, and (2) to develop a conversational relation with an interviewee about the meaning of an experience. For Heidegger (2010), the ultimate characteristic of phenomenological interview questions is to capture what participants did (or are doing), including their actions, intent, decisions and strategies. Therefore, using the lens of interpretative phenomenology, the questions should focus on participants’ interactions with the phenomenon and the goal is to ask questions that capture participants’ actions dealing with the phenomenon (as cited in Larsen & Adu, 2022). Thus, the researcher needs to pay attention to the actions and intentions of the participants associated with the phenomena so as to understand what it means to be who they are considering participants’ disclosures (i.e., attestations) of their experience, which are called

speech-acts (Heidegger, 2010). In this study, the academic and nonacademic college experiences of the participants are interpreted before and after the pandemic.

For the study, an in-depth interview was conducted in the spring semester of the 2021-2022 academic year. The interview protocols for academics and students were developed with the help of the literature review, and the first drafts were reviewed by two other experts in the field of curriculum and instruction (CI): the researcher's thesis advisor, a professor at the department of curriculum and instruction at METU, and a colleague, who completed her Ph.D. at the same department. After drafting each protocol, they were piloted to an academic from the department of Chemistry, and three undergraduate students from the departments of Biological Sciences, Chemistry and Sociology. After the piloting process, wording and the order of some questions were reconsidered, and the final versions of interview protocols for academics and students were determined. The interview protocols consisted of 15 questions for the students and 16 questions for the academics, asking their experiences like "What are your perceptions and experiences regarding content of the courses?" or "How do you think online learning during the pandemic would change the university after the pandemic?" (See *Appendix A and B*).

3.5. Data Collection Procedures

After finalizing the interview protocols and getting the approval of the study from Human Subjects Ethics Committee Application (HSEC) at Middle East Technical University in May 2022 (See *Appendix C*), the researcher started to contact administrators and academics at each department from the Faculty of Arts and Science via e-mail and face-to-face meetings. Before each interview, a consent form was taken from the participants (See *Appendix D*). The researcher asked the academics who volunteered for the study to direct her to the students that could participate in the study. Upon the contact information of the students provided by the academics, the researcher contacted the students and asked them to volunteer for the study. Lastly, when the need arose for data saturation, by meeting maximum variation criteria, the students were requested to suggest some of their peers who would like to contribute to the study.

As noted by Creswell (2007), the researcher approached the lived experiences of the participants with a sense of newness in order to get rich and descriptive data. In order to achieve this, the researcher used bracketing, or *epoche*, which was a process putting aside one's beliefs, feelings, and perceptions to be more open or

faithful to the phenomenon (Colaizzi, 1978; Streubert & Carpenter, 1999, as cited in Creswell, 2007). Thus, the researcher acknowledged and attempted to bracket her own experiences and questions which touched lived experiences of the participants during the interviews.

Before conducting each interview, the researcher introduced herself to the interviewees and gave brief information about the study. Bearing in mind ethical issues, the anonymity of both participants and the interview data were assured to them. After informing them about the approximate duration of the interview, their consent of the audiotape was asked by stating them the reason behind audiotaping, which was not to miss any points, and all of the participants consented to be audiotaped. The interviews with academics lasted from 50 to 120 minutes while they lasted from 30 to 60 minutes with the students.

Before and during interviews, the researcher spent time with the participants at their departments (buildings, cafeterias, offices and labs) and tried to catch the culture they engaged in and built trust and rapport with them in order to gain in-depth understanding of the context and reduce the prospective misinformation.

Table 6
Timeline for the Study

Timeline for the Study	Jan-Apr 2021	Feb-Apr 2022	May 2022	June-Oct 2022	Jan-Aug 2023	Sept 2023-Feb 2024	Mar-June 2024
Actions							
Deciding on Research							
Research Questions and Research Plan							
Literature Review							
Development of Interview Protocol							
Piloting							
HSEC Review and Approval							
Data Collection							
Transcription of Interview							
Data Analysis							
Write-up							

3.6. Data Analysis

As indicated by Tesch (1990), qualitative data can be analyzed by dividing it into meaningful units, categorizing these units according to an organizing system, and making analysis concurrent with data collection (as cited in Gredler, 1996). While analyzing the qualitative data, two approaches are mainly administered: descriptive analysis and content analysis (Strauss & Corbin, 1990). As defined by Patton (2002, p. 453), content analysis method is “any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings”, and it was adapted for this study to help the researcher to come up with the patterns, themes and categories which emerged out of data without the use of an existing framework (Patton, 2002; Yıldırım & Şimşek, 2018). By figuring out the concepts and relationships which contribute to the explanation of the collected data, a higher order and more abstract concept comes out from them, which is called a category (Strauss & Corbin, 1990).

In this study, data gathered by the interviews were transcribed word-by-word through a word processing program from August to December, 2022. The researcher organized and simplified the data by checking the transcripts and ended up with 639-page raw interview data. The transcripts were sent to the participants to crosscheck and sign the interview verification form (*See Appendix E*). Upon that, for its practicality, MAXQDA 2022 was utilized to analyze the data in 2023.

Data analysis in this phenomenological study included five essential processes: epoche, getting a sense of the whole, phenomenological reduction, imaginative variation, and synthesis of meaning (Giorgi, 1997; Moustakas, 1994). Moustakas (1994) suggests basic steps of data analysis in a phenomenological research method: 1) bracketing where the researcher sets aside the preconceived experiences so as to understand the lived experiences of the participants as objectively as possible, 2) horizontalization where the researcher goes through the data and highlights the significant statements underlying the lived experiences 3) developing clusters of meaning from these statements into themes, 4) using these themes to describe the experiences of the participants (structural description or called imaginative variation) and the context that influenced those experiences (textual description), and lastly 5) considering the structural and textual description, presenting the essence of the phenomenon (invariant structure) (as cited in Creswell, 2007).

While descriptive phenomenological researchers describe the universal structures by bracketing their prior assumptions and preconceptions, hermeneutic ones attempt to interpret the meaning of the phenomenon in context by considering prior experiences as a source of knowledge and sensitizing with the meanings presented by the narratives of the participants. At that point, the researcher needs to decide how and in what way her/his personal experiences and understanding can be introduced in the study. Epoche, called bracketing, may be difficult for the researcher to implement because an interpretive approach to phenomenology prevents the researcher to become separated from the text (van Manen, 1990).

For Eatough and Smith (2008), the researcher needs to focus on the context-dependent life worlds of participants, depending on social, historical and cultural factors. As such, Interpretive Phenomenological Analysis (IPA) is strongly connected to hermeneutics in its recognition of the investigator's centrality to analysis and research, and it is not 'simply descriptive'; the researcher is required to point out an interpretive account of what it means for participants to have such experiences, within their particular setting (Noon, 2018). In interpretive inquiry, the researcher makes an interpretation of what she sees, hears and understands, and this interpretation cannot be separated from her own experiences. Thus, the researcher becomes the interpreter of the data as well as the one who represents it (Creswell, 2007). As stated by Smith (2008, p.40), "the participant is trying to make sense of their personal and social world; the researcher is trying to make sense of the participant trying to make sense of their personal and social world". Thus, I, as the researcher of the study, listened to the recordings while reading the scripts so as to understand not only what was said but also how it was said. This also gave me an insight to interpret the experiences of the participants more accurately.

As the researcher, I moved back and forth between the lines in order not to miss anything that could contribute to the study, tried to make connections between emergent themes according to conceptual similarities and established a comprehensive set of themes. In addition, I collaborated with the participants to shape the themes that emerge from the process by sending the codebook to them and getting their opinions because all participants are at the same time co-researchers since the essence of the phenomena is derived from participants' perceptions and experiences, regardless of the interpretation of the researcher (Moustakas, 1994). At that point, the researcher

notifies the co-researchers about their positions in phenomenological research which answers the research questions based on the co-researchers experience and their narratives (Yüksel & Yıldırım, 2015).

As a strength of IPA, Noon (2018) notes that the obvious application of IPA is that experience is a major subject matter within educational research. The author adds that from teachers' distinctive teaching methods and preferences, to students' unique learning styles and needs, the educational experience is fundamentally subjective. As a result, IPA explicitly recognizes the utility of subjective experience as scientific data and is mainly appropriate for researchers seeking to explore the novelty or "uniqueness of a person's experiences, how experiences are made meaningful and how these meanings manifest themselves within the context of the person both as an individual and in their many cultural roles" (Shaw, 2001, p. 48, as cited in Noon, 2018, p. 80). Since an interpretative (existential) phenomenological study is concerned with not only interpreting participants' lived experiences but also attaining meaning of their being (existence), the assertions that participants make about what the phenomenon they have experienced means to them, are helpful for the researcher to discover the being of the phenomenon (Larsen & Adu, 2022).

Another strength of IPA is unexpected results that can be driven from the inductive nature of open questions and participant led interviews (Eatough & Smith, 2008). Therefore, from unexpected turns aroused unprompted from the participants, the researcher needs to be open to unanticipated topics and uncover intriguing phenomena by exploring the lived experiences of them in a holistic manner (Noon, 2018). In that sense, IPA can be considered as data driven rather than theory driven (2018). In the study, I tried to catch all the instances and unexpected turns of the participants as a change to understand and uncover the phenomena and describe the college experiences of them with before and after the pandemic.

Data is empirical evidence which can be used for various purposes by the researcher like exploring topics, expanding knowledge, developing concepts and providing evidence (Charmaz & Belgrave, 2019). When an incident is noted, it is compared and contrasted with other incidents, and the resulting concepts and sub concepts come out (Corbin & Strauss, 1990). The comprehensive dataset for the study required careful attention to detail when coding to ensure accuracy and consistency. To overcome this challenge, a systematic approach was applied for coding, breaking

down data into meaningful units, categorizing, and iteratively refining codes and categories. This process required multiple repetitions of coding to accurately capture the richness and complexity of the data. As noted by Santana (2009), coding is a cyclical act and only the first cycle cannot be enough to perfectly show a pattern to facilitate the development of categories and their connections, so the second and even third or fourth cycle is needed to recode further and generate categories, themes, and concepts.

The researcher in this study used at least two cycles of coding in order to refine the codes and categories emerging from the data by merging, relabeling, rearranging, reclassifying or even reducing codes when necessary. The coding process lasted for about 6 months as the data was vast and needed to be coded by inductive coding approach which required the researcher to form codes without depending on a preexisting code list. As suggested by Auerbach and Silverstein (2003), and Yıldırım and Şimşek (2018), the researcher kept the research questions and goal of the study in mind while coding in order to be focused and certain about her coding decisions.

For the First Cycle of coding, an eclectic approach was used which was a combination of grammatical methods such as attribute coding (demographics), magnitude coding (indicating codes' intensity, frequency, direction, presence, or evaluative content), and simultaneous coding (assigning two or more different codes to a single qualitative datum); elemental methods such as descriptive coding (assigning basic labels to data to offer an inventory of their topics); and affective methods such as emotion coding (labeling the emotions recalled and/or experienced by the participants), values coding (reflecting a participant's values, attitudes, and beliefs, and representing his or her perspectives or worldview) and evaluation coding (assigning judgments about the merit and worth of programs or policy) (Santana, 2009). As for the Second Cycle of Coding aiming to reorganize and reanalyze data coded through First Cycle Coding methods to form a list of broader categories, themes and concepts, the researcher adapted pattern coding which helps to form the category label that identifies similarly coded data based on thematic or conceptual similarity (2009).

Through First Cycle Coding, three main themes emerged: academic college experiences in pre-Covid, during-Covid and after-Covid periods, nonacademic college experiences in pre-Covid, during-Covid and after-Covid periods, and the views of the

students and academics on academic and nonacademic college experiences. Under the first theme, there are three subthemes: instructional practices, students' characteristics affecting academic college experiences, and academics' characteristics affecting academic college experiences. For the second theme, there are two subthemes arising: the university atmosphere and the changing nature of the university. Lastly, two subthemes emerged from the third theme "the views of students and academics regarding college experiences", which are the strongest and weakest aspects of online education and decision-making processes (*See Appendix F*).

As for Second Cycle Coding, in order to eliminate redundancy, the third theme "the perceptions of students and academics regarding college experiences" was integrated to the first theme "academic college experiences in pre-Covid, during-Covid and after-Covid periods". Besides that, the permanent changes on instructional practices after the pandemic was separated and integrated to the relevant parts regarding instructional practices such as content, course delivery, applied courses and measurement and evaluation. Besides that, the use of the library was added as a category to teaching and learning approaches. The code "increase in grades and decrease in academic achievement", which was under the category of reliability issues, was shifted to the theme "the role of the students", and specifically titled as academic achievement. On the other hand, some subthemes and categories were renamed. For example, the role of the students was renamed as characteristics of the students affecting academic college experiences, and the role of academics as characteristics of the academics affecting academic college experiences. Besides that, the code "students' skills and equipment" or "academics' skills and equipment" were renamed as personal competencies. Decision-making processes was renamed as future implications of online education. The code "readiness and experiences for online teaching" changed as online education literacy. Lastly, some categories like student computer literacy and technological equipment or academic computer literacy and technological equipment were merged and renamed as computer literacy and technological equipment.

After coding five interviews, the codebook was checked with an expert in the field, an academic from the field of Curriculum and Instruction, and any inconsistency consisting of 5 % of the codebook at most was discussed, and then they came to an agreement about the inconsistent codes. After all the interviews from academics and

students were coded, the researcher listed them under research questions respectively. The whole coded and thematized data were put into a codebook by inserting each main theme, its themes and subthemes and categories and codes to be used during write-up stage. The codebook from each participant was sent individually to the participants in order to crosscheck the codebook, and any comment from the participants was taken into consideration. For the final overview, the codebook was checked by my supervisor and two associate professors from the field for review and verification as well as for the consistency, accuracy and meaningfulness of the codes and themes. All the steps taken in the data analysis process were presented in Figure 6.

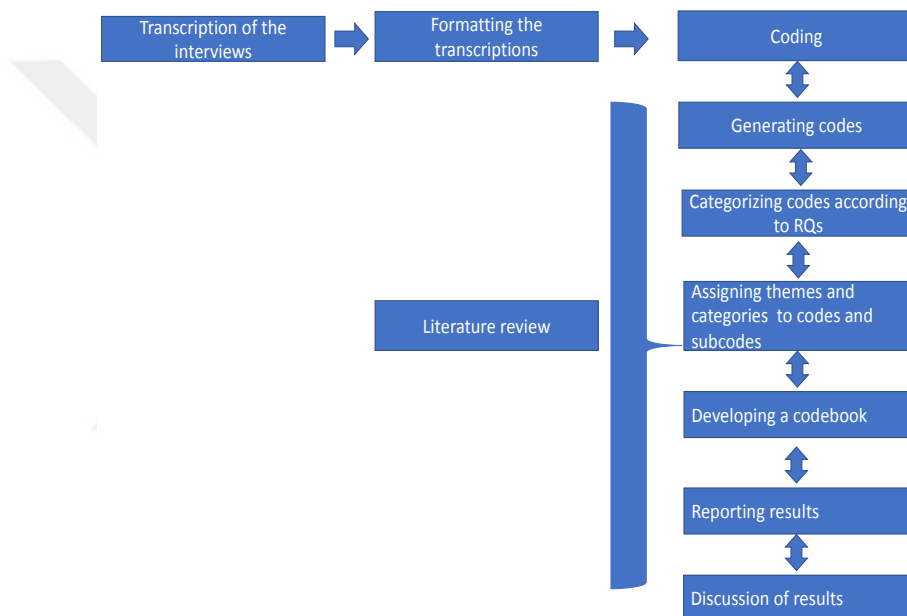


Figure 6 Data Analysis Process

3.7. Trustworthiness

Like in all research, it is significant to confirm the validity and reliability of the data collected in qualitative study; however, the constructs of reliability and validity in qualitative research differ from those in quantitative research (Yıldırım & Şimşek, 2018), and they are exchanged with the idea of trustworthiness (Lincoln & Guba, 1985). In this study, the researcher put immense importance to secure the trustworthiness of data collection and data analysis procedures by considering the terms proposed by Lincoln and Guba (1985): credibility for internal validity, transferability for external validity, dependability for reliability and confirmability for objectivity to measure the quality of qualitative research and enhancing trustworthiness.

Figure 7 An Excerpt from the Codebook Featuring Interview Data Analysis

		Chemistry	Math	Statistics	Physics	Biology	History	Sociology	Philosophy	Psychology
Theme Category	Codes	Subcodes		Interviewee						
Characteristics of Academics	having sufficient equipment	A4	A7, A8	A12	A16	A17, A18, A19	A26	A28, A30	A31	
	lack of technical equipment	A1, A2, A3, A4, A5, S2, S5, S7	A8, A9		A15		A26, A27			
	staring technical equipment with family members	A3		A11		A23	A25, A27			
	no adequate support from the university	A1	A7, A9, A10		A15, A18	A21	A23			
	alternating equipment among colleagues	A1, A3, A4, A5	A6, A8, A9		A16					
	financial burden on academics	A2, A3, A4, A5	A6, A8, A10	A11, A12, A14	A18	A22, A23, A24	A29			
	having sufficient technical knowledge	A4	A7, A8	A12, S18	A16, A17, A18,	A19, A20	S34, S37	A26, S38, S40, S41	A28, A30, A31	
	lack of technical knowledge	S2, S3, S4, S5, S6, S7	S8, S9, S10, S11, S12, S13, S15	S16, S17, S19, S20, S21	S22, S24, S25, S26, S27	S28, S29, S30, S31, S32, S33	S34, S35, S36	S39, S42, S43, S44, S45	S47	S49, S50, S51, S52, S53, S54, S55
	no info before about the platform used	A2, A3	A10	A12	A16	A19	A23	A25, A26, A27	A32	
	uncertainty in the program to be used	A3								
Computer Literacy and Technological Equipment										

3.7.1. Credibility

Credibility, internal validity, refers to truth-value of the research findings and answers the questions of whether the findings reflect the reality. According to Merriam (2009), credibility deals with the congruency between the findings and reality: whether the findings reflect what is really there, and whether investigators observe or measure what they think are measuring. To establish credibility, the researcher must be able to show severity in representing multiple constructions adequately as mentioned like triangulation (Creswell, 2007; Lincoln & Guba, 1985; Merriam, 2009; Patton, 2002; Yıldırım & Şimşek, 2018), peer debriefing (Creswell, 2007; Lincoln & Guba, 1985; Merriam, 2009; Patton, 2002), member checking (Creswell, 2007; Lincoln & Guba, 1985; Merriam, 2009; Patton, 2002), prolonged engagement (Creswell, 2007; Lincoln & Guba, 1985; Merriam, 2009), persistent observation (Lincoln & Guba, 1985), collection of referential adequacy materials (Lincoln & Guba, 1985), negative case analysis (Creswell, 2007; Lincoln & Guba, 1985; Patton, 2002)

Triangulation is described as using different data sources of information by investigating evidence from the sources and using it to form a coherent justification of themes (Yıldırım & Şimşek, 2018), whereas Patton (2002) put triangulation under four categories like data triangulation, investigator triangulation, theory triangulation (multiple theories) and methodological triangulation (multiple methods). Within this study, data triangulation was achieved by gathering data from different perspectives (Merriam, 2009), namely from academics and students from different departments with the help of in-depth interviews in order to find out the commonalities among different experiences regarding the effect of Covid-19 on college experiences at university among the departments. Besides, the lived experiences of the students are compared and crosschecked with the experiences of the academics in order to have different perspectives.

Investigator triangulation, also called peer debriefing (Lincoln & Guba, 1985; Patton, 2002), contributed to the credibility of the study. To establish credibility in this study, the supervisor of the dissertation and members of the dissertation committee played a significant role in peer debriefing particularly at the turning points of the research where important decisions had to be made about how to proceed and reflect results. Furthermore, an academic at the department of curriculum and instruction contributed significantly to the content analysis of the data. As Creswell (2009)

signified, it is necessary to come to an agreement on codes' names, the coded passages, or the same passages coded the same way. In line with this, she analyzed the data gathered from five of the interviews which were randomly picked in order to enable consistency and to check the codes and themes, and their accuracy and meaningfulness. Based on the review and comparison of two separate analysis, some codes were reworded and minor changes concerning the themes' names and new subthemes were made to improve homogeneity among codes.

As for member checking which refers to making the participants of the study check the data, themes and interpretations (Yıldırım & Şimşek, 2018; Lincoln & Guba, 1985; Merriam, 2009) and which is crucial for eliminating researcher bias and set credibility (Lincoln & Guba, 1985), upon the review of the supervisor and colleagues, the codebook and a brief summary of the results were sent to all participants including academics and students via e-mail to crosscheck the accuracy and credibility of the codebook. The challenging part of member checking was receiving reply from students. They were reached via e-mails or WhatsApp messages and since all of them were fourth-grade students at the time of data collection, most of them graduated at the end of 2021-2022 academic year. The review ended without any demands of changes and additions by students, but two academics demanded modifications for the wording of some sentences. Based on the validation and agreement of the informants, the researcher continued with the reporting phase.

In respect to prolonged engagement, the researcher of the study spent time with the participants at their departments (buildings, cafeterias, offices and labs) and tried to catch the culture they engaged in and built trust and rapport with them as suggested by Lincoln and Guba (1985). This helped the researcher gain in-depth understanding of the context and reduce the prospective misinformation.

3.7.2. Transferability

Transferability, corresponding to external validity, is related to what extent the results can be generalized to other settings (Lincoln & Guba, 1985; Merriam, 2009). Even though generalizing is not the principal drive of the qualitative research, there are some strategies used to increase the transferability of a qualitative study: thick description and collecting data from many cases (Lincoln & Guba, 1985).

In this study, transferability was confirmed by rich and detailed descriptions of

participants, context and data collection process and findings to enable the readers to judge whether or not the findings of the study are transferable. In addition, the findings were accompanied with authentic quotes of participants.

As the researcher of the study, I described in detail the participants and setting under study, data collection process and analysis so as to enable readers to transfer information to other settings and to determine whether the findings can be transferable "because of shared characteristics" (Creswell, 2009). Besides, the findings were enhanced with authentic quotes of the participants, and multiple data sources (the academics and students from nine departments) were used, and this might represent a variation of the phenomenon and so permit the application of results to similar situations (Merriam, 2009).

3.7.3. Dependability and Confirmability

Dependability refers to the extent to which the results would be the same if repeated with a similar sample in a similar context while confirmability means the degree to which the findings come from the data rather than researcher bias, that is, objectivity of the study (Creswell, 2007). In this study, dependability was assured by detailed account of research context and changes that occur in the setting, and triangulation of data.

Besides, auditing conducted by an external audit, specifically the supervisor of the study and an academic at the same department, confirmed dependability and confirmability of the study (Creswell, 2007; Lincoln & Guba, 1985; Patton, 2002). They provided guidance while designing the research and research questions, reviewing draft interview schedules and analyzing the data. They also made suggestions and evaluated whether the findings and interpretations were aligned with the data so that the researcher could eliminate researcher bias (Creswell, 2009).

3.8. The Role of the Researcher

Clarifying researcher bias from the outset of the study is important so that the reader understands the researcher's position and any biases or assumptions that impact the inquiry (Merriam, 1988). In this clarification, the researcher comments on past experiences, biases, prejudices, and orientations that have likely shaped the interpretation and approach to the study (Creswell, 2009). In interpretive approach to phenomenology, bracketing personal experiences may not be possible for the

researcher because of the difficulty of separating himself/herself from the text (van Manen, 1990). At that point, the researcher needs to decide on how and in what way his/her personal understandings should be introduced into the study.

In order to bracket personal experiences as much as possible, the researcher needs to show rigor, which is seen when there is an extensive data set or when the researcher conducts multiple levels of data analysis, by means of validating the accuracy of the account with member checking, triangulation sources of data, or using auditors of the accounts (Merriam, 2009). As an instructor who personally experienced Covid-19 and the change in instructional practices and college experiences at university had some prejudices and presumptions about the lived experiences of the participants on the aforementioned issues. In order to surpass my prejudices, I tried to validate the process and product of the study with the help of external audits. On the other hand, even if I worked at a different department, the department of Basic English, as being a member of the same university for 20 years, I had the advantage of comparing and contrasting the university atmosphere before and after the pandemic.

Lastly, I tried to report this study in detail and convincingly in order to help the readers feel like being there. The writing was clear, engaging and full of unexpected ideas, which accurately reflected the lived experiences of the participants (Merriam, 2009).

3.9. Ethical Issues

To a great extent, the validity and reliability of a study rely on the ethics of the investigator (Merriam, 2009). The author proposes an Ethical Issues Checklist, identifying the ten items below to be held when dealing with qualitative research: “1. explaining purpose of the inquiry and methods to be used 2. promises and reciprocity 3. risk assessment 4. confidentiality 5. informed consent 6. data access and ownership 7. interviewer mental health 8. advice (who will be your counselor on ethical matters) 9. data collection boundaries 10. ethical versus legal conduct” (2009, p. 239).

In line with the aforementioned considerations, I, as the researcher of the study got an official permission from HSEC at METU, which provides approval on the use of human subjects for research purposes, after pilot testing in May, 2022. The interview schedules as well as the informed consent form and the debriefing form were checked by the Ethics Committee and I got approval without any need for modification. For confidentiality, an informed consent of the participants was taken by ensuring them

that their identity would be kept confidential and not be shared in the report, either. They were informed about the purpose of research and research questions in order to prevent deception. Besides, interviews were audiotaped upon the consent of the interviewees. At the situations when the participants did not want to be audiotaped, I took extensive notes. The interviewees were also informed of their right to quit at any time in case they did not want to continue or felt annoyed. In addition, they had the chance to crosscheck the transcripts and codebook. Lastly, while reporting the results, anonymity of the participants was ensured by using abbreviations, which concealed identities of academics abbreviated as A1, A2, A3, etc., and students abbreviated as S1, S2, S3, etc.

3.10. Limitations of the Study

As the study is based on a qualitative research design, the findings may not be generalized to wider populations (Yıldırım & Şimşek, 2018) since the findings were limited to the experiences of the targeted sample. The researcher's intention in this study was to describe the college experiences of the undergraduate students and academics before, during, and after Covid-19. The findings generated in this study might be used by others who have similar cases in their research; however, there are some limitations to consider about the applicability of findings to broader educational contexts.

The data collected by the interview and data analysis process might be open to the researcher bias as bracketing especially in interpretive phenomenological study may not be possible. In order to cope with this problem, the questions for the interview were piloted, and an expert opinion was taken. In addition to that, peer debriefing and thick description were carried out, and transcription of the recordings and codebook was done with the help of computer programs. Lastly, by means of member check, the researcher tried to be as objective as possible and had the chance to modify transcripts and codebook if necessary. Even though each and every individual (32 academics and 55 students) was provided with their own transcripts and codebooks via email and WhatsApp messages, only two out of 32 academics asked for changing the wording of some sentences.

For data collection, it can be stated that students had online and face-to-face options, and the ones contacted in person might feel more relaxed while there could be some interruptions in online ones due to technological problems. However, at that

point, the researcher tried to reconnect and ask the interrupted question again and summarized what she heard about it to the interviewee. In addition, data was collected from only one faculty with nine departments, considering that the faculty was the core of the university which provides service courses, and could be the representative of the phenomena.

In spite of the limitations above, the study with its qualitative nature would contribute to describe the change on the college experiences of the participants, and thus, help for the practices and new perspectives to be considered on the changing college experiences caused by the phenomena. Therefore, it would enlighten practitioners, decision makers, researchers and relevant stakeholders.



CHAPTER 4

FINDINGS

In this chapter, the findings of the interview data analysis in parallel with the research questions under the following headings were presented: the academic college experiences of undergraduate students and academics before, during, and after Covid-19 and the nonacademic college experiences of undergraduate students and academics before, during, and after Covid-19. At the end, the summary of the results was provided.

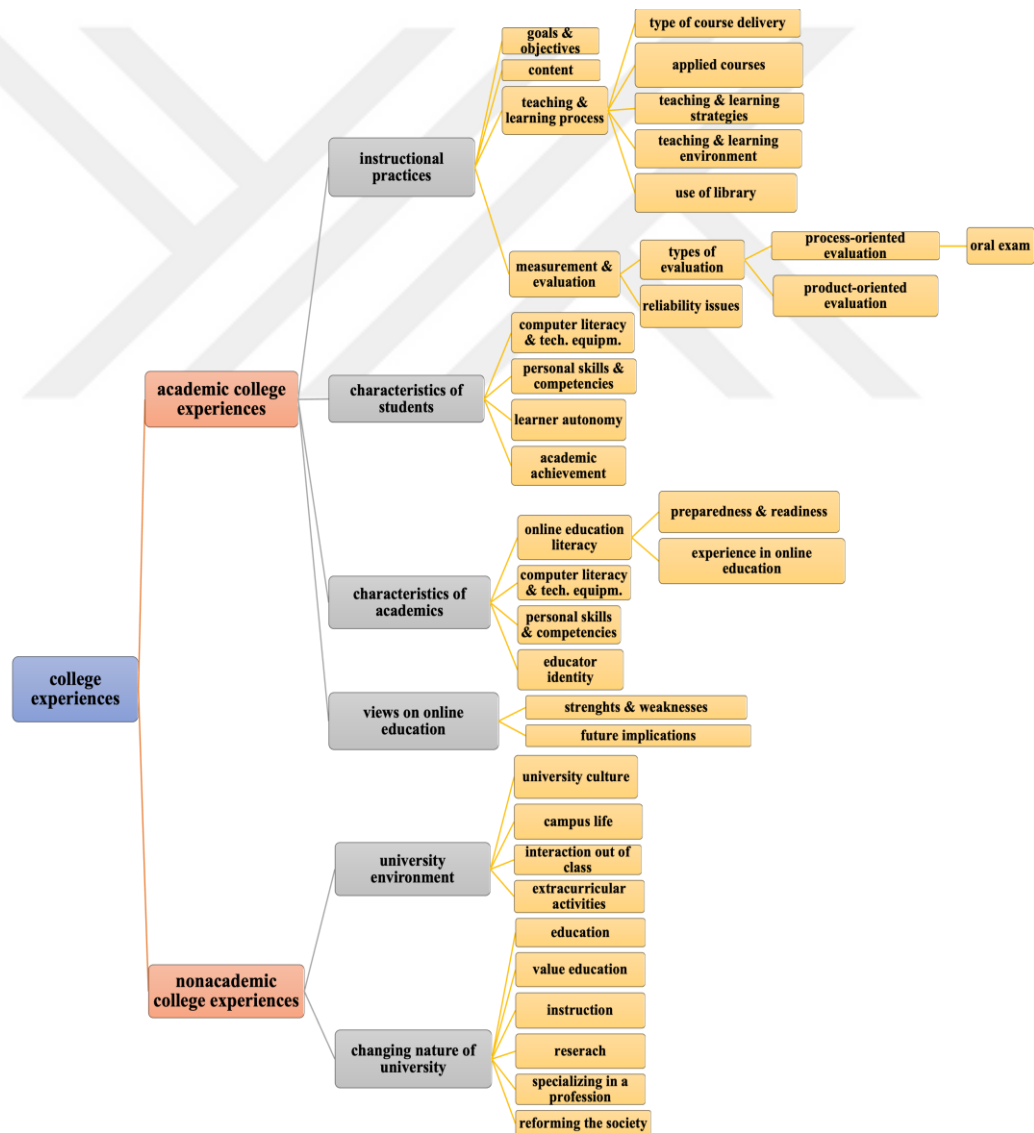


Figure 8 Academic and Nonacademic College Experiences of the Undergraduate Students and Academics

4.1. The Change in Academic College Experiences of Undergraduate Students and Academics Before, During, and After Covid-19

The first research question in this study sought to explore the change in academic college experiences of undergraduate students and academics before, during, and after Covid-19. Analysis of the interview data revealed that students and academics highlighted academic college experiences in terms of instructional practices, characteristics of students, characteristics of academics, and views of the undergraduate students and academics on online education.

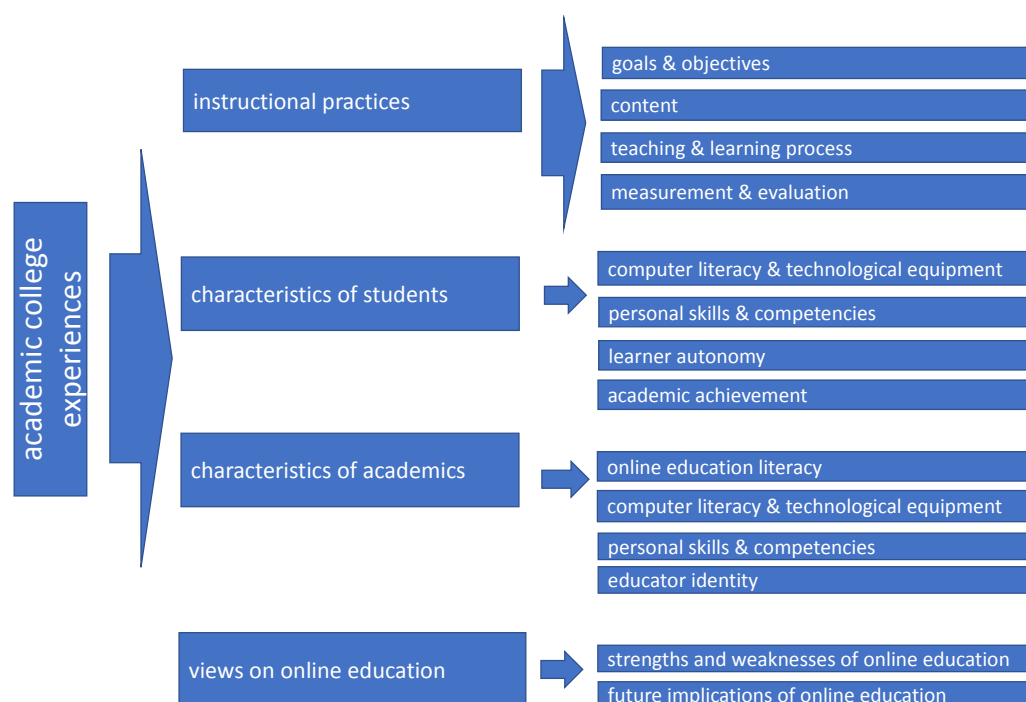


Figure 9 Themes regarding the Academic College Experiences of the Undergraduate Students and Academics

4.1.1. Instructional Practices

Under instructional practices, there arose four categories: goals and objectives, content, teaching and learning process, and measurement and evaluation.

Teaching and learning process consists of types of course delivery, applied courses, teaching and learning strategies, teaching and learning environment, and the use of library. Besides that, measurement and evaluation includes types of evaluation which are process-oriented evaluation (including oral exam) and product-oriented evaluation as well as reliability issues.

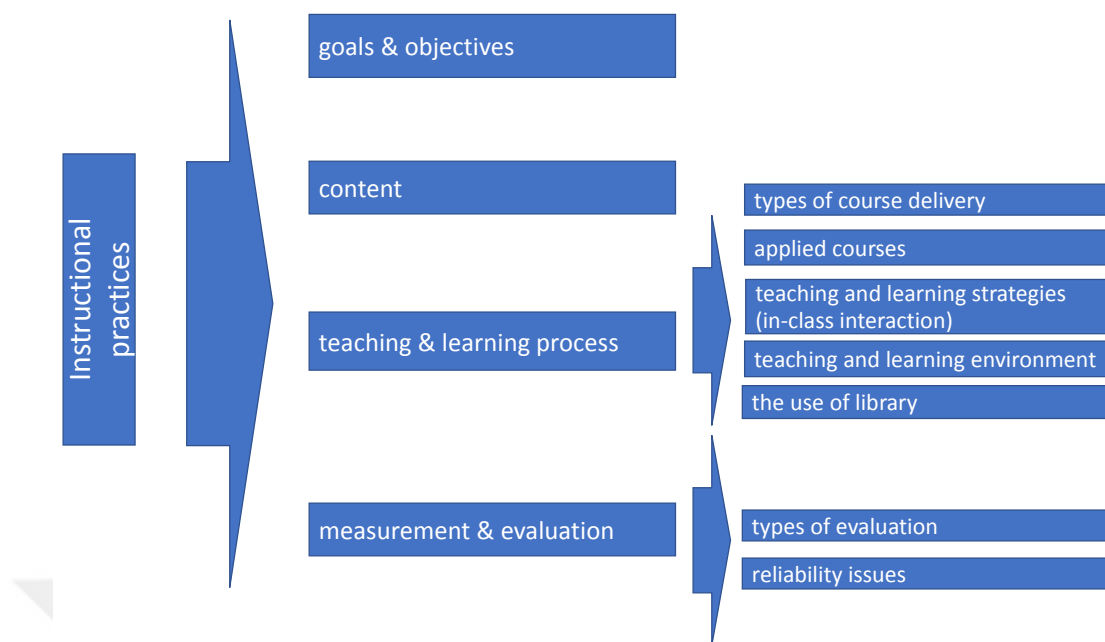


Figure 10 Categories regarding Instructional Practices of the Undergraduate Students and Academics

4.1.1.1. Goals and Objectives

Regarding goals and objectives, all academics ($N=32$) stated that they kept them the same as before Covid-19, and tried to achieve and fulfill the same goals and objectives during online education. One of them (A31) confessed that actually they all had to change the goals and objectives of the courses accordingly while feeling the urge to change teaching approaches and methods in online education. However, they aimed to provide the same high quality of education as before so that students would not be disadvantaged due to online education, especially for applied courses. Therefore, the academics refrained from changing the course objectives and attainments. One of them revealed their reasons as:

We tried to keep it as similar as possible. Because the laboratory was not something we could compromise on. When you think of the chemistry department, the laboratory comes to mind. That's why the instructors didn't want to make concessions. That's actually why they resisted a bit. Thus, it wouldn't be online. Since everyone knew it was practice-based, everything was somewhat preserved for that reason. That's why we didn't try to change the goals too much (A5).

Only one academic (A25) noted that course objectives were needed to be adapted according to online education because they would not have a chance for field

experience, through which students could improve their negotiation skills required for that course; therefore, she had to limit her expectations from the course and adapt it considering students' feedback and available conditions. She highlighted her ideas as below:

Now, as I mentioned earlier, my course is a core course that combines theory and practice. ... Even if it's not the primary output, one secondary output of the course is to provide some field experience... Because conducting interviews is a very important skill for a sociologist, and I want them to acquire it. In that course, for example, since they can't conduct interviews anymore, it's not something they can gain. ... Students proposed interviewing people who practice their profession on digital platforms and are ready to share information about the profession from those platforms, and I accepted it. So, we went with both options. They could also do book reviews. They could do that as well. A few students did that, but mostly, they went with book reviews, so the course had such an objective. That objective could not be achieved. In other words, it was very limited (A25).

4.1.1.2. Content

In the first semester when the education was suspended for three weeks and then continued online at university in April 2021 due to Covid-19, both the undergraduate students and academics were shocked and could not foresee the future of education. According to the interview data, the academics could not cover the content as planned or adapt the syllabus due to unpreparedness and uncertainty of the situation (A2, A5, A11, A14, A25; S17, S22, S24, S42, S52, and S53). The only thing that they could do was to meet the demands of the courses as much as possible in spite of the stress and difficulty experienced by students. One academic summarized the first term as below:

When it first started, the term had already begun. We distributed the materials in a bit of a rush, so I didn't make too many changes. The outline, the grading, and so on were already set. I didn't want to change too much. However, this did create some stress for the students because there was a lot of workloads. We had to conduct the exams online. They struggled a bit since it was their first time taking online exams. When we switched to online, there were topics I mentioned we might skip if we didn't have time, and I wasn't able to cover them (A11).

After the first semester in online education, there was not any change in the content of the courses because it would have been unfair for the students, and it would cause inadequate background knowledge for the following years even if it might have

eased the teaching and learning processes online (A1, A2, A3, A4, A5, A6, A7, A8, A9, A11, A13, A14, A17, A20, A21, A24, A25, A26, A27, A28, A29, A31, and A32; S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S18, S19, S21, S23, S26, S28, S29, S30, S31, S34, S36, S37, S40, S43, S45, S46, S48, S49, S50, S51, S53, and S55). Limiting the content of the course or increasing the workload of the students might have seemed the easy way out for some academics; however, in a changing world where students and academics did not feel safe and sane, going against the grain or scarifying the content would not have been reasonable and would have affected the psychology of students negatively. By covering the topics set before, the academics eliminated not only any discomfort the students might have experienced because of the conditions they were in, but also possible negative implications of leaving some topics uncovered in their undergraduate degree. Moreover, it would be unacceptable for the students not to have background knowledge in must courses, which would have been a bridge between undergraduate and graduate degrees in the future as explained by one of the academics below:

But for my part, even if we didn't have enough time to cover everything during the class, I always made sure to share videos explaining the remaining topics after some online videos were made. I didn't want to compromise on the content because a course I teach, for example, lacking some of the content could cause difficulties for students in their master's course or Ph.D. qualifying exam some years later (A18).

In contrast to limiting content, some academics (A10, A12, A15, A16, A18, A19, A22; S4, S12, S20, S24, S26, S27, S35, S36, and S55) could expand it by saving more time due to the perks of online education such as using videos to explain an extensive topic in a condensed way or spending less time on in-class interaction compared with face-to-face education. Unsure about whether students were behind the screen, academics could explain topics fast and find more time for a question-and-answer part. They explained the reasons behind expanding the content as below:

Somehow, online classes proceed faster than face-to-face ones. There are fewer interruptions, and I think writing on a digital board is faster than on a physical one. So, the lessons progress more quickly, and topics are covered earlier. ... Thus, we expanded the course content because we had the time. I look back and wonder how I managed to cover so much content. If I tried to do the same face-to-face, judging by my notes, there's no way I could have finished in the same amount of time. Therefore, I think the content has clearly increased (A10).

Our instructors were really teaching very quickly. I think this might have been even more pronounced during the pandemic. You have a three-hour class, but the instructors upload a video. And you don't take any breaks; it just goes on continuously, and you're constantly taking notes. So, I think we might have actually learned a bit more last year. The topics that were supposed to be covered were finished, and we also delved into subjects that wouldn't normally be part of our course. We learned a few things from that as well (S20).

The academics of the departments of humanities added some up-to-date topics in their courses to make lessons more appealing to students (S39, S40, S41, and S51). Independent from online education, two academics (A22 and A23) were already planning to change the content as they did every academic year. They renewed themselves by adapting their syllabuses and adding readings including up-to-date topics as usual. Lastly, one academic (A30) had to limit the time allocated for discussions in lessons because in online education where students could not interact with one another as in-class discussions, it took more time to simplify the topic and translate it to Turkish, when necessary.

For undergraduate courses, if the topic I was going to teach could be skipped or if I planned to ask about the difficult parts in the exam, I gradually trimmed those parts. This is because I knew that those difficult topics would require me to repeat the same thing five or six times, ask questions to clarify the topic, or switch to Turkish a bit. So, if it wasn't essential, I omitted those parts from the lecture notes (A30).

The course content included the impact of the pandemic, stemming from sociology. For example, topics I was already going to cover, such as domestic violence or violence against women, were approached from a different perspective, highlighting how the pandemic exacerbated these issues. It became a much bigger topic, and we spent more time discussing it. There were changes like directly introducing pandemic-related topics. (S41).

As for applied courses, in the first semester, some academics from the department of chemistry (A1, A2, A3, and A5) tried to have make-up classes for applied courses at the end of the semester; however, they could only cover 4 out of 12 experiments and had to suspend laboratory courses. For the following semesters, they could not do hands-on experiments because of online education, but instead, they had to prepare and share videos regarding those experiments, and after online education, they provided a condensed program to make up for experiments (A3, A5; S1, S2, S4, S5, S6, and S7). Even if it was not desirable, they had to decrease experiments and set

a limit of covering at least 70 percent of experiments in online education. As for the departments of biology and physics, the students and academics (A19, A20, and A21; S23, S25, S27, S28, S29, S30, S31, S32, and S33) specifically indicated that they could not cover experiments for three semesters throughout online education, and even though there was a one-week condensed make-up program for the experiments at the end of online education, it was impossible and ineffective to compensate all experiments. Lastly, at the department of psychology, the students (S51, S52, S54, and S55) could only focus on theoretical knowledge and could not have any practice in field observations for courses like clinic psychology and experimental psychology.

Lastly, as for permanent changes in content after online education, only one academic (A25) noted that she changed her syllabus and limited the list of readings assigned to students in the syllabus after online education upon realizing that she had high expectations from the students and provided them with too many readings, which might be suggested as extra readings before online education.

4.1.1.3. Teaching and Learning Process

For teaching and learning process, the subcategories that emerged were types of course delivery methods in online education, applied courses in online education, teaching and learning process, teaching and learning environment, and the use of the library.

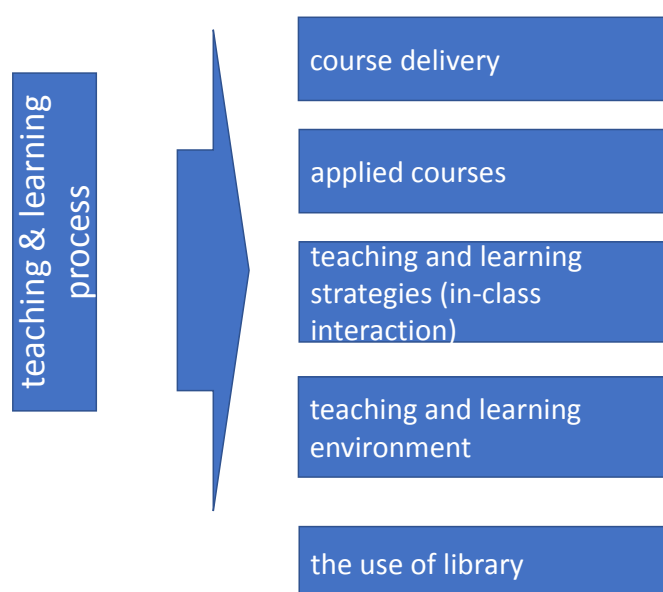


Figure 11 Subcategories regarding Teaching and Learning Process

4.1.1.3.1. Types of Course Delivery

In the first term of the lockdown, many academics had to conduct the lessons asynchronously (A1, A2, A3, A6, A7, A8, A10, A14, A18, A22, A24, A25, A27, A28, and A32; S1, S8, S10, S33, S50, S53, and S55). While some (A6, A22, A27, A28; S22, S23, S24, S25, S13, S28, S29, S32, S37, S47, S50, S53, and S55) only shared class notes and recordings with their students and contact them via email without any synchronous lessons, some others (A1, A2, A3, A7, A8, A10, A14, A18, and A32; S24, S25, and S51) preferred to provide some videos of the lessons to enable students learn the topic beforehand and ask questions synchronously in recitation classes, to which one class hour was allocated, and/or to administer exams depending only on notes that they shared with students.

From the second term on, many academics preferred to conduct synchronous lessons via programs like Zoom, Webex, and BigBlueButton (A1, A3, A4, A5, A6, A7, A8, A9, A10, A13, A14, A16, A17, A20, A21, A22, A25, A26, A27, A29, A30, A31, and A32; S1, S2, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S18, 19, S20, S21, S22, S23, S24, S28, S29, S34, S34, S35, S36, S37, S38, S39, S40, S41, S42, S43, S46, S47, S48, S52, S53, and S54). The students specified the percentage of synchronous lessons as 30% for the department of psychology; 50% for the departments of history, mathematics and statistics; 80% for the departments of physics and biology; and 100% for the departments of sociology, chemistry and philosophy. For service courses where a mass number of students attended, the academics still preferred to administer them synchronously because they believed in the need of discipline for students to attend courses. An academic reflected his ideas about course delivery type as below:

I preferred to conduct synchronous sessions. ... I even tried to hold synchronous sessions for large classes, like our calculus courses with two or three hundred students, via Zoom. It's important because it ensures that students know they need to be present at that time. Otherwise, if you record the lecture and upload it somewhere, students are less likely to go back and watch it. Other things get in the way. Additionally, since mathematics progresses very quickly and the topics are highly interconnected, students need to follow the material in real-time. That's why I conducted most of my classes synchronously (A9).

Conducting lessons synchronously, many academics integrated online resources by adding videos and visuals; using a tablet or PowerPoint slides as blackboard and explaining the topic on virtual platforms or in class by using cameras;

and shared recordings of lessons (A1, A2, A4, A6, A9, A10, A11, A13, A14, A15, A16, A17, A18, A19, A20, A21, A23, A24, A25, A29, and A31; S2, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S17, S18, S19, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S32, S33, S34, S35, S41, S42, S44, S46, S47, S53, and S54). This helped not only the students to be prepared for courses and review them by watching the videos before and after the lesson, and to ask unclear parts to their teachers in office hours, but also the academics to save and spare time to question and answer sessions, and have a chance to explain a difficult topic in various ways to make them understandable to students. With the help of recordings and class-notes, they could help the students to cope with any technological problems aroused by low Internet connection or inadequate equipment, and so lower their stress level and comfort them.

One of the students explained the reason behind her unattendance as below:

Both synchronous and asynchronous. However, since the synchronous sessions were recorded, I wasn't attending most of the live classes. Besides, staying home all the time blurs the concept of sitting down for a lesson. Day and night blend together, making it hard to distinguish when to study, sleep, eat, or have personal time, so I generally wasn't joining the live classes unless attendance was mandatory; otherwise, I watched them later. Also, the trend of watching at double speed (x2) had started back then. That's why I would watch the recordings and finish them. Watching them consecutively also helped solidify the material better (S30).

Lastly, after the first two semesters under lockdown when there was no other option than conducting lessons online, in the third semester academics were given an option for face-to-face education, but only few of them (A3, A5, and A31) preferred to do so. For a term after the pandemic, when they had an option to attend the course either face-to-face or online, the students had 20% of courses hybrid (A19 and A32; S3, S11, S16, S17, S18, S19, S20, S21, S25, S29, S34, S35, S36, S37, S38, S39, S40, S41, S44, S47, S48, S49, S52, and S55). This enabled the students who had accommodation or health problems to stay at home and get educated at the same time. Moreover, online courses became an option if either the students or the academics were unavailable to attend/conduct lessons. Especially some elderly academics or the ones having some health problems had an option to conduct lessons online, and at that time the students had the option of both either being present in class or following the lesson on online platforms synchronously. However, some students were not happy with hybrid courses due to lack of interaction between the academics and the students

(S3, S12, S21, S24, S28, S50, and S52). Those academics continuing with online applications like hybrid courses, sharing recordings instead of spending much time on lecturing in class, and using inappropriate assessment tools for the sake of grading less papers were criticized and accused of taking the easy way and fulfilling their duties without taking much effort (A10 and A24).

Only for the transition period, the first term of face-to-face education after the pandemic, some academics (A4, A6, A11, A12, A13, A14, A19, A20, A21, A28, and A31) tolerated the requests of the students for sharing materials and recordings and having online make up courses or exams. they conducted online lessons for the students who could not come to university due to lack of accommodation and/or health problems, or before special days to let the students have uninterrupted holiday. The students (S2, S6, S7, S11, S12, S17, S18, S19, S28, S33, S34, S39, S40, S41, S42, S50, S51, and S53) were also glad to have an online option in case of an excuse like an illness or leave, so they felt more relaxed when they had a problem. In addition, they found the online question-and-answer component highly effective and practical to wrap up the course without being present in class. Some of the students stated their satisfaction with online make-up classes as below:

Now, fitting that into everyone's schedule is difficult, especially finding a suitable classroom during the day. But now, professors are aware that there are options available. They can say, "We'll have our makeup session on Zoom between 4 and 6 PM on Saturday or Sunday." They can argue that it's justified now (S35).

In some courses, I've witnessed some professors having to travel for juries or other commitments out of town. During those times, they say things like, "Shall we advance that week's content or should I upload a video for us to watch?" This happened in two courses, and it could provide a more relaxed approach where classes don't necessarily have to be canceled when there are disruptions (S28).

4.1.1.3.2. Applied Courses in Online Education

For applied courses like lab courses or field observations, the academics (A1, A2, A3, A4, A5, A18, A19, A21, and A31) had to change their teaching approaches and adapt them accordingly by trying to keep the efficiency of the course at utmost level. For laboratory courses in science departments, the academics (A1, A2, A3, A4, A5, A18, A19, and A21) had to record the videos of the experiments or prepare

simulations, and upload them online to compensate hands-on applications, and in turn, they asked the students to write the reports of experiments or administered them some quizzes afterwards. However, they admitted that it was the best thing that they could do under those circumstances, and virtual atmosphere could not compensate what students learned in laboratories with the help of hands-on practices.

The academics (A1, A2, A4, A5, and A19) had to put great effort and time for preparing online lab classes because they were totally unprepared for virtual classrooms and did not have any demonstrators or videos of the experiments before the pandemic. In the first semester of the lockdown, they made research assistants do and record the experiments at a very short time like two weeks and publicize them for the use of students. In addition, in order to have utmost interaction with the students, the research assistants were asked to conduct synchronous recitation classes where the students had a chance to ask their questions regarding experiments. A research assistant reflected the atmosphere that they experienced as below:

While there was uncertainty about whether it would end or not, we were suddenly told something. It was about a week, maybe a week and a half. We were told we needed to record videos. We would have to start online classes out of necessity. Students were told that if the situation improved, they would come for practice. That period was very chaotic. It could have been anticipated. We experienced a bit of that. At least, if we had started these recordings a month earlier, no one would have had to work in such a chaotic environment (A5).

At the end of the first semester, the academics of the chemistry department (A1, A2, A3, A4, and A5; S1, S2, S4, S5, S6, and S7) asked the students to attend lab classes in person for three weeks in compensation for the experiments. They did as many hands-on-experiments as possible disregarding the health risks. The research assistant (A5) noted that they had to risk their health by providing face-to-face lab courses although the risk of catching Covid-19 was still valid after vaccination. For the following terms in the lockdown, having make-up classes for compensation, the students were partially satisfied with them because watching experiments or doing them afterwards was not as effective as they were done concurrently as in face-to-face education. Especially when they might not have had an opportunity to touch the devices or samples beforehand, this would certainly affect their internships and professions. That was why there were some students who compensated the

experiments in person at laboratories even after they passed the relevant courses. One of the students reflected their views as below:

I consider it an academic deficiency because I couldn't see those devices. Even if it's through video, I'm now getting videos from classmates who took the course to study and understand how the device works. Because in the future, I'll need to use those devices, so this will be a deficiency for me. Both for us and as a characteristic of METU's chemistry department, we used to see and directly experience those devices. For example, in other universities, it's not as frequent. From what I know of friends there, they often set up and use the devices themselves. They take notes and then use this system. However, we were able to see the devices firsthand with direct assistants (S5).

In line with the students, the academics (A1, A2, A3, A4, and A5) criticized the videos of the experiments as they lacked the information that could only be gained by hands-on-practices, and they tried to compensate experiments which were totally skipped or not covered adequately in the following years in face-to-face education. However, they were still trying to compensate lab classes after the pandemic. One of the academics complained about the lack of students' background knowledge caused by the inadequateness of the videos as below:

During that period, students who continued their laboratory work through videos later struggled when they returned to the lab. They didn't know what a pipette was or what a micropipette was when asked. I even had an experience like this. Another student from our university went abroad with Erasmus for their own research, having finished their third year. They told us that our students didn't know how to use micropipettes. I was very saddened by this. Yes, it was incredibly upsetting because our university had a good reputation, and suddenly such an image was formed (A1).

The students and academics at the departments of biology and physics (A19, A20, and A21; S23, S24, S25, S27, S28, S29, S30, S31, S32, and S33) specifically indicated that they could not cover experiments for three semesters throughout online education, and this caused some deficiency in background knowledge of the students. Normally, the students were required to write laboratory reports after doing experiments; however, they could only be asked to answer one question after watching the videos or checking data of the experiments because of impossibility of hands-on practices. Even though there was a one-week condensed make-up program for the experiments after the pandemic, it was ineffective to compensate all experiments, and it was one and a half year after they got those applied courses. One of the academics

Under the name of compressed labs, attempts were made to compensate. We did our best, but overall, labs were one of the most fundamental issues because students couldn't come to school. ... we tried to make up for them. However, this year, one of the fundamental deficiencies for third and fourth-year students is in experimental approaches. Without seeing how something is done and applying it, understanding it theoretically in class becomes difficult and less effective (A20).

On the other hand, some academics at the same departments (A18 and A21) claimed that depending on the aim of lab courses, the need of hands-on practice might change, and so classical lab courses which only required students to have general knowledge about experiments did not necessarily have to be administered at laboratories, but instead watching the simulations or videos of them was adequate, and experiments did not have to be compensated afterwards.

For the department of psychology, the students (S51, S52, S54, and S55) could only focus on theoretical knowledge and could not have any practice in field observations for courses like clinic psychology and experimental psychology. Therefore, they found applied courses ineffective in online education because they could not have a chance for field studies or doing experiments at laboratories. Agreeing with them, an academic (A31) pointed out that normally students were asked to role-play as a therapist and a consultant, and record themselves in order to practice some negotiation skills necessary for psychological counseling such as asking open-ended questions or closed-ended questions, paraphrasing, and reflecting; however, in online education, they lacked these practices. Moreover, in the course of pathology, the students could not benefit from the applied part of the lesson, but instead, they prepared some assignments depending more on literature not on field practices. They could only watch related examples in videos or films, and listen to the lectures of the academic, either synchronously or asynchronously, but they did not compensate those courses after the pandemic. One of the students shared her experience as below:

I took a course called Clinical Interview Techniques, where you had to act as a therapist and apply therapy to a friend's relative for thirty minutes, supervised by a professor as an assignment. Now, in the online process, this practice was removed because the instructor couldn't monitor you closely enough to ensure you didn't make any mistakes. But in my opinion, experiencing such a course during undergraduate studies was crucial in determining whether you would choose a career in psychology or not. It may seem easy from the outside to sit down as a therapist and do something, but even choosing the question to ask required considerable thought and intellectual rigor(S54).

Thanks to online education, the students were glad to have recordings of experiments so that they could watch them before and after applying experiments (S1, S4, S5, S24, S28, and S29). One of the students reflected his gladness with make-up laboratory classes: as follows:

In our third year, our most important labs were in genetics and molecular microbiology, forming a comprehensive experimental setup over one week. It wasn't mandatory; it was voluntary. They didn't want a situation where some came one day and others didn't, so attendance was taken. It was really beneficial that way, honestly. I felt like I learned what I needed to, and during my internship, I had already reinforced much of it. But that compensation lab was truly something we needed, and I think they did a great job with it. I quite liked it (S29).

Despite being reluctant to share course notes or recordings, the academics from the department of chemistry (A1, A2, A3, A4, and A5) stated that the most important contribution of online education was the archive of the recordings of experiments, which were prepared in online education and continued to be shared with students so that they could watch them beforehand and come to the laboratory for hands-on practices. Even though one fifth of the students got the advantage of watching them, academics (A2 and A4) were glad to make experiments public. Besides, reports of experiments were started to be kept online as backup. In addition, one academic from the department of physics (A18) confessed that although experimental physicists did not like the idea of following experiments from recordings or simulations, he found them highly beneficial to be used as supplementary materials and suggested that general physics laboratories, where simulations were watched, related reports were written and graphics were drawn, could even be conducted online especially for the students of engineering. Lastly, they (A2 and A18) were happy that all experiments were checked and revised thanks to online education.

4.1.1.3.3. The Effect of Teaching and Learning Strategies on In-class Interaction

The interview data revealed that some academics did not change their teaching styles: lecturing (A1, A2, A7, A12, A23, A26, A27, A29, and A31; S1, S2, S5, S6, S8, S9, S12, S14, S22, S15, S22, S27, S29, S34, S35, S39, S43, S44, S48, S51, S52, and S53). There were academics who used blackboards in online education for lecturing, especially for the first term of the lockdown, which was considered quite ineffective

by students due to problems with display and voice (S1, S2, S5, S6). Believing that their lessons could not be explained by any slides or PDF documents, some others used online platforms and technological equipment like tablets as if they were lecturing on the board. On the other hand, instead of using tablets, there were academics who preferred to use blackboard or reflected class notes on the screen, (S8, S18, S20, S34, S38, S49, and S55), or uploaded PPTs adding their voice (S6, S19, S24, S29, S33, S53, and S55). No matter why, the students expected the academics to be more creative using different methods of online teaching instead of keeping the traditional way of conducting lessons like lecturing or sharing class notes without any explanations or reasons behind. One of the students shared their thoughts as below:

In a course where the instructor covers very theoretical mathematics, they would write the solutions on paper, scan them, and then read them to us. I eventually stopped attending classes because I could just open and read those papers myself. I need it to be explained to me. It needs to be somehow clarified. Now we're doing this operation. But why are we doing it? What is the underlying reason? The theory and so on. Some instructors supported us very well with documents regarding the content. Others fell short in this regard (S19).

The academics claimed that they depended on lecturing in their lessons more compared with face-to-face education, which caused both pros and cons for them. The ones at the departments of sciences (A3, A4, A12, A17, A18, and A19) found online education advantageous as they could spare time for solving more questions and sharing videos and real-life examples to attract the students' attention beforehand while lecturing or adding a question-and-answer part at the end so that they could compensate the drawbacks of online education. On the other hand, the academics of the departments of humanities (A22, A23, A27, A30, A31, and A32; S34, S35, S39, S43, S44, S48, S51, S52, and S53) indicated some reasons behind their lecturing more compared with face-to-face education like the elimination of field observation part of the course (A31), the decrease in the discussion part of the lesson in online education (A23), and the explanation of topics in a more detailed way to make them understandable (A32). They lectured with the help of PPTs and PDFs, but they found this technique ineffective due to lack of interaction necessary for the aim of their courses. Normally lecturing on board in face-to-face education to help students take notes, some found sharing class notes and lecturing on them without any eye contact plain because they could not get any reaction from students to see whether they could

follow the lesson or not. At that point, the students criticized the academics for their teaching styles, which was lecturing disregarding any interaction with students. Therefore, students could not follow the lessons and take notes for three hours of lecturing, which was impossible and discouraging for them. One of the students reflected their feelings as below:

Normally, if we didn't understand something, one of our instructors would continuously ask, "Do you understand? If not, I'll explain it again in Turkish." Then they would explain again, because they are looking at our faces and can tell if we didn't understand. But there's no such chance now. They upload the video, and we have to figure out if we understood it or not. ... We were left more to ourselves. The student was seen more as someone who should work on their own, learn on their own, and research on their own, although they did provide resources... I think the instructor's role, which was teaching-oriented, has turned into a role based solely on transferring information (S52).

One academic (A27) pointed out that she was against using tablets as they made the learning environment more artificial; thus, she tried to create the real classroom atmosphere by lecturing online as she did in face-to-face education. Along with the academics, the students admitted that interaction in courses declined, but lessons could be conducted more interactively by getting feedback from students to increase participation and discussion (S17, S19, S23, S30, S31, S53, and S55). Feeling the need to increase in-class interaction, the academics tried several ways like providing interesting and real-life examples to attract the attention of the students, asking them to present some personal information and interests for a few minutes for their classmates before conducting the lesson, sending the students to break out rooms, integrating questions to enable students to continue watching the recordings of lessons, adding videos or materials to talk about and/or giving up lecturing at all. The ones sending the students to break out rooms in online platforms in order to increase participation were not found effective (S33, S43, and S47). One of the students explained how communication felt artificial in breakout rooms as below:

The professor sends you into the room. You notice did not notice at first... It's like the professor kicked people out of rooms, for example. Then after about five minutes or so, everyone gathers. It was very inefficient, I think. I never really internalized and couldn't speak there. Because everyone, if you open the camera, for example, talks normally and it's much different to talk with the camera open. Once you see the person who opens the camera in your whole area. There may be people who do not want this, people who are not available. Uh-huh doing those things with a black screen was weird (S43).

Preferring face-to-face education compared with online education, the students tried to interact with each other in order to make learning more meaningful with the help of their peers (S1, S3, S4, S5, S7, S12, S13, S14, S15, S22, S26, S29, S32, S33, S35, S37, S40, S49, S50, S52, and S53). They noted that even one question asked in class contributed to their learning a lot, so it was significantly valuable to have that chance of in-class interaction. They confessed that online education did not help them to internalize knowledge as effectively as face-to-face education due to lack of interaction among their peers as well as with academics. In addition, assignments done with their peers contributed to their learning in online education, but exams did not help them to store the knowledge:

Each week, we focused on a specific topic. For example, we would say, "This week we covered this topic. Let's sit down and study it this week." At the end of the week, one of us would present to each other. In this way, rather than from an audio recording, we were preparing for something, taking notes (S49).

The students also claimed that materials were the same as in face-to-face education, but they should have been specifically adapted to online education in order to enable them to follow lessons attentively and interactively (S11, S16, S17, S18, S19, S21, S25, S27, S34, S38, S45, S50, S54, and S55). One of them shared their thoughts regarding the inefficiency of online materials as below:

The lecture notes were not very sufficient. Because sometimes, you know, we can't always listen online. Or the lecture recordings are uploaded okay, but it's not the same as being in class. So, I would have liked more attention to be paid to this issue. Or, I don't know, I would have liked the solutions to the questions given in recitations to be written more carefully, at least. Not just scribbled papers, but in a neater way that would really motivate us and be understandable for us (S16).

One academic (A17; S22, S24 and S28) took the advantage of technology and integrated some questions to the videos every half an hour in order to keep the students alert and check their understanding, which was found effective by students. Only by answering the questions correctly, they could continue to watch the rest of the video; otherwise, they had to replay it. Other academics (A10 and A25; S4, S7, S29, S35, S41, and S42) could elaborate on the lessons with the help of YouTube videos or visuals which they normally did not prefer in face-to-face education in order not to interrupt the flow of the lesson; however, in online education, it was quite practical to

integrate those videos or visuals and have a smooth transition in lessons without wasting time. Therefore, online education helped the course to be more understandable, but at the same time challenging because of possible insufficient technological equipment and infrastructure as explained by one of the students below:

Extra documentaries, books, and videos could be added, of course, since the class was online, the professors became able to easily provide these, and by doing so, they actually comforted us quite a bit. ... These various additions made a difference. Also, even though there were computers and projectors in every classroom, you couldn't always use them. Instead, our instructors effectively used maps during classes, ... They could instantly project the maps onto the screen, and this really provided great convenience. I can say that our materials were quite good in this regard, during the online period (S35).

Compared with face-to-face education, only one academic (A30) stated that he totally gave up lecturing as before because it was ineffective in online education in terms of in-class interaction. By reading and explaining texts in detail in face-to-face education, he tried to provide students with the necessary skills to think critically and philosophically, but in online education, there was an ambiguous group of students whose attendance and participation could not even be checked behind the screen, so there was no need for lecturing.

There were some academics (A1, A10, A15, A19, A26, and A27) who did not share recordings or class notes with students claiming that it decreased students' participation and/or class interaction, and caused a kind of spoon-feeding to students by decreasing their reasoning skills. Considering the aim and requirements of the course, one academic shared his concerns about recordings of the lesson as below:

I don't like recording lectures because it should be something of the moment, even if you teach the same course every year, the students' level, the dynamics of the class, the questions asked, and what is said will change.... Especially in social sciences, recording isn't very good because if you record the lecture and attend it, what else do you need? It tends to reduce academic activity to a simple point. ... If I record, it will replace reading. They won't read themselves and will write in the exam what the teacher explained. That's not the purpose of the class. They need to read, discuss with the teacher, and sift through what they get from there. Therefore, it's not suitable as an educational technique (A26).

On the other side, the students criticized the academics for keeping knowledge to themselves by not sharing class notes or recordings, and so leaving the students to struggle for finding class notes on the Internet or to follow the courses all the time

attentively. However, there were times that the students were not able to attend courses all the time due to illnesses, part time jobs, family issues, and/or technical infrastructure (S2, S4, S8, S19, S33, S44, and S49). Some academics also obligated students' attendance in courses and graded them accordingly, which caused a problem especially for the ones who had the aforementioned excuses. One of the students reflected his peers' views as below:

I think some professors managed the process very well. These professors uploaded recordings of classes to METUClass for students who didn't have a good enough internet connection to attend live. I believe this was really beneficial for us. However, some professors insisted on real-time participation in class and marked it as an absence if our internet couldn't handle it at times. This was quite challenging for me (S44).

However, the students were pleased with the PDFs, the PPTs and especially the videos recorded for the courses because it was practical to align the speed of videos with their own pace of learning (S1, S2, S3, S4, S5, S7, S8, S9, S10, S11, S12, S13, S15, S16, S18, S20, S21, S23, S25, S26, S27, S29, S30, S31, S32, S33, S34, S35, S36, S38, S39, S42, S43, S44, S46, S47, S48, S51, S52, S53, and S54). Without having any distractions like weak Internet connection in synchronous lessons, the students had a chance to stop the videos whenever they needed or watch them twice or three times faster than usual. They could also arrange their daily routine as they wished thanks to the access of videos. Thus, they could benefit for synchronous courses by watching those videos before lessons, and then asking unclear parts in recitation courses. One of the students shared their satisfaction with reaching course materials and recordings as below:

Being constantly at home erases the concept of sitting down for a class. Days and nights blur together, making it difficult to know when I will study, sleep, eat, or have time for myself, so I generally didn't participate in classes unless attendance was mandatory, then I watched them later. Also, the x2 discussion had already started back then. So, I would watch and complete the recordings. Watching them consecutively also reinforced the topics better (S30).

In addition to concerns about attendance and in-class interaction, some academics (A1 and A13) shed light on ethical issues and stated that sharing recordings would be the same as revealing the identities of both the students and the academics and make them public, which might create some ethical problems in the future. That was why they did not prefer to spread recordings on the Internet. Along with the

availability of recordings, there were other factors affecting participation such as turning off cameras in lessons (S22, S23, S36, S40, S43, S47, and S51). Because of technological concerns like adjusting volume or sharing sights (S46), there were students hesitant to communicate online. On the other hand, some shy students found online interaction in online lessons more relaxing, and so they became more attentive without any stage anxiety (A25; S2 and S43). One of the students explained the reason behind decrease in interaction as below:

Classes generally proceed in this format: people turn off their cameras and do other things in the background. If a student takes notes, they do; if not, the class recording is there. Even in synchronous sessions, students record it for themselves and listen later when they want. So, there wasn't much interaction, for example. The instructor asks a question, and no one answers because there are at most four or five people listening to the class, and they prefer not to speak (S22).

However, the academics (A6, A10, A15, A18, A20, A22, A23, A27, A28, and A32) were aware of the fact that even though turning on cameras was not legally obligatory, it could increase the attendance and participation of students. Some (A1, A2, A3, A5, A13, A14, A19, A23, A25, A27, A28, A29, and A32) did not ask them to turn on their cameras due to some reasons like lack of technological equipment or not invading privacy, but instead asked questions in lessons where they could not get any reply and got many excuses from students. Thus, it was impossible to check their existence in online education (A27), even when the lesson hour ended, there were some students online, showing that they were not there, and so not aware of the end of the lesson.

Some academics (A18, A20, A20, and A28) noted that compared to face-to-face education, the attendance of students dropped sharply during online education from 80% to 20-30%. At that point, they asked students to turn on their cameras accepting all possible home states of householders by explaining the importance and effect of turning on cameras and seeing each other's faces on both students and academics' motivation. They felt quite satisfied with contacting students as most students reacted positively to this request as stated by one of the academics below:

I told them I don't care about your appearance, clothes, hair, or anything else, just stand in front of me and listen to me. They agreed. With cameras on, their siblings came in, cats came in. Mothers passed by in the background, fathers passed by and so on. Then the mother stood behind. It was very interesting.

Some sprawled on the chair and listened attentively. They took notes too. They exchanged some things among themselves. They listened throughout the class. I really liked that. It was a sincere listening. It was there. (A22).

After online education, the students (S1, S3, S6, S13, S19, S24, S32, S38, S40, S41, and S53) had a hunger for socialization, which was especially felt among the students who passed the first and second years of undergraduate education online. The students stated that they preferred face-to-face education to have interaction with their peers and academics, and so class participation increased for the sake of interaction and socialization. One of the students explained their thoughts as below:

We are more aware now of how wonderful face-to-face education is with our teachers. I think many people attended classes more regularly because they realized the beauty of being able to follow the lesson in class, despite the fatigue brought on by that isolation. (S13).

As a result, some students and academics (A1, A4, A8, A13, A14, A15, A21, A26, A28, and A31; S2, S23, and S27) believed that there would not be any permanent effects of online education on instructional practices of undergraduate program because both the academics and the students tried to forget those days spent online and realized the importance and satisfaction of face-to-face education. When they had an option to switch to face-to-face education, they volunteered instantly as they were very motivated to live the old good days that they spent in face-to-face education. Acknowledging that interaction among academics and students decreased a bit, one academic (A21) noted that it could be compensated in time.

On the other hand, there were some academics who transferred some applications from online education. For example, one academic (A18) added an extra online contact hour for his course as a question-and-answer part. Besides that, some academics from the department of statistics (A11 and A12) got the advantage of using some software programs and assigning calculations instantly in online education. They continued to ask students to do group work projects that could be done online and to prepare interactive class notes as well as questions with the help of software programs they used in online education. Some students were satisfied with various materials provided thanks to online education and adding some up-to-date topics regarding the pandemic included in their courses at the departments of humanities (S29, S38, S40, S41, S42, S43, and S44).

They added that some applications like using online materials or videos in lessons helped both the academics and the students have more interactive lessons with a smooth transition between activities while courses requiring to share practical knowledge like research reports or articles were found interactive and effective in online education at the departments of humanities.

As for recordings and class materials, some students were not satisfied with the academics who did not prefer to share them because the thing that they liked most about online education was the sharing of recordings and course materials (S4, S9, S38, S39, and S49). However, considering the vitality of in-class interaction for learning to take place, the academics did not want to meet those requests in face-to-face education (A3, A6, A13, A14, A15, A16, A17, A18, A20, A22, A27, and A31). They claimed that continuing to share recordings would be unfair for those who attended courses, and watching recordings could not compensate the benefits of in-class interaction and would certainly decrease attendance. One academic (A22) shed light on another reason for quitting to share the recordings, by claiming that the students did not internalize what they watch in recordings and used it as it was worded by the academics in the assignments. Not willing to share the notes and recordings, another academic (A3), on the other hand, confessed that she had a chance at least to check and revise her teaching approaches and methods while preparing those materials.

However, there were still some academics who thought sharing class notes and recordings regularly was beneficial to students because they could take the advantage of notes and recordings despite not attending the course for a reason (A4, A9, A10, A19, A21, A28, and A29). The students accepted this as a permanent and desirable effect of online education since they had an archive of materials on METUClass and they could reach and study on those materials and recordings whenever they wanted without being present in class (S8, S9, S10, S11, S12, S16, S18, S19, S20, S22, S26, S28, S34, S35, S36, S41, S44, S46, S48, S50, and S52).

Not sharing class notes, one academic (A18) only shared recordings regarding question-and-answer parts in order to provide students with more sources while another one who had already shared class notes with his students before online education (A10) noted that with the help of online education other academics also learned how to use online platforms to keep and share their own materials

systematically. He expressed the benefits as below:

Teachers systematically write their lecture notes into PDFs and share them with students, which is generally beneficial from the students' perspective. ... In my opinion, teachers have learned to prepare materials that can be used online even if they deal with the course face to face. In that respect, it was good (A10).

4.1.1.3.4. Teaching and Learning Environment

Most students had their personal rooms in online education either at their family house or student flat (S4, S5, S6, S7, S9, S10, S12, S13, S14, S15, S16, S17, S18, S20, S21, S23, S24, S25, S27, S29, S30, S34, S38, S39, S40, S41, S42, S43, S49, S50, S52, S53, S54, and S55). However, some others had to share their rooms with family members, so they could not have such a comfortable place to study online and concentrate on their studies due to discomfort like noise, lack of technological infrastructure and visitors (S1, S2, S3, S7, S8, S11, S14, S16, S22, S30, S32, S33, S35, S36, S43, S44, S46, S48, S51, and S53). One of the students explained the difficulty they had due to uncomfortable living conditions as below:

I can't say it was a very nice environment because I didn't have my own room... I didn't have much personal space because of the layout of our house; the rooms were very close together. Even during exams, I couldn't be in an environment where I wouldn't hear others' voices, and this stressed me out a lot. Also, in some exams, the teachers required both camera and audio to be on. I was constantly reminding my family not to make noise. ... I sometimes had conflicts with my family about these issues. Not having my own private space made this process at home very difficult indeed (S51).

Moreover, among the ones staying with their families, there were students who had psychological problems like anxiety, low attention span and demotivation because of family pressure or risk of being infected by family members whose occupations were at the risk group (S5, S6, S7, S15, S20, S21, S23, S26, S30, and S49).

Furthermore, some students could not find any accommodation and moved from one place to another till they settled down, which took some time (S28, S37, S45 and S47). Later, they had to share their rooms with family members or house mates; thus, they had difficulty in concentrating on lessons and felt demotivated. One student who could not settle down and had to move from one place to another throughout online education shared her experience as below:

When the pandemic hit, I was living with my roommate. I struggled to pay my rent... I couldn't leave the city, but my roommate kicked me out with nowhere

else to go. ... Eventually, I made an arrangement with a friend and stayed with them for a while during summer break, going out of town. Later, we got a place, and I managed to attend my summer school classes, often struggling without internet, going to cafes to study and pass my courses. Last year, I moved out of that house, staying at another friend's place out of town where I found a suitable environment to work. I stayed there for about a month before moving to another friend's place, where I stayed for two months. A month later, I moved to Ankara in the spring. Since then, I've been in the same place, trying to settle down. Now, I'm graduating (S45).

Like students, except the ones who stayed in the guesthouse on campus and conducted lessons at offices (A8, A10, A11, A17, A19, A20, A21, A28, A29, and A31), academics (A3, A11, A13, A14, A18, A22, A23, A25, A27, A31, and A32) worked from home and had to share the house with family members. Since it was quite challenging to keep personal space and arrange the teaching environment to prevent overlap with family members who worked or studied online concurrently, academics had difficulty in carrying out the lessons whenever and wherever they wanted. They were also distracted by the noise of family members or noise from outside such as ringing bells, neighbors or renovation noise. On the other hand, some academics (A3, A4, A6, A9, A12, A16, A22, A23, A24, A26, and A30) had their personal rooms, which enabled them to be isolated from outside effects as much as possible. One of them shared her experience as below:

And of course, there could be noise disturbances since people were living at home. ... For example, could they stop using the drill? Because the noise is bothering me. Children may not hear it, but I do. And it distracts me. Outside the building, there might be repairs going on. Things are being done. That is also distracting. That's how we went through the education (A22).

In addition, female academics (A11, A13, A14, A25, A27, and A31) complained about the various roles that they had to carry out as a mother, a spouse, an academic and a housewife, and felt exhausted to keep up with all of them. One of them shared the difficulties she experienced as below:

Our house didn't have a door. ... At first, we really struggled. Firstly, constantly cooking. Secondly, my daughter's class. Twenty-four people were at home together. At first, we couldn't think about those things, like headphones, microphones, and such, you know? We couldn't imagine transitioning to such a quiet state. My husband's workplace, well, they had 12 people and then 36, so my students are in. Inside, there were 1,070 people. After that, my daughter started wearing headphones, but then she was also experiencing problems there, while your work was being divided, of course. ... on the other hand, to

organize cleaning things and cooking. ... on the other hand, work continued. The articles and projects, teaching continued at full speed (A14).

Research assistants doing experiments and recording them at laboratories, on the other hand, had to conduct lessons from laboratories and asked students to come to laboratories in compensation for lab courses for a week (A5).

4.1.1.3.5. The Use of the Library

As for the use of library, both the academics and the students (A11; S8, S13, S14, S26, S33, S34, S35, S36, S38, and S39) acknowledged the important place of it as a campus facility that the students benefited from a lot before the pandemic. As a research university where the academics taught how to fish, the library was a place with various resources that guided the students and improved their research skills; however, the students could not reach it during the pandemic. Noting that everything could not be found online, one academic and a student shared their views about the deprivation of students' use of the library sources as below:

So, we always tell our students, I always say this. We're not going to give you everything here. We can't. We shouldn't either. You need to learn to do research, you need to learn to think. Teaching how to fish, not giving you the fish, is the goal. In the online environment, we may have compromised on this a little bit. Because students can't access the library. They might say, "I couldn't connect to the library." Not everything can be in electronic form. We might have spoon-fed information a bit more (A11).

The course materials are problematic in my opinion because we can't get books, we can't go to the library, and the teachers were asking us to find pirated PDFs online instead of sharing them themselves. This was affecting us negatively because we couldn't access sources from the library, and dealing with PDFs raised concerns about whether viruses would come from there or not (S33).

In line with the academic, the students who used to study at the library before the pandemic confessed that the library's being closed caused them to study less effectively due to lack of discipline and low attention span caused by the distractors at home like noise or technological tools (S8, S13, S26, S34, and S39). Some students shared their experiences as below:

... before the pandemic, I always used to say, "I can't study at home." I would go to the library, study at the school library. But during the pandemic, METU's library was closed. It was the first time in my life that I had to study at home. That also made it a bit challenging. You know, I turn my head, my computer is

there. You know, the TV is there and all. I had to prepare for exams under conditions that were more challenging for me (S34).

You're doing your homework. Then you stop. "Okay, I've finished my homework, but what should I do now? Let's go to the library and study with my friends," you can't say. Motivation drops (S26).

Because, you know, there's a lot of noise around our house. The neighbors make a lot of noise. You know, at your school, there's a place called the library. It's close by, right there. Even in the dorms, there are study rooms. But at home, these opportunities are not available (S8).

Some students drew attention to the disadvantage of searching for online sources instead of going to the library by stating that they wasted time on different websites (S14 and S34). One of them shared his experience as below:

Before the pandemic, I generally used to borrow the textbook from the library or use photocopies, or somehow acquire it, and I used lecture notes. I didn't have much interaction with phones and computers. I hardly used them at all. After the pandemic, I started using them constantly, and I'm not very happy about it. Because it turned into more of a pastime or killing time rather than being primarily for studying or educational purposes. We might even call it addiction (S14).

On the other hand, the students were glad to have online resources provided by the library, and get resentful for not having those resources after the pandemic.

For our Ottoman Turkish course, the library had purchased an internet dictionary subscription at that time. It had subscribed to it, and it was quite beneficial for us. As far as I know, we no longer have access to it. It has been canceled. This is quite a significant loss because, especially for Ottoman Turkish, those who know can understand if you don't know even a single word. Being able to write letters and instantly find the correct word order provides great convenience. Of course, we no longer have this opportunity now. It's also a bit expensive as a platform (S34).

4.1.1.4. Measurement and Evaluation

Two subcategories of measurement and evaluation emerged from the interview data as types of evaluation (process-oriented evaluation and product-oriented evaluation) and reliability issues. Concerning the practices with regard to measurement and evaluation at university before and after the pandemic, it can be stated that a majority of academics (A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A14, A15, A16, A17, A18, A19, A20, A21, A22, A24, A25, A27, A28, A29, A30, A31, and A32) had to make changes in assessment types

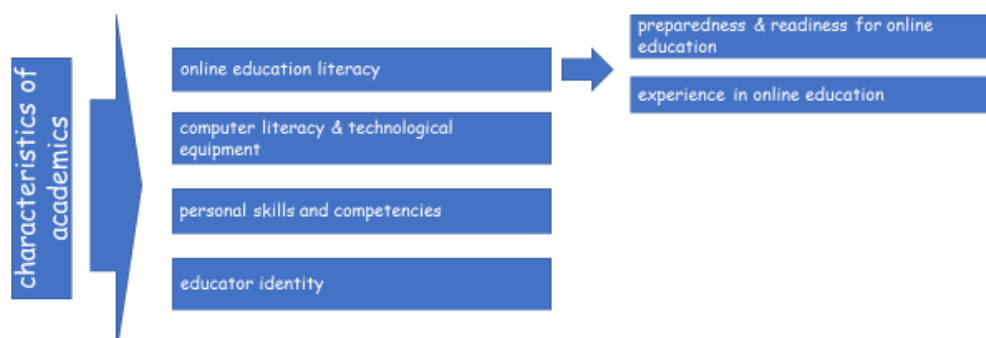


Figure 12 Subcategories regarding Measurement and Evaluation

These changes are decreasing the number of questions, changing question types and/or weight of the exams, and changing time allocated for exams to prevent cheating in online education. Some students summarized all aforementioned points as below:

Some academics preferred cameras to be on or off, some wanted open-book exams, others preferred closed-book exams. There were different rules like forty questions in forty minutes. It started confusing me and I got really stressed out at one point... Having them online made the exam difficult. There are those who cheat, but you find it unethical and don't do it yourself. But people are cheating. You think about all this during the exam and it affects your performance inevitably (S53).

Assessment and evaluation methods have diversified and differentiated. Various exam styles have come into play. For instance, previously, there was just one final exam with two quizzes. Thirty percent, thirty, forty percent, respectively. Now, for example, assignments account for fifty percent, midterms for twenty percent, and final exams for ten percent, spreading the evaluation process much more (S41).

On the other hand, a minority of academics (A12, A13, A23 and A26) did not feel the need to make any changes in measurement and evaluation and continued what they did before the lockdown. One of them added another perspective to assessment by noting that changing the measurement type was not suitable for his course objectives as below:

The measurement and evaluation did not change... It could have been sustainable. In some courses, there was no loss of efficiency for both teachers and students, I can't say that I was troubled. I don't give in-class exams. ... it's not suitable for me, I didn't pursue it, to tell the truth. There are quizzes, but they are not suitable for my teaching philosophy either. It's not my style to keep the students constantly alert, constantly nervous about exams. These are things to be learned throughout life (A26).

However, after the pandemic, some academics (A1, A2, A3, A5, A7, A13, A15, A18, A21, A22, A25, A27, and A31) did not have any changes and kept the same applications as before online education. In terms of weight or difficulty of exams, they administered exams as before, and they did not prefer to administer online assessment tools or assignments because they experienced difficulty and stress due to lack of infrastructure or exam reliability. One of the academics (A10) criticized his colleagues for being stereotypical and not having a new perspective to adapt existing measurement tools to new teaching approaches, but instead sticking to the existing ones.

4.1.1.4.1. Types of Evaluation

The findings of the study revealed two types of evaluation: process-oriented and product-oriented evaluation. Oral exam was another issue that appeared under process-oriented evaluation.

4.1.1.4.1.1. Process-oriented evaluation

The academics and students both from the departments of humanities (A22, A23, A25, A29, A31, A32; S35, S42, S44, S45, S46, S48, S49, and S50) and from the departments of sciences (A2, A11, A12, A13, A14, A15, A17, and A19; S8, S16, S17, S19, S20, S21, S23, S26, S28, S29, and S46) preferred process-oriented evaluation claiming that it was necessary to ask for more assignments instead of classical exams to decrease the risk of cheating and to guarantee the understanding of students, so they increased the number of assignments while declining the weight of midterms and final exams.

Besides that, the students were glad to have process-oriented evaluation stating that they gained learner autonomy because process evaluation enabled them to depend on critical thinking skills rather than memorization (S8, S9, S11, S14, S22, S23, S28, S35, S42, S43, S44, and S46). One of the students explained how they felt about the efficiency of process-oriented evaluation on their learning as below:

I learned a lot. If you haven't learned until that moment, for example, in the exam, this question, which chapter is it about? I open it, I examine it. According to the answer of the question, I summarize in my head. And I never forgot that information, for example. I think it was very useful. A period was given. The questions were a unit. There are limits to how many will be written for so long. At least this much was said to be written during this period (S44).

With the help of process-oriented evaluation, the academics (A22, A23, A24, A25, and A32) could prevent cheating as much as possible as they could check students' assignments by turn-it-in or other similar programs. It was unreasonable to be obsessed with the reliability of the exam, and so applying different but useless assessment types like multiple choice exams especially at the departments of humanities was not favorable. Therefore, they continued with take-home exams in addition to weekly assignments. One of them (A32) did not conduct any classical exams during the pandemic, but instead required the students to do weekly assignments and projects which were basically on current issues that they would like to participate in as a group. Especially in the first semester of the lockdown, another academic (A25) preferred process-oriented evaluation not to grade students, but to provide feedback to them, which was appreciated by her students.

In line with the academics of the departments of humanities, the academics from departments of sciences (A2, A11, A12, A13, A14, A15, A17, and A19) evaluated the students by administering quizzes during the term and/or regularly assigning homework unlike face-to-face education. They integrated quizzes at the end of each lesson so as to keep the students on the track and get them to pass to the next lesson or review the existing one. As for evaluation in applied courses (A5), the department of chemistry decreased the weight of the lab courses from 60 percent to 20 to lower student anxiety because the students felt panicked by conducting laboratory assignments online.

Nevertheless, process-oriented evaluation caused burden on the shoulders of students because they had difficulty in catching the deadline of each and every assignment whose number varied from course to course quite extensively (S8, S9, S11, S14, S16, S17, S19, S20, S21, S22, S23, S28, S30, S31, S35, S42, S43 S44, S45, S46, S48, S49, S50, and S52). Accepting that assignments or take-home exams seemed to be relaxing, they had to study more by searching on the net and write detailed responses. There were even up to thirty assignments in a month, which was an unmanageable number, causing the students lose the track of assignments. Meanwhile, the students at the department of statistics specifically noted that product-oriented questions administered before online education was changed to process-oriented evaluation. Every-week quizzes for statistics caused heavy workload on students of all

departments taking those courses. Among those students and academics, the ones below reflected their thoughts about the burden on the shoulders of the students led by various assignments:

Students said, "It's too much, really. We are constantly completing assignments, and now we can't keep track anymore. Which assignment was due for which class? What's due next week? What should we focus on now? We are finding it very challenging to keep up." (A31).

Due to the workload and the constant need to write, and also not knowing how to divide my day when take-home exams were scheduled on the same day without notice, it was a very stressful time for me... Having to take two exams simultaneously, exiting a three-hour exam and entering another three-hour exam ten minutes later, made my head spin after looking at the screen for so long, and I vomited (S44).

The students also criticized the academics for underestimating the living conditions of them in the lockdown period and took them for granted while assigning so many tasks because the heavy workload of assignments led to stress and anxiety as well as procrastination. One of those students shared her experience as below:

Some professors had that specific idea on their minds: You're already at home. You can't go out anyway. You're already on the computer all day long. Do your assignments. However, we had friends or family members who got Covid-19... There wasn't much support. I don't think we received any (S52).

After the pandemic, some academics (A2, A6, A10, A12, A22, A27, and A32; S9, S14, S17, S20, S36, S38, S39, S40, S41, S42, S43, S45, S46, S51, and S52) focused more on process-oriented evaluation by increasing the number of quizzes, projects and assignments and decreasing the weight of midterms and final exams after online education. As for question types, there were some changes like asking for steps of solutions, which were appropriate to evaluate the objectives of the science courses, or increasing the number of online quizzes or take-home exams rather than asking multiple choice questions at the departments of humanities, where the students were supposed to comment on topics. To illustrate, the academics at departments of sciences continued to ask questions on METUclass, which enabled them to detect at which step students made mistakes, and to provide partial credits even though the students found it easier not to reason the different ways of solving a problem.

The students found process-oriented evaluation as student friendly, which

helped them to collect partial credits and to feel less anxious in exams. Whereas their final exams played an important role in determining their course achievement before online education, thanks to process-oriented evaluation, they could collect partial credits from assignments and projects before they took the final exam, which decreased their stress about failing in the course. The students shared the benefits of process-oriented evaluation as below:

Doing assignments was not easy during that time either. But it could have been much simpler for me than the stress created by the exam or similar things. Exams with essay questions were relatively better and I felt more accurately measured at that point. Because I really needed to know something and interpret and write it in my mind. And I think our teachers were more comfortable in that regard too. Because not much could be done in terms of copying (S55).

My assignments were good. I had already scored full marks on everything, the rest being what? An almost BA to be obtained before I even entered the final (S41).

On the other hand, there were some others who felt exhausted with the workload of process-based evaluation necessitating a number of assignments and quizzes. They claimed that assignments included many pages of article review, reflections and supplementary visuals and videos prepared by them using technology; therefore, compared with before, the number of tasks and expectations of the academics increased a lot, which caused the students to feel overwhelmed. One of the students explained the burnout caused by process-oriented evaluation as below:

More assignments and quizzes were given, and this continued afterwards.... this year, it devastated us, me included. I'm really exhausted. I feel very victimized about this because it's my last month. Right now, I really feel like I've come out of a battle. In the last month alone, I've completed three projects, assigned eight homework assignments, taken approximately nine or ten exams, and participated in two quizzes. All in one month (S17).

4.1.1.4.1.1.1. Oral exam

The academics from the department of mathematics and one academic from the department of history preferred to apply oral exams in order to check the comprehension of students and prevent cheating as much as possible (A6, A7, A8, A9, A10, and A22; S8, S9, S10, S11, S12, S13, S14, S15, S21 S34, S36, and S37). At the

department of mathematics, it was the first time for applying oral exams instead of finals, and academics had to change the question types in midterms. It was challenging because questions and answers in mathematics were the same for centuries, and software programs could provide solutions step by step. Despite all presumptions, they could not get support from the faculty or upper administration, so they had to find their own solution, which was an oral exam to ensure the reliability of exams. They asked students to justify their answers by step-by-step explanation on questions. In order to be fair and consistent, questioning the logic behind the solutions, they asked the questions from the ones answered correctly by students in midterms, and also had a system for objections of students, where they could reevaluate the students by watching the recording of the oral exam. One of them shared the difficulty they had to face as below:

Mathematics hasn't changed much in three hundred years. There are programs where you input the question, and it solves it step by step. If someone uses that and writes the answer, they would get full credit. Because of such programs, written exams were not acceptable for us. Cheating was inevitable. So, we conducted oral exams. We even did this for large classes with four or five thousand students (A7).

Stating that he could have a chance to compensate his mistakes and defend himself in front of academics, one of the students explained his experience on the process of an oral exam as below:

I made a calculation error and got the wrong result. Then I started solving it again with the instructor, and I found my mistake. The instructor said "Okay, let's move on" and gave me full credit. So, there was an opportunity to make up for mistakes. These oral exams were more about whether we understood the material, rather than whether we were cheating. It was actually a positive thing (S10).

The academics had to spend a lot of time and effort to prepare, organize and apply oral exam thoroughly and fairly. Spending six hours a day for two weeks on oral exams, one academic (A7) noted that no matter how much effort they put to make the evaluation process smooth and fair, they realized one student cheating even in oral exam by using headphones, which surprised them a lot as the student was very confident while answering the questions.

We designed it seriously and here's how it went. The student logs into Zoom and is given written questions, two random questions. The assistant watches

via camera while the student works on paper for a bit. But after half an hour, we join and ask different questions. We learned this detailed method from Russian instructors. They used to conduct their exams this way back in the day. We implemented its online version. It was effective. I can say that we didn't pass anyone who didn't deserve to pass. In that sense, it worked. However, it was very time-consuming and required a lot of energy, but we managed to get our work done (A7).

On the other hand, some academics and students (A6, A7, A8, A9, A10, and A22; S8, S9, S11, S12, S34, S36, and S37) also accepted that students were not happy with oral exam because of the pressure they experienced as stage anxiety. As for the department of mathematics, the students were not used to answering questions reasoning the steps behind the solutions, which was quite difficult to them, although the questions were asked beforehand.

I can mention a few exceptional cases; three or four of my friends were accused of cheating even though they didn't cheat, just because they were very stressed and panicked. Four friends experienced this during the term... They couldn't do it because five weeks had passed since the exam. In such situations, the instructor would say things like, "I believe you cheated." (S12).

As for the department of history, the students did not have an oral exam before, but instead, during lessons they had some questions to get bonus grades before the pandemic. Even if the academics at both departments put an effort to relax students during the exam, students were quite stressed because of technological inadequacy and facing academics to justify their answers. Some of them even tried some legal ways to discard the oral exam; however, they could not do anything except for taking the exam.

For the same reasons, we had instructors who conducted entirely oral exams... Having an oral exam was particularly stressful for me. Because I was in Cyprus at the time, my internet connection was very unstable. Even taking a written exam was challenging, let alone an oral one (S37).

Lastly, after online education, the academics from the department of mathematics (A6, A7, A8, and A9) gave up administering oral exams to ensure reliability since organizing and administering oral exams was very exhausting and at the same time not favorable for the students. However, one of them (A10) who had already applied oral exams before online education continued to administer it to provide bonus grades to the students.

4.1.1.4.1.2. Product-oriented evaluation

Some academics (A3, A4, A11, A14, A15, A19, A20, A21, and A31; S1, S2, S4, S5, S6, S7, S8, S9, S10, S13, S14, S15, S20, S22, S23, S25, S30, S31, S36, S40, S41, S43, S45, S49, S54, and S55) preferred to integrate or continue with product-oriented evaluation as it was necessary for them to increase the number of questions or assign varied questions to different students in order to minimize cheating. They also claimed that normally they asked fewer questions before online education, but then they had to vary question types and made it more manageable to grade papers by asking multiple choice questions even though that kind of question type was normally unapplicable for their courses.

However, both the academics and the students criticized using multiple choice questions in order to make evaluation process easy and applicable for themselves disregarding the needs of the students and aims of the lessons (A10, A15, and A21; S1, S4, S5, S6, S8, S10, S13, S14, S15, S20, S22, S25, S30, S31, S40, S41, S43, S45, S54, and S55). At the departments of physics and mathematics, before the pandemic, multiple choice questions were not administered, but then in online education, the academics preferred to use that kind of questions for the sake of reliability; however, this caused the students to be evaluated by the product, not the process, leading them to get lower grades by taking the final point into consideration instead of collecting grades from the steps of solutions as before. Some students reflected the inappropriateness of product-oriented questions as below:

They started testing via METU Class, which was a very inappropriate method for the content of this course. Because in organic chemistry, we generally deal with mechanisms. They started to conduct tests in the format of 1 hour and 20 questions. We couldn't finish on time, and the test format also changed the grading. In traditional exams, there were partial points we could earn by doing some things correctly. But with tests, if we marked something wrong, we wouldn't earn any points at all. This also reduced our overall grade (S6).

Generally, I am more critical of the physics department than our own department. They used to ask us to write the answer directly into a small box without considering our solution method, so most people either got a zero or a full score. For example, I am currently in my fourth year and taking physics (S30).

In addition, the departments of humanities like psychology and sociology also changed their questions types to multiple choice instead of essays in order to decrease

the workload of grading papers. This led the students not to reflect on their knowledge and comment on what they learned thoroughly. The students had to read thousands of pages to answer 20 multiple choice questions, which was unfair to be evaluated as such and led to frustration among them.

Exams that were in the form of tests generally faced problems both in terms of time and they were not measuring knowledge (S55).

In addition to the students, the academics criticized their colleagues for taking the easy way out by using inappropriate question types, which could not be discouraged because they had the right and privilege of their status to administer exams as the way they liked. One of them reflected his thoughts as below:

In another department, professors have discussed, "There are exams on METUclass, they are done very well, it reads automatically when you take the test, averages don't change at all, successful graphs are the same, so let's always do tests, why are we reading like this?" ... Even if you tell a professor with many years of experience not to do something, they won't care. As long as they don't go far beyond the legal boundaries, they do what they want (A10).

By limiting the time allocated for the exam, the academics asked open-book questions, the answers of which were reachable online or materials that they had already covered in class (A21 and A31; S23, S26, and S52). One of the students explained how open book exams prevented them from cheating as below:

Our professor used to say. If you know where to copy from, you already know the topic. I design the questions in a way that you can't just copy and paste from the internet. I give you the right to use your resources. Your textbook can be open in front of you. If you know where to look for which formula, you already know the subject. We didn't need to cheat. It's not just one (S26).

One of them (A31) stated that she increased her workload by organizing and grading an open book exam including different cases and diagnosis, which required long questions but short answers. On the other hand, one academic from the department of physics agreed that their workload increased highly in order to ensure reliability and claimed the evaluation process to be full of trial and error.

In our analytical exams, we expanded the four-question analytical exam to forty questions. From that pool, random and different questions started to go to everyone. We didn't announce this to the students at first. Because if they went to a certain organization, they would be caught there. So, oh, it took a lot of our time, of course (A15).

After online education, there were some academics continuing with product-oriented evaluation and asking inappropriate question types used in online education which could not evaluate students' knowledge at the departments of humanities (A24 and A27; S40). One academic from the department of sociology (A27) criticized her colleagues who, for the sake of decreasing the workload of grading papers by using an optical reader, continued to ask multiple choice questions instead of essays in spite of the inappropriateness and inefficiency of asking such questions. One of the students shared their feelings regarding the continuum of asking multiple choice questions at the departments of humanities as below:

I am expected to read 600 pages in a month, but only 20 questions are asked, and it seems it will continue this way. I think it is very detrimental to the dynamics of our department because these are not things to be memorized; in fact, they are things we should not memorize. ...I don't know how accurate it would be to make this comment, but honestly, it has become a burden for the professors as well. While there is the option to read pink forms in the METUclass quiz environment, why should they read 5 pages from 150 people? They are also opting for the easier route, frankly speaking (S40).

4.1.1.4.2. Reliability Issues

Reliability in measurement and evaluation was considered as one of the most crucial issues in online education by both the academics and the students. In order to increase the reliability of assessment types, the academics tried various ways such as changing the instructions in exams, setting a time limit, changing question types, increasing/decreasing the weight of measurement tools, increasing the difficulty of questions, sending different questions to different students, taking some physical precautions during exams, and checking the answers of the students via software programs. No matter how hard they struggled to prevent cheating, it was impossible to ensure the reliability of measurement and evaluation in online education.

Changes in exam instructions were made to minimize cheating among students. Some academics increased the difficulty of questions and asked selective questions which were not solved through cooperation among students and which enabled them to differentiate students who were hardworking or cheating (A5, A6, A13, A14, A18, A24, A29, and A31; S4, S8, S12, S13, S15, S16, S23, S24, S25, S35, S43, and S52). The students also noted that the questions were so difficult and time was so limited that even though they had their books open or collaborated with their peers, they could not answer them correctly. Some students reflected the difficulty they had as below:

The questions selected during the pandemic were difficult. I took Calculus five times, but I didn't see questions as difficult as the Calculus during the pandemic period (S13).

It was already a test without cameras; the professor didn't require them. What does this mean? It means you can do it wherever you want with whoever you want. We sat down, okay, we have our notes, we'll look and do it, right? No, it's not like that... The exam, which should have lasted about an hour and a half, was given only about thirty minutes. Just scanning two books, three minutes were already there. That test was rough, I think everyone in it didn't receive high grades (S43).

Some others (A1, A2, A4, A5, A6, A9, A11, A13, A16, A17, A18, A21, A24, and A28; S2, S4, S6, S12, S13, S18, S21, S24, S26, S32, S33, S36, S37, S39, S41, S44, S47, S48, S53, and S55) specifically limited the time allocated for each and every question in order to minimize cheating by preventing communicating with peers or searching answers on the Internet. However, the students noted that it was quite challenging to answer so many questions in a short time, especially considering technological problems that could be faced in exams. While some academics (A4, A6, A24, and A28; S29 and S49) put time intervals and asked students to upload their answers one by one to pass to the next question, some others (A3 and A15) asked varied questions to measure the same objective, or (A13) sent questions randomly. Some students expressed their stress in exams as below:

I saw an exam where only twenty minutes were given for forty questions just to prevent cheating... I couldn't complete it because I panicked due to the limited time... constantly checking the clock and the paragraph-by-paragraph format made me start crying in panic, and I know I left the exam crying. I believe this isn't the right method to prevent cheating (S44).

I think they intentionally started asking much harder questions because they assumed we would try to cheat in every possible way. I remember receiving an email from a professor at the end of the semester saying, "I am disappointed with your exam results due to low grades. I hope we never have to resort to online education again." It felt like they were saying they couldn't teach us anything at all (S16).

Some academics administering product-oriented questions tried to cope with cheating with the help of cameras put on the exam place of students or by asking students to take and send the photos of exam papers. However, due to technological inadequacy or thanks to the chance of technology which helps the students check knowledge whenever needed on the Internet, academics could not manage the process smoothly. Thus, they had to take strict measurements like not tolerating any delay for

uploading photos of exams, any background noise and/or problems related to camera use (A1, A2, A3, A4, A5, A6, A9, A10, A11, A13, A15, A20, A27, and A31; S1, S2, S4, S5, S9, S12, S14, S21, S23, S26, S29, S30, S31, S32, and S33). There were even academics asking for three cameras which could record students from three angles, one mirror showing the background of the exam place, and adjusted volume to hear any background noise. On the other hand, the students were quite exhausted with the precautions taken in exams and processes they needed to complete step by step as stated by one of them below:

They subjected us to a lot of restrictions. ... There was a process where if you didn't take and upload the photo within five minutes after leaving the exam, your exam would be invalidated. This process, along with the camera-mirror setup I mentioned earlier, was already a disturbing experience in itself (S26).

If the power went out at home, I would immediately check my charge if there was an upcoming exam that day. On one exam day, for instance, my electricity went out and didn't come back until close to the exam time. I had to quickly go to an acquaintance's house. Going to someone else's house, you know, with kids, was really a challenging process for students, I believe (S8).

Having to use cameras in exams to ensure reliability, some academics (A1, A5, and A20) focused on some ethical issues because it was a kind of interference to students' privacy and restricting their personal space. One academic (A20) preferred not to be existent and observe students during the exam even though their cameras were on. He also noted that seniors should have a professional ethic and self-discipline and not dare to cheat under any circumstances. Another one (A25) noted that she was aware of the students cheating, but it was not her responsibility to play as a detective and follow the students' actions on cheating.

In the end, these precautions and restrictions caused some problems among the academics and students due to stress on both parties during the exams and injustice in student grades, causing even the hardworking ones to get low grades or missing the main objectives by focusing on too many details (S3, S6, S10, S13, S23, S24, S25, S26, S27, S29, S30, S31, S39, S41, S43, S44, S47, and S55). They also led students to easily lose their concentration on exams and feel more stressful because of conditions they already experienced like family issues, technological inadequacy and personal problems. Besides that, the students criticized the academics for causing unfairness, especially for the ones who did not dare to cheat, by limiting the time set for exams or asking questions which were difficult and inappropriate for course objectives like

multiple choice questions or questions asking for the details, not the overall comprehension. They also claimed that asking for too many procedures during exams led the ones who did not have adequate technological equipment and Internet connection to become the disadvantaged group compared with their peers in exams. One of them shared his views as below:

Generally, they were trying to prevent it by shortening the time... But in my personal opinion, those who want to cheat will cheat... Cheaters already form a group. Within the group, they share questions among themselves. That's why they can already complete the exam much more quickly. Those who try to do it alone face difficulties (S39).

Not knowing how to cope with cheating and trying to take precautions as much as they could, the academics (A1, A2, A4, A5, A13, A16, A18, A21, and A28; S3, S5, S7, S9, S10, S13, S15, S19, S24, S27, S37, S42, S44, and S47) were aware that students, being already restricted to their homes under the conditions of the pandemic, were highly stressful due to the precautions asked for exams and assignments. Some students even had panic attacks because they had difficulty in answering difficult questions in a limited time and meeting the requirements of exams like uploading papers at a short time, being observed by cameras and warned, if necessary, not getting partial credit from answers as before, being limited to the time allocated to each question and not being able to turn back to previous questions. One of the academics shared her views as below:

The student cannot concentrate in that stress, wondering if the internet connection will drop. We were getting a lot of emails. They were asking, "What will happen if my internet disconnects, teacher?" During that time, we told the students "Okay, your internet may disconnect. No problem. We will definitely give you a makeup." This was also abused a lot. But generally, we tried not to victimize them (A2).

Being aware of students' anxiety, the academics tried to lower the stress level of students by providing extra time for uploading answers and being tolerant to any technological problems. Many students (S2, S4, S5, S11, S13, S14, S16, S17, S18, S20, S21, S22, S26, S27, S32, S36, S37, S38, S39, S41, S43, S46, S47, S51, S52, and S55) accepted that most academics, especially research assistants, helped them to solve any problems they faced in exams and assignments by providing extra time in exams, extending deadlines, providing make-up exams, and/or instant replies to messages. In

addition to technological problems, the students got help for their excuses regarding any health or personal problems as stated by one of them below:

If your internet cuts off and you leave the exam, you need to reconnect within two minutes. If you couldn't reconnect, the exam would be canceled. You would take a makeup exam. But I was already nearing the end of the exam and it was going well for me. Anyway, I hurriedly brought the battery-operated desk lamp from my room. I turned on the internet on my phone and connected my computer like that. In the end, the teachers accepted it (S4).

The students (S6, S8, S12, S22, S29, S50 and S53) also complained that disregarding their learning environment and technological equipment and competency, a few academics did not behave empathetically in exams in case of technological problems, which caused a lot of stress on students. They had to find some solutions like taking exams at so-called available places like their neighbors' houses, cafes or even when they were ill and at hospital. Hence, they felt alone and anxious during exams. They claimed that there were times that they could not get any reply or reaction from the academics when faced with problems in exams and got low grades because of that. In addition, they were asked to prove the problem they had like an illness or electricity cut. One student expressed their feelings as below:

I honestly think that some of them couldn't empathize enough with us. One of my close friends didn't have any equipment, no computer. They were only attending classes and exams through their phone. So, students in these conditions, you know, I had friends who were in villages where the internet didn't reach. Their internet connections weren't reliable. Some of our teachers had very little tolerance for this. They would say if you don't connect within a few minutes, we'll count it as cheating (S8).

Lastly, there were also some students who did not ask for help from academics either because they did not experience any technological problems in exams or because they refrained from getting make-up exams which could be harder than usual ones (S8, S23, S28, S39, S43, and S48).

Accepting the impact of those precautions and limitations on both students and themselves, the academics could not determine who really experienced a technological problem or abused the situation because it was almost impossible to detect those students who try every way to get the advantage of technology and communicate with one another by setting up some WhatsApp groups or using another monitor in exams. In service courses where the identity of each and every student could not be checked,

it was impossible to accuse students of cheating even when they could be suspicious of them; instead, they ignored those circumstances (A1, A2, A7, A18, A21, A25, A26, A26, and A27).

Without the help of some software programs like turn-it-in, they (A22, A28, and A30; S44 and S48) confessed that they could not punish students for cheating since it was usually impossible to prove and so accuse students of cheating although they could understand students' cheating from their use of English language, expressions in common with other students and /or grades in exams or assignments. Therefore, the academics had to overlook cheating under circumstances that they could not find any evidence of cheating, and so they could not impose sanctions on the student without any evidence even if they realized there was inconsistency among a student's grades, which was explained by one of them as below.

Exams were a challenge. I'm not sure if we could ensure fairness until face-to-face exams. I mean, in every solution, you know, we put mirrors behind, turned the rearview mirror left and right, and so on. I managed that with a sense of justice. When I say managed, I mean, I just passed with a gap because preparing for exams took a lot of time personally. It affected everyone's time at home and so on. And, it wasn't really possible to monitor the other side. Then, we went through this period with a sense of justice as a whole generation, so to speak (A14).

There were some students (S16, S19, S38, and S42) who claimed that there were times that their grades were cancelled because of the academics who did not determine the ones cheating in exams and punished all students instead.

One night, the professor sent us a message, saying something like: "I would have thought you all had academic integrity, but I see you have all cheated. Therefore, I have deleted this question from the exam, removed that one, and devised a grading system on my own. While I expected at least a minimum BA grade from that course, I ended up with a CC. There were even friends who said they would get BA or BB, but they failed directly" (S23).

Since the perpetrator couldn't be identified, the professor canceled that exam even though I did well on that exam, and my grade was high. I was really upset about this. We told the professor, "There are also those who didn't cheat here," but the professor thought it would be unfair and didn't know who did it, so he canceled the entire exam directly (S20).

Upon realizing cheating and getting surprised about various ways students could find to cheat, the academics tried different types of punishment or deterrence for students such as dropping students from the course (A17, A28, and A32), being

intolerant to students' demands and suggestions for exams (A18 and A22), and threatening them for publicizing their identity to the colleagues and not providing them with references for their careers or education abroad (A19 and A32). Some stated (A1 and A2) that they could not deter students even when those students were sent to the discipline committee because there were not any deterrent disciplinary actions against them.

I definitely think there is copying. The questions I prepared to prevent copying have at most reduced copying. There have been times when I conducted exams with open books to prevent copying, but even then, from the English they use in their papers, you can tell they are not theirs (A30).

As stated by the students and academics at the departments of sciences (A3, A6, and A18; S1, S3, S4, S5, S9, S10, S12, S13, S16, S19, S20, S23, S24, S29, S30, and S31), because of the bell-curved system, the students got lower grades and/or the ones cheating in exams got higher grades than they deserved, which caused injustice in grades. At that point, some hardworking, responsible and/or fair students helped the academics to determine the students cheating in exams or assignments because they got lower grades due to the bell-shaped curve evaluation or could not tolerate unfairness among peers. One of the students reflected the injustice they felt as below:

Students' exam averages coming out very high and me not being able to do it despite working hard especially shattered my motivation... because our friends did not solve their own exams while the camera was off, it caused a great injustice (S13).

Some students (A1; S16, S19, S38, and S42) confessed that they felt the need to cheat because of the unfairness created by their peers. Even though not cheating before online education, students took the advantage of online education and increased their grades by cheating as confessed below:

They couldn't prevent cheating in any way, in my opinion. Since this is how this course is being passed, I said, "Let me do it too." I think they didn't leave any other choice. Even my mom said, "Cut the crap. Even though she's a teacher, she said, 'If you're going to cheat, at least do it properly.' Go ahead, since things are going like this." "Then why aren't you doing it?" (S16).

No matter how many precautions were taken by the academics, the students were not satisfied with the academics and accused them of either their taking too many or not enough precautions. Some students (S3, S21, S26, and S42) claimed that the

academics asked questions whose answers could be searched and found on the Internet or they provided some tips related to exam questions beforehand. One of them shared their experience as below:

If you take previously circulated questions from here and there, just change a few numbers and put them in the exam, students will recognize those questions. This is laziness on the part of an academician, by the way. If you indulge in this laziness, students can abuse it in any case. They can find the copied word from search engines, change the number of letters, and still reproduce the question with a copy (S26).

On the other hand, the academics from the departments of humanities were criticized for changing terminology so much in order to prevent cheating that questions became incomprehensible for students to answer.

Because all the terms that could be found on the internet were altered and made nonsensical in the exam. The original terms were changed to a state where they couldn't be found when searched online. But at the same time, it had become very disconnected from the content of the course. And it was a very poor exam. Solving this as multiple-choice was bad (S55).

There were some others (S13, S29, S50, S51, S53, and S54) who criticized the academics for not taking enough precautions like requiring students to turn on cameras or use programs like safe exam browser to prevent opening other web pages, while others felt stressed and could not answer the questions. Therefore, it was impossible to find any solutions for the problem of reliability because some students accepted precautions as a kind of favor to them while some others found them easiness of academics.

I saw that generally this copying issue occurred more in asynchronous classes when I compared the courses I took. Because the instructor was not physically present, students tend to adopt a mentality of "what would happen if I copy?" Here, I would have preferred instructors to engage more actively and lively with students... The part I criticize is that instructors sometimes took shortcuts...I think they left students a bit neglected. This was the biggest problem here (S29).

At the end, trying all the ways to prevent cheating but finding out the impossibility of enabling reliability in measurement and evaluation online, all the academics believed in the need of face-to-face exams to guarantee justice (A1, A2, A3, A4, A5, A7, A9, A14, A15, A17, A18, A21, A22, A24, A26, A27, A28, and A30).

The students were also aware of the fact that students could find a way out to cheat in exams or got help in assignments; therefore, the fairest way to be evaluated was by face-to-face exams (S3, S5, S8, S10, S16, S18, S20, S22, S23, S27, S29, S30, S31, S32, S37, S38, S40, S41, S42, and S49). One of the students reflected their feelings as below:

200 students had to go through a year of stress just to prevent one student from cheating. All the measures taken had a negative impact. Those who wanted to cheat still did. It had a very negative effect....We were just measured and given a letter grade. We weren't evaluated. In most courses, we couldn't find out our grades or found out very late. We entered the final exam without knowing our first grade. We didn't get feedback. Emails were also not answered (S27).

Two academics from the department of sociology (A25 and A26) suggested that it should be a must for science departments to administer face-to-face exams due to reliability issues; however, it could be optional for the departments of humanities where assignments like projects and take-home exams could prevent cheating. In line with the academics, the students from various departments (S8, S9, S19, S20, S22, S27, S30, S31, S34, S35, S36, S39, S42, S45, S49, S51, and S55) found multiple choice questions unsuitable to prevent cheating due to easiness of finding the answers of those questions by searching keywords on the Internet or students' forming groups to answer them collectively. In addition, the students preferred to be evaluated through assignments and take-home exams in order to ensure reliability and better learning. One of them expressed their thoughts as below:

If education is going to be conducted online, I believe comprehensive assignments or similar tasks should be preferred over exams to assess and evaluate students' knowledge. It's much more productive than exams, in my opinion. If someone else does the same assignment, you can tell. The instructors understand. In this way, comprehensive assignments are sufficient to measure knowledge, I think (S19).

Lastly, the students claimed that they could not get feedback for exams and assignments when they had any objections related to exams and asked for the rationale behind their grades (S22, S24, S27, S41, S45, S53, S54, and S55). Besides that, they might not have seen the correct answers of their questions due to technological inadequacy or academics not adjusting the system accordingly. One of them noted an interesting experience of his as below:

Some absurd things happen indeed. Three friends, though academically unethical, have received different grades even though they submitted the exact same papers. Throughout the course, we've taken the same exams and done the same assignments, yet one friend's GPA differs from one another. Everyone has different opinions, which is a strange situation. It's really weird (S22).

Another student drew attention to the interruption of her academic improvement due to lack of feedback. She criticized the academics who did not help their academic growth, especially in the departments of humanities like sociology, so she could not form her perspective towards topics and reflect on herself.

Despite asking for feedback, I didn't receive any. It feels like someone is assessing your academic performance from a distance without much interaction with you and without providing any help for your improvement. I would ask, "Can you please tell me what I'm lacking? So, I can improve myself." And truly, even a tiny bit of feedback can have a huge impact on students. That's why feedback is very important, but unfortunately, it's always been like this in our department (S45).

However, after online education, some academics (A6, A16, A18, A23, A27, and A29) continued to use technology indirectly in assessment and evaluation such as grading and providing feedback online, and using software programs to prevent cheating. In addition, they stated the benefit of scanning exam papers and the practicality of grading them online so that they could get rid of the responsibility and stress of keeping the hard copies of exam papers. They could also provide feedback to the students online and lessen the number of students who had objections for papers. One of them stated one of the benefits of online feedback as the practicality of providing online feedback, which provided the students with the detailed corrections and comments they could find on online platforms like METUclass when they were out of town. Another advantage of keeping exam papers or assignments uploaded online was to check their reliability in platforms like Turnitin during online education (A27; S15 and S52). However, when they took pen and paper exams again like in face-to-face education, they had to quit uploading papers and checking them in online platforms.

4.1.2. Characteristics of Students Affecting Academic College Experiences

As for the characteristics of students which determined their academic college

experiences before and after the pandemic, four categories emerged from the interview data: computer literacy and technological equipment, personal skills and competencies, learner autonomy, and academic achievement.

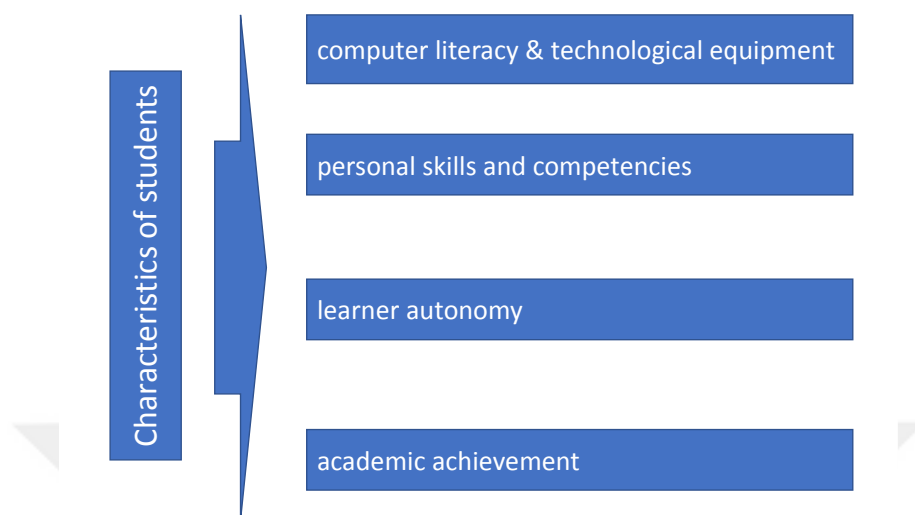


Figure 13 Categories regarding Characteristics of Students Affecting Academic College Experiences

4.1.2.1. Computer Literacy and Technological Equipment

Both the students and academics admitted that compared with the academics, the students could adapt to online education more easily thanks to their technological competency (A2, A5, A14, A15, A17, A18, A23, and A24; S1, S3, S4, S5, S6, S8, S10, S13, S15, S16, S17, S18, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S31, S33, S34, S36, S37, S38, S39, S40, S41, S42, S43, S44, S46, S47, S48, S49, S50, S51, S54, and S55). Moreover, there were some students who developed themselves more technologically thanks to online education (S2, S7, S14, S20, S32, S35, S45, S52 and S53) while some took the advantage of technology and used it in different fields like providing tutorials or designing web pages and developing software (S4, S22 and S38). On the other hand, some students had problems with use of technology especially in exams where it was critical to obey the instructions, and that caused stress for them (S12, S13, S14, S16, S20, and S36). One of them explained how difficulty it was to complete the procedures in exams due to computer illiteracy as below:

In some exams, we had to record our screens, export the recordings, and upload them. I wasn't very skilled in these areas. I got a lot of support from friends who were in high school and from people who made YouTube videos...I had computer literacy, but because of a lack of confidence, and because our

instructors were asking for a lot of extra things, I couldn't fulfill all their requirements. That's why I got support in that area (S16).

Most students already had their own equipment (A3, A13, and A20; S1, S2, S5, S6, S7, S9, S10, S12, S14, S16, S17, S18, S23, S24, S25, S27, S28, S29, S31, S33, S34, S36, S38, S39, S40, S41, S42, S46, S47, S48, S50, S51, S53, and S54), whereas a few of them had to afford technological equipment like laptops or cameras (A1, A2, A4, A6, A7, A9, A12, A15, A20, A21, A24, A26, A27, A30, and A32; S3, S4, S8, S13, S15, S21, S22, S29, S52, and S55) or they had lacked technological infrastructure like electricity or Internet connection, especially for lessons or exams (A12, A16, A17, A19, A23, A27, and A31; S3, S6, S11, S12, S13, S17, S26, S28, S30, S32, S35, S37, S38, S41, S42, S43, S44, S45, S47, and S52). Lastly, some students had to share their equipment with family members or friends from time to time, but this did not create any problems for their education (S29, S46, S47 and S51). One of the students shared his experience regarding lack of technological infrastructure and equipment as below:

I didn't have my own computer to begin with. Initially, we got a computer, but it was for my sibling. It was shared, but ultimately it was their computer, and they stayed with my mom. There were arguments about who would use it. It wasn't very efficient. I used it when it was available... Getting my own computer relieved me, but the pandemic was ending... We never had a reliable internet connection, experiencing freezes during meetings and delays in accessing materials. When the internet was insufficient for synchronous classes, I used mobile data, which resulted in high bills. For asynchronous participation, I had to wait with great patience for files to load and websites to open, which was extremely frustrating (S3).

Therefore, some students did not have a fruitful learning environment due to lack of equipment, not having a separate room, having family problems or problems with housemates, and/or noise disturbing them. Some students had tough times especially at exam time due to lack of Internet connection, and some of them had to use their technological equipment with their family members interchangeably. One academic summarized students' environment as below:

They don't even have rooms of their own. They have no internet. Some are connecting from villages. They say, "I can't connect, I can't log in, I can't find a camera." They say, "I can't record with a second camera from behind." They say, "We got news that the power will be out that day." They say, "I won't be able to connect to the exam at the exam time." Or they connect to the exam, but the connection drops. The power goes out. The internet disconnects in the middle of the exam. Students had a very hard time (A31).

The university had a campaign to reach the students in need of technological equipment, and tried to help as many students as it could (A1, A4, A7, A9, A10, A11, A12, A13, A15, A21, A23, A24, A25, A26, and A27); however, the academics from the departments of humanities stated (A23, A24, A25, A27, and A31) that the budget was not enough to meet all those needs, and some students either had to afford their equipment personally in time or got help from the departments, whereas the ones from the departments of sciences (A1, A4, A7, A9, A10, A11, and A13) stated that they could generally help students in need as below:

The department heads emailed their students, saying that those in need, specifically those lacking technological equipment, should contact them. Each department had a certain quota. We asked the department heads to identify the five most in-need individuals. After that, we received applications. Then, in a second wave, a company informed us that they were renewing their computers and donated their perfectly good equipment pool to us. This allowed us to distribute equipment to another thirty people. So, it was done in two waves (A25).

In addition to the university, some charities like AdımODTÜ by METU Development Foundation helped the students to obtain the necessary equipment. Besides that, some academics (A1 and A4) noticed some students who did not want to share their lack of equipment with the university as they were shy or found it insulting to ask for help. In line with the academics, the students (S1, S2, S4, S5, S6, S7, S8, S10, S12, S15, S18, S22, S24, S29, S30, S31, S33, S34, S40, S42, S44, S48, and S54) stated that there were campaigns and support from the university and some units like AdımODTÜ, but they did not ask for any technical support or equipment. However, they knew that there were students who could get technological equipment from the university.

4.1.2.2. Personal Skills and Competencies

During online education caused by the pandemic, the students had some psychological problems like sleep disorders, concentration problems, amotivation, anxiety, depression as well as physical problems related to eyesight or posture (S4, S7, S8, S12, S13, S18, S26, S32, S34, S38, S41, S42, S52, and S55). It was a very exhausting and stressful process for the students to cope with because everybody was

afraid of being sick, experienced for the first three months of the lockdown at student houses with their peers away from families, and tried to adapt themselves to the unknown. Later, not being prepared for online education, they had to spend one more year in online education, but this time, with their families and available conditions which might not have been easy especially when there was a risk of being infected due to occupations of family members as expressed by one of the students below:

We are a family of four. I also have a younger brother in high school. He caught the virus ... I caught it in my second year of university, second semester. My mother was a healthcare worker, a nurse... so it was still a stressful time. My aunt is also a healthcare worker, so there was initial anxiety in the family, especially regarding my mother's health. My father used to work as a school cafeteria attendant, so when schools closed, he was affected negatively... Being in the same household was very nerve-wracking during those times (S7).

Because the students' level of anxiety increased significantly due to family issues, physical and/or psychological problems and academic concerns, they became more depressed. Especially for the first semester of the lockdown and later on, some academics (A1, A2, A3, A10, A13, A14, A19, and A26) had to comfort panicked and anxious students as they were quite stressed and depressed. There were the ones who even threatened the academics for committing suicide when their request for a favor in lessons or assignments was declined. Therefore, not knowing how to deal with those aggressive, depressive and/or anxious the students, the academics found it quite challenging to guide them and keep a balance between students' needs and their expectations from courses and students. Those with psychological problems like depression, anxiety, panic attacks and sharing them with the academics were directed to counseling departments or mentored by their own instructors. Some students reflected on their psychology in online education as below:

I was just staring at the computer from morning till night, and my academic anxiety skyrocketed. I was terrified of missing out on something. In a classroom setting, if someone, let's say, even someone in the back row, mentioned they did the homework, you could turn around and ask, "What homework?" But here, we really had to keep up with everything (S52).

There were other personal reasons as well, but constantly being at home, not being able to engage with anything else, and perfectionism stemming from my personality traits were other reasons, and ultimately, they all came together. And it triggered something in me, and that process was even more difficult (S55).

Some academics (A26 and A28) stated that there was an increase in the anxiety of students because of future uncertainty and unsociability along with the well-being of themselves and beloved ones, and there were some students who had panic attacks; however, it was not always possible to intervene in all difficulties or problems they experienced. One of the academics summarized how widespread psychological problems were among students as below:

Students are not at an age where they can cope with loneliness. Loneliness isn't just about being physically alone; it's about compulsory isolation and having to deal with most things largely on your own, having to struggle... I think most students have been dragged into depression to various degrees. So, before the pandemic, there was a certain number of students going to therapy, but after the pandemic, I believe there has been a significant increase in the number of students seeking therapy (A28).

Some others (A3, A5, A6, A9, A10, A13, A16, A18, A19, A22, A23, A24, A27, A28, and A31) drew attention to the disappointment and amotivation students felt and the burn-out they experienced because of the burden on their shoulders as they had to cope with responsibilities like house chores or dealing with family members when staying at home (S3, S5, S8, S11, S22, S33, S37, S39, S40, S44 and S54). There were students who could not tolerate living with their families who could be conservative or family members who were dependent on them to be taken care of. Some students got addicted to caffeine and/or had sleeping disorders because they did not have personal space at home, and so they had to take some psychological support from counseling units. One of the students staying with family members shared her experience as below:

I think my psychological problems... We couldn't go out during the pandemic, and also, because we already had a sick person in my family, the house was constantly crowded, which triggered my concentration issues a lot... My home environment was very crowded. So, with my grandparents, my grandmother, and then my cousins, uncles, and my mom, even though my room was separate, we couldn't even get the elderly to listen to us, so there were constantly people coming and going, even during exams, someone would knock on the door (S44).

Moreover, the students had to deal with loneliness while living in a room isolated from the outside world instead of socializing with their peers on campus (S3, S6, S8, S9, S10, S11, S12, S13, S14, S15, S19, S21, S25, S27, S28, S29, S33, S34, S37, S38, S39, S42, S46, S49, S50, S52, and S53). One of the students shared how

interacting with peers made them feel better as below:

I'm an outgoing person, and I truly thrive on being around people. When I couldn't see anyone, whether they were familiar or not, it really affected me to be in an environment without people. My outgoing nature eventually caused me to struggle because when you're sitting in a lecture hall, you look around and see others listening, yes, we're in this environment together. Someone waves, I wave back. That learning environment made me feel good, let me put it that way. Now, when that environment disappeared (S53).

Without socializing, students felt alone and individualized (S2, S4, S6, S8, S13, S14, S16, S26, S34, S44, S45, S53, and S55). Even though there were more students in need of psychological help, a few students with psychological problems got help from some counseling units at university like Disability Support Unit (EngelsizODTÜ) and Clinical Psychology Unit (AYNA), and got exams specifically prepared for them (A13). Other academics (A5, A18, A22, A23, A24, and A25) provided mentoring and had a heart-to-heart talk with the students upon realizing their psychological problems like amotivation, anxiety and depression during online education. They tried to cheer them up, solve their problems if possible, and at least listened to and understood them. While one academic (A24) approached the students in a friendly way asking them to get relaxed and sit comfortably in front of the screens while attending the online courses, she was aware that both the academics and the students pretended to be okay. Another one (A22), who was a professor at the department of history, motivated her students by becoming motherly and caring her students in a period when everybody had the risk of being ill. She also associated the current pandemic with the previous ones stating that they were witnessing the history. Like in a group counseling circle, one academic (A23) thought starting the lesson with a brief talk to students to motivate and mentor them as a part of his job to be a role model and a significant mission to help students share their problems and gain a different perspective.

The students (S2, S3, S4, S5, S6, S13, S14, S15, S16, S17, S18, S21, S24, S30, S35, S36, S38, S39, S42, S44, S46, S47, and S55) pointed out that their attention span decreased a lot as well as their motivation to attend courses because they could not refresh themselves between courses as they did in face-to-face education, when they had the chance to meet their friends and chat in the canteen or garden and share their life experiences, but instead they had to live with their families and deal with many assignments and projects.

It really lowered my socialization quite a bit. And there were times when I really felt overwhelmed. Because sometimes you go and meet your friends, you've just finished a test, feeling overwhelmed. You could vent for a minute or two about how the exam went, how the professor asked questions, etc. That wasn't there during the pandemic (S5).

Besides that, there were many distractions at home such as noise, sharing equipment or room with family members, health problems of them and/or family members, and family pressure. One of the students (S47) linked her low attention span to her illness, dyslexia, and stated that it was triggered due to online education, while some others associated their low attention span with breaking from the reality due to the exposure to virtual life (S28, S45, and S51). One of the students reflected on the reasons behind the low attention span of students as below:

I have difficulty focusing after about fifty minutes. I had classes that lasted for a hundred minutes without a break. I struggled a lot with those too. Already, your head starts to ache. You want to get some fresh air. You want to distract yourself a bit. Maybe have a coffee or something. But you can't get up from the lesson for hours. Not even a break is given (S36).

On the other hand, there were a few students (S2, S10, S20, S24, S30, S33, and S43) claiming that a structured daily program in online education helped them to focus on lessons more and increase their attention span. They did not have anything else to do except for studying for their courses without any distractions of social life.

During the pandemic, I found it easier to follow classes because I knew what I had to do. Watch the video, read something, and participate. Since there wasn't a distracting element, I could focus on one thing. In that sense, it was actually good for me (S30).

Moreover, the academics (A1, A3, A4, A9, A10, A13, A17, A26, and A30) stated that without turning on cameras, many students did not follow lessons and there were some students who might have been sleeping in front of the screen or watching something else in another tab. The students also accepted that they had sleep disorders and fell asleep in courses because they got bored of sitting in front of the screen for a long time (S11, S12, S14, S23, S28, S32, S40, and S48). The academics could not check on the students to help them keep on the track. Besides that, there were also students who had eyesight problems due to long hours of exposure to the screen (S2

and S34). One academic (A10) stated that students procrastinated upon relying on the recordings, and so instead of being present in lessons, they dealt with other things without being realized by the academics whether they were attendant or not. However, as likened by the academic, learning was not like watching something at cinema but watching it at a theatre, which meant that they could not cover a four-week program in two hours of watching the recordings. At that point, the students could easily get lost and did not build up the necessary skills and requirements of courses. Being aware of the direct link between success and attendance, the academics were worried that a lack of knowledge in students' education occurred, which could not be compensated for the following terms. Summarizing aforementioned issues, one of the students reflected his thoughts as below:

I think the worst effect of the pandemic is that attendance was not taken seriously or students didn't turn on their cameras during lessons. There were some classes where I didn't turn on my camera either. In that sense, there were classes where only a red dot with my name on it was displayed while I did whatever I wanted... In my opinion, the knowledge we gained during that one and a half years is not equivalent to one and a half years' worth, and I believe this is the case for every department, not just ours; the grades also reflect this (S40).

After the pandemic, there was a drop in students' attendance as the students had difficulty in adapting to face-to-face education, and did not have enthusiasm or motivation to attend face-to-face courses especially in transition period after the pandemic (A1, A2, A3, A6, A7, A8, A9, A12, A15, A16, A18, A19, A26, A31 and A32; S4, S6, S7, S9, S14, S17, S18, S20, S21, S24 S28, S30, S35, S37, S43, S44, S46, S47, S51, and S53). the students were exhausted due to the heavy workload of online education and burned-out because they could not experience campus life, socialize or benefit from the facilities of the university, which was preferred by the students for its atmosphere. Besides that, the students wanted to attend hybrid courses if there was a chance when they came back to school. One student expressed her thoughts about adapting to face-to-face education as below:

For a long time, I really felt like I was coming to campus for the first time. It was like a dinosaur for me. I almost forgot the paths, to that extent I forgot some things. These affected me. Or, of course, reuniting with friends had a very positive impact, but I had to adapt to that as well. No matter how much I like it, after all our communication was conducted online, I had trouble adapting all of a sudden (S53).

As for the reasons behind students' demotivation and absenteeism, some academics (A3, A11, A25, A26, A31, and A32) drew attention to students' psychological problems like depression, family issues like losses in their families due to the pandemic, economic problems, and/or the current political stance of the country. At that point, the academics accepted that the university did not have adequate psychological support units to help those students for free, and academics' support could not be professionally helpful to students. For the current political and economic state of the country, they noted that the students had to leave their flats due to the pandemic and when they came back, they could not have the same conditions because of financial problems. At the same time, they felt anxious about their future employment. When those who would like to move to other countries asked for references from the academics and unfortunately, the academics found this wish reasonable due to the present conditions.

After the pandemic, which caused them to pass three semesters of undergraduate degree online, the students could not meet someone new even at their departments, which caused them to lose a sense of belonging when they came back to school (S5, S7, S16, S22, S32, S36, S41, S42, and S45). Besides that, students became more anxious about their future, questioning whether they could find a job after graduation with the lack of education during the pandemic, especially for the departments like philosophy where students had difficulty in finding jobs (A8, A17 and A30). One of the students reflected her loss of sense of belonging as below:

I don't know anyone in my department anymore. Everyone has graduated and left; I only have one friend. People don't know each other. This is not a good thing... I'm constantly in my room. I'm feeling suffocated. My psychology was completely disrupted, and I went through severe depression during the pandemic. That's why I distanced myself a lot from school. For two years, I didn't feel like a student at all. When I returned to school, I got emotional. I realized, 'Oh, we're actually still at school (S16).

In addition to psychological problems, there was misbehavior among some of the students. Some others (A2, A3, and A12) claimed that especially the freshmen and sophomores did not experience the university, and so they did not have any idea about the system, or reactions and teaching styles of academics. In addition to having difficulty in adapting to face-to-face education, they seemed more stressful and aggressive, which could result from their upbringing and habits from high school,

which caused spoon-feeding and easiness, rather than habits of online education (A1 and A22). Two academics (A6 and A14) observed problems with manners of the students like throwing rubbish, smoking too much in public places, inappropriate dress code and having register problems. One of the academics explained the problems with new generations as below:

The universities' approach of 'it's not a problem, we'll fix it' when students face issues has been detrimental to a generation that has grown up pampered, with everything done by their families. This generation now expects the same ease from their teachers. They started expecting everything from the teachers. They thought of us as robots, while they were human. They had the right to ask for everything, but we were robots (A22).

4.1.2.3. Learner Autonomy

As for learner autonomy, the students stated claimed that they became more autonomous. In addition to managing the dramatic increase in their workload, the students took the responsibility for their own learning, and learned where and how to search for information and online resources to be used for courses (S8, S9, S11, S12, S16, S17, S19, S20, S22, S24, S25, S28, S29, S30, S34, S35, S36, S44, S46, S47, S50, S53, and S55). Moreover, online education helped them to get the necessary technological skills to reach knowledge, review topics as they preferred, and as a result, learning how to learn. Thus, their dependence on academics declined, and they could get the advantage of online sources like open courses or the academics from different parts of the world, which helped them to gain a different perspective and broaden their horizons by comparing and contrasting the systems of different institutions (S2, S7, S11, S22, S25, S28, S33, S34, S42, S43, S45, and S52). One of the students summarized their experiences related to the practicality of reaching many sources as below:

One event I remember was actually organized as a promotion for a university in England, but before that, one of the academics there held a half-hour to forty-five-minute lecture and Q&A session. I attended that. It was quite productive for me. Thus, with the whole world switching to online systems, we were able to take online courses from other universities and learn about their systems. This was quite beneficial for us when considering studying abroad for a master's degree because the systems are really very different (S34).

The students claimed that recordings and course materials significantly helped them to cover topics whenever they wanted, and by taking the advantage of those

course materials, they became more autonomous (S2, S5, S7, S16, S18, S20, S28, S29, S33, S34, S37, S38, S39, S42, S44, S48, and S55). Before and/or after lessons, they could watch the recordings or read notes as many times as they needed in their own pace by slowing down or accelerating videos, and they could take detailed notes without missing anything, which normally might not be possible in face-to-face education. Even when they had excuses not to attend the course, they could reach course materials. Taking the responsibility for her own learning, one student explained how learner autonomy increased in online education as below:

It wasn't about the teacher teaching the lesson; it was about whether I studied the lesson or not. The teacher might be on the sixth week, but I was still trying to work through the video from the third week. In this sense, we can certainly talk about autonomy because you become independent at some point (S55)

Because the students organized their learning time according to their own pace of learning thanks to the recordings of courses, they felt more motivated and relaxed knowing that they might take a break when they could not concentrate on lessons. In addition, not wasting time to commute to school, the students could watch the recordings and saved time by doing two tasks concurrently like listening the lesson and at the same time doing house chores or dealing with personal needs (S2, S7, S17, S18, S25, S41, and S43). One of the students stated the advantages of managing her time as she wished as below:

With the video, I could pause and say, 'That's enough for now, I'll continue tomorrow.'... I developed the skill to work quickly. For example, as soon as an assignment came in, I would start it immediately... I would finish the video and when the assignment came, I would say, 'I know this topic. Let me do it before the quiz so that it's like practice for me.' I would finish it. The assignment comes in, and the next day I have it finished. So, I gained this kind of quickness (S20).

Besides that, there were students who claimed to learn more by collaborating with their peers with the help of group works, and coped with the feeling of loneliness together with their friends (S7, S8, S10, S11, S18, S20, S22, S23, S26, S29, S30, S38, S40, S42, S47, S49, S50, S51, S52, and S53). They tried to take notes in detail, share responsibilities of teaching each other and be more communicative and interactive as summarized by one of them below:

We made a plan for this class. Let's make a plan, let's say the teacher uploads

the lesson. Let's listen to all of them by Thursday. And every Friday, one of us will present that lesson. One of us will explain the slides, so we formed a study group among ourselves. We tried to add more value by sharing interactively in this way. Like, 'I heard this about this topic,' or 'I read this here.' In this way, we tried to improve ourselves more (S50).

Along with the students, some academics (A1, A9, A15, A24 and A28) found online education helpful for a few students to be autonomous especially in researching and finding information by using online sources, but at the same time they were discontent with the side effects like decline in attendance and participation among the students because students got used to having all the recordings and class notes and arranging their own time of studying. On the other hand, students' workload increased as they had to deal with a lot of assignments and readings on their own because of process-oriented evaluation. One academic admitted that they delegated some of their responsibilities to students, which increased students' workload:

In class, various burdens that we normally alleviate for students just by using the board fell back onto the students. The texts they needed to read—the experience of reading those texts in philosophy can often be challenging, and having someone to help can be beneficial. Part of the assessment and evaluation stages in the lessons fell onto the students. For example, if there were more summaries, they had to write more reports. This was one of the methods teachers used to ensure that students read and learned the course material (A28).

On the other hand, some academics (A1, A2, A4, A9, A11, A13, A19, A24, A29, and A31) observed that the students became less autonomous (S15, S48, and S50) or learner autonomy did not change in online education (S6, S10, S43 and S46). The academics claimed that they provided the students with the necessary and various knowledge all the time without requiring them to do much research or think critically. Two academics (A1 and A10) drew attention to the reasoning skills of the students who came from a background of memorization in the education system to university, and stated that students could not solve any modified problems as they only memorized without thinking analytically. Moreover, students were not used to taking the responsibility for their own learning or keeping up with the workload in online education, which necessitated them to follow recordings in their own time and complete many assignments.

As stated by the academics, there were students (S55) who could not catch up

with the recordings and so could not cover all the topics in online education because of extensive time spent for watching and taking notes on them. Compared with face-to-face education where real interaction took place, lecturing did not last for 50 minutes for per lesson; however, in recordings without any interruption, the students had a full of 50 minutes lecturing in online education, which increased their workload. One of the students expressed the difficulty she experienced due to the length of recordings as below:

A normal class can be fifty minutes maximum. Five minutes talking to students at the beginning and the end makes it about forty minutes. I'm talking about our school. Even if you spend the forty minutes maximally and efficiently, it gets interrupted somewhere. A question comes up or something happens. But for online video lessons, this wasn't the case. The forty-minute videos were never really forty minutes. They were always an hour. For example, if we had three class hours, it was like having three one-hour videos. So, it was challenging (S55).

Even though some students and academics thought the students were available all the time at home with suitable conditions for living, and they did not have anything else to do but to study (S2, S10, S20, S24, S30, S33, and S43), some students had difficulty in dealing with issues and conditions of online education and the lockdown period (S1, S5, S29, S30, S34, S35, S38, S42, S44, and S48). One of the students shared their feelings about

Consequently, writing four or five pages for each class every week mentally exhausted me excessively, and at some point, even though there is time, I have brain power. I mean, my brain has a limit. And at some point, I began to feel that my capacity for perception was decreasing. In my opinion, the process was not managed very well in that sense. Because one teacher is not aware of the workload given by another teacher (S44).

Both the academics and the students were aware of the fact that students' participation decreased in online education as they did not feel the need to turn on their cameras and preferred to be invisible for the academics, and behind the screen, they could do whatever they wanted except for listening to the lesson (A1, A2, A3, A5, A6, A10, A18, A20, A22, A23, A27, A28, and A32; S22, S23, S36, S38, S40, S43, S47, and S51). Thus, the environment was actually open to abuse and laziness, so necessitated more student self-discipline. When their focus was interrupted by any motive other than lessons, they had problems with catching up with the course and

compensating what they missed. Some students explained how they pretended to be participating in class as below:

I turn off my camera and then I'm doing other things. I'm wandering around my room, exercising, or browsing other websites. When I say other websites, I mean I'm looking at different recipes and such. I'm doing those kinds of things instead of attending the class (S38).

We're having dinner beforehand. I've left my phone on the table with my earphones on. I'm getting food. My friends at the table are talking about food, and the class is starting. Because I joined via phone, my teacher can't mute my microphone. He's telling me to mute it. He got quite upset. My friend called me and warned me that my phone was on (S42).

In and after online education, students' self-discipline decreased, and they had misbehaviors like cheating and making up excuses (A1, A2, A3, A4, A10, and A22). They became more demanding because they got used to abusing academics' toleration and tailor-made applications by asking for more shortcuts in and after online education. Expecting the same toleration as in online education, they continued to ask for a favor from academics and wanted to reach information easily without doing research or thinking critically. They got used to taking the easy way out, and so did not make an effort to learn, attend office hours, or pass the course because they thought that they could take the course later when they felt more ready and relaxed. One of the academics shared his thoughts about students' easiness as below:

So, if someone couldn't catch the bus and missed the exam, there's nothing to be done. If you missed the bus, you couldn't make it to the exam. If you can't bring a report for this, then this exam is over for you. While this could be clearly stated like this in the past, now excuses from students like 'Sir, I was sick that day and couldn't come' or 'I didn't have internet' and so on have become acceptable. This situation forced us to respond. So, students began to think they have more special rights (S22).

Whatever she did, one academic (A19) could not satisfy students as they were insatiable and had got used to spoon feeding, and they could easily give up without doing research from different sources, while two others (A1, A6, and A22) criticized students for treating academics as robots who had to meet their needs and demands. Some academics (A1, A3, A22, and A32; S22, S27, and S44) stated that students abused academics' goodwill especially in exams, by asking for make-ups even though they had a chance to take the exam on time and to find a solution to technological

problems. Because of cheating, the academics also lost their trust in students. One student explained the reason behind academics' mistrust to them as below:

There are people who can misuse the system. So, you really have to put in twice the effort to convince them that you genuinely had a problem. In the online system, there have also been instances where students who genuinely faced issues had their rights infringed upon due to others exploiting blind spots in the system (S44).

Asking the students to turn their cameras on to have a real-like interaction was the only way to increase communication in online education, many academics (A1, A3, A6, A13, A16, A18, A20, A22, A23, A29, and A30) realized that live in-class interaction was the most crucial thing in student engagement in lessons as well as academics' checking students' understanding and learning. That was why both academics and students preferred face-to-face education instead in order to have a real teaching and learning environment where they could see each other's mimics and reactions, answer instant questions and mutually take advantage of being present in and out of class. One of the students (S41) expressed his ideas about the effect of being behind the screen as below:

I think it's easier to concentrate when you're in the classroom, face to face. For example, I know that everyone is watching me. The teacher is watching me. I ask a question, and everyone knows I'm here. There's a strong sense of awareness. But when it's online, as soon as you press the button to turn off the camera, you're gone (S41).

On the other hand, some students who were normally active in class in face-to-face education did not prefer to turn on cameras because they felt stressed by being observed by others on the screen (S49), while some others were also aware that turning off cameras lessen class participation and interaction. One of the students who complained about the deficiency of in-class interaction explained how her peers reacted to her when she asked them to turn on their cameras as follows:

I couldn't socialize in any way. In fact, I even lost touch with many people. When our teachers said the camera shouldn't be turned on, I would ask them to turn it on for the sake of the class because we could socialize this way. I lost touch with many people (S13).

The academics also noted that learning was a mutual process, and peripheral learning could take place when there was a dialogue and so questioning and reasoning

among students. The students were looking forward to contacting their instructors in person and talking to them, and as noted by some academics (A6, A22, and A32), meeting students individually after online education was quite satisfying and motivating for each party. Comparing face-to-face and online education, one of the students shed light on how she built knowledge as below:

Making the information permanent happens through the voice, and I remember the things I listened to more clearly. But in the online period, this chance wasn't very common. For example, the teacher is explaining something, and then, something happens. Like someone knocks on the door, for example. Sometimes I can associate that information with that door knocking. Or someone makes a comment, for example. It's a strange comment. It stays in my mind, but in the video, it's just explained plainly. You're just forced to memorize it at that moment. There's nothing else you can do (S52).

Considering the authority and role of academics on students' participation, one of the students compared their participation in class in face-to-face education with online education as below:

Well, when the teacher is in class, the teacher can monitor the class. Who's sleeping, who's awake? Who's paying attention to the lesson? ... If someone is playing with their phone, they can see that they're not asleep. Or sometimes, to catch the student's attention, they might get upset, angry, or explode. In a way, these things make the student think, 'Let me listen to the lesson, the teacher is talking, I shouldn't look at my phone now,' but now the class is open, and in most classes, when the screen is shared, we used to turn off the cameras (S40).

Lastly, some academics (A1, A17, A19, A22, A23, and A25) pointed out that independent of the pandemic, most students did not have learner autonomy because of the new generation who was not willing to do research, read and learn new things compared with the previous ones. Not willing to read in detail and do research on a topic, the students were content with bits and pieces and had superficial knowledge. Although the academics decreased the number of pages assigned to the students dramatically, students still complained about their workload. At that point, the academics drew attention to students' studying habits before university, claiming that students should have gained learner autonomy, in other words, become an individual, long before university education. It should have begun in family and continued in primary and secondary education; however, they did not have the readiness and necessary requirements of a university student like time management skills and

research skills that they needed to have gained long before university education. One of the academics did not expect students to become autonomous at university if they had not got that skill in family:

The origin of learner autonomy doesn't start in university. It starts from families. It continues with primary schools, middle schools, and high schools. By the time they get here, students already come in certain ways. You can teach history lessons to students here, provide resources. But time management, for example, I think is much more important than knowledge but skills that most students don't have... Unfortunately, mechanisms that would allow students to fully internalize this are not something we can establish at university. They should have been done much earlier (A23).

Considering learner autonomy as a complex concept, some academics (A1, A3, A5, A6, A7, A11, A16, A17, A18, and A20) stated that learner autonomy basically depends on the individual, and so on various factors such as comprehension level, socio-economic status, self-determination, self-discipline, rank in university entrance, critical thinking, generation gap, reasoning skills, research skills, time management skills and willpower. Therefore, every student differed from one another in terms of learner autonomy, but responsible and motivated students still followed lessons, watched recordings, asked related questions, and demanded extra office hours from academics. They looked at the bright side and studied more as they took the advantage of being at home and not distracted by anything else. Despite these conditions of a difficult period, they tried to motivate themselves by focusing on the bright side of living; being alive in such a pandemic, and setting some academic goals. Two students explained how they passed those difficult times by focusing on the positive sides of lockdown as below:

I tried to turn it into a positive experience as much as possible. It became a period where I took care of my health, started writing books, and turned it into positive things. I tried to turn as many negative things into positive ones as possible. I think I partly succeeded (S34).

After all, there are a lot of people out there dying from a pandemic. And you're there, trying to study in the same class, or trying to continue your life, but because you know that, after the pandemic, if you manage to survive, Life, you know, it won't be waiting for you there. Everything is moving on. So, you have to adapt to it, whether you like it or not (S36).

After online education, as for learner autonomy, the students seemed to become

responsible for their learning and organizing their time (A6, A7, A10, and A11; S11, S12, S32, S38, and S41). That might be one of the causes of drop in attendance because the students preferred to study on their own time by reading the class notes and watching the recordings shared before. Even if the efficiency was questionable, they found recordings more practical as they could stop the video repeatedly whenever they wanted while watching instead of attending courses for 50 minutes. Therefore, they had some changes in study habits resulting from online education like arranging their own time of learning, sleeping and taking a break whenever they wanted, turning off cameras and dealing with other chores, not waking up early in the morning, and taking exams without the need of memorization. One of the students reflected her thoughts on the effect of reaching sources on learner autonomy as below:

I'm aware that I'll understand even if I don't attend the class... I mean, I write down the topic on YouTube, I write the title... There are many people's videos. So, there aren't many limits, boundaries are not too restricted. So, I can practically do homework, I mean, I can learn the topic from YouTube. So, there's no problem. Autonomy has definitely increased (S41).

Students' being more autonomous after online education by reaching information from various sources on the Internet caused some uneasiness among the academics because they were afraid that university education could be like an open education or a certificate course (A6, A7, A10, and A11; S11, S12, S32, S38, and S41). They criticized that the students were up to graduate from university by getting education at home by stating that different from high schools, the aim of the academics was not to help the students memorize but improve their reasoning skills; however, in online education, the students could not acquire those skills.

Not behaving autonomously, the students showed some misbehavior after online education like being more demanding and lacking self-discipline (A1, A3, A4, A6, A8, A11, A12, A13, A15, A16, A22, A27, and A28). This was because they got used to the perks of online education such as reaching recordings of courses, easily taking make-up exams, having online classes, online office hours and online assignments instead of exams, and objecting their grades, and continued to be demanding and complain especially via sending a lot of emails to the academics as a habit of online education.

In line with the views of the academics, the students also admitted that they took the easy way out in online education and got used to laziness; hence, in face-to-face education, they expected to pass the courses without much effort as they did in online education (S2, S4, S5, S6, S9, S22, S29, S32, S43, S49, and S52). Not meeting those demands of the students, the academics turned to applications of face-to-face education as soon as possible hoping that students would give up the habits that they got in online education in time. One of the students reflected his empathy with the academics who were not willing for sharing recordings as below:

The perspective of teachers is usually 'Let them come to my class.' If I share this, students won't come to my class. Personally, I still intend to attend every class, but many students say, 'Oh well, they upload the notes anyway,' or 'If a teacher hasn't uploaded notes by the last day, a few days before the exam, they usually message students who have notes, asking, 'Do you have the notes?' (S4).

4.1.2.4. Academic Achievement

The students and academics (A1, A2, A4, A7, A10, A12, A13, A14, A15, A18, A22, A27, A28, and A30; S4, S18, S19, and S24) clearly stated that the increase in grades was not necessarily associated with the academic achievement of the students due to reliability issues, and there were students who could not pass their courses for years and then, all of a sudden, during online education, could get the highest grades and passed their courses. One of the students confessed how they could increase their grades as below:

We helped each other a lot. Yeah. There were many asynchronous classes, I passed one, one of my friends passed the other. For example, we took two courses. I dealt with one, and he dealt with the other. Yeah. It wasn't very efficient actually, not efficient at all. Who's taking the exams? Completing? Everyone is passing (S19).

For the academics, there was a lost generation who did not learn thoroughly and graduated from university without acquiring necessary knowledge and skills for their profession. One academic (A2) stated that there was a problem with a few generations who got educated online, and even if their expectations were quite low compared with the ones before the pandemic, the students still could not make up for the online education and continue their studies as before. Another academic (A18) suggested that there be a need to indicate those terms in lockdown periods in their

transcripts so as to show that they did not deserve those grades indeed. Like him, other academics (A1, A5, A13, and A30) also confessed that they decreased the difficulty of exam questions and/or tolerated students more with higher grades in order to compensate the difficulties they experienced during the lockdown. Another one criticized those students for getting used to easiness as below:

The grades of the graduates of this term were very high. Is this considered success? I don't know. So, did they deserve these grades? Well, they took the exams, did what they had to do, and got their grades, but should we consider this as success? They got used to a bit of ease (A27).

In order to save the day, the students considered learning as a responsibility to get higher grades by memorizing the necessary parts of courses that could be asked in exams instead of internalizing knowledge (S1, S3, S5, S6, S8, S9, S14, S16, S21, S22, S25, S28, S29, S35, S36, S38, S48, and S54). An academic from the department of philosophy (A30) noted that the quality of students was low not because of the students' entrance level to the university but because of their motivation and English language skills, which played an important role in understanding even the questions in exams or readings in the field. He noted that he had to explain the topics both in Turkish and English in order to make them comprehensible to students, and the students only listened to the recordings and memorized what he said before taking the exams.

During the pandemic period, I noticed that I started studying just to pass the exam. The rapid progress of things in the computer environment also had an effect on us. My ability to question and interpret things decreased a lot during this process (S6).

However, students with higher grades claimed that their academic achievement depended on various reasons like being with family, and so not spending time socializing but studying (S9, S20, S33, S42, and S52); getting used to the evaluation system (S15 and S32); getting better grades from elective courses (S7 and S45); academics' being more tolerant while grading students (S26, S42, S49, and S50); and being determined to study in spite of family problems (S11 and S12). One academic (A7) commented on the increase in students' grades by assuming that they could get partial credits from the steps of a solution, and this could be the reason for students' increase in grades; however, he also acknowledged that the increase in students' grades

depending on the question types could only be understood with the help of an experimental analysis.

Lastly, some students noted that online education did not have any effect on their academic achievement (S4, S17, S21, S23, S34, S37, S40, S46, S47, and S54), which was supported by a few academics (A29 and A31). However, several academics (A1, A2, A4, A8, A9, A10, A11, A12, A13, A15, A20, A27, A28, and A30) stated that online education caused a lost generation because the students could not experience the university culture, and gain the required knowledge and skills in courses taken online, and unfortunately, it was uncertain whether those years would be compensated in time or not. In terms of quality of education, there was a decline for those students who got online education, and even though there were some students making an effort by extra studying, interacting with the academics, and socializing, the long-lasting effects could not be determined.

Especially for the ones who spent their first and second years at university online, the academics suggested that, if possible, there a condensed program needed at the beginning of the term to compensate the lack of prerequisites for the courses to be taken in the third and fourth grades, and the students should be provided with challenging assignments to study harder and revise topics covered online. Moreover, they were worried that the number of students who lacked basic knowledge for courses was very high, up to 80% in per class, even though students (S4, S6, S8, S9, S22, S39 and S49) tried harder to meet the course requirements. One of the students explained the reasons behind a lost generation as below:

But apart from that, we heard about a lot of people passing classes, graduating with a lot of copies. We've heard it from other universities as well, and those people probably skipped classes in an empty manner. And this will probably continue. It could potentially affect the pool of qualified individuals in maybe five or ten years from now. I think, in a way, the essence of education has been hollowed out in universities (S8).

Sharing the same views aforementioned, some academics (A8, A12, A14, A15, and A20) were pessimistic about providing the students with a condensed program because of the heavy workload and/or because of the concerns about whether the students could have time to catch up with the present program. However, they tried to review the topics in the existing program when the occasion arose. Especially for the

laboratory courses, they (A19 and A20) provided the students with a condensed program, but they were not sure about its effectiveness because the students could not get an experiential approach in online education compared with the laboratory courses taken in face-to-face education. Compared with the departments of sciences, the academics from the departments of humanities complained more about the fact that in addition to deficiency in basic knowledge, the students also lacked the necessary language skills to pursue their education in an English medium university, which led them to not understand what they read and not think analytically to comment on readings (A22, A23, A27, and A30).

4.1.3. Characteristics of Academics Affecting College Experiences

By the analysis of the interview data, the characteristics of the academics that might have an effect on the academic college experiences of the students and academics before and after the pandemic were sorted under four categories: online education literacy, computer literacy and technological equipment, personal skills and competencies, and educator identity.

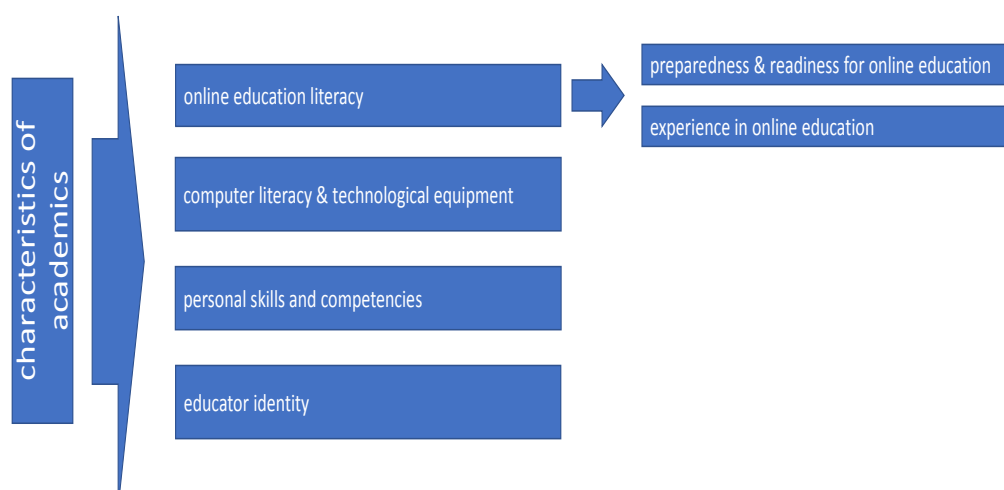


Figure 14 Categories regarding Characteristics of Academics Affecting Academic College Experiences

4.1.3.1. Online Education Literacy

The findings of the study indicated that preparedness and readiness for online education and experience in online education determine the online education literacy of the academics.

4.1.3.1.1. Preparedness and Readiness for Online Education

The academics (A1, A2, A4, A5, A6, A17, A18, A19, A22, A23, A24, A25, A28, A29, A30, and A31) complained about the lack of time for preparing online education stating that they could not even have time to save samples at the laboratories of biology, to adapt materials to online, or get necessary training for online education. A chaos was experienced by academics, administration and students, and everybody tried to do their best in spite of the conflicts and disruptions caused by unpreparedness to the incident. One of the academics compared that period to suddenly having a newborn baby with whom nobody knew how to deal (A24).

For the first three weeks of the lockdown, some (A1, A2, A4, A7, A10, A18, and A30) stated that there were colleagues who could not believe that there would be online education and resisted to teaching online. Thus, they hoped that they would return to face-to-face teaching, and so they postponed to adapt materials or make any necessary changes for online education. One academic reflected on this as below:

There were moments when we struggled to convince colleagues of new things. Some people are not quick to change their habits. Initially, they were not very receptive to online education, but they got used to it (A7).

Some academics (A1, A4, A5, A7, and A27) tried to come to an agreement among themselves on how to take an action towards online education at the beginning of the lockdown. Due to lack of infrastructure, they had difficulty in conducting synchronous lessons during the first term or using required equipment like tablets for effective lessons. One academic (A7) noted that the colleagues could reach a consensus on instructional practices or assessment tools like oral exams at the department of mathematics because, unwilling to change their habits, some academics could not be persuaded to apply them.

It was challenging to persuade colleagues to embrace new things. Some people, you see, are resistant to change... Then, there were some issues with oral exams. Some individuals said they didn't want to participate, and we faced some challenges there... However, convincing other colleagues was a bit challenging. Some didn't listen to us. They said they didn't want to do it and they didn't. Later on, some teachers also got used to online teaching. Then, they struggled when it came to going back to the traditional methods (A7).

However, after realizing that it would last longer than expected, they (A1, A2, A4, A5, A6, A17, A18, A19, A22, A23, A24, A25, A28, A29, A30, and A31) had to

record experiments in a week, adapt materials by converting them to the PDFs or adding voice on the PPTs, prepare bibliographies to guide the students, and record lessons as soon as possible by making them interactive and effective enough to attract students' attention. Without technical equipment like tablets necessary to conduct lessons, they had to use their cellphones or blackboard behind the screen. Most of them had to conduct lessons asynchronously by sharing class notes and recordings because no one was ready and prepared for online education. Lastly, they used the trial-and-error method to find the most suitable instructional strategies and/or ways of assessment. They tried different strategies varying from recording to lecturing on the board and lastly using tablets. Even if it was not always applicable, they negotiated with the students to determine technologically user-friendly instructional methods or assessment tools. When needed, they provided them with make-up exams in order to avoid any unjust treatment.

Feeling themselves insufficient in teaching online for the first term of the lockdown due to unpreparedness, some academics (A1, A4, A18, A27, and A30) felt anxious about the efficiency and effectiveness of courses, the platforms that they needed to use, and the uncertainty of the phenomena. One academic from the department of humanities (A30) pointed out that in theoretical courses where the academics heavily lectured, the students had difficulty in following courses without seeing the face of the academic, which necessitated him to the use of Turkish in class. However, because of the increasing number of foreign students, it was not possible to switch to Turkish, and so the students most probably could not understand the lessons. Some academics from the department of physics (A15 and A18) confessed that having difficulty in adapting to online education and improving themselves in use of technology, some academics had to retire because they felt anxious and did not believe that they could meet the requirements of online education.

In our profession, early retirement is not very common, you know. If we leave it, they want to work until they are seventy or eight... But during this period, three or four of our colleagues who hadn't even reached retirement age retired just because they couldn't handle giving online classes or couldn't learn how to do it (A18).

Lastly, two retired academics (A6 and A27) reflected their satisfaction about their adapting themselves to online education, believing that it helped them to improve themselves.

4.1.3.1.2. Experience in Online Education

Except for few academics (A7, A15, and A22), the academics were quite inexperienced in online education, and they did not feel any need before Covid-19. The academics with experience in online education only uploaded the course notes, prepared videos and administered online exams before the pandemic, so it was the first time that they had to experience full time synchronous lessons in online education during Covid-19, whereas the students only attended some online seminars before. On the other hand, not having experience in online education before, one academic (A7) had already started to prepare videos by using technological tools six months before the pandemic in order to make students reach information easily. Though he had not received any support from his colleagues when he shared his ideas before online education, his colleagues demanded help from him after the outbreak of the pandemic. Nevertheless, all academics agreed on the fact that independent of their experience in teaching, they had difficulty in adapting to online education (A23).

During online education, the academics discovered how to teach in online education with individual endeavor as they experienced unpreparedness and uncertainty (A1, A2, A9, A10, A11, A14, A18, A22, A26, and A27). With the sudden decision to switch to online education, they had to solve each and every problem with trial and error, spent a lot of time to adapt to online education, and felt themselves uncomfortable as educators especially for the first term in online education. On the other hand, the students (S4, S6, S8, S23, S18, S26, S34, S36, S43, S53, and S54) complained about academics' unpreparedness and not being standardized, which caused them to be more anxious about online education. They claimed that the academics could not manage online education appropriately and effectively. Having the freedom of using different instructional strategies as they wished, they applied various methods from conducting lessons synchronously to asynchronously by only sharing notes or recordings without any contact with students, and from administering online exams to asking for various assignments. Therefore, not having a standardized system caused both the academics and the students to feel exhausted and unsafe.

Especially in the initial phase of the first pandemic wave, all the syllabi created by the instructors lost their meaning, the schedules lost their meaning. We couldn't conduct classes for a few weeks... Even the instructor didn't know what to do. It was a terrifying period at the beginning of the pandemic. No one knew anything, and the instructors fell short in terms of evaluating students' performance (S54).

Even though the academics felt panicked and uncomfortable about what to do at first, they (A2, A3, A4, A5, A8, A10, A12, A14, A16, A18, A19, A24, and 25) claimed that they got used to online education and adapted to it by preparing materials and exams accordingly as soon as possible with the help of seminars about online education and/or with the guidance of informational technologies units at METU such as GISAM- Audio-Visual Systems Research and Application Center, ÖGEM - Center for Advancing Learning and Teaching, and UZEM – Distance Education Application and Research Center. Especially the elderly academics benefited from those units on how to highlight the instructions for courses and exams, prepare class-notes and deal with possible technological problems.

In addition to that, some academics did not feel the need to attend any seminars provided by the university either because they did not change their way of teaching, which was basically lecturing (A1, A7, A23, A24, A28, A29, and A31). Another reason was that they could benefit from for online education such as in-house seminars, videos and sessions from other universities, and colleagues as well as relatives (A1, A10, and A11). Moreover, they were not satisfied with those seminars which were based on theories because they needed more directions on practical issues for lessons and exams (A1, A10, A11, A23, A27, and A28). One of them claimed that it was the end of the first semester that seminars were provided by the university, and before that they had already found their own way of teaching, which had been quite hectic for them to adapt themselves to online education.

Especially the first term was quite chaotic. Everyone found their own way. Then towards the end of summer, there were some guidelines like "You can do it this way. Exams can be conducted like this. Lessons can be taught like this," and so on. There were some educational activities, seminars, and some content shared. But by that time, I had already found my way. I mean, I roughly knew what I was going to do (A31).

As for seminars on measurement and evaluation, even though finding assessment as the most difficult part of instruction, the academics did not attend any seminars offered by the university either because they were not informed about them or because those seminars were not practical in their fields (A2, A8, A12, A16, A20, A21, A22, A24, A25, A26, A27, and A30). On the other side, the ones attending seminars did not find them adequate to meet their needs because there were various fields of studies at university, and those seminars on assessment were not applicable

to all fields (A3, A4, A6, A13, A18, A19, A23, A24, A28, and A32).

Lastly, some academics from the departments of humanities (A25, 26) could not benefit from online assessment tips to increase the reliability of exams because close ended questions like multiple choice were inapplicable for their fields of studies. Therefore, some academics (A6, A20, A21) admitted that they had to find their own way of assessment and evaluation in time by combining their own experiences, collaborating with their colleagues and benefiting from the data shared by seminars or outsources. Some others (A9, A18, and A23), on the other hand, criticized the university for not guiding the academics adequately in assessment and not having a standardized assessment system to be adapted. As a result, they felt alone and uncomfortable during the process and had to find their own way of assessment. One of them shared his thoughts about the uncertainty and discomfort they experienced due to the lack of knowledge to deal with teaching and assessment in online education as below:

It would have been good if we knew what to do, and we felt the lack of it because perhaps one of the biggest problems during the pandemic was teaching a class remotely. The second one was assessment, that is, how to conduct exams remotely. It would have been good if we could get help in this regard, but as far as I understand, everyone was unprepared for remote assessment. So, we felt the lack of it (A9).

Another academic (A18) confessed that no matter how experienced they were in the field, teaching and assessing students online were new to them and they had difficulty in coping with the situation. He also noted that the university should have provided the academics, especially the newly recruited ones, with in-service training on educational sciences like universities abroad did. He indicated that educational sciences were a different field that they were not competent in, and being an expert only in research part was not enough to be a good academician; however, the university expected them to be a good researcher and left them alone in education part. Thus, they noted that the university should not only support research but also help them learn how to teach.

4.1.3.2. Computer Literacy and Technological Equipment

Some academics (A1, A10, A15, A21, and A23) were not pleased with the technological equipment or support provided by the university because of low or

inadequate Internet connection and/or lack of tablets, laptops, cameras and headphones. Even if they were provided by the university (A1, A3, A4, A5, A6, A8, A9, and A16), technical equipment like tablets were not adequate and had to be used interchangeably by the academics. Even though some of them (A7, A9 and A18) were not totally satisfied with the support provided by the faculty, they were also aware that it was impossible to afford each academic with a laptop or tablet because they were crowded and the university was unprepared for such an occasion due to lack of budget (A1, A2, A3, A4, A8, A9, A15, A26, and A27). Not demanding any support, one academic (A6) believed that other academics providing service courses to lots of students needed technological equipment more, but still, there was another academic (A3) who believed that the university should have provided each academic with a laptop or tablet, whereas some others were not happy to share equipment with family members (A3, A11, A23, A25, and A27).

Then that wasn't very productive, the pen didn't clearly show. I had these things from YouTubers, even here until recently. Look, this is my black background. I used to write on large sketch pads with big transparency markers and record with a light system using my cell phone. I tried to establish a connection so that the kids could be as interactive as possible. Because it's hard for us, too. It's hard for them too (A4).

Especially for the first term, some academics and students from the department of chemistry (A1, A2, A3, and A5; S2, S5, and S7) stated that it could have been more effective to have a camera system in classes so as to reach students online or a tablet for each academic to conduct lessons as they felt the need to use technology to upload some videos especially for experiments. The research assistant reflected her view as below:

That process was very chaotic. We conducted ten experiments, but there were others who conducted twenty experiments in different laboratories. When recording, filming, there might have been a need for more technical equipment in the department because multiple lab recordings were being made simultaneously. However, there was only one camera in the department. One or two, I don't know, were being circulated on loan (A5).

Not having enough support about computer literacy from the university, some academics (A5, A6, A10, A16, A20, A22, A24, A25, A26, and A27) tried to help one another and shared their technological knowledge, while some others (A1, A3, A4, A7, A10, A11, A14, and A22) could get help from technological centers like GISAM,

OGEN and UZEM instantly and efficiently both for online classes and exams.

OGEN was a great support. Whenever I encountered a problem, they responded promptly and in great detail. Their support was really excellent. However, some of our other professors sometimes made requests, like for tablets or other things. Due to some financial constraints, we couldn't support them, but I managed well enough on my own. There were no complaints from the students either, like suggesting alternative approaches (A14).

Many academics found their computer literacy and technological equipment adequate to conduct their lesson, either because they (A4, A7, A8, A12, A16, A17, A18, A19, A20, A26, A28, A30, and A31) had their own equipment already, or because they (A2, A3, A4, A5, A6, A8, A10, A11, A12, A14, A15, A18, A22, A23, A24, and A29) could afford to buy their own equipment necessary for online teaching such as headphones, cameras and tablets. For academics from the departments of humanities like philosophy and sociology (A26, A28, and A30), a computer and a zoom account were enough to carry on the teaching and learning process.

Despite having difficulty in obtaining technical equipment and/or even though it was the first time that they were using online platforms like Webex, Zoom, MicrosoftTeams or BigBlueButton, most academics (A2, A10, A12, A16, A19, A23, A25, A26, and A32) could manage to use them effectively by trial and error. Only two of them (A3 and A27) confessed that it was a bit annoying to be obliged to use those programs as they did not have any previous knowledge about the programs. Varying from one academic to another, the technological competency of academics had a great impact on the effectiveness of courses, and a few students (S18, S34, S37, S38, S40, S41 and S46) agreed that academics were good enough at technology use, or adapted to online education adequately.

After all, we weren't born into online education. It's been happening for about a year and a half now. So, it actually depends on their effort too. Most of them, at least in my department didn't create any problems. There were no issues with their integration. In fact, some of them integrated before us. We had such professors. Most of them adapted quite well, actually (S41).

On the other hand, most students (S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S15, S16, S17, S19, S20, S21, S22, S24, S25, S26, S27, S28, S29, S30, S31, S32, S33, S34, S35, S36, S39, S41, S42, S43, S44, S45, S47, S49, S50, S51, S52, S53, S54, and S55) noted that some academics were not good at using technology and

conducting effective lessons in online education. Especially the adaptation of the elderly academics to online education was more challenging due to lack of equipment or inadequate technological competency compared with the younger ones, who were at least knowledgeable in technological tools. They could not solve basic problems regarding technology use and always asked for help from the research assistants, which caused lessons to be interrupted, the academics to waste time, and the students to lose concentration. The students criticized those academics for not being able to learn to use technology and conduct effective lessons as in face-to-face education as below.

But relatively older professors who had never used any online technological tools like Zoom before really struggled because of this. Our professor would disconnect the microphone, not notice it, couldn't connect, sent the wrong link, or the session would become endless, and they couldn't resend it. I really think they struggled. But they also made it difficult for us. Naturally, we also faced difficulties with classes (S54).

Because academics could not use the equipment and online platforms thoroughly, and they experienced technological problems like background noise, muting their voices accidentally, not sharing screen, and/or not using chat appropriately. This caused students not to follow lessons thoroughly and not to pass those courses, especially when carried by elderly academics. Lacking necessary technological competency, some academics could not conduct effective and interactive lessons, which was a drawback of online education for students.

These mismatches, of course, naturally both distracted us and prevented us from following the subject. Because there's supposed to be a map I need to see there. But I'm not seeing it. Or I'm seeing a different map. In these kinds of technical glitches, if professors didn't know how to fully use these systems, it significantly diminished the motivation and interest in the class (S35).

4.1.3.3. Personal Skills and Competencies

While a few academics (A3 and A23) found their personal skills and competencies adequate to deal with online education smoothly and effectively, a majority (A8, A12, A14, A16, A17, A18, A22, A23, A26, and A27) felt depressed and unmotivated in online education because of the lack of interaction among students and/or colleagues. Without the reaction from students, they did not feel that they could reach students and so had to cope with the discomfort of ambiguity. From time to time, losing the sense of time and place, they felt the need to change their working

environment by going to their offices and or conducting lessons at a different part of the house in order to refresh themselves. One of them expressed his feelings about not getting enough reaction from students in online education as below:

Automatically when I didn't get the feedback I expected from the students, it kind of turned these two things around, it automatically lowered motivation, and such a state of frustration began to develop in me. I noticed that. Other than that, I can't say face-to-face is much more enjoyable (A12).

Having various ideas about being locked down and conducting courses at home, the academics developed strategies to cope with the situation. While some (A2, A14, A22, A23, and A27) were afraid of catching Covid-19 and anxious about their beloved ones like everybody and so had sleeping disorders or depression, another one (A27) evaluated the lockdown period as a missed time in teaching due to lack of interaction with students despite the advantage of staying at home and taking care of her ill husband. Whereas some others (A28 and A32) found that period efficient and peaceful as one of them was an introvert person who took the advantage of being alone and so performed better while the other one was chronically ill and pleased with working from home, one (A29) motivated himself to endure that time by thinking that it was temporary and one day it would end. Thankful for not being obliged to go to work, another one (A2) thought that period increased their patience and steadiness, which helped them feel relaxed in a hectic period and educate people online. One of the academics reflected on this dilemma by describing the lockdown as a horror film scene, but having a positive view at the same time as below:

It's like we're all inside some kind of suspenseful horror movie, and what we're experiencing resembles pandemic films and such. That's why sometimes there's really a sense of pessimism, but being able to carry on in some way, at least the relief that comes from knowing our work can be done remotely is there (A18).

Complaining about the roles that they had to take in online education, some female academics (A11, A13, A14, A25, A27, A31, and A32) noted that their stress level was three times more than their male counterparts because they had to deal with their kids, spouses and house chores as well as educating students and doing research. They had difficulty in adapting to being locked down and teaching online because they did not have a comfortable place or time to conduct lessons because even at breaks, they had to deal with house chores or taking care of kids. All responsibilities regarding

being an academic and housewife overlapped, causing them to be unmotivated and anxious as they could not allocate a separate time to work at home. One of them stated the difficulties she experienced by expressing her feelings and thoughts about being a mother, a spouse, an academic and a mentor as below:

As a female academic, I had to juggle family responsibilities two or even threefold. We need to organize and handle household chores, but our main obligation is childcare...My son was in third grade and he was at home...Of course, the child needs breaks between classes, but his breaks were my nightmare... I remember being overwhelmed by an incredible workload. I was more tired of checking those assignments than anything else...We spent all Saturdays doing household chores as a family of three. At home, it reached its worst point. Timeless Zoom meetings. The dean had meetings even at nine-thirty; in Türkiye, there's no concept of personal time. There's no respect for personal space (A25).

4.1.3.4. Educator Identity

The academics (A1, A2, A3, A4, A8, A17, A18, A19, A22, A24, A27, A29, and A31) acknowledged that online education led to an increase in their workload and stress because they needed to develop materials accordingly like recordings, slides or pdf notes, conduct lessons by changing their teaching approaches and methods, and find out suitable assessment tools to evaluate students fairly. Recording videos or restructuring class notes in an electronic format took a lot of time and increased their workload heavily. Especially the academics from the department of chemistry (A1, A2, A3, A4, and A5) needed to record their lessons and experiments to reach their students online. Two of them (A2 and A3) confessed that it was a burden on them to record lessons, and they had to spend forty hours in front of the camera in order to record them. Another one (A1) was surprised about how much their workload increased in lockdown when they were confined to homes, spent sleepless nights and conducted more lessons compared with face-to-face education. They had more difficulty due to lack of research assistants at the department. Besides that, a research assistant responsible for the laboratory courses (A5) expressed similar thoughts as they were totally unprepared for online education, and they had to record all the experiments in a week. There were also some unexpected situations like flooding at the laboratories, when they had to move all equipment to somewhere else. Under such circumstances, all academics from that department were worried about their students

and did their best to cater for them because they believed that they had to meet all needs of the students 24/7 as indicated below:

So, you hear everyone's story. Everyone's situation is, of course, different from one another. It was a difficult period. They couldn't get motivated either. So, it's not fair to blame them because each of them lived in different places and faced different situations. There were those who had health problems and those who had family issues. It was a difficult period (A4).

One of the research assistants responsible for the laboratory classes (A5) confessed that they could get technical support, when necessary, but the expectations of academics differed a lot from one another. Thus, for her, the most challenging thing was not dealing with any possible problems but meeting the expectations of academics for lab courses.

For measurement and evaluation, the academics (A2, A8, A10, A14, A16, A17, A18, A19, A21, and A22) also spent too much effort and time in order to make the evaluation process smooth and fair. With trial and error through online education, the academics had to change the evaluation system, including changing question types, setting time limits for questions, putting exam intervals, and modifying types of assessment. They also had to take some technological precautions like cameras or software programs in order to prevent cheating, which was the basic reason for their tiredness and stress. It was quite time-consuming to prepare various questions which could not be checked on the Internet or easily answered with the help of peers, and/or to assign them to different students randomly so as to prevent cheating. Moreover, grading papers (A2) took time and they had to find some practical solutions like asking multiple choice questions even if the appropriateness of questions to objectives was questionable.

Lastly, the interview data showed that the academics from the department of mathematics (A6, A7, A8, A9 and A10) evaluated students with an oral exam which had not been administered before. Thus, they had to spend a lot of time and show great effort in order to administer the exam to a vast number of students taking service courses. One of them explained the excessive workload at the department as below:

Assessment and evaluation were very challenging for the service course because there were two thousand students and eight or nine instructors teaching the course. And how are we going to conduct exams for them? We made very serious decisions there, and we conducted an oral exam for everyone once during the semester. This means each student spending roughly fifteen to

twenty minutes with each of these eight instructors. This took up a tremendous amount of time (A7).

Despite the workload and stress of the academics, they (A3, A4, A5, A6, A7, A9, A13, A17, A18, A22, A23, A25, and A32) tried to mentor students and help them ease their learning process as much as possible in that chaotic period. They helped students overcome any technological problems during lessons or exams, compensated online courses with the help of recordings, hands-on practices or recitations, provided accommodation or transportation at university during online education and/or technological equipment like computers, relieved them in exams by providing extra time or tolerating any health or technological problems, adapting assignments and projects to be done virtually, and tried to conduct appealing and interactive courses with the help of visuals. One academic noted that she comforted her students the moment online education started because of the pandemic by writing a letter informing them about the process and the changes in the syllabus as soon as possible:

As soon as the pandemic started, I wrote a long letter to the students so they wouldn't panic. I explained how to organize their studies because the classes were originally organized for face-to-face instruction. I immediately changed the structure of the classes... Within a week, everything was set up. The process started on March 13th, and by March 20th, the students were already informed. They said it was very helpful to them. So, there was only a week of uncertainty until I grasped the situation and took action, perhaps at most a week of vacation. Otherwise, everything was clear (A25).

Some others (A17 and A23) were aware of the socio-economic statuses of students who might experience financial difficulties as students at a state university, and/or accepting that some students were not willing to live with their families due to the problems that they had in their hometowns. Especially for laboratory courses, the academics (A5) arranged compensation courses and helped the students to stay on campus.

As you know, they returned to their families. It's neither what the families want nor the environment they desire. Some have started working. So, I think it's a very difficult process. Students attending universities like Koç, Sabancı, and Bilkent shouldn't be put in the same category as those from public universities like METU. The social background of our students is different. This needs to be acknowledged (A23).

Still, the academics (A1, A3, A13, A15, A21, A27, A29, and A31) complained

that they could not touch students' lives was much as they did in face-to-face education because of not having to ask some personal questions to students since they did not encounter them. While students dropped by their offices even for five minutes in face-to-face education, in online education, they lost that chance of mentoring and guiding students due to lack of the interaction. One of them (A31) saved the day and spent minimum energy to deal with that period of time and could not mentor students, whereas others (A29 and A32) stated that they lost touch with students and felt distanced to them, and so, after online education, they even could not provide students with a recommendation letter because they did not know them very well.

On the other hand, some others (A1, A4, A5, A12, A18, A22, A23, A24, A25, A26, and A30) felt the urge to interact with students more compared with face-to-face education and provide psychological help because both the academics and the students were in need of communication and support. A research assistant (A12) could improve his mentoring skills as students saw him as the first step to communicate for lessons before professors. Besides that, there were students with some personal or family problems and asked the academics to spare some time before or after the lesson so that they could share their problems (A4, A5, A18, A22, A23, and A24). At that point, they were sympathetic towards students and tried to seem more self-confident as a role model in order to lower their anxiety as indicated below:

So, there were those who were more understanding, who listened more, and who waited to communicate with us outside of class, wanting to talk before or after lessons. ... This made me feel that I needed to be a stronger model, not to be pessimistic about everything said, and to stand stronger in class (A18).

However, accepting that she tried to help students psychologically as much as possible, one academic (A1) confessed that the students abused the situation and threatened academics with even committing suicide if they could not pass the course. At that point, the academic could not determine who was really in need of help, and found those expressions annoying. Lastly, considering the teaching and learning environment as mutually beneficial to both parties, one of the academics shared his thoughts about mentorship as below:

Mentorship and leadership are not concepts I favor. For us, it's about learning together and teaching the children the basic approaches and qualities of social sciences... Inspired by this course, they wrote a letter of intent and won the scholarship. These are important—maybe this is mentorship (A26).

On the other hand, some students did not find the mentoring skills of the academics adequate in online education. Some students (S8, S32, S37, S43, S44, S45, S53, S54, and S55) did not find the academics approachable and could not get enough support from them when they experienced technological problems or personal problems like exam anxiety, an illness, or a move as shared by one of the students below:

Honestly, I didn't receive much understanding or support. It was more like everyone acted as if we all went to our family's home during this period, were comfortable, had our meals prepared, had internet access, and our own private rooms. It was as if there was nothing to worry about and all we had to do was adapt to the situation (S45).

The students expected a more understanding and friendly approach from the academics with whom they could easily interact and chat to share their experiences, but the academics considered them as always available to follow lessons as if they had enough financial support, did not have any family issues, or did not experience any personal or health problems. Acknowledging that academics were not robots and had some personal problems like students in online education, some students still expected the academics to share any problems they faced to form strong bonds together with them. However, they could not find that connection with the academics and refrained from sharing personal problems in case they could not get support or empathy. Some others (S45 and S54) at the department of humanities noted that they were disappointed with the academics who were experts in the field and from whom they could not get enough help. When they got stressed and felt anxious because of uncertainty, they thought that academics working as clinic psychologists or sociologists defending the equality and rights of disadvantaged groups did not help students overcome any psychological or personal problems. One of the students shared her experience as below:

Somehow, a course can be conducted differently. Instead of just reading and leaving, there was more interaction. We could communicate more like friends. We could have conversations after class and sit down and talk. There was nothing like, "Let's all have a coffee together" at the end of the class. I haven't seen anything like this in my own department at all (S45).

Apart from mentoring skills, while some academics (A1, A10, A23, A24, and

A26) believed that their performances did not change, some others noted that they (A29) were not pleased with their performances compared with face-to-face education. Some of them (A5, A6, A7, A8, A11, A16, A20, A23, A24, and A27) noted that they could improve themselves in online education as they gained new perspectives while improving themselves technologically and professionally, and they realized that they could teach online when necessary and reach information easily. One of the students explained how the pandemic caused academics, especially elderly ones, to realize the place of technology and to make them reflect on themselves as below:

Older people, like senior professors or others who continue to operate in a very old-fashioned, manual style, experienced a bit of a shock. There were always comments like, "Are you always on your phone?" For example, I read books on my phone, do research, and learn languages by myself. For an eighty-year-old professor, this was a big deal. While they thought it dulled our minds and prevented us from reaching our potential, this world actually opens up the world to us (S41).

One elderly academic (A6) was quite satisfied and happy to learn online education by using different platforms and communicating with his students virtually in his academic career. As a retired academic but still working, he would have been sad for not experiencing such a different time period in education. Another one (A7) believed in the appropriateness and practicality of online education, and saw the future of universities as such.

As for academic research, some academics (A8, A11, A13, A17, A21, A22, A23, A24, and A29) could not do as much research compared with face-to-face education due to fatigue or psychological problems, lack of field studies or experiments, and kids to deal with and house chores to do. Some female academics (A11, A13 and A17) confessed that the only thing that they could sacrifice was research compared with education or duties as a housewife or a mother. They shed light on the sanction they might have experienced as a researcher who could not publish the articles required from them at that period of time, even though they acknowledged the pros of online education in technological improvement and the practicality of organizing conferences and educational events online. One academic likened the lockdown period to a semi-open prison, and explained the reasons behind finding himself inefficient during that period as below:

It was not productive. Many people experienced setbacks in either their research, their education, or both. We need to consider Covid-19 not just as an educational disruption but as a change in lifestyle. Within that lifestyle change, imagine an open-air prison where, no matter how comfortable your home is or how good your internet connection is, you can't go outside. The moment you step out, you don't know what will happen (A23).

On the contrary, some academics (A12, A20, A25, A26, A28, A30, and A32) did the same amount of research as before or even more than before because they could spare more time on research without wasting time for anything else and/or they could concentrate on their studies without being interrupted by anything, but at the same time, without doing field studies as indicated by one of them.

I could dedicate more time to my academic work. The time I spent commuting or preparing for classes was reduced. Everything was ready in advance. Reviewing my notes and teaching the class was easier for me during the online process (A30).

In addition to academic performance, depending on the interaction between the academics and the students, motivation of the academics differed from one another. Most academics (A3, A4, A5, A10, A12, A13, A14, A15, A17, A19, A20, A21, A22, A23, A24, A27, A29, A30, A31, and A32) acknowledged that their motivation and job satisfaction decreased because they could not contact the students compared with face-to-face education and arrange their lessons accordingly. Hence, they could not feel themselves confident and motivated in online teaching, especially for the first time of the lockdown. It was challenging to get used to speaking to the black screen instead of live audience, and in time, without seeing students or getting any reaction and questions from them, they could not feel eager to conduct lessons or be satisfied with themselves as instructors. Moreover, they felt that they monologuized instead of interacting.

Nevertheless, no matter how exhausted or demotivated they were, academics kept on meeting the standards in lessons and reaching as many students as possible. Some (A22 and A23) shared their dissatisfaction with the students in order to make them turn on their cameras so as to see their faces, and upon request, the students were more careful about showing their faces and participating in class discussions. Another academic (A24) claimed that the ways of communication were various as there were many platforms to keep in touch with students; however, nothing could substitute for

face-to-face interaction. Therefore, the academics were happy with turning back to face-to-face education and meeting their students in person because they could not identify their students in online education. One of them compared and contrasted interaction in face-to-face and online education as below:

A large group of students usually asks questions if they don't understand, and we solve problems together. You leave the class feeling satisfied, knowing you taught your lesson and the students understood it, and they feel good. But that didn't happen here. The black screen issue meant I got no response. Just a black screen. It felt like I was starting and finishing the lesson with no feedback (A13).

On the other side, some (A6, A9, A19, and A25) were satisfied with online education and felt motivated upon the feedback and reaction of students about the efficiency of the course. One academic (A19) specifically stated that she was motivated by foreign students who were more enthusiastic to attend courses interactively or to compensate lab courses with hands-on activities compared with Turkish ones. Another one (A9) confessed that not only did the academics help for the students, but the students also helped the academics to improve themselves by asking different and challenging questions. At that period of time, this could not be met due to lack of interaction among them.

After online education, some academics (A1, A9, A21 and A28) noted that the role of teachers was more like a lecturer in high schools, but the role of them as a facilitator or guide at university did not change after the pandemic. Upon the vision and notion, they got before the pandemic, they were looking forward to continue to their teaching strategies by interacting with their students as before. Some students (S7, S10, S11, S15, S17, S19, S25, S35, S39, and S43) agreed with them noting that even if there were many resources of knowledge, the role of academics could not change because their presence and guidance cannot be compensated by anything else. The resources that the students could use as an alternative had to be checked and listed by the academics because there was a mass number of unreliable sources on the Internet and academics were the ones who devoted their lives to that field of study. One of the students explained the importance of academics' role as below:

No matter how accessible those videos are, they are short, at most a two-hour video. But your teacher there has dedicated years to this profession, and what they can offer you is much less in the video... That's why they are not very effective. They are just places where students can acquire information about

general things they don't fully understand (S35).

However, technology enabled everyone to take online courses from various universities and sources such as the Massachusetts Institute of Technology (MIT) or Harvard University (A19), which was frightening because the universities might turn into certificate programs due to open and various resources that the students could reach (A14). Therefore, some students (S2, S4, S5, S17, S18, S22, S23, S29, S43, S50, and S51) felt that the authority of the academics was undermined because the students did not accept them as the only source of knowledge, and they were aware that they could reach various resources providing information in any field when they did not find the academics' knowledgeable adequate. At that point, comparing and contrasting the teaching styles of academics with the ones in other parts of the world, their expectations from academics regarding conducting more effective lessons. Some students criticized the academics who did not reflect on themselves professionally in online education or endeavor to renew their teaching styles by integrating technology to make lessons more appealing to them (S2, S4, S43, S46, and S54). Depending on the expertise of the academics, the students determined whose course to attend or sacrifice because they also realized that missing some academics' classes would be a loss for their education, whereas some others were a waste of time. One of the students expressed his expectations from academics as below:

Our teachers are good. But online, for instance, we can also listen to MIT professors, Stanford professors. Things like that. It's not necessary for them to be university professors. There are very good YouTube channels too. Sometimes they can explain things much better than our department professors. When everything turned completely online, especially when it came to uploading videos, instead of listening to them... Listening to the videos was more efficient (S4).

Making changes in their instructional strategies, for which they had to improve themselves in teaching and put extra effort for adapting their materials and recording lessons, the academics stated that their competency in use of technology improved thanks to online education (A6, A9, A10, A13, A19, A21, and A24; S1, S17, S28, S29, S33, S39, S41, and S55). They gained new perspectives on adapting materials to online teaching, conducting interactive lessons online, attending or directing the students to online seminars or courses and improving their teaching styles. Even though there was the same technological platforms or tools, the academics had not used them before.

They discovered them via online education and continued to use practical sides like sending an announcement online, grading papers online and sharing information easily as well as calling a researcher from any countries in the world to the lesson only with one click. One of the students was glad to have integration of online sources in courses and expressed his thoughts as below:

The roles of teachers have changed a lot; these changes are still ongoing... Because it was online, I met the director of a short film called "Çat" directly, like asking them a question. Or, for example, a researcher comes to the class as a speaker, but he's not in Türkiye... There was a man researching vineyards in Türkiye, for example, in the Sociology of Spirit course. We had read his studies. He came. We asked our questions. The professors were able to integrate these very well (S41).

Lastly, the academics seemed more motivated after online education because of having an opportunity to conduct lessons interactively and becoming more relaxed without the pressure of reliability issues (S7, S26, S13, S14, and S54). They became more tolerant and supportive towards the students, and they got caring and sharing sessions with them (S6, S12, S16, S17, S19, S20, S38, and S41). Observing the eagerness of the academics to conduct lessons face-to-face after online education, one student reflected her thoughts as below:

I put myself in an educator's shoes. If I were a channel and wanted to address someone, I would definitely prefer to look them in the eye first, and even when teachers are with us side by side... They wanted the pandemic to end and wanted to come to our side. So, I even saw more enthusiasm (S54).

4.1.4. Views of the Undergraduate Students and Academics Regarding Online Education

The interview data pointed out two categories for the views of the undergraduate students and academics regarding online education: the strongest and weakest aspects of online education and future implications of online education at university.

4.1.4.1. The Strongest and Weakest Aspects of Online Education

The students claimed that the strongest aspects of online education were increasing student autonomy, flexibility, enabling process-oriented evaluation, and reaching national and international sources easily.

One student (S31) stated that the most appealing part of online education was to stay with her family members and spending time with them. Some others claimed that they (S2, S6, S24, S29, S30, S31, S33, and S34) could focus on courses and spare more time studying because they did not have anything else to do during that time due to lack of distractions, whereas some of them (S6, S9, S11, S23, S34, S40, and S43) claimed that it was a kind of preparation for professional life which necessitated them to be more autonomous, self-disciplined and collaborative. One student (S50) noted that taking many courses asynchronously helped her graduate before usual time because normally they could not get so many courses because of the overlapping course programs.

Some others (S4, S5, S12, S14, S15, S16, S17, S19, S21, S22, S23, S25, S26, S29, S32, S37, S43, S45, S46, S51, S52, S53, S54, and S55) stated that it was practical because without being dependent on any place or time, they could arrange their studying as they wished, which enabled them to work at a job and studying at school concurrently, and to attend courses in their beds when they were ill. Lastly, not spending money for commuting, accommodation or food, some students could save money and so financially felt more comfortable in online education (S28, S44, S45 and S54). Besides that, most students considered accessing course notes and recordings as the strongest aspect of online education because they could take notes in their own pace of learning and watch them repeatedly (S4, S7, S10, S12, S13, S20, S24, S29, S39, S42, S44, S46, S48, and S53). One of them expressed how they felt about reaching recordings as below:

Taking recordings in lecture halls was prohibited. That's why maybe this system could have worked even in face-to-face settings. But it didn't want to. But during quarantine, we saw that this system really works without someone. I think class recordings should be accessible to everyone. Students should be able to easily retrieve missed notes (S44).

Reaching national and international sources like materials, courses and conferences in a short time without being there in person, many students could benefit from extracurricular activities in online education (S8, S24, S34, S35, and S36). One student (S42) talked about the practicality of using technology in education was great help to reach and store knowledge, underline important parts, and also get knowledge in other fields like designing software, whereas one (S16) could reach academics easily and fast.

As for measurement and evaluation, some students believed that the most

effective way of evaluating the students at the departments of humanities was asking essay type questions instead of the ones necessitating memorization, and thanks to online education, academics generally preferred to assign more take-home exams (S44, S46, and S52). In addition to assignments, the presentations in online education were carried out in a more comfortable way without creating any stress for the students who had stage anxiety (S1). Lastly, some students (S2 and S38) felt that the academics were more tolerant while evaluating them by providing more assignments and make-ups when necessary, or grading them generously, while one (S34) got help not only for exams but also for courses that he was not able to attend because of his mother's illness because everybody's priority was health issues in the pandemic.

On the other hand, even though they had difficulty in stating the benefits of online education, the academics basically stated four key pros of online education, which were improvement in the use of technology, critical thinking skills, increase in academic research, and lastly flexibility in terms of time, place, and access to information and people.

One of the most important points of online education was to see that they could adapt to unpredictable situations and survive in every occasion (A15, A16, and A31). They were proud that they could improve themselves in a short time in the use of technology and conduct lessons accordingly and effectively. Sharing the same view, some others (A1, A6, A7, A8, A9, A17, A19, A21, and A22) found the use of technology in lessons quite practical as they had an archive of the recordings and class notes that could be shared with the students who could watch or read them repeatedly. Therefore, missed classes could be made up for with recordings and class notes when the students were available and ready, and the students could reach information from different sources on the Internet. Even if courses were conducted face-to-face, having various materials reachable in courses beforehand was seen as a requirement and benefit gained in online education. With the help of sharing course materials beforehand, one academic (A18) could save time and so spare more time for class discussions.

Recording those classes is beneficial for students because there have been students who, even though they attended the class, later re-watched parts they didn't understand synchronously from the video and said they learned better. There were even a few students who said it was better than face-to-face education. Because they attend the class, maybe they can't focus well there. Or they feel shy among friends, can't ask questions, but there were students who

could learn better by watching the video repeatedly (A9).

Some academics (A3, A6, A20, and A24) found online education practical in terms of access to information as they could arrange the time of classes till evenings according to the needs of the group without depending on weekdays, whereas some others (A5, A8, A14, A23, A26 A30, and A32) drew attention to financial benefits of online courses which the students could attend from their homes without spending and money for transportation or living expenses, in addition to the opportunity of saving time from commuting. Students' use of technology, when needed, especially in courses necessitating computer use, helped the academics to conduct lessons more smoothly (A11), to check any concept instantly on the Internet and share with the class (A27), and to motivate students with the help of step by step followed class notes and ppts (A17). Lastly, some academics (A5, A22 and A22) highlighted the use of online make-up classes or exams as an alternative way, which was normally improbable before online education.

While one academic (A12) stated the easiness of reaching the academics as an advantage of online education, some others (A6, A20, and A24) stated that now it was easier and more comfortable to reach both information and people worldwide because there were no more limits for knowledge. They could watch the lessons of the academics all around the world, and also attend and organize universal seminars and conferences disregarding the limited budget spent for face-to-face meetings, as noted by one of them below:

Within the university, due to economic difficulties, for example, inviting someone from the USA has not been financially feasible in the past four or five years. One of the positive things brought by this pandemic is that now you can easily schedule times with people from anywhere in the world (A20).

In addition to reaching information and people worldwide, some academics (A6, A13, and A21) stated that counseling the students living in other countries, carrying out universal projects and/or attending thesis monitoring committees online were effective and practical. Since there could be academics from different parts of the country or the world, whose ideas could contribute to their studies, the academics wished to continue this online application, but by turning back to face-to-face education, it almost ended. Lastly, pointing out that there was no advantage of online education, except for academic research, some academics (A4 and A28) had more time

to do research and publish articles.

On the other hand, for the weakest aspects of online education, the students noted reliability issues, demotivation due to lack of interaction and/or the feeling of isolation, lack of technological infrastructure, and personal problems.

Some students pointed out reliability issues in measurement and evaluation as the weakest point of online education stating that there was unfair success among the students because cheating could not be prevented in spite of the precautions and restrictions taken by the academics (S10 and S22). In contrast, those precautions and restrictions could also lead to unfairness due to increase in difficulty of exams, decrease in time allocated for questions, use of inappropriate question types, and the boost of bell-shaped curve system (S16, S23, S48, and S51).

The biggest issue was that normally our average doesn't go very high. It usually falls around 30 to 40. But during the quarantine period, somehow it shot up to 80, which is very strange. That's a major problem because everyone cheated, so the bell curve skyrocketed. Whether you cheat or not, it's a problem. Teachers are uncomfortable. Trust issues arise. It was a quite troublesome process, to say the least (S22).

Some students (S3, S9, S16 and S53) accepted years spent online as a loss because they could not learn anything without the help of academics and/or in-class interaction. They named those years traumatic when they could not concentrate on their lessons and felt isolated (S1, S2, S34 and S38). Besides that, they (S14, S17, S26, S28, S29, S47, S51, and S54) felt the need to interact and socialize to feel motivated for courses, but without having that chance, they became more depressed and lost concentration. One of them reflected her feelings about the years spent online as below:

If I were asked what I saw in the content of the course, I would ponder and ponder, and I might not find anything. Unfortunately. I see that year as somewhat lost. I passed just to take those courses. And I'm not the only one in this situation. ...We ask each other what we learned. Nothing. We just memorized things, passed the exams, and it was over (S53).

Not having interaction with the peers or the academics as in face-to-face education and not experiencing the university atmosphere, the students experienced burn-out due to staying at family house, not having eye contact with the academics or the peers, learning in a virtual classroom, and not benefiting from the campus facilities

(S3, S4, S8, S11, S17, S24, S30, S42, and S53). One of them reflected their experience as below:

Not being able to see the teacher's eyes while they were explaining, not knowing where they were looking, not understanding what they were emphasizing, really challenged me during classes. Besides that, living in a dorm normally, not living in a home environment, also posed a challenge for me. You know, the campus environment where I'm used to, where I can take walks when I want, where I can have tea with my friends—these things are difficult to replicate at home (S53).

Moreover, some students (S7, S17, S36, S38) complained about academics' being inadequate in use of technology in online courses and not conducting lessons effectively, whereas some others criticized them for not being helpful in online courses and exams due to the deficiency of technological equipment and lack of infrastructure (S3, S4, S5, S16, S18, S19, S32, S41, S44, S45, S52 S54, and S55). They thought that the academics could have been more empathetic and could have adopted a supportive approach to the students, especially to the ones who had technological inadequacy, because some students lacked necessary equipment, adequate Internet connection or even electricity to take online courses or exams. Therefore, they got stressed to meet the demands of the academics during exams. One of the students shared his experience as below:

In the eastern regions, where internet infrastructure isn't very good, we had friends living there or friends who didn't have a camera or computer with a camera. From one of our teachers, we received a harsh email saying something like, "Just get a camera, it's only about 150 liras." Of course, maybe the teacher's internet wasn't that great either, but that was the message conveyed to the student (S19).

Due to technological problems experienced specifically in exams and not getting enough support at that time, the students felt under pressure when they had to upload their answers or when they had a limited time to answer questions (S13, S35, S43, S49, S50, and S55). Therefore, they had times that they needed to take the course again or extend their education. One of them, sharing his experience below, noted that electricity cut caused him to extend his undergraduate education one more year:

Just one minute before the exam started, my home internet connection went out. It came back approximately 14 minutes later. I emailed my professor ... The response I got was, "If you had taken precautions..." In a situation like this,

one tends to get upset. What precautions could I take? If the entire neighborhood's internet infrastructure collapses, what kind of precautions can I take? Because I can't transport myself to a new location within a minute... So, I ended up having to withdraw from that class, which technically might actually extend my school by a year (S35).

There were some occasions when the students could not concentrate on lessons or was interrupted in exams due to noise problems in their houses or neighborhood (S5, S6, S8, S22, S33, and S39). They were also distracted by careless relatives visiting them or the noise in the neighborhood, interrupting their studies. One of them explained his home state with a funny anecdote as below:

Once I took an exam. There was a wedding outside... closing the window in the summer with all the drum and horn playing. I started the exam, and it began. I finished the exam, but it lasted four or five hours. I came out of the exam; my head was spinning. Or you know, during the exam, the call to prayer started. Normally, it lasts three to five minutes; it's not a problem... Now, a friend of ours starts listening to the call to prayer in Adana. From there, we go to Manisa towards Tekirdağ. It crosses Türkiye from one end to the other, all of us (S5).

In addition to concentration problems in online education, as the worst aspect of online education, some students (S12, S20, S34, S35, and S53) indicated health problems like being infected by the disease, visual impairment, posture problems due to an inactive life, psychological problems like sleep deprivation, anxiety, depression, etc. during the pandemics which affected their education as expected. They were also anxious about the health of their family members, which increased their anxiety, as well.

Lastly, some students found the most challenging part of online education dealing with the family members (S22, S24, S25, S37, and S41). They had to do house chores, take care of their family members and study for courses concurrently, which was quite tiring for them. One of them explained the dilemma of studying and living at home at the same time as below:

During the day, there are often household matters that need my attention, you know, things crop up... Families know you're at home because you're not physically at school, yet there can also be a perspective that you're not really doing anything productive (S37).

On the other hand, the academics specified the weakest aspects of online education as unpreparedness of the academics and the students for online education,

lack of infrastructure and equipment, the deterioration of student psychology, and inadequacy of online education in applied courses and/or theoretical courses, low exam reliability, and lack of in-class interaction.

Specifically, the academics (A15, A16, A27, and A30) were caught unprepared for online education as they did not have any class notes or recordings to share online. There were some academics who were not good at technology or had inadequate technological equipment to conduct lessons, especially in the first term of the lockdown. Some others (A23 and A24) noted that it should not be called online education, but instead saving the day or emergency education because it was only about converting materials to online and conducting lessons synchronously or asynchronously.

Many others (A2, A5, A9, A15, A21, A22, A25, A26, and A30) drew attention to lack of technological infrastructure like weak Internet connection, ineffective online platforms, not having enough equipment like projectors, tablets or laptops, stating that it was a pity to have inadequate infrastructure as one of the most prestigious state universities in Türkiye and one of the highest-ranking ones in the world. One academic especially highlighted the difference between the departments of humanities and sciences in terms of technological equipment or infrastructure provided by the university as below:

We don't have projectors. These are really frustrating things... if we were to say this, no one might believe it. Because perhaps, unfortunately, on the other side of the campus, they have everything: labs, computer equipment, but on our side, the number of classrooms with fully equipped PCR is very limited and old technology. It frustrates both students and us. I've also heard opinions suggesting that less investment is made in humanities departments. It's probably assumed that we don't use technology (A25).

In addition, some academics (A4, A12, A18, and A32) fell victim to the technology and had some connection problems during lessons and exams. While one academic (A12) had to record the courses that were repeatedly canceled due to electricity cut, another one (A32) had to recover her class notes when her computer broke down. One academic (A4) stated that some unexpected situations could arise, which might have been embarrassing like forgetting the camera or stereo turned on during the lessons.

Along with the technological issues, two academics (A11 and A25) shed light

on the deterioration of the students' psychology as the worst aspect of online education. While one academic focused on the loss of interaction among the students as the cause of psychological problems, another one (A25), having administrative duties during online education, confessed that there were many attempts of students to commit a suicide because of the family pressure that the students felt at home during the lockdown, which affected her psychology a lot. She believed that students' psychology was partly worsened due to the university, which closed the dormitories all of a sudden, obligating the students to their hometowns and families. She wished that the university could differentiate the ones really in need of accommodation and who could not stay with families due to domestic violence. She expressed her views as below:

We had cases of suicide among other deputy deans that we shared... They are very tragic, of course. I couldn't cope with them. I was deeply saddened.... We need to be aware that for some of our students, returning to their family homes did not provide positive environments, and at that point, the closure of dormitories, hastily sending children back to their families, especially for some students, created significant problems, even leading to suicide (A25).

One student laid a different perspective for face-to-face education by associating it with being more independent and getting rid of family issues (S41). She resisted online education claiming that the students with family problems or the ones who had to work concurrently would not have any other option than attending courses online. University meant to be a place where personal growth took place with the help of independence, but not each and every individual was independent in the country. Thus, she drew attention to the possible result of online education as gender discrimination which could be experienced by girls whose families would make them get educated at home without living in another city. Another student shared how her psychology deteriorated due to family pressure as below:

Returning to my family home for about a year and a half really wore me down. Because I have a controlling family environment. In that environment, I couldn't establish myself socially as I wanted. I was away from my friends. Perhaps my biggest challenge was actually during that time. I was already mentally exhausted (S8).

Lastly, there were academics (A2, A3, A4, A6, A7, A8, A10, A13, A14, A15, A17, A18, A19, A20, A21, A23, A26, A28, A29, A31, and A32) who believed that

education should be face-to-face and online education could not compensate it in terms of interaction among stakeholders. No matter how hard they tried to adapt to online education and make courses interactive, as social beings, they could not have a real and effective in-class and out of class interaction with their students, which was necessary to conduct effective lessons and enable the students to learn; however, behind black screens, it was almost impossible to contact students. Liking every student to an open and black virtual screen and himself as if he was talking to the wall, one academic expressed his feelings about loss of in-class interaction among students below:

You sometimes feel like you're talking to the walls, often feeling the need to hear their voices. It's really tough for this student too... During the day, or you can attend four, five classes. But after one class, you go, you go out to a garden, you get some fresh air. You talk to your friends for a minute or two, joke around, you get fresh air. You eat something in a canteen and all that. But there it's not like that (A6).

One academic (A24) compared online education to distance education and complained about the inefficiency of conducting online courses. Another one (A10) persisted that giving too much space to learner autonomy in online education caused students to procrastinate their responsibilities more than ever before compared with face-to-face education, whereas the other (A21) pointed out that decreasing interaction between academics and students led to students' demotivation and unwillingness to attend the course. Lastly, two academics (A29 and A32) could only get information about their students' talents, interests when they personally interacted with them, so providing their students with references upon request was not easy for them in online education.

Some academics (A2, A4, A5, and A32) became more specific in expressing the inappropriateness of online education in applied courses where the students needed some hands-on practices at the laboratories or field observations requiring interview skills while one of them found online courses in theoretical courses like service courses provided to many students at once were practical and appropriate. Especially for laboratory courses, some academics stated that they could not make up for the one taken online because the students could not learn how to do experiments or learn even the names of the tools used at labs. Besides that, some academics (A24 and A29) from the departments of humanities stated that teaching the students some basic abstract

concepts in some fields like philosophy and history was not easy online even though not presumed so.

Being able to provide an understanding of what history is about is actually the most important thing for our department... We struggled a lot with these kinds of conceptual and more abstract issues... The importance of face-to-face education comes into play here. So, we struggled with abstract, conceptual issues (A24).

Another point stated as one of the weakest aspects of online education by the academics (A1, A5, A10, A11, A16, A18, A23, and A30) was adapting measurement and evaluation to ensure reliability by taking some precautions to prevent cheating and grade fairly, especially for the first term of the lockdown. They had difficulty in preventing cheating, and it was widespread and common in every department, which created unfairness for the students who did not cheat. The students were quite organized in cheating, so the academics could not prevent it no matter what ways they tried. Moreover, due to lack of technological infrastructure, it became harder to administer exams and take actions for reliability like using cameras or software programs.

4.1.4.2. Future Implications of Online Education at University

Even though online education could be an option for some departments, fields or courses, many academics and students believed in the indispensability of face-to-face education (A6, A14, A20, A22, A23, A24, A27, A28, and A29; S1, S4, S5, S6, S8, S11, S14, S15, S20, S22, S24, S25, S26, S28, 32, S33, S34, S35, S37, S39, S40, S41, S42, S47, S48, S49, S50, S51, S52, and S54). They stated that there could be some fields of study and occupations which could be online, but formal education was certainly not one of them because it could not be sustainable and effective due to lack of interaction. That was why online education would be superficial and mechanical without the interaction among human beings, so it could not compensate the depth of an in-class interaction occurring in face-to-face education. One of the academics explained the inapplicability and inappropriateness of online education under every circumstance as below:

The university is seen as a holistic socialization tool with all its segments. For example, if we take our department as a micro example, it includes interacting with students, interacting with each other, interacting with our secretary, interacting with the staff in the department, interacting with assistants. I see all

of these as a whole.... Let them read information somewhere, but through this interaction, they will gain a perspective, which is different for everyone, and no one can teach a worldview (A24).

Agreeing with the academics, the students claimed that the effectiveness of courses increased in face-to-face education because they could form real bonds with their teachers and friends (S5, S34, and S54). Spontaneity and peripheral learning took place in face-to-face education which was more systematic compared with online education where the students could not find a common time to gather together and build on each other's learning. Thus, both the academics and the students were aware of the fact that they could ask and answer more questions, had a chance to chat with each other and share their experiences in life and thoughts about current issues and problems. One of the students shared her positive thoughts about the spontaneity and peripheral learning in class interaction as below:

Because when you're in the same environment as someone face-to-face, for example, you go to class and your professor starts explaining something to you. Then, a question comes to your mind, or you want to give an example. Sharing an experience from their career life, something like that, enriches and adds depth to the content... there's a class recording available. And you're trying to acquire it without any interaction, just like watching a video on YouTube (S54).

Accepting the advantage and necessity of face-to-face education, some academics and students (A3, A9, A23, and A24; S2, S4, S10, and S42) suggested that online education could be used as an option, specifically in theoretical courses, depending on the group of students and the satisfaction the academics felt from the course. Even at the same department, the preference of online education might change depending on the course provided (A23 and A24). Whereas some academics (A20 and A26) claimed that online education could be an alternative and optional at the departments of humanities with the help of alternative and creative online methods, another one at the department of philosophy resisted this idea citing the inappropriateness of online education in their department (A30; S34). He claimed that the students needed to interact with each other in person in order to discuss what they read and learned in their field because knowledge would be meaningless without someone to negotiate it with, and this could not be available outside university.

Lastly, some academics (A22 and A23; S24) stated that there should be some

technological infrastructure and also a well-organized educational program to make online education effective in some fields or courses, which did not necessitate applications and/or face-to-face interaction. Thus, hybrid education could be an alternative. However, without solving the problem of infrastructure in the county, it would be impossible to have an effective online or hybrid education

Some academics and students felt themselves more independent when having an option for online courses (A4, A23, and A27; S41, S43, S44, S51, S52, and S53). They found some parts of online education practical like not being on campus to get educated, without dealing with any health issues, financial problems or transportation. They felt that they wasted time and they could have a hybrid option for such cases. Moreover, they communicated via WhatsApp groups fast and easily, and preferred some online meetings with their peers instead of being existent on campus.

Especially for the sake of exam reliability and the need for hands-on practices at laboratories, the departments of sciences could have difficulty in online education not on the theoretical part but on practice. Sharing the same views, others (A2 and A3; S4) put an emphasis on the requirement of face-to-face education for applied courses where the students needed to touch the tools and make experiments and confessed that the students could not learn anything about experiments in online education. One student shared his opinion about the applicability of online education at his department as below:

It progressed online for over a year, of course, but we also saw that some things couldn't be achieved... What you see in the lab online is a bit like watching a basketball game. You might be a huge fan, knowing everything about it. But unless you step onto the court and play, you're not a basketball player... It shattered some taboos in terms of classes, but it underscored the necessity of face-to-face interaction in terms of labs (S4).

Some others claimed that the pandemic was a training for online education, and so universities could integrate online education from then on (S4, S18, S34, S36, and S38). People became aware of the fact that they could have connections with various people and get educated at different universities or take courses from different sources in the world without being there personally. One of the students noted that people questioned face-to-face education after the pandemic:

Whether we accept it or not, we'll eventually come to terms with it. And as part

of this, I think education has changed. The debates, at least, have reignited. Can a fully online education be considered? It's reignited. And I also believe that a portion of education will continue online in some form (S38).

Therefore, being aware of the deficiencies of instruction in online education, one academic (A23) highlighted that online education should be organized by at least three parties: one academic, one expert in the field of curriculum and instruction, and one computer specialist so that online courses and assessment tools could benefit the stakeholders. Some academics (A6, A7, A9, A16, A19, A22, A23, and A24) suggested that after the pandemic, the university should take the advantage of the pandemic and improve itself by integrating technology, and it should have some projections regarding emergency situations as experienced during the pandemic, and took a lesson from it in order to improve the implications at university.

In addition, university should provide the academics with in-service training programs on instructional practices, especially for the new coming or elderly academics who were more in need, to adapt their courses according to changing situations. Being in favor of face-to-face education, one of them (A6) stated that there should be a new vision enabling the students with effective teaching approaches combining technology with interaction. One academic expressed the need for future implications at university as below:

We've managed to get through this process, good or bad, but what are we going to do next? I'm thinking about what we do for extraordinary situations, for sudden events. Therefore, we should be prepared for any experience at any time (A22).

Feeling the same need but expressing it in a different way, some students (S16 and S32) claimed that there was not any authority to check academics' instructional practices, and flexibility provided to the academics enabled them not to conduct lessons especially for the first semester. This caused unfairness and frustration among the students because their feedback was not taken into consideration, so students gave up providing feedback in online education. One student expressed her regrets about her feedback not taken into consideration as below:

During the pandemic, these pink forms were also filled out.... When I saw that it didn't help at all, I stopped filling out pink forms or anything like that. Everyone had written similar things anyway. Even that wasn't listened to. I said

to myself, maybe none of them are being listened to (S16).

One of the students claimed that not only in online education, but as a standardized routine, the academics had to be checked by an authority in order to increase the efficiency and effectiveness of the teaching and learning process (S43). She felt sad and hopeless about students' criticism not being taken into consideration for long, and expressed her disappointment towards the approaches of those academics who were strictly closed to adapt themselves to the changes in online education to make lessons more effective. The student pointed out that there were the academics at both ends: the ones actively engaging the students in lessons with the help of different methods and strategies and the ones only lecturing and not interacting with the students. Moreover, they were not qualified enough even to conduct courses in English, which was the medium of instruction, and at that point causing some concerns related to the authority of the control mechanism at university.

On the other hand, some others (A7, A21, and A28) brought a different perspective to online education noting that it could help universities earn an income, and by providing online courses and certificates, some private universities had already become like a business. One of them (A28) claimed that for the middle-aged people education was a right; however, now it could be sold, certainly not to the students of the university but to others who would like to get some courses from the university. Like private ones, state universities would realize selling information sooner by courses and certificate programs. Nevertheless, the academic believed that education should not be seen as a business and even if not caused by online education, it was for sure triggered by online education which made the notion of education turn into a business.

Besides that, another academic (A7) shared his views about the prospects of the university online noting that online education had the potential of eliminating university financial burden caused by face-to-face education. Because recording a video and reaching hundreds of people with it was an easy and practical way of education, especially when students were motivated to learn, online education could be favorable for the future of university, even for laboratory courses provided with recordings or simulations of experiments. One academic (A9) suggested that depending on the course type, online education could decrease the workload at

university by decreasing the number of students taking service courses in person where they could not even have a chance to ask a question in class.

Lastly, one academic shed light on another issue by stating that thanks to the pandemic, they became aware that the hard conditions they had been working in and impossibility of fulfilling various duties thoroughly and properly due to lack of time and the available atmosphere, which were teaching, doing research and producing knowledge at the same time, in addition to the administrative ones if applicable.

What is expected from an academic? There are three main things. First, you'll teach. Second, you'll conduct research and produce knowledge. And third, if applicable, you'll undertake administrative tasks. In my opinion, it's quite challenging to excel at all three simultaneously due to constraints of time and resources... The pandemic has made this clear to some academics. It's interesting, isn't it? What have we been doing? What kind of frenzy have we been in? (A24).

Table 5

The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19 Changes in Academic College Experiences

	Before	During	After
Goals and objectives	no change	no change	no change
Content	comprehensive; hands-on practices and field practice for applied courses	limited especially for the first semester; no hands on practices for experiments, only videos and simulations; no field practices	varied with extra materials and up-to-date topics; integration of technology to materials;
Teaching & learning approaches			
<i>Course delivery</i>	face-to-face	asynchronous, especially for the first semester; mostly synchronous for the following terms	hybrid an option for the first semester; then, face-to-face
<i>Applied courses</i>	hands-on practices and field experience	carried on with simulations and videos; limited hands-on practices at the department of chemistry; no hands-on practices or field practice at other departments	lack of basic knowledge; a condensed make up for experiments; no make-up for field practice
<i>Teaching & learning strategies to increase in-class interaction</i>	more interactive and collaborative	lecturing by integrating online sources; sharing recordings and course materials; inefficient material adaptation; less interactive; less collaborative	limited share of recordings and course materials; more interactive and collaborative
<i>Teaching & learning environment</i>	university	houses and offices	university
<i>The use of the library</i>	use of its facilities along with in-print and online sources	limited to online sources	use of its facilities along with in-print and online sources

Instructional Practices

Table 5

The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19
(cont'd)

Changes in Academic College Experiences			
	Before	During	After
Measurement and evaluation	face-to-face assessment tools; face-to-face grading and feedback	online assessment tools; changes in assessment such as decreasing the number of questions, changing question types and/or weight of the exams, and changing time allocated for exams	face-to-face assessment tools; online grading and feedback
Instructional Practices	process-oriented evaluation	more process-oriented, preferred to keep the track of the students, but increased workload of the students and academics	process-oriented evaluation more favored
	product-oriented evaluation	less product-oriented, preferred to prevent cheating	less-favored product-oriented evaluation
	Reliability	higher reliability in face-to-face exams a lot of precautions taken; increase in the stress levels of the students and academics; no way to prevent cheating; increase in grades and decrease in academic achievement; not adequate deterrent punishment	continuing with face-to-face exams
Oral exam	no oral exam	oral exam at the department of mathematics and history	no oral exam

Table 5

The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19

(cont'd)

Changes in Academic College Experiences		
	Before	During
Computer literacy & technological equipment	adequate computer literacy; lack of technological equipment	adequate computer literacy; lack of technological equipment and infrastructure; lack of support from university
Personal competencies	more social support; fewer psychological problems, physical problems and personal problems; more interaction and cooperation among peers	increase in psychological problems, physical problems and personal problems due to isolation and desocialization; drop in the attendance and participation; less interaction and cooperation among peers
Learner autonomy	dependent on the individual	mostly increase in learner autonomy; some not able to catch up with the workload
Academic achievement	reliable grades; measurable academic achievement	increase in grades; decrease in academic achievement

(cont'd)

Table 5
The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19

Changes in Academic College Experiences

	Before	During	After
Online Education Literacy	preparedness and readiness	not prepared or ready	difficulty in adaption to online education personally, technologically and academically
	experience	no experience	more prepared and ready for possible online learning more experienced
Computer literacy and technological equipment		adequate computer literacy for most, but not for the elderly; adequate technological equipment for personal use but not for online education	improved computer literacy and adequate technological equipment
		adequate computer literacy (but not accepted by the students); afforded technological equipment; lack of infrastructure; lack of support from university	
Personal competencies	more motivated; fewer psychological problems	less motivated due to lack of interaction; more psychological problems; burn-out caused by heavy workload	more motivated; fewer psychological problems
Educator identity	adequate skills; workload; satisfaction	adequate mentoring skills but some criticized for lack of tolerance and empathy; increase in workload; less job satisfaction	mentoring skills as a must but reaching various sources is seen as a plus; more job satisfaction; increase in professional development; online course approvals; online seminars and conferences

Changes in Academic College Experiences

Table 5

The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19

(cont'd)

The Strongest Aspects of Online Education	
<i>For students</i>	flexibility of time and place to access various sources of information and people; increase in student autonomy; process-oriented evaluation; reaching in and out sources easily
<i>For academics</i>	flexibility of time and place to access various sources of information and people; development in the use of technology; having an archive of the recordings and class notes; improving critical thinking skills; increase in academic research
The Weakest Aspects of Online Education	
<i>For students</i>	reliability issues; demotivation due to lack of interaction and/or the feeling of isolation; lack of technological infrastructure; personal problems
<i>For academics</i>	unpreparedness to online education; lack of infrastructure and equipment; the deterioration of student psychology; inadequacy of online education in applied courses and/or theoretical courses; low exam reliability; lack of in-class interaction

Perceptions regarding Online Education

Table 5

The Summary of the Academic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19

(cont'd)

Views regarding Future Implications of Online Education at University
indispensability of face-to-face education for interaction; applicability in some fields of study and occupations but not on university education inapplicability for assignments and applied courses; need for integration of technology in education; need for in-service training programs for professional development of the academics need for a standardized system where student feedback is taken into consideration; a way of gaining an income by online courses and certificates; saving time with the help of recordings

4.2. Nonacademic College Experiences of Undergraduate Students and Academics Before, During, and After Covid-19

The second research question in this study sought to explore the nonacademic experiences of the undergraduate students and academics before, during, and after Covid-19. The analysis of interview data revealed that nonacademic college experiences included two themes: the university environment before, during, and after Covid-19 and the changing nature of the university.

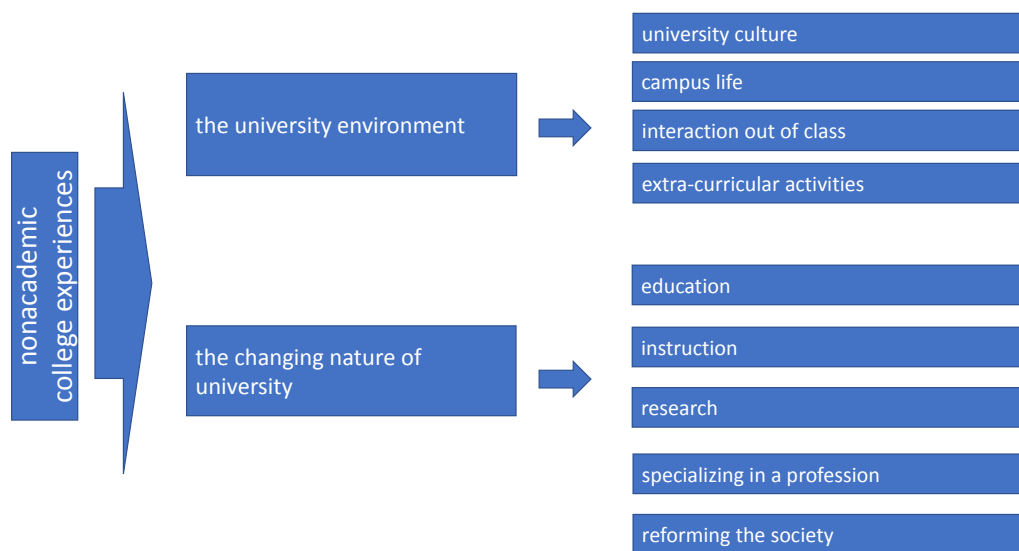


Figure 15 Themes regarding the Nonacademic College Experiences of the Undergraduate Students and Academics

4.2.1. University Environment

The data indicated four categories regarding university environment: university culture, campus life, interaction out of class and extra-curricular activities.

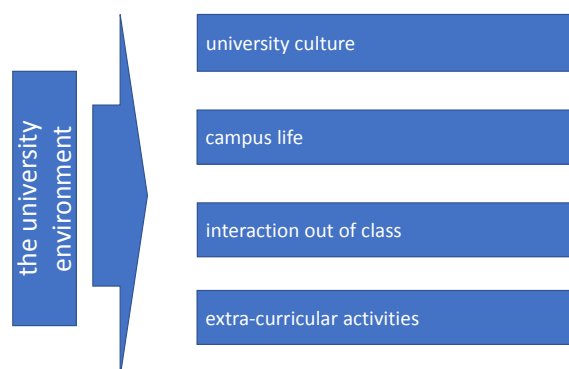


Figure 16 Categories regarding the University Environment

4.2.1.1. University Culture

Education could not be considered alone as it was a social phenomenon which happened through dialogues among human beings. When asked whether they realized any changes at university after the pandemic, the students and academics stated that the university had a culture, and due to the pandemic and/or because of an already changing world, that culture had changed (A1, A12, A20, A23, A24, A27, and A28; S1, S2, S4, S5, S8, S16, S19, S22, S26, S27, S31, S32, S33, S41, S43, S46, S47, S52, S53, S54, and S55). One of the students explained the importance of gaining METU culture as below:

What makes someone from METU is more the environment here than the education itself. The people around, like-minded individuals, this thing we call culture, that's what I think makes the difference. If education is thirty percent, then seventy percent is these kinds of things... So, I think that education is definitely not just what university is about. What makes us come out well-rounded is, in my opinion, this METU culture (S4).

At university a cultural transfer between generations had taken place before the pandemic; however, spending one and a half year at home, the students became juniors/seniors without meeting their peers and the new coming students in person, which caused the cultural transfer of the university to be disrupted. The students and academics named it as a lost generation (A1, A12, A20, A23, A24, A27, and A28; S1, S2, S4, S5, S8, S16, S19, S22, S26, S27, S31, S32, S33, S41, S43, S46, S47, S52, S53, S54, and S55). One of the students shared their opinions about the disruption in cultural transfer as below:

Until now, I had never seen trash being thrown around, cigarette butts being discarded, or Devrim (the Stadium) being littered with trash at METU... Besides that, there's the culture of people helping each other. I think there was a bit of a break in the transmission of this METU culture. It's not different from others, but there was something trying to keep the METU culture alive. There was a break in that for a while. It's noticeable, in my opinion. Communication between professors and students was also affected (S5).

Some students (S4, S14, S22, S42, S52, S53, S54, and S55) claimed that METU culture assimilated each and every student enrolled at university and shaped their personality by teaching how to live in that culture. However, the number of students who did not have any idea about it due to the pandemic was quite high, and there was a change in the student profile. Some students shared her observations about the

intolerance among the new coming students as below:

People who first come to METU are initially assimilated by METU. Now, for the past three years, a group of people who haven't been assimilated has come to the school. That's why the people at the school are a bit ruder compared to before or they pay less attention to their surroundings, etc. (S22).

In the preparatory year, for example, I really see different types of people. They come from various cities in Anatolia. It seems like they all get blended here, something happens, and everyone forms a unique identity. They find a separate self here (S42).

Now, I feel like people are judging each other much more and making more derogatory comments about each other. When I first came to the campus, I felt like I could act foolishly, try new things, and even fail miserably as long as I wasn't harming anyone. Nobody would laugh at me or ostracize me. Especially with the new student profile, I sense a tendency towards more uniformity, reducing these differences, and saying "you're different," "you're like this" (S52).

As stated by juniors and seniors, METU culture was the one learned through experience. Therefore, what METU meant to the senior students was different from to the freshmen. One of the senior students (S53) explained the meaning of being a member of METU, which might not be the same for each participant, and criticized freshmen and sophomores as below:

Those who started university when the pandemic began say they're from METU, but they have no real idea about METU. The METU culture is something that is learned through experience. When I first came, I didn't know anything either, but I saw that people lined up here, so I lined up too. People called the professors "*hocam*," so I started saying "*hocam*" too. That's how the culture became ingrained in me... But those who started online during that time couldn't learn it (S53).

For the students, the cultural gap between generations was understandable and expected because of lack of interaction among stakeholders in online education (S5, S8, S16, S19, S20, S22, S26, S33, S40, S41, S42, S46, S47, S52, S53, S54, and S55). The students who completed the first two years of undergraduate degree without experiencing the university, but instead stayed at their homes formed a new generation, a trans generation, as it was different from the previous ones. The students who were sorrowful about seeing that lost generation expressed their feelings as below:

The METU spirit is somewhat lacking at the school. It's still there, of course, but you can tell who the pandemic students are and who the regular students

are. The culture couldn't be passed on to them for about two terms...The campus life here is very active. They never sat and drank at Devrim (the Stadium), never stayed awake till morning at school. Their social experiences are very lacking, in my opinion (S19)

For example, when we go out to the fire escape to smoke, suddenly a girl shows up. She listens to us, asks questions, and we tell her, "You can do this, you can try that. There are many things you can do." But she says she's doing her classes online. I said, "Forget it. You can do it, go enjoy the campus, get outside." But they can't understand or live the university life. It's really bad, there's a change (S20).

The students who spent their first and second undergraduate years in online education could not adjust to university culture, so they had misbehaviors such as being rude, disrespectful and more individualistic, and reacting insensitively to certain occasions (S4, S14, S22, S42, S52, S53, S54, and S55). Despite senior students' warnings and guidance to obey the unwritten rules, they disregarded them and continued their misbehaviors even at public places. Worrying about whether that generation gap in METU culture could be compensated in time, some of the students shared their concerns about student misbehavior as below:

METU has some unspoken rules... I observe my new friends a lot. For example, they talk in the library. Everyone knows you talk in the talking section, not in the silent section. Besides that, there are many instances of cutting in line. I think they are in too much of a hurry. This shows up in very simple situations, like in the food line, at the ATM, in the restroom line. Our mutual respect for each other has decreased in these areas (S52).

Therefore, the new coming students could not have learnt how to react in certain situations like protests and festivals, at places like dormitories, the library, cafeterias, gyms, and school buses called rings, and even on roads, while hitchhiking, which was one of the symbols of the university. Some senior students reflected their thoughts about the new generation as below:

Everywhere was filled with trash. I hadn't seen fights break out at the festival until this year. There were incidents of harassment, other things happening, you know. But I don't know, even in the library, people aren't the same as before. People used to be warmer towards each other. We were more like METU people. But not anymore (S16).

There was even a fire because of all the glass piles near the big sports hall. It was the first time something like this happened. Normally, METU students pick up their trash and dispose of it properly. Those who haven't fully absorbed the culture of the school are contributing to the mess on campus (S39).

Some senior students (S4, S14, and S54) were surprised to encounter with such a different group of students coming from online education, and they tried to rationalize the reason behind the generation gap in METU culture by claiming that thanks to student clubs and communities before online education, the university students could gather, share their ideas and take an action when necessary. However, this was interrupted by online education, and the reason was the lack of activities of clubs and communities. One of the students compared the state of communities and clubs at university before and after the pandemic as below:

In the past, student groups were more productive and engaged in more serious activities. There used to be more events at school. There would be presentations, other types of activities, booths, etc. Even friends who had been at the school for years were collectively puzzled, as if we had come to a different school...I don't know if it's the newcomers who are doing this. I don't want to blame them, but they might have forgotten how to live outside or haven't yet learned how to live on campus (S14).

Some academics and students were hopeful about the compensation of this generation gap because everybody tried to remember the old days before online education and put an effort to experience the same atmosphere that they got used to (A9, A10, A13, and A16; S2, S9, S10, S25, S28, S33, S35, S36, S48, S49, and S50). On the other hand, there were some concerns about whether generational gap arouse due to years spent online could be compensated till the end of their university education (A20, A23, A24, A27, and A28). One academic shared his concerns about the possible permanent changes in the culture of the university as below:

One of the things that social interaction brings is the development of collective intelligence; from the smallest things, like protests, to studying together, these are all minimized. I hope this doesn't become a cultural norm. Education is also a form of social awakening. With that social awakening, as a young person entering the enlightenment process by breaking your existing shells, face-to-face education or in-school education is very important (A20).

In addition to generation gap, no matter they were freshmen or seniors, toleration and collaboration among the students decreased as a result of individualization in online education, and they were not as respectful to each other as before (S7, S16, S20, S26, S30, S35, S38, S43, S45, S46, S47, and S50). One student shared his thoughts about the cultural change in students' approaches towards one another as below:

In the past, posters or banners of two opposing sides could hang next to each other on the wall, and no one would make a fuss about it. But recently, I've noticed that people tear down posters and their attitudes towards each other, even while sitting in the same place, have become very harsh... It seems that the isolation during the pandemic has somewhat reduced people's tolerance for their social environment... Now, the language has become much harsher. People say things like, "Don't smoke everywhere," and the response is, "It's none of your business. I can smoke here; it's allowed." (S35).

Another student (S42) associated the reason behind intolerance among the students with the pandemic and being anonymous behind the screen herein below:

It's very easy to be anonymous. People can behave towards you on campus in the same way they do on social media. Recently, someone got beaten up. They express their opinions more freely on social media, but they express their bad opinions which need to be filtered —there's no respect anymore. There's this extremism. This is the new profile now (S42).

Another effect of individualization was the fact that the students who had the unity to react together to protest situations and defend their rights before the pandemic did not have a collective consciousness anymore (A20; S4, S14, S22, S41, S42, S52, S53, S54, and S55). Some students (S41 and S54) claimed that they could not form unity as before the pandemic due to cultural gap, while one academic (A20) stated his concerns about the compensation of the years spent online which caused a disruption in METU culture and prevented the social awakening of the students.

Without experiencing the campus, without forming those friendships within the campus, without getting teargassed by the police, METU culture is somewhat related to these things. I think that's why they were people who hadn't seen any of this (S41).

Whenever there was a protest or a collective action needed here, I always felt a sense of unity. But when the pandemic came in between, since we learned this from our predecessors, new generations didn't have the chance to access this as a resource. They couldn't learn this from anyone. I feel there is a disconnection among those who started school during the pandemic (S54).

On the other hand, one student (S45) brought a different perspective to the reason for not being able form a unity and express ideas freely by linking it to online education. Due to technological tools, everybody felt unsafe and had self-censorship as if they had always been recorded, which could be used as evidence against them in

judgmental systems. That was how the students became apolitical after the pandemic.

Especially in class, people are saying, "I don't want to touch on anything that could be political." This changed during online education. Because we are no longer communicating face-to-face, and we are communicating through a technological device, a platform, and right now this conversation is being recorded... Everything we talk about could be evidence against us. I can say that we reflected this a bit in such a tense political situation in the examples we gave, or self-censorship (S45).

Behind being anxious about reflecting their thoughts freely, both the students and academics (A14, A17, A19, A21, and A23; S34, S40, S45, and S53) linked the reasons to administrative issues. They pointed out that it might not be the pandemic but the rectorate, who had a totalitarian approach, leading to that change, and the pandemic was used as an excuse to prevent the right of protesting even the well-known graduation ceremonies, which was traditionally the place to protest the government by students.

Sharing the same views, one of the academics (A19) stated at METU, there had been a more democratic atmosphere before thanks to the previous rectorate and his colleagues who spent time to communicate with the students individually, giving importance to education and research, and sharing ideas with the academics and students. However, then, the existing rectorate did not even meet the students in person and share ideas with them at any place on campus or walk around the campus without his security team. He also did not have gatherings with academics, which was a routine of the previous rectorate to share their thoughts and feelings about the implications at university every month (A17).

Therefore, the students and academics criticized the upper administration causing the transparency and democratic atmosphere of the university to be deteriorated by letting the police interfere in the protests, warning and threatening the students and academics who shared their ideas freely, and causing them to brain drain. Some students revealed their thoughts about the attitude of upper administration at university as below:

During the pandemic, since there weren't many students physically present on campus, the administration was able to do what it wanted easily. And because students hadn't been reacting to things they would normally react to for the past year and a half—except for some exceptions—I think we lost this (S40)

METU is not a school that loves its students very much. This has even been recorded now. To be honest, we clash a lot with the administration, at times. We want them to really stand by the students more; students shouldn't have to struggle so much (S53).

Apart from the problems encountered with the existing upper administration, one academic (S19) shed light on another cause for the change in METU culture, which was the retirement of the academics with the notion of teaching how to reach information by improving students' research skills and boosting their curiosity and enthusiasm to learn. Still, the students and academics believed that they could have the same democratic school atmosphere because there had never been a hierarchal order at METU, and so everybody always felt free to contact all stakeholders by calling *hocam* and learning from each other (A13).

Lastly, some other academics noted their impressions about the university atmosphere after the pandemic by stating other administrative issues like disorder or neglect. One academic (A23) confessed that the retirement of administrative staff who had critical positions before the pandemic caused disorder at the faculty while others (A7, A11, A13, and A25) drew attention to the campus neglected during the pandemic and the limited budget of the departments which could not be adequate to provide equipment or to recruit adequate foreign or local academics. Noting that sources could be spared to strengthen the university in terms of equipment and human force, one of them (A7) resembled that situation of the university to a bullet train which did not have adequate maintenance and bumped into at a place at any time, whereas another one (A25) criticized that there was laziness at university like not repairing the heating system for months, and desocialization among the colleagues, who could not have network with other academics. She also noted that there was a decrease in the prestige of the university which could not host its guest researchers and academics, and a loss of interaction among them causing emotional labor.

4.2.1.2. Campus Life

Both the students and the academics were aware of the role of campus facilities on forming a university culture and the campus life which enabled the students to form an identity and have a sense of belonging to university (A3, A13, S19, A26, A28, A30, and A32; S19 and S39). However, due to the pandemic and online education, that sense of belonging which could also be called as METU soul was interrupted because the

students did not have the chance to socialize on campus. They explained the role of the campus in shaping the identity of the students and the culture of the university as below.

Whether you go to class or not, being in the campus socially definitely gives a person a strong character when you spend a long time there. Because you interact with a lot of people with very different ideas. You make a lot of friends. You learn something from all of them. Something happens to you on campus, you learn something. People who started METU during the pandemic don't know anything about METU, about university life, and I think their social skills are very weak because they never got to experience university life (S19).

Being a student means participating in social networks, events, and so on. Even just going in and out of a library, attending a concert, or spending half an hour chatting in the cafeteria at noon—these should all be natural parts of being a student. Of course, everyone would get bored of a student life stripped of all these things (A28).

During the pandemic, some students living near the campus preferred to drop by it just because they wanted to refresh and motivate themselves and to remember their old good days on campus before (S34, S42, and S55). They believed in the positive effect of experiencing the campus on their motivation, and so they had a walk on the campus. They shared their thoughts as below:

I love the campus. If I had the opportunity, I would want to live on campus all the time. I can say the pandemic interrupted this. I tried to come to campus as much as I could. I used to come to Devrim (the Stadium) to exercise and such (S34).

There were times when I came to campus. Even if I couldn't see anyone, I met my need for social support by coming to school and imagining there were people around (S55).

It felt like my friend and I were the only ones left in Ankara. It was that kind of atmosphere. We would come to campus, and our morale would drop. The weather was bad, everything was empty; the hairdresser and the tailor were the only ones around, competing with each other. It was such a ridiculous environment (S42).

After coming back to school, the students (S5, S10, S12, S13, S15, S16, S17, S19, S20, S28, S30, S31, S33, S37, S41, S46, S47, S51, S52, S53, and S55) understood the value of campus life and the importance of socialization on people's psychology, and they became more enthusiastic to attend face-to-face courses and experience the campus. One of the students explained the importance of the campus for him as below:

Being on campus, physically being at school, is truly an amazing thing. I believe it's a very important step where we, as individuals, start to step into the world. It's still the same for me; that hasn't changed. Because university education during the pandemic didn't feel like university. Studying at university during that period was something we had to do out of necessity. For me, university means the METU campus. It's a place that is a complete whole with both social and educational life (S19).

The students tried to catch up with the university life that they had not experienced before and to compensate the years that they lost in online education. One student (S17) explained the reason behind the drop-in attendance and the need of socialization among students as below:

I can give you a percentage like ninety percent for the majority of students who want the school to be open right now. They wanted this for the sake of socialization. From a social perspective, face-to-face education really adds a lot to people... The number of students attending a class of sixty or fifty people did not exceed ten. If you want face-to-face classes, why don't you come to class? Maybe their intention is to socialize on campus, I don't know (S17).

The students (S7 and S9) stated that, deprived of socialization and getting university culture, the students lost the sense of belonging to the university and felt resentment for passing their undergraduate years in online education as if they had been at the continuum of high school. They stated that they realized the beauty of the campus. Some students (S9, S42, and S49) expressed their regrets for the lost time they spent online and for not enjoying the campus as below:

I believe it has lost its meaning because it's not just about university classes or assignments. It's also a place where we could socialize, and we've completely lost that social aspect. We ended up wasting two years of our lives at home (S42).

In fact, I've become quite disenchanted. Because I don't know anyone anymore. I go to the cafeteria. I feel like a fossil, you know, like that. I think it's especially because of the pandemic throughout the semester. I felt like I don't belong here anymore, and frankly, it passed with resentment (S42).

Here, the social environment is really nice. But I realized that I didn't appreciate its value... Our dormitory was on the top floor. We had a beautiful view from the window. For example, I realized that I never even paid attention to that view before. I thought to myself, I've lived here for a year or two. I hadn't even noticed that, hadn't appreciated it (S9)

There were even some students who did not want to graduate before

experiencing the university atmosphere, and so they suspended their studies. Stating her senior students' not being willing to graduate after the pandemic without experiencing the campus, one academic reflected the importance of socialization and benefits of campus life while one of the students reflected her regrets about her shortened university life due to the pandemic as below:

Half of them intentionally didn't graduate... They didn't want to graduate without experiencing campus life, and they continue... On one hand, we've seen the value of socializing on human psychology. You know, coming here, maybe I'll study for half an hour, an hour, but then I'll sit in the cafeteria for half an hour. Sitting there and chatting with people used to make me return home happy (A32).

I spent my entire second semester of second year and the whole third year online. And I'm honestly saddened by the fact that the period during which I could adapt to university life the most, get used to it, was spent online. It just felt too short, you know. My university life ended up being like two and a half years (S7).

The students and academics saw those students who could not experience the campus and passed their first three years online because of the pandemic unlucky; that is, they could not get the chance to experience the campus with its facilities, clubs, and activities. Some students (S19 and S39) explained the meaning of being a METU student and importance of METU culture as below:

Because in university, especially if you're not from a big city, you can encounter a wide variety of different people, especially in a place like METU because it's a campus university. This actually broadens your horizon. Of course, this wasn't possible online, and that's why, as I said, people who are now in their second year still haven't absorbed the culture of METU" (S39)

Those who haven't experienced METU before the pandemic shouldn't consider themselves as METU students because there are many things they haven't seen yet. I hope they get to see them in the remaining time (S19).

Some students found the campus more crowded than before, and they speculated on the possible reasons like the students who would like to socialize and compensate the time passed in the pandemic, the quota allocated to new coming students, and/or increase in the number of students who could not graduate (S1, S23, S27, S34, and S41). One of them explained how much hunger the students felt for experiencing the campus as below:

My partner constantly tours the entire campus, wanting to see every corner.

She walks around, learns. It motivates her. Because she saw METU for a year before. But those who have never seen it. When they come, they also come with the motivation of 'no, we haven't experienced it at all for two years (S41).

On the contrary, either due to the pandemic or her not commuting to the department because of her retirement, one academic (A27) found the campus very alienated and not crowded as before. She could not find the same atmosphere where students studied together and collaborated at the canteen, which was normally quite common at departments of humanities.

Some students were anxious about the possibility of being infected with Covid-19 though they were back to face-to-face education, so they tried to keep the distance with people around and did not feel safe at first. In time, everything would return to normal (S3, S4, S29, and S34). Agreeing with the students who felt anxious about their health, one academic (A4) connected the change in university atmosphere with the transition period when the pandemic had not ended yet, and because of the risk of being infected, everybody was restless and precautionous. That caused them to take more responsibilities like checking the well-being of the students from the state system (HES codes) before exams, letting others know the sick student and asking everybody to wear masks. One of the students (S34) expressed his anxiety about studying on campus after online education as below:

There are still people who maybe hesitate to enter everywhere or any crowd. There are fewer people coming to school, using public transportation less. Even one person being sick at school or in the dormitory affects everyone like a spark igniting flames... I couldn't fully utilize the efficiency of the campus. (S34).

On the other hand, few students shed light on the practicality of staying at home not using campus facilities, which caused them to spend money and time (S23 and S45). That was why they preferred online education.

It was more comfortable than being on campus because there are a lot of hassles on campus. It's very crowded. There's no space in the library. When we're going to eat, there are long lines in the cafeteria. Even in the canteens, there are crazy queues. Online education was more comfortable (S23).

So, going to a physical school is an expense. Right now, for example, going to school means studying at school, spending your day, working in the library. Let's say using public transportation costs a minimum of fifty liras (S45).

Lastly, while one student (S38) stated that nobody should be deprived of

experiencing the campus for any reason because the meaning of being a student at university depended on experiencing its campus, some others (S34 and S41) explained the importance of experiencing the campus and how he tried to experience it thoroughly as below:

As students experience the university campus and discover it, they actually develop. I think online education hinders them a bit, but it was necessary due to the pandemic. My prayer is this: that scientists do not create more viruses, and that no one is deprived of experiencing this campus (S38).

Of course, if I were asked a hundred times whether I would prefer to go to school or live through the pandemic year, I would choose to go to school. I love the campus very much. If I had the opportunity, I would like to live on campus all the time (S34).

What I always do, regardless of summer or winter, is to walk.... Because when I walk, I feel like I am experiencing the campus. I see it. I witness the conversations. Even if I listen to music on my headphones, I see a bird passing by, or those dogs lying there. Experiencing my beloved METU in general is like this—it's a bit smaller. My daily walks of one or two hours have become something I can't do without. If I couldn't do this, I wouldn't be able to experience it (S41).

4.2.1.3. Interaction out of class

During online education, many students could reach the academics whenever they needed via emails or regular office hours every week (S2, S3, S4, S5, S6, S7, S10, S11, S13, S15, S16, S17, S18, S20, S21, S23, S24, S26, S35, S38, S39, S40, S41, S42, S43, S46, S48, and S51). The students got emails from academics indicating that they could easily get in touch with them, while online office hours helped the students to contact the academics. The students found the academics more reachable because they were in front of their computers one click away from the students, and they could get appointments on online platforms or write their questions or requests directly to the academics via chat box without waiting till the end of lessons.

Getting in touch with research assistants more easily though, some students found contacting some academics difficult not due to online education but academics' personality, technological competency or personal problems (S1, S9, S12, S25, S27, S29, S30, S31, S33, S34, S36, S37, S44, S35, S43, S47, S49, S50, S52, S53, S54, and S55). Especially for the first term of online education, there were even some academics who did not reply to students' emails for months, and the students could not find a respondent as indicated by one of them below:

This saddened us, encountering such a lack of empathy, sometimes arrogance, and at times condescension and egos. We felt there was a general lack of empathy. We actually noticed it more during that period because the pandemic brought negativity to them as well, and they probably became demotivated themselves and reflected that onto us (S30).

Moreover, the students could not be sure whether their emails submitted to those academics, so they felt shy contacting academics via email because they did not find it an effective way of communication, which necessitated some formality and more explanation in contrast to face-to-face communication.

For example, we had a misunderstanding with one of our professors through email communication. It wasn't just me; it was a difficult period for the entire class in that course. There were a lot of spontaneous things happening in our term... Things didn't run very smoothly or professionally (S36).

But now, you send an email, and depending on the time you send it, maybe they'll see it in the evening or maybe in the morning. And there's also the possibility of it getting lost among other emails (S34).

On the other hand, some students indicated that the increase or decrease in interaction depended on the personality of the academics, and their interaction did not change in online education (S3, S12, S25, S30, S35, S36, S44, S47, and 53). One of them shared their opinions as below:

The situation still varies from professor to professor. I think some of our professors didn't handle this process very well. We had difficulties with them, receiving late responses to emails, or sometimes no responses at all (S53).

However, some of the students complained about academics especially at the departments of physics and psychology for not being reachable. They even could not see or contact the academics providing the course for a term via emails or in online classes because they preferred asynchronous lessons and got help from the research assistants, so the only thing the students knew about the academics were the names of them. One student (S55) explained her experience and disappointment as below:

This was very problematic for me because I couldn't take another course from that academician and didn't even hear their voice. This person is normally very influential in our department, but I couldn't reach them at all. Even when I tried to reach them through the assistant, I couldn't. It was quite problematic (S55).

As for contacting each other, some students (S1, S8, S15, S17, S18, S21, S24,

S27, S30, S31, S32, S33, S36, S37, S39, S41, S42, and S48) did not have any decrease in reaching their peers compared with face-to-face education because they used online platforms or WhatsApp groups for personal or academic issues, but still they accepted that this could not compensate the efficiency of face-to-face interaction. One of the students expressed his feelings as below:

Even friends who had never played computer games in their lives had to start playing. We would gather five or six people, play games, and sometimes even watch TV shows or movies together. I can say that the setting changed a bit, becoming more online... But of course, it cannot be the same, at all (S34).

However, online education affected their interaction negatively because it was more difficult to collaborate with their peers in online education due to lack of spontaneity, common availability of students or technological infrastructure (S1, S4, S5, S13, S34, S42, S44, S45, S50, S54, and S55). They had to do group projects and assignments, but they had problems in online meetings, especially in sharing responsibilities for assignments and projects, and the means of communication was limited to online platforms, which also decreased their attention span, too, compared with face-to-face interaction.

On Zoom, people don't turn on their cameras, they don't react. Occasionally, you chat, but everything is very virtual. You talk over WhatsApp. You only see their name. Or you see them on Zoom, but it's very virtual. I'm glad it's over. It was truly a horrible experience (S42).

Sometimes you don't have an internet connection, or the other person's audio cuts out. Or you assign tasks to each other, but those tasks don't get done. It was troublesome. Or, for example, we have to do a group presentation, and we have to do it on Zoom. Everyone uploads their part separately, and we try to combine them. Group assignments or communication in online education were an extra burden for us (S53).

Besides that, online communication might cause some register problems for students since it lacked using gestures and tones, which necessitated some formality. Therefore, there were some students who did not prefer to get in touch with their peers unless necessary as they could not find anything to talk in lockdown period (S3, S7, S12, S14, S26, S35, S43, S46, S51, S52, and S53). Especially the ones who were not responsible for group projects or assignments did not feel the need to contact their peers; however, all students accepted that interacting less affected their personal development and psychological well-being, too.

Like, we had to do assignments, group assignments. When we finished, we would chat among ourselves for about half an hour. Or, for instance, one of our teachers in a reading-based course would make us have more discussions instead of having a one-hour class every week. We would chat once a week. We would talk. Like, we would share our troubles and sometimes play games. But other than that, there was no trace of the socializing that we had during normal times (S52).

Shedding light to the psychological problems that they experienced due to lack of socialization, the students shared their experiences regarding online education as below:

As someone who already has an anxiety disorder, I withdrew into myself a lot during quarantine. And since I didn't see anyone besides my family, after a while, I started feeling very lonely, unable to focus on anything, questioning my life a lot, and feeling unhealthy because I was so inactive (S44).

I'm constantly in my room, and I feel suffocated. My mental health is in shambles, and I went through a severe depression during the pandemic. That's why I became very distant from school (S16).

In the current face-to-face education, after a bad exam, we can lift our spirits by discussing it over tea or coffee with friends. We look forward to the next exam with more hope. We can find support around us, but when you're alone, and you see the bad exam result, you can't always motivate yourself. When this situation happens continuously over a period of one and a half years (S8).

Some students (S45 and S16) explained how interaction among the students and academics affected their psychology in online education as below:

We used to talk and discuss during and between classes, sharing things with each other. Not being able to do that was one of the most significant disadvantages. You are on your own... There was no one to discuss with or to check if you understood things correctly (S45).

In our department, there isn't much of a helping mentality, I think. Or maybe since we're a bit older, the others don't approach us much. So, my two friends and I stuck together and did everything without separating. I can say that without them, I wouldn't have been able to do anything (S16).

On the other side, most of the academics could easily contact the students, colleagues and administration (A1, A4, A9, A10, A14, A16, A17, A20, A22, A24, A29, A30, and A32), but a few of them acknowledged that it was more difficult to communicate with them, especially in the first semester, the transition period to online education (A1, A2, A10, A11, A12, and A13). Criticizing the academics for not

getting in touch with the students or the colleagues, some academics with administrative duties had communication problems with some of their colleagues (A2, A11, and A13). Interacting with the students was easier than the colleagues and persuading them for creating changes required for an effective online education.

Besides that, some academics (A2, A13, A18, and A19) indicated that there were some colleagues who isolated themselves with the fear of the illness even when they were at their offices, so it was difficult to reach them. One academic (A18) stated that even if they had online meetings, it could not replace personal ones, and so he felt isolated and reflected his loneliness as below:

After a long period, when I saw someone from the department outside, I felt like a stranger. It was as if we had been apart for a very long time. Due to this isolation, I think I struggled socially. Even talking to students and teaching, which we used to do routinely, became a source of anxiety for a while after such a long break (A18).

In addition to contacting the students and colleagues, communicating with the administration at university or with the Council of Higher Education (YÖK) was problematic in the first semester, and this led to slowing down some bureaucratic processes (A15 and A24). On the other side, one academic (A25) lost her personal space because of the online meetings held in the evenings or at the weekends, without respecting their lives. Even though those meetings could be lifesaving in emergency, she claimed that culturally in Türkiye they were not ready for online meetings and they could not spare that time to their families or to refresh themselves. Unfortunately, they still have the same problem after the pandemic.

After online education, many students and academics drew attention to the value of social interaction among the stakeholders at university (A2, A3, A4, A6, A11, A22, A23, A24, A26, A28, A30, and A31; S1, S3, S6, S8, S9, S13, S15, S17, S19, S20, S24, S31, S32, S38, S39, S40, S41, S50, and S53). The students, especially the ones who passed the first and second years of undergraduate education online, were glad to have face-to-face education, which enabled them to have interaction with their peers and academics.

Now, I talk to people I hadn't spoken to in the same department for years. Since there are so few of us left and we went through something like the pandemic, we lacked communication for so long. We talk constantly now, and it feels like I'm close with everyone in the department (S42).

I say that my friends were socially starved, and I felt a bit of that too. After the

pandemic, I became a bit more active. I also notice this around me. It seems like people have relaxed a bit about academic life after the pandemic. There's a sense of longing, and they are constantly out and traveling (S51).

Some academics and students specifically noted the importance of interaction for learning, and there was an increase in interaction among the students and academics after online education (A3, A12, and A14; S5, S6, S8, S14, S23, S51, and S54).

Especially with METU professors, not all, but most of them, have an approachable attitude without being capricious towards students. When I chat with them or greet them, I notice that they see me as someone they can have a conversation with. Talking with professors in this way makes me feel more connected to the place (S5).

Especially for departments of humanities where students did not have an opportunity to talk about the issues related to their fields outside university, having a sense of belonging to a community was a must because sharing the knowledge gained through social interaction enabled them to think critically and philosophically. One of the students associated the sense of belonging to the department with the strong bond that they formed with the academics, whereas one academic explained how the students benefited from interaction with their peers and the academics at the department as below:

I went to the Humanities building. Which professor is there? I can ask something there. All the professors' offices are side by side, after all. It's a corridor. You knock on the door, and the professors are there. There's instant communication (S34).

There's a need for people who enjoy texts written 2000-2500 years ago, and those people won't find friends on the street or people who enjoy discussing these topics... Without these interactions, doing philosophy by yourself at home is like reading the Bible alone in a monastery (A30).

In addition, some others (A4 and A30; S17, S41, S44, and S54) noted that interaction helped the students to overcome psychological disorders and loneliness, as well. One of the students explained how she lost the sense of time and had difficulty in organizing her studying time without the support of her peers as below:

The whole day felt empty, and dividing my time was very hard. In the past, I would come home from school, rest a bit, then sit down to study, and later in the evening, I might go to the movies with my friends. Everything had its place. But the emptiness during the pandemic prevented me from dividing my time

and, consequently, led to my inefficiency (S54).

One of them explained how he benefited from interaction with his peers and academics as below:

For instance, the conversations I had with people during the nights we spent at Devrim (the Stadium) were very important. I believe that being nourished by people is extremely important. For example, Clare, who is now one of my closest friends, is in her seventies. We meet every week... However, in online education, one cannot have such an experience because they would never meet someone like Clare face-to-face, have a two-hour conversation, and share a moment of crying together (S41).

Even though some academics (A4, A23, and A27) found their students more motivated when they came back to school, there were some students who felt a bit alienated claiming they were unfamiliar with people at the department and so felt alone (S16, S34, S37, S40, and S47). One of them explained their feelings as below:

But of course, in a department with seventy or eighty people, many of whom went very far away, there were friends I didn't see for a long time until the school reopened. I didn't see some of my friends for a year and a half. I saw them for the first time this past September. Because of this, it wasn't a pleasant experience (S34).

Even though there were some students attending classes, they did not want to collaborate with their peers. Even though many of them were in need of socialization, one academic (A31) stated that cooperation among the students dropped compared with face-to-face education. As a negative impact of the pandemic, the students could not meet and know each other, so they became more individualized as explained by a student below:

The university environment changes in this way: being away for two years causes many connections with people to weaken. Many of the social bonds you formed in the past are forgotten within the first year... I used to have a lot of friends, but now I have no communication with any of them. For the past two years, everyone has been focused on their own lives, and I think this has led to a change in the campus experience for me (S37).

One of the students drew attention to the practicality of using technological platforms to contact their peers easily and fast after the pandemic as below:

For example, using online platforms has now become radically more common. When there's an event, news spreads instantly through all the WhatsApp groups... For instance, people can quickly coordinate and share updates like "We'll be at the physics lawns at noon" or similar messages (S41).

However, there were also some students and academics complaining about communicating with each other via virtual platforms, which caused them to become alienated from each other (A2, A5, A22, A27, A30, and A32; S20). They claimed that relationships and interaction between the stakeholders weakened because all parties realized that they could deal with any issues without contacting in person, and did not prefer to drop by the school if not necessary. One of the students reflected her thoughts as below:

Because it's become a habit, they end up doing things on their laptops or getting engrossed in their phones to reach out to each other. Imagine, my friend from another dorm sometimes video calls me to chat. Why doesn't she come to hang out and have tea? Why does she just video call me? This is the mindset people have gotten into (S20).

During the transition period when HEC allowed 20% of the courses to be continued online, elderly academics or the ones with chronic diseases used that option and stayed at home, which was found reasonable among the colleagues. Being afraid of getting infected, academics did not meet at the departments' cafes or university's cafeterias. They even brought their own food from homes, continued online meetings, and used masks and kept the distance. This caused them not to have traditional lunch gatherings or tea time meetings, and so sharing and caring sessions, which helped them unite and take actions against any issue they realized at university. One academic reflected his sorrow for not having the same atmosphere as before:

The habit of spending time in the department has decreased. For instance, we used to have afternoons where everyone would come to the tea room, have their tea or coffee, chat, and discuss daily matters. Now, that's gone... I haven't seen even my closest friends for one or two months at a time. It's because of the habit of thinking, "I can do it at home," similar to students not attending classes... However, there was always something gained beyond just doing our work here, even in simple conversations (A19).

In addition to the interaction with the students, the academics (A1, A2, A3, A5, A7, A11, A14, A16, A17, A18, A19, A20, A22, A23, A24, A25, A27, A28, A30, and A31) put forward to the decline in interaction among the colleagues as well for various reasons such as feeling uneasy, individualization, isolation, lack of motivation and energy, and so not having cooperation and harmony among them. Having administrative duties during and after pandemic, some academics (A2, A11, and A13) complained about the difficulty of reaching the academics compared with before.

Criticizing her colleagues for not coming to university or putting an effort to interact with students as well as causing alienation among themselves at the department, one of them shared her concerns and experience as below:

You go to the department, and it's like a ghost town... Most professors aren't even in their offices. There are no professors or students around; everyone has become distant, and that sense of unity has disappeared... Students are even suggesting meeting up with me – in 38 years, it's the first time I've encountered such a request. When I ask what we'll talk about, they say they just want to have general conversations. They feel a need for discussion. The department professors, on the other hand, act very aloof; none of them are concerned about the students (A27).

Not only due to pandemic but also because of political and economic reasons caused both the colleagues and other personnel to pull themselves away from each other and to lose touch with one another. Getting used to individually determined working hours and home-office atmosphere as well as realizing that they could meet their responsibilities online, some academics became more individualized and did not prefer to work at their offices or university even a year after the pandemic, causing them to be uninformed from each other.

The academics (A7, A11, A13, and A23) who also had administrative duties especially complained about those academics, mostly elderly, unwilling to drop by their offices because they could not be reached by the students virtually or in person, and wished to revert to their old days. On the other hand, some academics (A3, A25, and A31) drew attention to another negative effect of decrease in interaction among the colleagues and stated that both research and education were interrupted because they could not improve themselves with the help of cooperation and collaboration they had before the pandemic. One of the academics reflected the decline in interaction among colleagues and with students as below:

Before the pandemic, we were very active and productive... So, now I'm starting new projects again, bringing in students, training them, and forming groups. This pandemic-impacted education, continuing as it did, inevitably caused disruptions. For instance, we used to have international visitors, and we would also travel. During the pandemic, none of this happened. Once a chain breaks, it's hard to reconnect – it takes time (A15).

Lastly, there were some procedures carried out online as a permanent effect of online education like course approvals, attending seminars and thesis monitoring

committees. As for the course approvals which continued to be online, some academics and students expressed their satisfaction because of its comfort and practicality for eliminating being present in person (S29 and A32), but as stated by one academic (A19), face-to-face course approvals normally enabled them to have a chance to chat with the students, so they could direct them both academically and personally. However, online course approvals prevented an interaction like that between them, and so the guidance they could provide. Therefore, the academics suggested that the university should take an action against online course approvals by asking for the consensus of the stakeholders. Still, one student talked about the benefits of such online applications as below:

I remember buying a ticket to Ankara for course approval because my professor hadn't replied to my email... Just ten minutes later, he emailed saying he had approved it. They've realized that these things can be done online. This includes submitting reports and documents. I'm pleased they've recognized this (S29).

Meanwhile, some academics (A6, A11, A14, and A19) went on with online meetings like seminars and conferences, thesis monitoring committees and supervision sessions for the graduate students, which helped to save time and money spent for accommodation and transportation. In addition to the academics, some students were glad to have online seminars and courses as well (S24 and S39). On the contrary, one academic (A28) insisted on face-to-face courses, meetings and seminars to continue as before online education because he did not believe in their benefits. He claimed that both the academics and the students were willing to forget about the effects of online education, and they wanted to have face-to-face interaction and to attend seminars and meetings in person.

4.2.1.4. Extracurricular activities

Compared with face-to-face education where students had a chance to live on campus, participation of the students to extracurricular activities dropped or interrupted dramatically. Some of them stated that they gave up activities, courses and seminars that they attended in and after online education (S2, S3, S8, S10, S12, S13, S14, S16, S22, S23, S25, S28, S30, S31, S36, S37, S39, S40, S41, S43, S44, S45, S46, S48, S49, S50, S51, S54, and S55) due to unwillingness and demotivation of using online platforms to socialize or being busy with issues of graduation after the

pandemic. Some students explained how the pandemic affected extracurricular activities as below:

Before the pandemic, I was involved in three different student groups, and I was even on the board of directors for one of them. However, during the pandemic, the group where I served on the board became inactive, and due to personal issues, I lost interest. I also had to leave another group because I couldn't accompany them... Plus, I never really liked using computers, so during this period, I hardly ever turned on my computer (S40)

I'm currently on the board of a club at METU, and I was on the board during the pandemic as well. I can say that all our club activities came to a halt during the pandemic. We didn't do anything, and I haven't heard of any clubs that did (S50).

I was much more active in student groups. I was a board member of one group and tried to participate in events organized by other groups like the socialist and archaeology clubs whenever there were activities I liked. However, during the online period, it seems these activities were disrupted, and it took our group some time to adapt. That period felt quite empty (S54).

While they were quite active in various student communities like musical, theater and the department clubs before online education, later, they preferred courses or seminars regarding academic and professional development instead as noted by one of them below:

I was very active, in fact, I participated in both clubs and fine arts courses since preparatory class. Now, I'm worried about graduating, and because nothing is the same as it used to be... In my last semester, I was just a plain old student (S16).

On the other hand, while there were some students who were already inactive in extracurricular activities before and after the pandemic (S17 and S21), there were some others who continued to participate in extracurricular activities online as actively as before the pandemic (S1, S4, S5, S6, S7, S9, S24, S11, S26, S27, S38, S51, S52, and S53). For them, extracurricular activities were not interrupted because of the pandemic, and they continued organizing and attending them. One of the students shared his extra-curricular experience as below:

I participated in club activities and I'm a member of the chemistry club. During the pandemic, the only non-course-related activities were related to the club... We tried to transition our previous face-to-face conferences to online platforms and attended them, but apart from that, there weren't any extracurricular activities (S6).

There was not any disruption in the activities of clubs which carried out online gatherings as shared by one of the students below:

I had been a member of a student club, the fantasy club... We had wonderful activities that people from different places could engage in by chatting, such as book discussions, TV series and movie discussions, or fantasy role-playing games, all of which could be managed remotely through conversations (S26).

However, depending on the nature of some clubs and communities, there could be times when the students had difficulty in meeting and carrying out the club activities online because of the inadequacy of online communication tools or the inexistence of available places to carry out activities, especially for sports clubs such as orienteering, hiking, and travelling (S1, S3, S4, S5, S6, S7, S9, S11, S24, S26, S27, S28, S38, S51, S52, and S53). Some of them shared their views as below:

No productive work was done in community activities or other artistic endeavors... For example, I'm interested in music, and when I had to rehearse with someone online, there was a delay in the conversation. The online situation made things difficult (S3).

Before Covid, I used to participate in clubs. I attended a club where I took baglama lessons, I went swimming, I did sports, but after Covid, everything stopped (S28)

Being aware of the importance of attending social clubs and communities on socialization, the students (S4, S5, S20, S32, S33, S34, S51, S38, S42, S53, and S55) shed light into the positive effects of extracurricular activities on their motivation at a tough time when there was not any opportunity to meet people in person and to form social networks without the help of online platforms. Some of them expressed their feelings about attending student clubs as below:

Apart from classes, I only had my club meetings... Those meetings were very motivating, and we would talk until around 5 in the morning. Other than that, I didn't engage in any additional activities (S33).

I joined a new club at that point, and I made a few friends there. It was beneficial for me because it was a science fiction and fantasy club where we played games online, allowing me to distract myself from everything else (S55).

For some students, attending extracurricular activities was a lifesaving experience under the pandemic conditions. Therefore, they tried to increase the

activities that they participated in so as to keep their mental health and gain new insights. Some students shared their experiences as below:

I was the president of the Chemistry Society at the time, and I spent most of my time on that. I satisfied my need for socializing through it. As I mentioned, I had also set up a website, which contained articles on science, culture, art, and philosophy. I was producing content for it. I was dedicating more time to software development as well. But was I socializing a lot? No, compared to the current period or the pre-pandemic period (S4).

During the peak of the pandemic, I started working at the association. We had another project, and I became a team member of that project as well... I would attend one meeting one evening and another meeting the next evening. I managed to handle things through those meetings... But it taught me a lot (S55).

One of the students activated the department club so as to increase interaction among peers while the others formed online platforms for extracurricular activities so that they could meet new friends.

The history club in our department was inactive. We made it active again with our friends... But we invited professors via Zoom at the same time as the school. We organized a journal and other school activities (S34).

We used Zoom and Google Meet in the same way. In the second semester, my friends and I established a social platform called "*Maskesiz Kütüphane*" (Maskless Library)... After midnight, we chatted and socialized as much as we could. There were participants from other universities as well... Students from dentistry, medicine, sociology, and other departments participated (S40).

In addition to overcoming psychological problems and forming stronger bonds with their peers, with the help of national and/or international extracurricular activities as well as seminars and conferences, the students could also have a network with people around the world in online education (S35, S38, and S51). One of them reflected his satisfaction with those events so that he could gain different perspectives in life as below.

There were some panel discussions organized to promote a university in the UK, but before that, one of the academics from there arranged a 45-minute lecture followed by a Q&A session... During the online period, we were able to see, learn, and experience the systems of universities abroad, which was a valuable experience that the pandemic brought us (S35).

Finding attending seminars and conferences highly practical, some students

(S2, S3, S15, S18, S20, S26, S29, S32, S34, S35, S38, S42, S46, S47, S52, and S55) became more active and joined extracurricular activities that they could not attend normally due to lack of financial resources or time. They used the advantage of online platforms to attend them, not necessarily organized by the university but other out sources. One of the students explained how he could deal with his hard times in online education as below:

I attended online trainings, seminars, conferences, meetings, and talks that were not available on campus. After that, I took Italian lessons online and reached an intermediate level. Besides, I was part of the METU Green Society at that time, but now I've switched to Star Dance. It became my biggest source of motivation. I was experiencing significant traumas at that time, and Italian and online dance classes were the most motivating things for me. They helped me stay on my feet during those challenging times (S38).

Moreover, the students realized that they could reach all those seminars and conferences on the Internet and watched them when they were available. They explained how it made them feel active and good only to try each and every event or activity out as below:

Actually, the pandemic increased my involvement in clubs and societies. It fueled my enthusiasm. You might not see it overall, but I decided to join various clubs like the cinema society and others. I joined all of them because it was so easy—you just click on a link... When the pandemic was over, I immediately dove back into clubs and societies to experience face-to-face interactions again. (S42).

Being online made it easier, whether they were paid or free, as it saved me from the hassle of going somewhere. I didn't have much conference experience before the pandemic, but during this period, I participated in many events, received certificates, and learned a lot. So, in that sense, it was quite beneficial (S29).

4.2.2. Views of the Undergraduate Students and Academics on The Changing Nature of the University

Regarding the views of the undergraduate students and academics on the changing nature of the university, the data revealed five categories: education, instruction, research, specialization in a profession, and reforming the society. Under the category of education, there emerged value-education as a sub component.

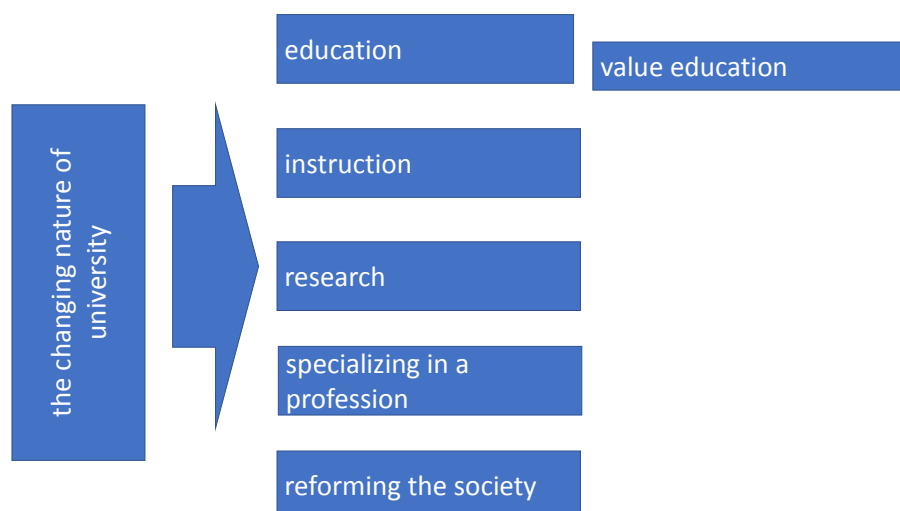


Figure 17 Categories regarding the Changing Nature of University

Depending on visions, economic status and political stance of countries, the aim of university was very comprehensive varying from value education to autonomy, from education to research, from gaining a culture to specializing in a profession. The students and academics noted that even though, basically, university was for producing science and research, it was more than that because it helped people to have a vision in life, to broaden their horizons and to develop a common sense in addition to being a place to gain a culture and serve the society (A1, A2, A3, A6, A7, A9, A10, A11, A12, A14, A16, A17, A19, A20, A21, A22, A23, A25, A26, A29, A30, A31, and A32; S4, S5, S6, S9, S13, S14, S16, S26, S27, S28, S29, S32, S33, S34, S38, S42, and S51). One of the students summarized their views as below:

It is a place in Türkiye where many people associate with acquiring a profession. For those who want to get more out of university, it's a place where they can develop themselves in various ways... There's a university culture where you experience life by learning from various individuals and professors. It's a place where you can become more equipped to face broader and more significant questions about life, such as how to approach certain situations and how to lead a better life. However, none of these things happened with online education. They merely provided some information through the computer. We received this information and then were tested on it (S14).

In spite of political pressure upon university to bring up plain and obedient citizens, the university should be an autonomous institution encouraging curiosity, and so prompting social awakening and enlightenment for reforming a society. Therefore, the aim of university was to grow people as social beings who were intellectual,

independent and respectful, who had reasoning skills and wisdom, and who were sensitive and critical towards the community they lived in. One of the academics reflected her thoughts as below:

University has an educational purpose, but don't we actually have a much broader mission? Isn't it about ultimately instilling certain values in children and integrating them into society with respect to the ethics and societal values of society? It's about fostering individuals who respect each other as human beings, who can solve technical problems when needed, who can express themselves, and who can work within a group with their friends, all of which are crucial skills in the business world or wherever you go (A3).

One of the academics (A31) claimed that it was once religion affecting the values of people, but then it became the university which needed to provide value education, and so to play a significant role in determining how people should live. Sharing the same views, another one (A12) criticized both the country and the university for not being aware of the mission of university even before the pandemic, and despite not so in reality, university needed to be a place to help reconstruct the society. However, unfortunately, many universities in Türkiye did not carry out that mission because universities in Türkiye were not autonomous institutions (A12 and A25).

Along with value education, both the academics and students (A1, A2, A3, A4, A8, A11, A12, A14, A23, A25, A26, and A30; S4, S5, S6, S9, S13, S14, S16, S26, S27, S28, S29, S32, S33, S34, S38, S42, and S51) indicated that the university provided a sense of belonging and helped to form a culture with the help of its campus. The pandemic interrupted their mingling in the culture of METU and turned them into human beings who only studied and passed exams as if they had been still in high schools. They became more possessed with academic achievement so as to prepare for their profession and get a job.

However, the university was more than that, and online education could not enable that culture. One of the academics explained the aim of university as gaining a culture more than getting education as below:

If we talk about the purpose of university education, yes, we can provide education online with the same quality, but we can never impart values and cultural elements to students in the same way. When we communicate like we are now, it fosters respect and communication, and at the end of the day, what do we have? We learn how to treat each other accordingly. But when we have no communication with these students, it's entirely individual, both between us

and among themselves (A3).

In order to form that culture, stakeholders needed to experience life on campus together so as to learn from one another and reform their personalities (A1, A2, A3, A4, A8, A11, A12, A14, A23, A25, A26, and A30; S4, S5, S6, S9, S13, S14, S16, S26, S27, S28, S29, S32, S33, S34, S38, S42, and S51). After online education, the academics and students clearly realized that it was not only a place to get education and become professional at an occupation, but also to experience life and transform into sensitive and intellectual human beings. They broadened their horizons by means of resting on the grass of campus, walking in the path called *Yalıncağ*, attending students' protests, using facilities like the library, sports centers or cafeterias, knowing how to hitchhike or to wait in a queue, calling each other '*hocam*', organizing spring festivals, smelling the lamb at the library, having graduation ceremony at the stadium called DEVRİM and protesting the government and administrative units. Therefore, they claimed that especially for METU, university would be meaningless and deficient without its culture, which transforms them to another being into a melting pot, and they were at that university for the sake of gaining its culture, experiencing life on campus and interacting with people having different perspectives and life styles. One of the students summarized their thoughts about METU culture as below:

During the Covid period, I was saying that we don't just go to university to attend classes. I meant the things I encountered while walking from my department to the cafeteria, such as events, activities, or someone singing, sitting on the grass, and all those things. I was saying that university should be all of these together...For me, university is not just a place to attend classes; it should also be like a home with all its members and all its thoughts, along with all the posters I see (S28).

Acknowledging that knowledge was easy to be reached everywhere via online sources, the academics and students stated that online education helped them realize once more that academic heritage could not be provided by online education, and university education could not be carried out without interaction as in face-to-face education, which set ground for reforming the society (A31; S24 and S51). This was because university was a place where stakeholders could have a chance to see each other's faces in person, learn from each other, and gain critical and analytical thinking skills. Besides that, university had another mission like helping the students become autonomous to satisfy their curiosity and to use that knowledge they could reach from

various sources after graduation. Some expressed their thoughts about the indispensability of face-to-face education as below:

Because the material is everywhere now. Knowledge is everywhere. You just sit, read the book, come to the exam. Take the exam. You'll pass anyway... But university should be more than that. University should provide a worldview. It should really add something to life. If that part is missing, then it becomes just like a training course (A31).

University is a place for learning and self-improvement, not just for finding a job... My teacher told me that I shouldn't skip class and should stay awake. How lucky. These things made me think, made me question. Why is he calling me? Saying, "Come to class, don't miss it." For example, there were times when I learned when I participated in the first class and thought, "What else is being taught here?" (S17).

In line with the academics, the students (S1, S2, S7, S11, S17, S23, S31, S34, S39, S40, S41, S43, S44, S45, S47, S53, and S55) were aware that university was a place to prepare for life, gain a vision in life, and step into adulthood. Experiencing undergraduate years at university, they became independent, intellectual and sensitive people compared with the times when they came to university at the age of 18. They also noted that METU was a university which was preferred and chosen by students on purpose, not randomly, since they had their goals and dreams while enrolling there. By interacting various people from different cultural and social backgrounds, and religious beliefs, they could gain new insights and learn values such as love, empathy, sympathy, respect and sensitivity. At the same time, they discovered themselves, evaluated their own beings, and put themselves at a place in the society. Therefore, they used some metaphors regarding the aim of university and explaining METU like rebirth, personality formation, finding their place and value in a society, living in a bell-jar and being a fish like out of water at the beginning of university life. One of the students explained the role of university on personal growth and development and how online education affected it as below:

It's a place where one can recognize their mistakes, add new aspects to themselves, and shape their personality. And this doesn't just happen through academic processes. In fact, it's more about social environments... In this regard, I believe the biggest shortcoming of the online period was in terms of socialization... We couldn't talk about any personality development. We couldn't talk about learning new things socially during the online period (S55).

Yes, it definitely changed. For me, it was always like an academy, something that prepared me for my profession. I never thought of it in terms of social

relationships or community. But especially during the pandemic, when the effective side of this was highlighted, I understood that it's not just about grades (S50).

I believe university is a place where one can become more knowledgeable about how to live life, beyond just professional or tangible benefits, by learning from various people and professors, generally about how to approach life, what to do, what would make life better, and so on (S14).

Online education deprived students from having aforementioned opportunities and left university as a plain place where students could only focus on academic and professional development. For the students (S3, S10, S15, S18, S23, S25, S29, S33, S34, S35, S36, S37, S39, S45, and S46), university was a home for producing knowledge by means of research, and they studied at university for academic purposes and so being intellectual. However, because they did not have any other options than studying without experiencing the atmosphere of the university in online education, after the pandemic with changing economic conditions, it became more like a place to get educated and expertise in a profession, and so get the diploma to find a job using the name and prestige of the university (S9, S13, S23, S26, S27, and S53). Some students explained how their perspective regarding the nature of the university changed after the pandemic as below:

Now, especially since I've reached the final years, due to the disappointments we've all experienced, especially with the pandemic, I feel like the idealistic view of university being for education, for academia, has been somewhat damaged. It has become more like something we need to complete. We need to get a diploma now (S37)

I believe I was a much more idealistic young person before I attended university, before the pandemic. Because being here was everything to me... But after I returned, it started to feel like just for something here... It's for the diploma... I believe the functionality of this place has diminished a bit due to the pandemic. So, its reflection on us is that it's become an instrumental institution (S53).

One of the students summarized what university meant to him before and after the pandemic considering other issues leading to the change at university atmosphere like lack of extracurricular activities, support from administration and interaction among students as below:

Before the pandemic, for me, university wasn't just about education, it was about more than that... You should grow as an individual. You should grow socially. You should grow in terms of romantic relationships, make art, do

something... I think we lost this during the pandemic. We don't have any sports activities left; no art activities left. Communities are trying to revive these, but we know they haven't received any support from the administration... It made METU focus more on academic success (S16).

Sharing the same views with the students, some academics (A1, A24 and A26) concluded that due to social disconnection among the academics and students, the purpose of university minimized only to one dimension: education. They were suspicious about whether those years could be compensated, and they claimed that the aim of university was at risk of change for some others (A1, A8, A15, A27, and A30; S14 and S17). University was normally a part of their living, and they were deprived of it like students in online education, so they would like to keep the aim of university as before, which was more than education and research, bringing up individuals who had critical thinking skills, ethics, and intellectual knowledge. By restricting the aim of university only to education and research, online education also caused academics to underestimate their mentoring skills and turned the university into a mechanical organism which gain money from research. One of the academics explained the role of academics in line with the aim of university as below:

There are two aspects to it: the research and the teaching dimension. You're training individuals with critical thinking skills, a certain moral existential condition, and a certain body of knowledge. When this is done remotely, teaching is reduced to just giving out information like a pill, or you become just a researcher, and your worth is judged solely based on your publications...there's a danger of the university turning into a soulless structure where it receives a budget in exchange for providing information and receives another budget for publishing (A30).

Likewise, some students (S22, S35, and S41) shed light on another perspective of university, which was more pragmatic; that is, they named it as a financial source for producing and selling knowledge. They got the advantage of being at university and before graduation, they tried to gain as much experience as they could for professional development like learning languages, doing research and increasing the quality of their resumes. One of them criticized that universities could not get enough budget to produce knowledge, so instead of universities, companies produce that knowledge by hiring employees educated and qualified at universities. Therefore, university was not for producing knowledge but bringing up employees who would produce knowledge for businesses, as noted by one of the students below:

Generally, technology is now being developed by private companies. They hire people from universities and train them again to produce something for them... Similarly, most of the changes that shape the world now don't come from universities. These are being given through companies. I think universities have become places that primarily prepare people to produce science. Because you come out of here basically and then after mastering the field you work in, you can produce something (S35).

In addition to problems with the budget of universities, one student drew attention to another issue: the opportunities of state and private universities (S53). She claimed that the pandemic caused them to look at the issue in a more pragmatic way and question being a METU student: evaluating the pros and cons of it for their careers. To illustrate, even though there seemed to be many professors at their department, they could only take courses from half of them, which led to disappointment among students who intentionally preferred to study at METU instead of a private university where they could find many opportunities of education and network. At the end, they realized after the pandemic that graduating from a private university would be more beneficial for their professional life, which led them to see the aim of university as having networks which enabled them to get a job.

Another student explained how her perspective of the university changed from an experience to a tool or a stop due to the pandemic as below:

University used to be an experience for me when I first came to university... I have to make money, you know. I have to keep my grades high so that when I apply for a master's degree, it's good. This political atmosphere is great for all of us, including me... I'm very goal-oriented now, my goal is to finish this, then move on to the next one, and then the next one. Let the university be over. Apply for a master's degree. Go and so on. So, it's become more of a tool than an experience (S41).

Lastly, some academics believed in the need of determining the aim of university and redefine the concept of university after online education (A7, A23, and A24). They stated that instead of focusing on ranking or publishing articles on popular journals, universities should emphasize production, reconstruct the society, and consider integrating perks of online education. For those academics, the aim of university could not change due to online education. Despite lack of infrastructure or ineffective teaching methods, the whole world had to experience the pandemic, but university could overcome educational issues arouse during online education and keep

the worth of education as it was before.

It's just that the methods to achieve our goals here may change. And I don't think a lot will change in the concept of university. I mean, one might have thought, will the function of the university decrease from now on? Will many things be done remotely? My opinion is no (A6).



Table 6

The Summary of the Nonacademic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19

Nonacademic College Experiences		
	Before	During
	a more democratic atmosphere; a sense of unity; more toleration and collaboration; more interaction among stakeholders	a disruption of university culture without any cultural transfer between generations caused by lack of interaction among stakeholders and the attitude of upper administration
University culture		a cultural gap between freshmen and seniors; not assimilated students having misbehaviors like being rude and disrespectful, being persistent and reacting insensitively to certain occasions; drop in toleration and collaboration; loss in unity and a collective consciousness
University Environment		
Campus life	benefiting from activities and facilities on campus	being acrid from activities and facilities on the value of the campus appreciated; alienated and not crowded, at the same time crowded than before because of the students who would like to socialize and compensate the time passed; the campus neglected and disordered
Interaction out of class	available conditions for interaction among the stakeholders	no problem to contact with peers depending on the availability and technological infrastructure, but problem with some academics, especially in the first semester; drop in interaction among stakeholders
Extracurricular activities	more participation; more unity thanks to student clubs and communities	drop in participation compared with before; busy with issues of graduation; less unity
		dropped or interrupted dramatically; increase in attendance of courses or seminars; unwillingness and demotivation for using online platforms

Table 6
The Summary of the Nonacademic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19 (cont'd)

Nonacademic College Experiences		
Before	During	After
Perceptions of the Undergraduate Students and Academics on the Changing Nature of the University		
value education; education and research; specializing in a profession; reforming the society	inadequate value education due to lack of interaction and socialization on campus; restricted only to education; specializing in a profession rated; increase in doing research	value education more appreciated: intellectual, independent and respectful individuals; reforming the society

4.3. Summary of the Findings

The findings of the study revealed two main themes: academic college experiences of the undergraduate students and academics and nonacademic college experiences of the undergraduate students and academics before, during, and after Covid 19. Regarding each main theme, below is the summary of the findings.

4.3.1. Academic College Experiences of the Undergraduate Students and the Academics before, during, and after Covid 19

✓ Instructional practices

- Perceived stability in goals and objectives: Even though the shift to online learning necessitated a change in goals and objectives, the perception of the academics was that goals and objectives were the same as before, and they were kept after the pandemic.
- Undesirable content limitation: The shift caused lack of content, especially in applied courses, which could not be compensated after the pandemic.
- Personalized teaching and learning: Teaching and learning approaches differed from one person to another. Each student or academic found his/her own unique way of handling online teaching/learning regarding course delivery, applied courses, teaching and learning strategies, and the use of the library. After the pandemic, though insights thanks to online learning were gained, ‘back to the basics’ were considered as a must for the sake of interaction.
- Process-oriented assessment favored: To ensure reliability, the type of assessment became more process-oriented and continued so after the pandemic. Exam reliability could not be ensured, and face-to-face exams were seen as a necessity. Besides that, oral exam, used as a security measure, was quit after the pandemic.

✓ Characteristics of the students affecting college experiences

- Lack of infrastructure/adequate computer literacy: Having lack of technological infrastructure caused the students to face problems in courses and exams, which caused stress to them.

- Psychologically overwhelmed students: The students did not have enough social support to handle online learning smoothly, and their psychological conditions were affected dramatically. After the pandemic, they tried to overcome that burden with the help of socialization and campus life.
 - Increase in learner autonomy: despite the struggles, self-paced learning helped the students gain learner autonomy. Still, their need for the mentoring of the academics did not change before and after the pandemic.
 - Inflated grades: increase in the grades did not correspond to increase in academic achievement. Instead, it created concerns about the background knowledge of the students, which was lacked due to online learning and could not be made up for after the pandemic.
- ✓ Characteristics of the academics affecting college experiences
- No online education literacy: the academics were totally unprepared for such an emergency, and they did not have any experience in online learning before.
 - Adequate infrastructure/lack of computer literacy: having lack of computer literacy caused less effective course delivery and increased the workload of the academics while adapting to online learning.
 - Burden on the shoulders of the academics: the academics were adversely affected by online learning due to the lack of interaction with the students and the balance that they tried to find between their personal life and the heavy workload.
 - Less job satisfaction: the academics had difficulty in mentoring the students and conducting interactive lessons, which caused them to feel less satisfied as an educator.
- ✓ Views of the students and academics regarding online learning
- Strongest aspects: Flexibility of time and place to access various sources of information and people was regarded as the strength of online learning for both the students and academics. While the students

counted increase in learner autonomy and process-oriented evaluation as the strongest aspects, the academics considered integration of technology and having an achieve of courses as the strongest.

- Weakest aspects: The deterioration of student psychology due to lack of interaction, exam reliability, and inadequate technological equipment and infrastructure were considered as the weakest aspect of online learning. While the students also noted personal problems, the academics stated unpreparedness to online education as the weakest aspects of online learning.
- Perceived future implications of online learning:
 - indispensability of face-to-face education for interaction
 - applicability in some fields of study and occupations
 - inapplicability for assignments and applied courses
 - need for effective technological integration
 - need for in-service training programs
 - need for considering student feedback
 - a way of gaining an income via online courses and certificates
 - saving time with the help of recordings of the courses

4.3.1. Nonacademic College Experiences of the Undergraduate Students before, during, and after Covid 19

✓ The University Environment

- University culture: A disruption in university culture occurred because of a lost generation whom cultural transfer could not be transmitted to and because of the change in the attitude of upper administration. Having a sense of unity and democratic atmosphere before, the students became more individualized and lost their collective consciousness during the pandemic. After that, they had difficulty to form that unity due to the cultural gap between freshmen and seniors. Moreover, not assimilated students showed misbehaviors.
- Campus life: benefiting from activities and facilities on the campus before the pandemic, the students got acrid of the university campus and realized its value. After the pandemic, they tried to compensate the

time they lost with the help of socialization on campus.

- Interaction out of class: without much chance to interact with their peers and academics as natural as before, the students found the interaction online superficial and difficult due to technological problems. The decline in interaction out of class continues after the pandemic for some time because of individualization, isolation and lack of motivation and energy.
 - Extracurricular activities: not being as active as before, student clubs and communities could not carry out their activities and meetings in online learning, and participation dropped sharply due to unwillingness and demotivation for using online platforms. Instead, the students inclined to online courses and seminars related to their fields that they normally could not attend due to financial issues. After the pandemic, despite activation of those clubs and communities, the drop in attendance still continued.
- ✓ Perceived Changes in the Nature of the University
- Whereas the mission of university was seen more as instruction and research as well as specializing in a profession before, education, specifically value education, which played a role in reforming the society, was considered and appreciated as the main mission of the university after the pandemic. This was because online learning restricted the university only to instruction due to lack of interaction and socialization, causing the stakeholders to reconsider its mission.

CHAPTER 5

DISCUSSION

This chapter presents the discussion of the findings, implications for practice and implications for further research.

5.1. Discussion of the Findings

In this chapter, the findings of the study in relation to the main research question and the sub-questions are organized under two headings: academic college experiences of the undergraduate students and academics before, during, and after Covid-19, and nonacademic college experiences of the undergraduate students and academics before, during, and after Covid-19.

5.1.1. Academic College Experiences of the Undergraduate Students and Academics Before and After Covid-19

College is as a valuable place for students to take the advantage of various facilities and resources and to actively attend academic and nonacademic activities, which improves intra-personal development and interpersonal communication skills (Bai et al., 2022). Both academic and nonacademic college experiences were affected due to the emergency remote teaching (ERT) caused by Covid-19, which led to not only the prohibition of physical lectures but also the inapplicability of using facilities like libraries, laboratories, sports activities as well as a change in communication channels (Aristovnik et al., 2020; Cao et al., 2020). Covid-19 indicated that digitalization at university was inevitable and provided an opportunity for the stakeholders to experience the strengths and challenges of online learning in such an emergency to consider it for future implications regarding academic and nonacademic college experiences.

In the pandemic, instructional practices, specifically ERT was adopted because of the instant instructional delivery shift from face-to-face education to online learning, which did not provide any chance for much planning and deliberate attention required for online learning in terms of teacher preparation, infrastructure, education policy, and resources as indicated by other studies (Bozkurt & Sharma, 2020; Hodges et al.,

2020; Thackaberry, 2020). Therefore, instructional practices directly affecting academic college experiences of the students were determined and applied without much preparation and readiness. Moreover, the characteristics of the students and academics affecting academic college experiences were also disturbed by Covid-19. The study pointed out some crucial findings regarding aforementioned academic college experiences as noted below.

5.1.1.1. Instructional Practices Before, During, and After Covid-19

Finding themselves in emergency remote teaching all of a sudden, the academics could not spend much time considering instructional issues like course goals and objectives, content, teaching and learning strategies and lastly measurement and evaluation as well as having any chance to get feedback from the students regarding those issues. As the study revealed, the academics tried to keep the same goals and objectives as before Covid-19 because they wanted to achieve and fulfill the same goals and objectives during ERT in order to provide the same high quality of education as before. However, as pointed out by Biggs (1996) and Martin et al. (2021), goals and objectives were needed to be adapted to online learning and to be aligned with instructional practices. Even though academics thought that they did not change goals and objectives or they could not pinpoint exactly what they changed terminologically, the shift to online learning caused them to change their instructional practices, and indeed the goals and objectives of the courses, as well. After the pandemic, they set the same goals and objectives as before the pandemic.

In line with the study of Karalis and Raikou (2020), another issue pointed out by the study is that ERT caused a lack of content in courses compared with before. For the first semester of online learning, content could not be covered as planned due to unpreparedness and uncertainty of the situation. The only thing done was to meet the demands of the courses as much as possible as proposed by ERT, which was also noted by other researchers (Bozkurt & Sharma, 2020; Hodges et al., 2020; Thackaberry, 2020). For the following semesters in online learning, the same content was tried to be kept in order not to cause lack of knowledge for courses in their undergraduate degree. There could even be an extension of the content at the departments of humanities like the integration of up-to-date topics or using more sources and materials thanks to technology. On the other hand, applied courses were suspended due to the

unavailability of using laboratories or doing field practices. After the pandemic, the same content, only with minor changes like adding up-to-date topics at the departments of humanities, was held by the academics.

In addition to course goals and objectives and content of the courses, ERT caused a change in teaching and learning process. As stated by Yang (2017), online instructional strategies consist of some elements like (1) endorsing interactivity through asynchronous and synchronous communication or delivery; (2) facilitating the application of concepts; (3) using video demonstrations; and (4) conveying a strong social presence or a sense of belonging to a learning community. At that point, interactivity was tried to be endorsed by the academics through different ways of course delivery like asynchronous, synchronous or both; the applications of concepts were facilitated through group or in-class discussions; video recordings of lessons and experiments were shared with the students; and most of the academics varied their teaching styles from lecturing to more interactive course delivery in order to form a strong social presence and help the students to have a sense of belongingness to a learning community. However, this study pointed out that it is controversial to what extent aforementioned criteria were managed because of the basic aim of ERT, which is, as claimed by many researchers, not to recreate a healthy educational ecosystem, but to provide temporary access to instruction (Adedoyin & Soykan, 2023; Barbour et al., 2020; Bozkurt & Sharma, 2020; Hodges et al., 2020; Tulaskar & Turunen, 2021).

As for course delivery type, in the first term of the lockdown, lessons were conducted asynchronously either by sharing class notes and recordings with their students and contacting them via email or providing recordings beforehand and having question and answer sessions synchronously. The study indicated that asynchronous lessons provided the students with the flexibility of studying at their own pace, catching the lecture that they missed, and moving back and forth through the lecture, which was supported by the studies of Donham et al. (2022) and Hickling et al. (2021). From the second term on, depending on the departments, the percentage of synchronous lessons changed from one department to other. As stated by Bopegedera (2020), preferring to conduct synchronous lessons, the departments also shared the recordings of the lessons to help the students follow them asynchronously.

As noted by Means and Neisler (2021), this study also showed that after the pandemic, face-to-face courses were preferred by both the academics and the students because of

demotivation, inadequate technological infrastructure, and lack of interaction causing psychological problems. On the other hand, it also revealed that both the students and academics were glad to have online make-up classes, course approvals and office hours after the pandemic, whereas some academics preferred face-to-face course approvals for the sake of faculty interaction. This can be because having flexibility of time and place is favorable, but at the same time, lack of interaction between the faculty and the students is a concern among stakeholders.

In applied courses, in agreement with the study conducted by Haider and Al-Salman (2023), this study pointed out that the videos or simulations of experiments necessitated great effort and time spent by academics. With the help of uploaded videos, the students could follow the experiments and they were asked to write laboratory reports and take quizzes afterwards. However, as supported by many other studies (Chick et al., 2020; Gamage, 2020; Mishra, et. al., 2020), both the academics and the students criticized that not having an opportunity to touch the devices or samples beforehand, students had a lack of knowledge for applied courses for the following years in their future studies or professions. On the other hand, after the pandemic, the archive of the recordings of experiments continued to be shared as a supplementary material, which was found effective by the students and the academics as in the study of Radhamani et al. (2021).

This study revealed that even though a condensed make-up program was offered to students at the end of the pandemic, it was not found adequate to compensate all experiments. As noted by Adams et al. (2015), this is because watching experiments or doing them afterwards was not as effective as they were done concurrently and having a chance to get instant feedback of the instructors as in face-to-face education. Both the departments of science and the departments of humanities should provide the students with the opportunity to participate in inquiry-based experiential labs in order to have greater subject matter competence than their peers as claimed by many researchers (Ball, Eckel, & Rojas, 2006; Bhathal, Sharma, & Mendez, 2010; Dickie, 2006; Durham, McKinnon, & Schulman, 2007; Emerson & Taylor, 2004; Luckie et al., 2004; Myers & Burgess, 2003; Pedersen, 2010; Sirum & Humburg, 2011, as cited in Mayhew et al., 2016). At that point, as suggested by Zhang et al. (2021), it can be a good idea to adapt a blended learning approach for applied courses at science departments after the pandemic.

On the other hand, the departments of humanities could not carry out field practices, either, and depended more on theory and discussions instead of field notes. Not compensated in the following years, background knowledge or required skills acquired by those courses before graduation were lacked and made the students feel regretful and incompetent for their future studies or occupations. Thus, in line with Drolet et al. (2020), innovative ways need to be adapted for conducting field practices online effectively and help students gain the skills aimed by those courses. To conclude, the applications varied from one department to another at the faculty, which necessitated a control mechanism for being standardized and not leaving applied courses to the freewill of the departments or the academics, as also claimed in the study of Ferri (2020).

“Learning is the process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 38). For the sake of experiential learning, directly observing and reflecting on the task is necessary, and students should gain four types of abilities: concrete experience, active experimentation, reflective observation, and abstract conceptualization (1984). According to the results of the study, it can be concluded that by having a chance for doing experiments or field practice, students can move back and forth between being an actor and an observer, as stated by Kolb (1984). Therefore, having those courses in person is crucial for the students to acquire the skills and competencies offered.

For teaching and learning strategies to increase in-class interaction, various techniques were used while lecturing such as integrating online resources by adding videos and visuals; using a tablet or PowerPoint slides as blackboard to explain topics on virtual platforms; and sharing recordings of lessons. The study showed that sharing recordings helped the students to be prepared for courses and the academics to save and spare more time to question and answer sessions, called recitation sessions, as reported by Klein (2021). Moreover, it eliminated any problems aroused by lack of technological infrastructure, as pointed out by the study of Mishra et al. (2020).

However, lack of interaction between the academics and the students while lecturing on the screen was the worst drawback in online learning which caused the academics not to understand who followed the lesson and the students to be inattentive in courses. Even though the academics tried to create an interactive and collaborative learning environment, the students did not agree with them as they found the materials

not specifically being adapted to online learning to make the course interactive, technical infrastructure inadequate to conduct online lessons or collaborate with their peers. As noted by Salmon (2004a), lecturers cannot be effective e-moderators only by doing what they have already done in class, in that they need to improve their lessons to meet the demands of online learning like creating an interactive class atmosphere. Therefore, as suggested by Salmon (2004a), e-moderators need to be specifically recruited, trained, and developed for online learning.

Regarding the long-lasting effects of online learning on instructional practices after the pandemic, the finding of the study revealed that even though sometimes not favorable to share class notes or recordings due to decline in in-class interaction and participation of the students, the academics and students were glad to have an archive of recordings of lessons including the ones for experiments. On the other hand, the academics' not sharing recordings to increase participation was criticized by the students who found them practical for some reasons: 1) reaching courses whenever and wherever they wanted in case of illnesses, part time jobs, family issues, and/or technical infrastructure; 2) watching them without any distractions like weak Internet connection; 3) stopping the videos or replaying them twice or three times faster than usual, and 4) arranging their daily routine as they wished.

Moreover, in line with the study of Haider and Al-Salman (2023), the findings of the study pointed out that changes in the content at the department of humanities such as adding up-to-date topics to the syllabus, including online question and answer sessions, and integrating technology like some software programs and online materials like videos were found effective. At that point, revised course materials, having an archive of recordings of courses and experiments, integration of technology while lecturing helped the students to feel more comfortable and satisfied with the courses.

Changing the teaching and learning environment dramatically, the lock down caused the academics to use either their offices, laboratories or houses and the students to live in family houses or with home mates. At that point, sharing the teaching and learning environment with family members was quite challenging. As revealed by other studies (Bartolic et al., 2022a, b; Donham et al., 2022), the students and academics had difficulty in keeping personal space and arranging their environment to prevent any overlap with the family members who worked or studied online concurrently as well as overcoming the problem of noise. As reported by Luo et al.

(2023) and Zhan et al. (2022), this study showed that especially the students who had difficulty in finding accommodation or staying with conservative families had psychological problems like anxiety, low attention span and demotivation.

Considered as an important part of learning environment, the library, especially at a research university where the academics taught how to fish, was a place not only with various resources that guided the students and improved their research skills, but also for group learning, socialization and collaboration. However, as reported by many researchers (Cox & Brewster, 2020; De Groote & Scoulas, 2021; Kim, & Yang, 2022), the students could not reach the library building and in-print sources during the pandemic, and this adversely affected their study performance and well-being. This is because, instead of the library, they had to study at home where they experienced a lack of self-discipline and low attention span caused by the distractors like noise or inadequate technological infrastructure. Moreover, they wasted time on different websites while searching on the Internet.

On the other hand, as supported by the study of Zareef and Ahmad (2021), reaching online resources provided by the library is a good option for them. However, after the pandemic, they could not reach those online sources, which made them resentful. Therefore, providing appropriate spaces to support student learning performance and wellbeing with both in-print and online sources is necessary for the improvement of the use of library after the pandemic.

As the study indicated, measurement and evaluation is also affected drastically. The types of evaluation became more process-oriented than product-oriented, reliability issues regarding measurement and evaluation arose, pointing out the necessity of face-to-face administration of exams, and also required to apply an oral exam at some departments, which also increased the stress level of the students as well as the workload of the academics. At that point, as suggested by other studies (Hargreaves, 2007; Oosterhof et al., 2008), not only the principles of validity, reliability and fairness, but also the application of different measurements like formative and summative assessments were needed to be adapted for a successful assessment system.

Concerning the practices with regards to measurement and evaluation at university during the pandemic, there appeared emergent assessment strategies as noted by Dison and Padayachee (2022). As also indicated in the study of Romaniuk

and Łukasiewicz-Wieleba (2021), the academics made changes in assessment types such as decreasing the number of questions, changing question types and/or weight of the exams, and changing time allocated for exams to take security measures. However, after the pandemic, while continuing to keep and grade exam papers online as well as provide online feedback to assignments, the academics gave up online assessment tools because of the difficulty and stress caused by lack of infrastructure and exam reliability.

In online learning, some academics preferred process-oriented evaluation by increasing the number of assignments and quizzes to decrease the risk of cheating and to guarantee the students to be on the right track, and decreasing the weight of midterms and final exams. In line with the study of Elkinton (2022), the findings of this study showed that while gaining autonomy thanks to the control over assessment process, the students had difficulty in catching the deadline of each and every assignment whose number varied from course to course quite extensively. Moreover, they criticized the academics for underestimating their living conditions and took them for granted while assigning so many tasks because the heavy workload of assignments led to an increase in stress and anxiety as well as procrastination. At that point, student feedback needs to be taken and considered regularly, and a consistency among academics should be enabled.

In order to ensure exam reliability, some departments conducted oral exams, asking the students to justify their answers by providing step-by-step explanations on questions or checked their understanding with extra questions. Preparing oral exams to enable a fair and smooth evaluation increased the workload of the academics as also reported by the study of Akimov and Malin (2020). On the other hand, as the findings of this study showed, the students felt great pressure while justifying their answers due to stage anxiety and types of questions requiring reasoning skills, which was the reason behind the abolishment of oral exams after the pandemic.

On the other side as claimed by other researchers (Koneru, 2017; Şenel & Şenel, 2021), some academics integrated or continued with product-oriented evaluation to minimize cheating or decrease the workload of academics' grading papers. The findings of the study indicated that especially at some departments which normally did not prefer that kind of question before the pandemic became more favorable for product-oriented evaluation. Using multiple choice questions to make it

more manageable to grade papers in online learning or for sake of reliability was criticized by both the academics and the students for disregarding the needs of the students and aims of the lessons. As a result, product-oriented evaluation caused the students to take lower grades by taking the final point into consideration instead of collecting grades from the steps of solutions as before at the departments of sciences, and not to reflect their knowledge and comment on what they learned thoroughly at the departments of humanities.

After the pandemic, however, the study pointed out that despite the increase in the workload, process-oriented evaluation, which demands higher order thinking skills, was favored more by most academics and students. As reported by other studies (Bopegedera, 2020; Elkinson, 2022), this caused less stress on the students and enabled the academics to follow the progress of students and to provide them partial credits from assignments and projects. On the other hand, the academics continuing with inappropriate and ineffective question types like multiple choice at the departments of humanities was criticized for taking the easy way out to spend less time marking, as in the study of Dennick et al. (2009).

For measurement and evaluation, the literature indicates heightened concerns about the validity and reliability of online assessment (Gaytan & McEwen, 2007; Okada et al., 2019). As noted by some researchers, as well (Almossa, 2021; Sahu, 2020, as cited in Mseleku, 2020; Schleicher, 2020), the academics struggled hard to guarantee a just evaluation system in online learning in the pandemic, and they tried various ways for security measures. However, in line with other studies (Bopegedera, 2020; Haider & Al-Salman, 2023), the study indicated that the departments of science had to make more changes and take more precautions in measurement in order to prevent cheating compared with the departments of humanities, where the evaluation type was already more process-oriented.

On the other side, in accordance with other studies (Alsaady et al., 2020; Elsalem et al., 2020), the findings of this study revealed that the exam anxiety of the students highly increased due to those precautions and restrictions to be met under conditions like technological inadequacy, background noise, the presence of family members and concentration problems, although the academics approached those problems moderately and provided extra time or make-up exams when necessary. Moreover, limiting time set for exams or asking difficult and inappropriate questions

caused injustice in grades of the students, even the hardworking ones' getting low grades or missing the main objectives by focusing on too many details. Besides that, the students could not get feedback to their exam papers or a counterpart to their objections. Due to reliability issues, there became grade inflation as stated by Saygi (2024), which was named for the increase in grades not related with academic achievement (Kostal et al., 2016; Baglione & Smith, 2022, as cited in Saygi, 2024, p.260).

Finally, the findings of the study pointed out that trying all the ways to prevent cheating but finding out the impossibility of enabling reliability in measurement and evaluation online, face-to-face exams to guarantee justice were accepted as a must by the students and academics.

5.1.1.2. Characteristics of Students Affecting Academic College Experiences

Along with instructional practices, the study revealed that the characteristics of the students like computer literacy and technological equipment, personal skills and competencies, learner autonomy and academic achievement determined their academic college experiences. As for computer literacy and technological equipment, the students could adapt to online learning more easily thanks to their technological competency compared with academics, as also reported in the study of Monteith and Smith (2001). In line with other studies (Ferri, 2020; Varshney, 2020; Mseleku, 2020), the findings of the study showed that the students had to afford technological tools, which caused a financial burden on them, and lack of infrastructure, which caused the students to turn their cameras off in lessons or follow the lessons asynchronously. This deprived them of in-class interaction and, in the long run, caused desocialization.

When students experienced positive and effective relations with peers, their well-being enhanced in studies of first-year outcomes (Bowman, 2010d; Martin et al., 2011; Padgett et al., 2012, as cited in Mayhew et al., 2016). Besides that, when they have an academic providing them with time to interact, constructive feedback, effective instruction, and challenging expectations, psychological well-being and emotional health of the students increase (Bowman, 2010d; Martin et al., 2011; Padgett et al., 2012; Sax, 2008; Sax et al., 2005, as cited in Mayhew et al., 2016). However, not having as much support as they could get in face-to-face education, the students experienced more problems compared with pre-Covid period. As found in many

studies (Abdelfattah et al., 2023; Aristovnik et al., 2020; Cao et al., 2020; Ferdig et al., 2021; Guppy et al., 2022; Rao, 2022; Wood et al., 2022), they had severe psychological problems like sleep disorders, concentration problems, amotivation, anxiety, depression, low attention span. Moreover, they had physical problems related to eyesight or posture, which was also stated by Olfert et. al. (2022) and Wang (2020), as well as personal problems like family pressure and academic and/or economic concerns, as noted by other studies (Altinsoy & Boyraz, 2022; Ferri, 2020; Luo et al., 2023; Mseleku, 2020; Zhan et al., 2022).

In line with the study of Chen et al. (2021), the findings of the study showed that there was an increase in the tendency of suicide among the students compared with before. Even though the ones sharing their problems with the academics were guided and directed to counseling departments, the health services were not adequate to meet those demands for free, as claimed by the study of Liu et al. (2020). As a result, most students experienced burn-out due to isolation and desocialization (Ferri, 2020; Filho, 2021; Mishra et al., 2020). In line with other studies (Elmer et al., 2020; Hager et al, 2020; Morgan, 2022), the findings of the study pointed out that the deprivation of socialization and university culture in online learning is the reason behind their psychological problems, so the positive role of face-to-face education in increasing interaction as well as in eliminating problems faced in families should be accepted.

As stated by Hu and Kuh (2003) and Pascarella et al. (2011), to achieve student learning outcomes, the quality of students' learning experience and learning involvement enabled by the university environment plays a significant role; however, this was adversely affected by Covid 19. Compared to face-to-face education, the attendance and participation of the students dropped sharply because of the lack of in-class interaction and cooperation among peers, as also claimed by other researchers (Göksu et al., 2021; Karalis & Raikou, 2020).

In line with the studies of Saraç (2021) and Tosun (2021), the findings of the study pointed out that another reason for the lack of interaction and cooperation among the students can be the availability of course materials and recordings. Unfortunately, this condition lasted after the pandemic even though there are students who attend courses to socialize in and out of class due to the difficulty in adapting to face-to-face education and feeling demotivated, exhausted and alienated in online learning. Even worse, feeling anxious and isolated, they lost the sense of belonging to their

departments. At that point, recovery activities and gatherings could be arranged to refresh that sense of unity.

The findings of the study also indicated that the decline or rise of learner autonomy differed a lot in online learning because it basically depends on the individual, and so on various factors such as comprehension level, socio-economic status, self-determination, self-discipline, rank in university entrance, critical thinking, generation gap, reasoning skills, research skills, time management skills and will-power. As indicated by some researchers (Heo et al., 2021; Hung et al., 2010; Maphalala, 2021), the study showed that the students' self-paced learning (arranging their own time of learning with the help of recordings, course materials and online sources) boosted their learner autonomy. Moreover, assignments and tasks necessitated more thinking and analyzing, the skills placed higher on Bloom's Taxonomy of the Cognitive Domain (Anderson, 2001; Bloom, Englehart, Furst, Hill, & Krathwohl, 1956, as cited in Shim, 2012) are effective for enhancing critical thinking skills of the students. Shin (2012) puts an emphasis on the significance of faculty-driven teaching practices in class like asking challenging questions or asking students to apply course concepts to real-world situations and asking for tasks and assignments which necessitate students to compare and contrast or to apply concepts on enhancing critical thinking skills. Therefore, continuing with process-oriented evaluation after the pandemic and asking students to indulge in tasks and assignments requiring higher order thinking skills help to improve critical thinking skills of the students.

On the other hand, lack of self-discipline during online learning caused difficulty in catching up with the workload of recordings and assignments. Therefore, as noted by von Keyserlingk et al. (2020), depending on self-efficacy in self-paced learning which necessitates learner autonomy, the stress level of the students changed accordingly. At that point, establishing a standardized system among the academics while determining the number and weight of assignments and tasks can be a solution to lessen the workload of both the students and academics, as also noted by Ferri (2020).

As indicated by Tinto's theory, the degree to which students feel unified into campus life determines their commitment to course completion (Pascarella & Terenzini, 1979), so there is a direct link between college experiences and learning

outcomes as noted by Bai et al. (2022). Moreover, their perceptions regarding campus environment had a role in student learning outcomes by affecting their self-efficiency and effort to learn (Hu & Kuh, 2003). Those students who did not experience the university culture and gain required knowledge and skills in courses taken online were regarded as a lost generation. Especially the ones spending their first and second grades online needed to have a condensed program to compensate the lack of knowledge required for third and fourth grades. Besides that, they became more demanding and had misbehaviors like cheating, making up excuses and abusing academics' toleration in and after online learning. This indicates the importance of interaction in transmitting the university culture.

The students were deprived of the college environment, which contributes to their cognitive outcomes (Bowman, 2009, 2013; Kim & Sax, 2009; Pike et al., 2011; Shim & Walczak, 2012, as cited in Iorio, 2020). In line with other studies (Dorn et al., 2020; Mseleku, 2020), this study also highlighted that even though there was an increase in grades, there were concerns regarding academic achievement of the students. As for applied courses, the students at the departments of science could not get an experiential approach in online learning compared with the laboratory courses taken in face-to-face education, and this lack of knowledge could not be compensated after online learning, as noted by Chick et al. (2020), Gamage (2020) and Mishra et al. (2020). On the other hand, the students at the departments of humanities experienced not only lack of basic knowledge but also necessary language skills to pursue their education in an English medium university. Therefore, the findings of the study pointed out that the students of Covid-19 graduated without acquiring the necessary skills and knowledge for their academic career compared with their former peers.

5.1.1.3. Characteristics of Academics Affecting Academic College Experiences

Salmon (2004a) used the term e-moderating to seize various roles and skills that academics need to acquire for effective and interactive online learning by pointing out four categories of e-moderators' roles: managerial, technological, social and pedagogical. At that point, it is necessary to consider the characteristics of academics affecting college experiences of the students, as noted respectively by the study as online education literacy, computer literacy and technological equipment, personal competencies, and educator identity.

As for managerial role, in line with other studies (Altinsoy & Boyraz, 2022; Karademir et al., 2020), this study showed that online education literacy of the academics was low because they were not prepared or ready for such a shift to online learning, and they did not have time to adapt themselves to online learning personally, technologically and academically. Thus, they had difficulty in administering instructional strategies and spent great time and effort in order to make the teaching and learning process smoother and more interactive as well as guaranteeing the reliability of measurement and evaluation, all of which increased their workload heavily. Online learning helped them gain experience for such an emergency and showed them the need to improve themselves professionally in the integration of technology.

As Williams (2002) states, online learning necessitates an attitude change among the teaching staff, and it is not less than a fundamental cultural change. Therefore, expecting that change to occur at a short time would be hypothetical. Regarding experience in online learning, the academics did not have any before the pandemic, and they had to adapt themselves to it with individual effort by trial and error without adequate support from the university despite the seminars on online learning, as also pointed out by the study of Bopegedera (2020).

According to Inglis et al. (2000), the university could help the academics in two ways: 1) by offering opportunities to enhance their technological competency to design, develop and produce online materials and teach online with their students or 2) by adapting a specialist approach to staff development through increasing the skills of academics for the fruitful delivery of online learning and the support of online students, usually in collaboration with instructional designers, graphic designers, computer technicians, multimedia programmers, audio-visual technicians, editors of text, e-librarians and resource providers. However, the findings of the study pointed out that the university was totally unprepared for such an emergency, and the seminars were not found effective and reachable. As a result, the managerial role of the e-moderators could not be fulfilled thoroughly due to the instant shift to ERT, and they had difficulty in adjusting to ERT as noted by many researchers (Abdelfattah et al., 2023; Mseleku, 2020; Mishra et al., 2020; Schleicher, 2020; Tang et al., 2021). However, after the pandemic, the academics, for sure, are more ready, prepared and experienced for such an emergency.

Considering technological role of the academics, the study showed that not having enough equipment, the academics had difficulty in conducting courses or preparing online materials like recordings of lessons, which is also stated by the study of Hodges et al. (2020). Regarding computer literacy, they generally found themselves capable and/or improve themselves in time by getting help from one another, the family members or the university. However, as other studies pointed out (Karalis & Raikou, 2020; Marinoni et al., 2020; Wahab & Ali, 2020), some academics, especially elderly, were not technologically competent to conduct effective and interactive lessons or assignments online. On the other hand, there are elderly academics who could manage the process smoothly with the help of research assistants and family members, too. At that point, as suggested by Shirahada et al. (2019), this study revealed that technological competency depends on the personal beliefs of the elderly, not on their ages, and they can improve their skills with the relevant social support.

As for social role of the academics, the study declared that the academics personal skills and competencies to deal with online learning smoothly and effectively depended on the individual. In line with Filho (2021), the findings of the study pointed out that the academics felt depressed and unmotivated in online education because of the lack of interaction among students and/or colleagues. They were also quite anxious about their health and their beloved ones, so they had sleeping disorders or depression. In addition, as declared by many other studies (Deryugina et al., 2021; Dogna & Kaushal, 2022; Gabster et al., 2020; Watson et al., 2022), this study revealed that there is a gender gap among academics because of the various roles that female academics have to take like being a mother, a spouse, a daughter, a mentor, and a researcher.

The support from the academics was the main factor affecting students' satisfaction of online learning (Aristovnik et al., 2020). Thus, regarding educator identity, or pedagogical role, many academics felt themselves qualified in mentoring skills to help the students ease the learning process as much as possible though, as noted by some studies, their workload increased heavily due to material development, change in teaching approaches and methods, struggling for reliability of measurement and assessment (Altınsoy & Boyraz, 2022; Elfirdoussi et al., 2020; Karademir et al., 2020; Mishra et al., 2020). The thing that they had difficulty most was the lack of interaction with the students and the colleagues in online learning, in that they could not touch the lives of students and so not help them as much as they did in face-to-face

education, so their job satisfaction decreased, too. After the pandemic, the study indicated that the academics seemed more motivated because of having an opportunity to conduct lessons interactively and becoming more relaxed without the pressure of reliability issues. On the other hand, some academics and students claimed that interaction among them declined after online learning due to individualization and desocialization.

Despite the decline in dependence on academics for sources of knowledge, the students felt the guidance and mentoring skills of the academics necessary for their personal and professional growth. As Vygotsky proposes, learning can be better gained through social support and engagement (Mayhew et al., 2016). Thus, providing challenging tasks enhancing zone of proximal development with the guidance of academics and support of peer tutoring result in the uppermost level of learning. At that point, it can be stated that academics need to provide adequate guidance and mentoring to students in order to help them gain personal and cognitive development. However, the findings of the study, in line with others (Ferri, 2020; Mishra et al., 2020; Mseleku, 2020; Schleicher, 2020), indicated that the students found few academics unapproachable and intolerant to help them overcome their problems and the university not providing support to them, which led them to feel disappointed.

After the pandemic, still, the study showed that the role of the academics was reconsidered but accepted the same as before despite alternative sources of knowledge that the students were happy to reach. As noted by Monteith and Smith (2001), in order to fulfill these roles, interaction with students was accepted as a must by both the academics and the students.

As for academic performance, the study revealed that a change in academics' performances due to online learning depended on their competencies; however, in the study of Mishra et al. (2020), it is seen that there is a decrease in academic research during the pandemic. Besides that, as pointed out by other researchers (Altınsoy & Boyraz, 2022; Karademir et al., 2020), the findings of the study showed that the academics improved themselves professionally with the help of technology by gaining new perspectives on adapting materials to online teaching, conducting interactive lessons online, and attending online seminars or courses. In addition, they continued course approvals and meetings like seminars and conferences online because of practicality issues.

5.1.1.4. Views of the Undergraduate Students and Academics regarding Academic College Experiences

The findings of the study revealed that, the strongest aspects of online learning were considered as the development in the use of technology, having an archive of the recordings and class notes, improving critical thinking skills, increase in academic research by the academics. On the other hand, they were regarded as an increase in student autonomy, process-oriented evaluation, and reaching in and out sources easily by the students. However, both parties claimed flexibility of time and place to access various sources of information and people as one of the strongest features of online learning. As the weakest aspects of online learning, both the students and academics considered reliability issues, the deterioration of psychology due to lack of interaction and/or the feeling of isolation, lack of infrastructure and equipment. Besides that, the academics counted unpreparedness to online learning and inadequacy of online learning in applied courses and/or theoretical courses, too.

As stated in other studies as well (Elfirdoussi et al., 2020; Mseleku, 2020), regarding future implications of online learning, many academics and students believed in the indispensability of face-to-face education, where spontaneity and peripheral learning took place. Even though there could be some fields of study and occupations which could be online, formal education could not be sustainable and effective due to lack of interaction in online learning. Therefore, online learning could be as an option in some fields or theoretical and service courses, only when necessary conditions are provided. As suggested by some researchers (Abdelfattah et al., 2023; Elfirdoussi et al., 2020; Ferri, 2020; Mishra et al., 2020), there should be adequate technological infrastructure. Besides that, there is a need for a well-organized educational program with well-designed materials, more adequate e-learning platforms and interactive courses to maintain students' attention and engagement, as also highlighted by many researchers (Abdelfattah et al., 2023; Adedoyin & Soykan, 2023; Bao, 2020; Ferri, 2020; Gamage, 2020; Mahmood, 2021; Mishra et al., 2020; Mseleku, 2020; Varshney, 2020; Tang et al., 2021). Moreover, the findings of the study indicated that online learning could not be thoroughly used in exams or applied courses where students needed to touch the tools and make experiments. As for assessment, some studies suggest that researchers in educational technology might develop alternative assessment tools (Adedoyin & Soykan, 2023; Mahmood, 2021),

simulations for lab courses (Gamage, 2020) and virtual reality to become widely accessible to enable engaging and inclusive courses as much as possible (Ferri, 2020; Paudel, 2021).

As a result, the findings of the study shed light on the fact that university education should be improved by integrating technology, considering some projections regarding emergency situations and future implications. In line with the study of Altinsoy and Boyraz (2022), it is clear that the university should provide the academics with in-service training programs on instructional practices to adapt their courses according to changing situations, in addition to technical support and guidance as noted by Wagner et al. (2008). Moreover, as supported by many other studies (Bao, 2020; Mahmood, 2021; Mishra et al., 2020; Popa et al., 2020), there should also be a control mechanism to make the teaching and learning process more standardized and smoother by taking student feedback into consideration. Lastly, as Salmon (2004a) indicated, people save time and money with the help of recordings of lessons, so online learning could help universities gain an income by providing online courses and certificates.

5.1.2. The Nonacademic College Experiences of the Undergraduate Students and Academics Before, During, and After Covid-19

5.1.2.1. The University Environment

Campagna (1969) claims that personal growth is the most important aspect of education for students, and it depends more on non-academic experiences than academic ones as noted by other researchers (Mahan, 2010; Pascarella et al., 2011; Pak, 2020). At that point, the quality of campus relationships, interaction of faculty, and supportive units for student achievement have a positive effect on student development. As stated by Mayhew et al. (2016), the interactions with peers, staff, and faculty when living on campus as well as attending extracurricular activities are positively linked to student learning. Therefore, it is the duty of colleges to enable students with an atmosphere and experiences to develop their social, intellectual, personal, physical competence as well as academic competencies. For the establishment of more and more fulfilling nonacademic opportunities, there need to be more facilities provided and more time allocated for these types of activities; however, Covid-19 disrupted the facilities and activities regarding nonacademic college

experiences.

Specifically, factors affecting student development include the external classroom learning environment, campus atmosphere, campus culture, and university environment (Bai et al., 2022), which provide students with experiential learning. As noted by Dewey (1963, p. 25), although not all experiences are equally educative, “all genuine education comes about through experience”. Limiting students to the screens prevented them from inductive learning, and certainly affected their academic and nonacademic college experiences adversely. As noted by the findings of the study, the students prefer face-to-face education because they have a chance to live and reflect on the experiences, which contributes to their cognitive, affective and social development.

As indicated by Pascarella et al. (2004), the university environment helps to create a culture. At that point, the findings of the study revealed that the university culture changed because a cultural transfer between generations was disrupted in online learning due to the lack of interaction among stakeholders. In line with other studies claiming that the culture can be learned from the seniors (Baruth et al., 2021; Drachsler et al., 2021; Gaal, 2023), the study noted that the students who completed the first two years of undergraduate degree without experiencing the university culture (freshmen and sophomores) did not interact with juniors and seniors, from whom they could learn it. As a result, what the university meant to senior students was different from to freshmen. This is because “the meanings that individuals attribute to a place form the basis of their experiences with the environment and express what a place really means to people who spend time there” (Lafçı-Tor & Engin, 2023, p. 717).

Besides that, as noted by Denovan and Macaskill (2013), freshmen are normally in need of independence, gaining new horizons and encountering new social environments. However, the study showed that those students were not assimilated by the university culture, and unfortunately this affected their moral development negatively (Rest & Narvaez, 2014). Consequently, they had misbehaviors such as being rude and disrespectful, thinking more individualistic, and reacting insensitively to certain occasions. As stated by the pioneer of the development of moral reasoning, Kohlberg states that individual moral action usually occurs in a group or an environment which has a fundamental effect on the moral decision making of individuals (1981, as cited in Mayhew et al., 2016). Not only among the freshmen, but

also among the seniors, toleration and collaboration decreased as a result of individualization in online learning. This is because they could not gain intercultural maturity, which is defined by King et al. as “complex understanding of cultural differences (cognitive dimension), capacity to accept and not feel threatened by cultural differences (intrapersonal dimension), and capacity to function interdependently with diverse others (interpersonal dimension)” (2005, p. 274, as cited in Mayhew et al., 2016, p.298).

Compared with before, the students lost unity and a collective consciousnesses to react together, to protest situations and to defend their rights. In addition to a gap in cultural transfer, not getting enough emotional support from the faculty can be another reason behind. According to Astin and Antonio (2004), getting emotional support from the faculty endorses students' character development, which is accepted as a construct for civic and social values, as well as volunteerism (as cited in Pascarella & Terenzini, 2005). Not attending activities and facilities enabling cultural diversity can be regarded as a cause, too (O'Neill, 2012; Pascarella et al., 2012, as cited in Mayhew et al., 2016). As noted by Lottes and Kurilof (1994), they could not form their political and social attitudes with the help of nonacademic college experiences. Moreover, according to the findings of the study, the existing rectorate and upper administration were also the cause of disruption in university culture by preventing students to form unity and a democratic atmosphere as before the pandemic. This caused concerns about whether that generation gap in METU culture could be compensated in time after the pandemic.

Another cause of disruption was students' being acrid from campus life during the pandemic because, as noted by Pace's theory, student growth and development is driven from the joint influences of the institutional environment as perceived by the student and the effort spent by the student (Tam, 2002). At that point, it can be stated that a supportive campus environment, which is low in prejudice and high in tolerance, is priceless for gaining academic competence (Reason et al., 2006), general education (Pike et al., 2003), and learning and intellectual development (Pike & Kuh, 2005). According to the findings of the study, the university campus provided a sense of belonging, called METU soul, as indicated by the study of Tor and Engin (2023), and without that soul, the university became meaningless. After the pandemic, the value of campus life was appreciated, and the campus was seen as a second chance to experience social activities, attend student clubs and communities, and use various

facilities.

As stated by Karalis and Raikou (2020), another component determining the university atmosphere is interaction out of class. The students' having high quality of interaction among different groups affects the amount of effort they put for learning (Hu & Kuh, 2003), so they seek an environment where they can find supportive and approachable academics as well as collaborative and friendly peers as noted by Reason et al. (2006). The study revealed that during the pandemic, there were times when the students could not have that supportive learning environment, which negatively affected their learning and motivation. Both in and out of class, they could not cooperate and collaborate with their peers, which hindered their "gains in verbal, quantitative, and subject matter competence and broad measures of general education" (Anderson et al., 2005; Berger, 2002; Cabrera et al., 2002; Cortright et al., 2005; Delucchi, 2007; Gaudet et al., 2010; Ge & Land, 2003; Hazel et al, 2013; Johnson et al, 2010; Preszler, 2009; Stump et al., 2011; Yamarik, 2007, as cited in Mayhew et al., 2016). Besides that, their interaction depended on the availability and technological infrastructure. Even though a few shy students felt more comfortable communicating online, most students found virtual communication tools plain without body language and gestures, and also stated that confusing messages could be transmitted online, which was also noted by many researchers (Händel et al., 2020; Karalis & Raikou, 2020; Monteith & Smith, 2001; Wahab & Ali, 2020). After online learning, the study indicated that there was a decline in interaction among the academics and students for various reasons such as feeling uneasy, individualization, isolation, lack of motivation and energy, which caused lack of cooperation and harmony at university.

In addition to helping students gain course-based pursuits (Mayhew et al., 2016), extracurricular activities enable the students to gain the culture of the university (Koç & Koç, 2021), to get in touch out of class and keep their well-being (Finnerty et al., 2021), and to acquire academic and social skills (Zaki, 2022). The findings of the study indicated that though extracurricular activities helped the students overcome psychological problems and form stronger bonds with their peers during the pandemic, their participation in those activities dropped or interrupted dramatically compared with face-to-face education, by which the students had a change to live on campus. This can be because the students, fed up with using online platforms to socialize, became unwilling and demotivated to attend activities, courses and seminars online.

On the other hand, those platforms gave them a chance to join extracurricular activities that they could not attend normally due to lack of financial resources or time. Besides that, there was an increase in the attendance of courses or seminars regarding academic and professional development, which can be because of the flexibility of time and place provided with online platforms. After the pandemic, however, there was a drop in participation of extracurricular activities compared with before, as also indicated by the study of Montacute and Holt-White (2021). This can be shown as a reason for having less unity among the students.

5.1.2.2. The Changing Nature of the University

Depending on visions, economic status and political stance of the country, the nature of the university was already changing, but Covid-19 accelerated this change and made it more visible then. In line with the changing nature of the university, its mission was also varied from value education to autonomy, from instruction to research, from gaining a culture to specializing in a profession. Even though, basically, the university was for producing science and research according to traditional or discipline-based approach and performance or systems-based approach, and for developing skills for profession as said by experiential or personal relevance approach (Peach, 2010), it was also to have a vision in life, broaden horizons, to develop a common sense, to gain a culture and to serve the society as proposed by cognitive approach. According to socially-critical approach, the university should be an autonomous institution encouraging curiosity and prompting social awakening and enlightenment for reforming a society (Peach, 2010). Online learning helped the students and academics realize and appreciate the main mission of the university, which was value education: to grow people as social beings who were intellectual, independent and respectful, who had reasoning skills and wisdom, and who were sensitive and critical towards the community they lived in (Newman & Newman, 1978; Pace, 1984).

Along with value education, the university provided a sense of belonging and helped to form a culture with the help of its campus. By interacting various people from different cultural and social backgrounds, and religious beliefs, the students could gain new insights and learn values such as love, empathy, sympathy, respect and sensitivity. At the same time, they could discover themselves, evaluate their own

beings, form an identity, and put themselves at a place in the society (Chickering & McCormick, 1973; Newman & Newman, 1978). This is because educational institutions are significant in “instilling values, attitudes, norms, and behavior patterns beyond teaching knowledge and skills” (Demir & Paykoç, 2006, as cited in Lafçı-Tor & Engin, 2023, p.705). However, online education interrupted the students’ mingling in the culture of the university and turned them into human beings who only studied and passed exams. It deprived the students of social interaction among the stakeholders and the development of critical thinking skills. As a result, it caused a cultural gap, which needed to be compensated in time because the university was a place to reform the self and the society with different perspectives encountered with the help of interaction and socialization (McKinney et al., 2004; Pascarella et al., 2004).

Even though online learning restricted the university only to education and research as well as causing the students to focus more on professional development like learning languages, doing research and increasing the quality of their resumes, the students and academics still believed that the changing nature of the university due to online learning could be compensated, educational issues arouse during online learning could be overcome, and the value of the university which focuses more on cognitive skills and social reformation could be kept the same as before.

5.2. Implications for Practice

It is seen that online learning is more than an option for universities, and especially at difficult times like an emergency, universities need to be ready and equipped with necessary skills and requirements of equitable and robust post-Covid education systems in order to help students to experience the college at a maximum level as before. Therefore, challenges faced during Covid-19 need to be taken as an advantage to create that environment.

Not being standardized and ready for an emergency caused the university to struggle in adapting to online learning and the students and academics to experience challenges both academically and nonacademically. In order to be more prepared for such an emergency, some implications for practice are suggested by this study as below:

For academic college experiences, the following implications can be considered:

- Blended-learning: As indispensable part of education, online learning and the

use of technology is inevitable, so blended learning should be more than an option and integrated in course designs.

- Increasing computer literacy and providing technological infrastructure: In order to cope with any challenges faced in instructional practices and to run online learning smoothly and effectively, both the students and academics need to have more than enough computer literacy and advanced technological tools. The government should provide a fund for technological infrastructure and university should organize training programs to enhance the skills of both students and academics.
- Technological support: There should be technological centers where both students and academics can easily get help to overcome any difficulties related to any technological tools and/or competency.
- In-service training programs for academics on online teaching: The academics need to have in-house training programs regarding online learning not only for instructional purposes but also for enabling the students with social support via online platforms.
- A consistent plan to develop a structured and planned online learning model with well-designed materials: In order not to sacrifice content of the courses, there is a need for well-designed materials in order to conduct interactive and effective lessons. The university should hire instructional designers, graphic designers, computer technicians, multimedia programmers, audio-visual technicians, editors of text, e-librarians and resource providers.
- More adequate e-learning platforms and interactive courses to maintain students' attention and engagement: The university needs to provide free, effective and practical online platforms and train students as well as academics.
- Consistent feedback from students to prevent them from feeling unmotivated and confused: By involving them into instructional practices and getting their ideas helps them have a feeling of belongingness and a sense of ownership, which affects learner outcomes.
- Alternative assessment tools: In order to enable validity and reliability in measurement and evaluation, alternative online assessment tools should be developed and necessary technological precautions should be taken without creating much pressure on students and increasing the workload of the

academics.

- Simulations for lab courses and online field practices: Though not as effective as providing hand-on activities and field practice in person, simulations for lab courses and online field practices need to be arranged with the help of researchers in educational technology in order to make them widely accessible, engaging and inclusive.
- Regular make-up courses to compensate the lack of background knowledge: There should be more make-up courses and recitation sessions to follow the understanding of the students and deal with any lack of background knowledge or skills on time.

As for nonacademic college experiences, it can be stated that online learning enabled the students and academics to see how valuable the university campus was on the intellectual, social and professional development of the students. Besides that, it caused each stakeholder to reconsider the mission of the university and found out that in addition to education, research and expertise in profession, value education through college experiences is priceless to form student identity, moral development and create social awakening. Therefore, university campus should be seen as a chance to provide value education.

Some implications regarding nonacademic college experiences are as below:

- Increasing faculty interaction: To overcome social challenges, interaction and collaboration among students and between academics and students should increase by creating new learning environments where students have a chance to meet people, have inspiring conversations with faculty, and collaborate with researchers in the laboratory.
- University culture: University culture should be transferred to freshmen with the help of alumni days, regular gatherings with seniors and freshmen, various activities like festivals, meetings of student clubs and communities, caring and sharing exchange at faculties.
- Campus life: The campus cultivates belonging by providing a chance to interact with diverse people and develop a growth mindset. Thus, there should be more opportunities to experience the social life on campus both individually and virtually via online platforms utilized for student clubs and communities.
- Extracurricular activities: Taking advantage of the flexibility of using online

platforms, more extracurricular activities need to be organized, and a budget needs to be allocated to student clubs and communities to become more functional so that students can organize more events and create a national and international network with pioneers on their own fields as well as transmitting the culture of the university to new coming peers.

- Providing free mental health services and social support: The main reason behind students' experiencing psychological problems was feeling isolated and confused. Thus, providing free mental health services and social support help students keep their psychological well-being. At that point, social support needs to be provided not only to students but also to academics. There can be regular caring and sharing gatherings between students and faculty members to form a sense of belongingness and overcome any arisen issues on time.
- Forming a direct link between students and university administration: Gaining insights from first hand experiences of students, the university should care about the views of the students and academics to form a sense of unity, and it should consider and solve the challenges that they face at university. Experiencing a democratic atmosphere, the students and academics need to feel welcomed and tolerated.

Lastly, there can be some implications of practice regarding curriculum at higher education. First of all, by bearing in mind the views of all stakeholders and providing the universities flexibility considering their unique sources, there needs to be a rooted policy change in an emergency for higher education in Türkiye in line with the definition and aims of higher education. Thus, resilience of the university can be fostered to decrease vulnerability. As curriculum is a philosophical process, limiting it to a product-oriented mindset disrupts the nature of curriculum and reduces the objectives to mere outputs. Therefore, shifting away from product-oriented mindset and considering philosophical approaches in curriculum development at higher education can provide flexibility in curriculum.

During Covid-19, it is seen that each individual tried to find his/her own way of coping with online learning with trial and error. In order to handle such a situation more effectively, every department needs to have a commission accompanied by a curriculum specialist to carry out online learning process smoothly. Another reason for having curriculum specialists working at universities is that except for the department

of educational sciences, other departments do not have the knowledge and expertise in curriculum and instruction. Therefore, by hiring curriculum specialists, universities can develop flexible curriculum and effective instructional practices at any conditions like an emergency.

On the other hand, the findings of the study revealed that there is a lack of support for the stakeholders. At that point, in order to meet the needs of the stakeholders at a high level, their opinions should be taken into consideration in curriculum development. Besides that, there should also be curriculum evaluation at a regular basis to make adjustment to an emergency like Covid-19. By getting the views of the stakeholders not only for curriculum development, but also for curriculum evaluation, the needs and demands of the stakeholders can be foreseen, and so the university can be more prepared and ready for any possible change like online learning.

Moreover, online learning in the pandemic caused some inequality and injustice in higher education, so at curriculum development process, necessary precautions and necessary solutions should be considered to prevent any vulnerability and inequality among stakeholders at an emergency. Therefore, in order to fulfill aforementioned implications, all stakeholders should cooperate closely to develop accessible and smart learning environments, educational resources and tools as well as maintaining the sociality, inclusiveness, and accessibility of education.

5.3. Recommendations for Further Research

As a qualitative analysis of college experiences, this study provided insights into the undergraduate students' and academics' conceptions of the changes in academic and nonacademic college experiences before and after Covid-19. Align with the aim of the study, challenges regarding academic and nonacademic college experiences are presented and corresponding practices to cope with those challenges are offered.

The findings confirm that a qualitative approach to this phenomenon enables in-depth investigation and understanding of the college experiences of the undergraduate students and academics. To gain further insights into this phenomenon, this study provides some implications for further research.

Due to the end of the pandemic, it is not possible to replicate the study, but there are other circumstances like earthquakes where education can be shifted to online, so there should be readiness and preparation for such emergencies. In this regard, college experiences independent from the pandemic can be analyzed in other universities

located in other cities of Türkiye as well to draw a roadmap in case of an emergency.

Besides that, different methods (mixed method or quantitative) involving various college experiences and different groups of people (administrators, nonacademic staff, parents etc.) can be utilized to explore college experiences through multiple views.

However, longitudinal research design can also help gain deeper insight to explore the contextual changes over time and changes in the perceptions of the students, now the graduates, and the academics. To illustrate, it can be investigated where those graduates are working, to what extent their workplaces are satisfied with them, and whether the quality of education that they got during the pandemic is accepted as enough to compete with the business world. Moreover, the perceptions regarding the university they graduated from can be analyzed to see the effect of online learning on their perceptions regarding the sense of belongingness to the university. On the other hand, there could be studies on the perceptions and experiences of the academics after the pandemic to examine their personal and professional readiness and preparedness to help the students experience academic and nonacademic college experiences effectively in an emergency.

Further, other research methods like action research and design-based research can be utilized with the students and academics experiencing the pandemic in order to improve college experiences of the students and academics after the pandemic.

Lastly, additional data collection methods like document analysis might be used to look into the permanent effects of the pandemic or the earthquake on academic college experiences, specifically instructional practices. Thus, the permanent changes in instructional practices of the academics can be investigated.

REFERENCES

- Abdelfattah, F., Al Alawi, A. M., Dahleez, K. A., & El Saleh, A. (2023). Reviewing the critical challenges that influence the adoption of the e-learning system in higher educational institutions in the era of the COVID-19 pandemic. *Online Information Review*, 47(7), 1225-1247.
- Adams, A. E., Randall, S., & Traustadottir, T. (2015). A tale of two sections: An experiment to compare the effectiveness of a hybrid versus a traditional lecture format in introductory microbiology. *CBE Life Sciences Education*, 14(1), 1-8.
- Adedoyin, O. B., & Soykan, E. (2023). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive learning environments*, 31(2), 863-875. <https://doi.org/10.1080/10494820.2020.1813180>
- Akar, H. (2010). Globalization and its challenges for developing countries: the case of Turkish higher education. *Asia Pacific Education*, 11, 447–457. <https://doi.org/10.1007/s12564-010-9086-0>
- Akimov, A., & Malin, M. (2020). When old becomes new: a case study of oral examination as an online assessment tool. *Assessment & Evaluation in Higher Education*, 45(8), 1205-1221. <https://doi.org/10.1080/02602938.2020.1730301>
- Akyol, B., & Arslan, H. (2014). The evaluation of higher education problems in Turkey. *European Scientific Journal*, 10(7), 71-84.
- Alghamdi, A. (2013). Pedagogical implications of using discussion board to improve student learning in higher education. *Higher Education Studies*, 3(5), 68-80.
- Allen, I. E., & Seaman, J. (2014). *Grade change: Tracking online education in the United States*. Newburyport, MA: Sloan Consortium
- Almossa, S. Y. (2021). University students' perspectives toward learning and assessment during COVID-19. *Education and Information Technologies*, 26(6), 7163–7181. <https://doi.org/10.1007/s10639-021-10554-8>
- Alsaady, I., Gattan, H., Zawawi, A., Alghanmi, M., & Zakai, H. (2020). Impact of COVID-19 crisis on exam anxiety levels among bachelor level university

students. *Mediterranean Journal of Social Sciences*, 11(5), 33-33.

Altbach, P.G., Reisberg, L., & Rumbley, L.E. (2009). Trends in global higher education: Tracking an academic revolution. *Report for the UNESCO 2009 World Conference on Higher Education*.

Altınoy, E., & Boyraz, S. (2022). A literature review on COVID-19 studies in the Turkish educational context. *Cumhuriyet Uluslararası Eğitim Dergisi*, 11(3), 547-559.

Annala, J., & Mäkinen, M. (2010). Meanings behind curriculum development in higher education. *Prime*, 4 (2), 10-24. <http://urn.fi/urn:nbn:uta-3-1004>

Annala, J., Lindén, J., & Mäkinen, M. (2016). Curriculum in higher education research. In J. Case & J. Huisman (Eds.), *Researching Higher Education. International perspectives on theory, policy and practice* (pp. 171–189). SHRE Society for Research into Higher Education & Routledge. <https://doi.org/10.4324/9781315675404>

Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 12(20), 8438. <https://doi.org/10.3390/su12208438>

Assie-Lumumba, N. (2005). *Higher education in Africa: Crises, reforms and transformation*. Senegal: Council for the Development of Social Science Research in Africa (CODSERIA).

Auerbach, C. F., & Siverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. New York: New York University Press.

Bai, H., Yu, H., Bantsimba N, R., & Luo, L. (2022). How college experiences impact student Learning outcomes: Insights from Chinese undergraduate students. *Frontiers in Psychology*, 13, <https://doi.org/10.3389/fpsyg.2022.1021591>

Balcı, A. (2020). Covid-19 özelinde salgınların eğitime etkileri. *Uluslararası Liderlik Çalışmaları Dergisi: Kuram ve uygulama*, 3 (3), 75-85.

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2, 113-115.

- Barbour, M. K., LaBonte, R., Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., Bond, M.A., Hill, P., & Kelly, K. (2020). *Understanding pandemic pedagogy: Differences between emergency remote, remote, and online teaching*. State of the Nation: K-12 e-Learning in Canada.
- Barnett, R. (2009). Knowing and becoming in the higher education curriculum. *Studies in Higher Education*, 34(4), 429-440. <https://doi.org/10.1080/03075070902771978>
- Barnett, R. (2011). The idea of the university in the twenty-first century: where's the imagination? *Journal of Higher Education*, 1(2), 88-94.
- Barnett, R., & Coate, K. (2005). *Engaging the Curriculum in Higher Education*. Maidenhead, GBR: McGraw-Hill Education.
- Bartolic, S. K., Boud, D., Agapito, J., Verpoorten, D., Williams, S., Lutze-Mann, L., Matzat, U., Moreno, M. M., Polly, P., Tai, J., Marsh, H. L., Lin, L., Burgess, J. L., Habtu, S., Rodrigo, M. M. M., Roth, M., Heap, T., & Guppy, N. (2022a). A multi-institutional assessment of changes in higher education teaching and learning in the face of COVID-19. *Educational Review*, 74(3), 517-533. <https://doi.org/10.1080/00131911.2021.1955830>
- Bartolic, S., Matzat, U., Tai, J., Burgess, J. L., Boud, D., Craig, H., Archibald, A., De Jaeger, A., Kaplan-Rakowski, R., Lutze-Mann, L., Polly, P., & Guppy, N. (2022b). Student vulnerabilities and confidence in learning in the context of the COVID-19 pandemic. *Studies in Higher Education*, 47(12), 2460–2472. <https://doi.org/10.1080/03075079.2022.2081679>
- Baruth, O., Gabbay, H., Cohen, A., Bronshtein, A., & Ezra, O. (2021). Distance learning perceptions during the coronavirus outbreak: freshmen versus more advanced students. *Journal of Computer Assisted Learning*, 37(6), 1666-1681. <https://doi.org/10.1111/jcal.12612>
- Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32(3), 347-364. <https://doi.org/10.1007/bf00138871>
- Biggs, J., & Tang, C. (2011). *Teaching for Quality Learning at University: What the students do*. 4th edition. Maidenhead: SRHE and Open University Press.
- Blackmore, R., & Kandiko, C. B. (2012). The networked curriculum. In R. Blackmore & C.B. Kandiko (Eds), *Strategic Curriculum Change. Global trends in*

universities (pp.3-20). London: Routledge.

- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative Research for education: An introduction to theory and method* (5th edition). Boston: Pearson.
- Bopegedera, A. M. R. P. (2020). Using familiar and new assessment tools in physical chemistry courses during covid-19. *Journal of Chemical Education*, 97(9), 3260-3264.
- Branch, R. M. (2009). *Instructional design: The ADDIE approach*. London: Springer.
- Bridges, D. (2000). Back to the future: The higher education curriculum in the 21st century. *Cambridge Journal of Education*, 30 (1), 37-55.
<https://doi.org/10.1080/03057640050005762>
- Briggs, L. J. (1970). *Handbook of procedures for the design of instruction*. The USA: Educational Technology Publishing.
- Buchanan, E. A. (2004). Online assessment in high education: Strategies to systematically evaluate student learning. In *Distance learning and university effectiveness: Changing educational paradigms for online learning* (pp. 163-176). IGI Global.
- Campagna, D. (1969). Non-Academic aspects of college experience. *ERIC Archive ED028470*. Retrieved from https://archive.org/details/ERIC_ED028470
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The Psychological Impact of the COVID-19 Epidemic on College Students in China. *Psychiatry Research*, 287, 112934.
<https://doi.org/10.1016/j.psychres.2020.112934>
- Chao, M., Chen, X., Liu, T., Yang, H., & Hall, B. J. (2020). Psychological distress and state boredom during the covid-19 outbreak in china: the role of meaning in life and media use. *European Journal of Psychotraumatology*, 11(1).
<https://doi.org/10.1080/20008198.2020.1769379>
- Chen, Y., Zhu, L. J., Fang, Z. M., Wu, N., Du, M. X., Jiang, M. M., Wang, J., Yao, Y. S., & Zhou, C. C. (2021). The association of suicidal ideation with family characteristics and social support of the first batch of students returning to a college during the covid-19 epidemic period: a cross sectional study in china.

- Cheng, D. X. (2001). Assessing student collegiate experience: Where do we begin?. *Assessment & Evaluation in Higher Education*, 26(6), 525-538. <https://doi.org/10.1080/02602930120093869>
- Chick, R. C., Clifton, G. T., Peace, K. M., Propper, B. W., Hale, D. F., Alseidi, A. A., & Vreeland, T. J. (2020). Using technology to maintain the education of residents during the COVID-19 pandemic. *Journal of Surgical Education*, 77, 729-732.
- Chickering, A. W., & McCormick, J. (1973). Personality development and the college experience. *Research in Higher Education*, 1, 43-70.
- Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, canons and evaluative criteria. *Qualitative Sociology*, 13 (1), 3-21.
- Cox, A., & Brewster, L. (2020). Library support for student mental health and well-being in the UK: Before and during the COVID-19 pandemic. *The Journal of Academic Librarianship*, 46(6), 102256. <https://doi.org/10.1016/j.acalib.2020.102256>.
- Creswell, J. W. (2002). *Research design: qualitative, quantitative and mixed methods approaches*. Thousand Oaks, CA: SAGE.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- De Groote, S., & Scoulas, J. M. (2021). Impact of COVID-19 on the use of the academic library. *Reference Services Review*, 49(3/4), 281-301.
- Deloitte Center for Higher Education Excellence. (2020). Higher education remade by COVID-19: Scenarios for resilient leaders/3 - 5 years. The UK: Deloitte Touche Tohmatsu Limited. Retrieved from <https://www2.deloitte.com/hr/en/pages/about-deloitte/articles/covid-19-svijet-preobrazen-pandemijom-koronavirusa.html>
- Deryugina, T., Shurchkov, O., & Stearns, J. (2021). COVID-19 disruptions disproportionately affect female academics. *AEA Papers and Proceedings*, 111, 164-168.

- Denovan, A. & Macaskill, A. (2013). An interpretative phenomenological analysis of stress and coping in first year undergraduates. *British Educational Research Journal*, 39(6), 1002–1024. <https://doi.org/10.1002/berj.3019>
- Dewey, J. (1963). *Experience and education*. New York, NY: Collier Books.
- Dick, W., Carey, L., & Carey, J. (2005). *The systematic design of instruction* (6th ed.). Boston: Allyn and Bacon.
- Di Pietro, G., Biagi, F., Costa P., Karpiński Z., & Mazza, J. (2020). JRC technical report: The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets. Luxembourg: Publications Office of the European Union. <https://doi.org/10.2760/126686>
- Dison, L., & Padayachee, K. (2022). Possibilities for long-term shifts in higher education assessment praxis: Reflecting on Covid-19 as a stimulus for change. *South African Journal of Higher Education*, 36(4), 154-172.
- Dogra, P., & Kaushal, A. (2022). Underlying the triple burden effects on women educationists due to COVID-19. *Education and Information Technologies*, 27(1), 209-228. <https://doi.org/10.1007/s10639-021-10645-6>
- Donham, C., Barron, H. A., Alkhouri, J. S., Changaran Kumarath, M., Alejandro, W., Menke, E., & Kranzfelder, P. (2022). I will teach you here or there, I will try to teach you anywhere: Perceived supports and barriers for emergency remote teaching during the COVID-19 pandemic. *International Journal of STEM Education*, 9(1), 1–25.
- Drachsler, H., Jansen, J., & Kirschner, P. A. (2021). Adoption of learning technologies in times of pandemic crisis. *Journal of Computer Assisted Learning*, 37(6). <https://doi.org/10.1111/jcal.12626>
- Drolet, J. L., Alemi, M. I., Bogo, M., Chilanga, E., Clark, N., St George, S., Charles, G., Hanley, J., McConnell, S. M., McKee, E., Walsh, C. A., & Wulff, D. (2020). Transforming field education during COVID-19. *Field Educator*, 10 (2), 1-9.
- Eatough, V., & Smith, J. A. (2008). Interpretative Phenomenological Analysis. In C. Willig, & W. Stainton-Rogers (Ed.). *The Sage handbook of qualitative research in psychology* (pp. 179-194). Los Angeles: SAGE.

- Elazab, S., & Alazab, M. (2015). The effectiveness of the flipped classroom in higher education, *Proceedings of Fifth International Conference on e-Learning, IEEE*, p. 207-211. <https://doi.org/10.1109/ECONF.2015.34>
- Elfirdoussi, S., Lachgar, M., Kabaili, H., Rochdi, A., Goujdami, D., & El Firdoussi, L. (2020). Assessing distance learning in higher education during the COVID-19 pandemic. *Education Research International*, 2020(1), 8890633. <https://doi.org/10.1155/2020/8890633>
- Elkington, S. (2022). Shifts in pedagogy and flexible assessment: integrating digital technology with good teaching and learning practice. In *The Emerald Handbook of Higher Education in a Post-Covid World: New Approaches and Technologies for Teaching and Learning* (pp. 153-171). Emerald Publishing Limited.
- Elmer, T., Mepham, K., & Stadtfeld, C. (2020). Students under lockdown: comparisons of students' social networks and mental health before and during the covid-19 crisis in Switzerland. *Plos One*, 15(7), e0236337. <https://doi.org/10.1371/journal.pone.0236337>
- Elsalem, L., Al-Azzam, N., Jum'ah, A. A., Obeidat, N., Sindiani, A. M., & Kheirallah, K. A. (2020). Stress and behavioral changes with remote e-exams during the Covid-19 pandemic: A cross-sectional study among undergraduates of medical sciences. *Annals of Medicine and Surgery*, 60, 271-279.
- Enkenberg, J. (2001). Instructional design and emerging teaching models in higher education. *Computers in Human Behavior*, 17(5-6), 495-506.
- Erdem, A. R. (2012). University reform under the leadership of Atatürk: the turning point in the history of higher education and science. *BELGİ*, 4, 376-388.
- Ferdig, R. E., Baumgartner, E., Mouza, C., Kaplan-Rakowski, R., & Hartshorne, R. (2021). Rapid publishing in a time of CO-VID-19: How a pandemic might change our academic writing practices. *Contemporary Issues in Technology and Teacher Education*, 21(1), 1-18.
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86. <https://doi.org/10.3390/soc10040086>
- Filho, W. L., Wall, T., Raymann, B. L., Mifsud, M., Pritchard, D. J., Lovren, V.,

- Farinha, C., Petrovic, D. S., & Balogun, A. L. (2021). Impacts of COVID-19 and social isolation on academic staff and students at universities: A cross-sectional study. *BMC Public Health*, 21(1), 1-19. <https://doi.org/10.1186/s12889-021-11040-z>
- Finnerty, R., Marshall, S. A., Imbault, C., & Trainor, L. J. (2021). Extra-curricular activities and well-being: Results from a survey of undergraduate university students during COVID-19 lockdown restrictions. *Frontiers in Psychology*, 12, 647402. <https://doi.org/10.3389/fpsyg.2021.647402>
- Fitzpatrick, J. L., Sanders, J. R., & Worthen, B. R. (2004). *Program evaluation: Alternative approaches and practical guidelines*. Boston: Pearson/Allyn and Bacon
- Fung, D. (2017). *A Connected Curriculum for Higher Education*. UCL Press: London. <https://doi.org/10.14324/111.9781911576358>
- Gaal, S., Fuller, M., & Haynes, S. (2023). Lived experiences of freshman college students during a pandemic. *Journal of College Orientation, Transition, and Retention*, 30(1). <https://doi.org/10.24926/jcotr.v30i1.4697>
- Gabster, B. P., van Daalen, K., Dhatt, R., & Barry, M. (2020). Challenges for the female academic during the COVID-19 pandemic. *The Lancet*, 395 (10242), 1968-1970.
- Gamage, K. A., Wijesuriya, D. I., Ekanayake, S. Y., Rennie, A. E., Lambert, C. G., & Gunawardhana, N. (2020). Online delivery of teaching and laboratory practices: Continuity of university programmes during COVID-19 pandemic. *Education Sciences*, 10 (10), 291.
- Gaytan, J., & B. McEwen. (2007). Effective Online Instructional and Assessment Strategies *American Journal of Distance Education* 21 (3), 117–132. doi:10.1080/08923640701341653
- Gibbons, A. (2020). What is instructional strategy? Seeking hidden dimensions. *Educational Technology Research and Development*, 68, 2799–2815. <https://doi.org/10.1007/s11423-020-09820-2>
- Gibson, J. T. (2009). Discussion approach to instruction. In C. M. Reigeluth & A. A. Carr-Chellman (Eds). *Instructional-Design Theories and Models, Volume III* (pp. 111-128). NY: Routledge.

- Giorgi, A. P. (1985). *Phenomenology and Psychological Research*. Pittsburg, PA: Duquesne University Press.
- Glaser, B.G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Goodyear, P., Salmon, G., Spector, M., Steeples, C. & Tickner, S. (2001). Competencies for online teaching. *Education Training & Development*, 49(1), 65-72.
- Göksu, I., Ergün, N., Özkan, Z., & Sakız, H. (2021). Distance education amid a pandemic: Which psycho-demographic variables affect students in higher education? *Journal of Computer Assisted Learning*, 37(6), 1539–1552. <https://doi.org/10.1111/jcal.12544>
- Guo, P., Saab, N., Post, L. S., & Admiraal, W. (2020). A review of project-based learning in higher education: Student outcomes and measures. *International journal of educational research*, 102 (101586), p. 1-13.
- Guppy, N., Matzat, U., Agapito, J., Archibald, A., De Jaeger, A., Heap, T., Moreno, M. M., Rodrigo, M. M., & Bartolic, S. (2022). Student confidence in learning during the COVID-19 pandemic: what helped and what hindered? *Higher Education Research and Development*, 42(4), 845-859.
- Hager, N., Judah, M., & Milam, A. (2020). Loneliness and depression in college students during the covid-19 pandemic: boredom and repetitive negative thinking as mediators. <https://doi.org/10.21203/rs.3.rs-101533/v1>
- Haider, A. S., & Al-Salman, S. (2023). Jordanian university instructors' perspectives on emergency remote teaching during COVID-19: humanities vs sciences. *Journal of Applied Research in Higher Education*, 15(1), 98-112.
- Händel, M., Stephan, M., Gläser-Zikuda, M., Kopp, B., Bedenlier, S., & Ziegler, A. (2020). Digital readiness and its effects on higher education students' socio-emotional perceptions in the context of the COVID-19 pandemic. *Journal of Research on Technology in Education*, 54(2), 267–280.
- Hargreaves, E. (2007). The Validity of Collaborative Assessment for Learning. *Assessment in Education: principles. Policy & Practice* 14 (2), 185–199. <https://doi.org/10.1080/09695940701478594>

- Heo, H., Bonk, C. J., & Doo, M. Y. (2021). Enhancing learning engagement during COVID-19 pandemic: Self-efficacy in time management, technology use, and online learning environments. *Journal of Computer Assisted Learning*, 37(6), 1640–1652. <https://doi.org/10.1111/jcal.12603>
- Hickling, S., Bhatti, A., Arena, G., Kite, J., Denny, J., Spencer, N. L., & Bowles, D. C. (2021). Adapting to teaching during a pandemic: Pedagogical adjustments for the next semester of teaching during COVID-19 and future online learning. *Pedagogy in Health Promotion*, 7(2), 95–102. <https://doi.org/10.1177/2373379920987264>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*, 3. Retrieved from <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remoteteaching-and-online-learning>
- Hockings, C., Thomas, L., Ottaway, J., & Jones, R. (2018). Independent learning—what we do when you’re not there. *Teaching in Higher Education*, 23(2), 145-161. <https://doi.org/10.1080/13562517.2017.1332031>
- Hu, S. P., & Kuh, G. D. (2003). Maximizing what students get out of college: testing a learning productivity model. *Journal of College Student Development*, 44, 185–203. <https://doi.org/10.1353/csd.2003.0016>
- Hung, M. L., Chou, C., Chen, C. H., & Own, Z. Y. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers and Education*, 55(3), 1080–1090. <https://doi.org/10.1016/j.compedu.2010.05.004>
- Husserl, E. (1970). *The crisis of European sciences and transcendental phenomenology: An introduction to phenomenological philosophy*. Northwestern University Press.
- Iorio, M. (2020). The differential effects of college experiences on cognitive outcomes among first-generation subpopulations. *Journal of Studies in Education*, 10(1), 44-64.
- Inglis, A., Ling, P. & Joosten, V. (2000). *Delivering Digitally: Managing the Transition to the Knowledge Media*. London & Sterling: Kogan
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative Learning: Improving University Instruction by Basing Practice on Validated Theory.

- Jonathan, L. Y., & Laik, M. N. (2021). Using experiential learning theory to improve teaching and learning in higher education. *European Journal of Social Science Education and Research*, 8(3), 117-131.
- Kalkan, O. (2019). *The transformation of higher education in Turkey between 2002-2018: an analysis of policies and politics of higher education* (Unpublished master's thesis). Middle East Technical University.
- Kantar, L. D., & Sailian, S. (2018). The effect of instruction on learning: case based versus lecture based. *Teaching and Learning in Nursing*, 13(4), 207-211.
- Karademir, A., Yaman, F., & Saatçioğlu, Ö. (2020). Challenges of higher education institutions against COVID-19: The case of Turkey. *Journal of Pedagogical Research*, 4(4), 453-474. <https://doi.org/10.33902/JPR.2020063574>
- Karalis, T., & Raikou, N. (2020). Teaching at the times of COVID-19: Inferences and implications for higher education pedagogy. *International Journal of Academic Research in Business and Social Sciences*, 10(5), 479-493. <https://doi.org/10.6007/IJARBS/v10-i5/7219>
- Karasneh, R., Al-Azzam, S., Muflih, S., Hawamdeh, S., Muflih, M. & Khader, Y. (2021). Attitudes and practices of educators towards e-learning during the COVID-19 pandemic. *The Electronic Journal of e-Learning*, 19 (4), 252-261.
- Kay, R., & MacDonald, T. (2016). Comparing flipped, active, and lecture-based teaching approaches in higher education. *Proceedings of EdMedia+Innovate Learning, Association for the Advancement of Computing in Education (AACE)*, p. 1559-1565.
- Kebritchi, M., Lipschuetz, A., & Santiago, L. (2017). Issues and challenges for teaching successful online courses in higher education: A literature review. *Journal of Educational Technology Systems*, 46(1), 4-29.
- Keeton, M. T. (2004). Best online instructional practices: Report of phase I of an ongoing study. *Journal of asynchronous learning networks*, 8(2), 75-100.
- Kim, Y., & Yang, E. (2022). Academic library spaces and student activities during the COVID-19 pandemic. *The Journal of Academic Librarianship*, 48(4), 102529.

- Kinzie, J. (2014). Research on successful learning practices. In Tobolowsky, B. F. (Ed.). *Paths to learning: Teaching for engagement in college* (11-30). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Kirmizi, Ö. (2015). The influence of learner readiness on student satisfaction and academic achievement in an online program at higher education. *Turkish Online Journal of Educational Technology-TOJET*, 14(1), 133-142.
- Klein, P., Ivanjek, L., Dahlkemper, M. N., Jeličić, K., Geyer, M. A., Küchemann, S., & Susac, A. (2021). Studying physics during the COVID-19 pandemic: Student assessments of learning achievement, perceived effectiveness of online recitations, and online laboratories. *Physical Review Physics Education Research*, 17(1), 010117.
- Koç, S., & Koç, A. (2021). The effect failing to perform extracurricular activities has had on school culture and values education during the COVID-19 pandemic. *Frontiers in Psychology*, 12, 778678.
- Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving schools*, 19 (3), 267-277. <https://doi.org/10.1177/1365480216659733>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Koneru, I. (2017). Exploring Moodle functionality for managing open distance learning e-assessments. *Turkish Online Journal of Distance Education*, 18(4), 129–141. <https://doi.org/17718/tojde.340402>
- Lafcı-Tor, D. & Engin, C. (2023). Examining the hidden curriculum of the physical environment in higher education. *Van Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, 20(2), 704-731. <https://doi.org/10.33711/yyuefd.1284795>
- Larsen, H. G., & Adu, P. (2022). *The theoretical framework in phenomenological research: Development and application*. NY: Routledge.
- Lincoln, Y. S., & Guba, E. (1985). *Naturalistic enquiry*. Beverly Hills, CA: Sage.
- Liu, C. H., Pinder-Amaker, S., Hahm, H. C., & Chen, J. A. (2020). Priorities for

addressing the impact of the COVID-19 pandemic on college student mental health. *Journal of American College Health*, 70(5), 1356-1358.

Lotkowski, V. A., Robbins, S. B., & Noeth, R. J. (2004). The role of academic and non-academic factors in improving college retention. ACT policy report. *American College Testing ACT Inc.*

Lottes, I. L. & Kurilof, P. J. (1994). The impact of college experience on political and social attitudes. *Sex Roles*, 31 (1), 31-54.

Löfvall, S., & Nygaard, C. (2013). Interrelationships between student culture, teaching and learning in higher education. In Nygaard, C., Branch J. & Holtham, C. (Eds.), *Learning in higher education: contemporary standpoints*. (pp. 127-150). England: Libri Publishing.

Luo, Z., Fan, Q., & Xu, Y. (2023). family environment and college students' psychological health during the normalization of the covid-19 pandemic. *Journal of Education Humanities and Social Sciences*, 8, 1983-1990. <https://doi.org/10.54097/ehss.v8i.4628>

Mahan, D. M. (2010). *The four-year experience of first-generation students at a small independent university: Engagement, Student Learning and satisfaction*. [Unpublished doctoral dissertation]. University of Louisville.

Mahmood, S. (2021). Instructional strategies for online teaching in COVID-19 pandemic. *Human behavior and emerging technologies*, 3(1), 199-203.

Maphalala, M. C., Mkhasibe, R. G., & Mncube, D. W. (2021). Online Learning as a Catalyst for Self-directed Learning in Universities during the COVID-19 Pandemic. *Research in Social Sciences and Technology*, 6(2), 233-248.

Marinoni, G., Van't Land, H., & Jensen, T. (2020). *The impact of COVID-19 on higher education around the world*. IAU global survey report.

Martin, F., Bolliger, D. U., & Flowers, C. (2021). Design matters: development and validation of the online course design elements (OCDE) instrument. *The International Review of Research in Open and Distributed Learning*, 22(2), 46-71. <https://doi.org/10.19173/irrodl.v22i2.5187>

Mayhew, M. J., Rockenbach, A. N., Borman, N. A., Seifert, T. A., Wolniak, G. C.,

- Pascarella, E. T. & Terenzini, P.T. (2016). *How college affects students: 21st century evidence that higher education works*. San Francisco: Jossey-Bass.
- Mckinney, K., Medvedeva, M., Vacca, K., & Malak, J. (2004). Beyond the classroom: an exploratory study of out-of-class learning in sociology. *Teaching Sociology*, 32(1), 43–60. <https://doi.org/10.1177%2F0092055X0403200106>
- Means, B., Bakia, M., & Murphy, R. (2014). *Learning online: What research tells us about whether, when and how*. Routledge.
- Means, B., & Neisler, J. (2021). Teaching and learning in the time of COVID: The student perspective. *Online Learning*, 25(1), 8–27. <https://doi.org/10.24059/olj.v25i1.2496>
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1, 100012.
- Molenda, M. (2003). In search of the elusive ADDIE model. *Performance Improvement*, 42(5), 34–36.
- Montacute, R., & Holt-White, E. (2021). Covid-19 and the university experience. *Research Brief: The Sutton Trust*, 1-14.
- Monteith, M., & Smith, J. (2001). Learning in a virtual campus: the pedagogical implications of students' experiences. *Innovations in education and teaching international*, 38(2), 119-132.
- Morgan, H. (2022). Alleviating the challenges with remote learning during a pandemic. *Education Sciences*, 12(2), 109. <https://doi.org/10.3390/educsci12020109>
- Morrison, G. R., Ross, S.M., Kalman, H. K., & Kemp, J. E. (2013). *Designing Effective Instruction*. Hoboken, NJ: John Wiley & Sons, Inc.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA:

Sage.

- Mseleku, Z. (2020). A literature review of E-learning and E-teaching in the era of Covid-19 pandemic. *International Journal of Innovative Science and Research Technology*, 5(10), 588-597.
- Newman, P. R., & Newman, B. M. (1978). Identity formation and the college experiences. *Adolescence*, 8(50), 311-326.
- Noble, K., Flynn, N. T., Lee, J. D., & Hilton, D. (2007). Predicting successful college experiences: Evidence from a first-year retention program. *Journal of College Student Retention: Research, Theory & Practice*, 9(1), 39-60.
- Noon, E. J. (2018). Interpretive phenomenological analysis: An appropriate methodology for educational research? *Journal of Perspectives in Applied Academic Practice*, 6(1), 75-83.
- Okada, A., Whitelock, D., Holmes, W., & Edwards, C. (2019). e-Authentication for online assessment: A mixed- method study. *British Journal of Educational Technology*, 50(2), 861–875. <https://doi.org/10.1111/bjet.12608>
- Olfert, M., Wattick, R., Saurborn, E., & Hagedorn, R. (2022). Impact of covid-19 on college student diet quality and physical activity. *Nutrition and health*, 28(4), 721-731. <https://doi.org/10.1177/02601060221086772>
- Onyema, E. M., Eucheria, N. C., Obafemi, F. A., Sen, S., Atonye, F. G., Sharma, A., & Alsayed, A. O. (2020). Impact of coronavirus pandemic on education. *Journal of Education and Practice*, 11(13), 108. <https://doi.org/10.7176/JEP/11-13-12>
- Oosterhof, A., Conrad, R. & Ely, D. (2008). *Assessing learners online*. Upper Saddle River, NJ: Pearson.
- Pace, C. R. (1984). *Measuring the quality of college student experiences. An account of the development and use of the college student experiences questionnaire*. LA: Higher Education Research Institute.
- Pak, C. S. (2020). Exploring the long-term impact of service-learning: former students of Spanish revisit their community engagement experiences. *Hispania* 103, 67–85. <https://doi.org/10.1353/hpn.2020.0004>

- Pascarella, E. T., Blaich, C., & Maitin, G. L. (2011). How robust are the findings of academically adrift? *Change: The Magazine of Higher Learning*, 43(3), 20–24. <https://doi.org/10.1080/00091383.2011.568898>
- Pascarella, E. T., & Terenzini, P. T. (1979). Interaction effects in Spady and Tinto's conceptual models of college attrition. *Sociology of Education*, 52(4), 197-210.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of Research* (Vol. 2). San Francisco, CA: Jossey-Bass.
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, 75(3), 249-284.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. The USA: SAGE.
- Paudel, P. (2021). Online education: Benefits, challenges and strategies during and after COVID-19 in higher education. *International Journal on Studies in Education (IJonSE)*, 3(2), 70-85.
- Peterson, C. (2003). Bringing ADDIE to life: Instructional design at its best. *Journal of Educational Multimedia and Hypermedia*, 12(3), 227-241.
- Pike, G. R., & Kuh, G. D. (2005). First- and second-generation college students: A comparison of their engagement and intellectual development. *Journal of Higher Education*, 76(3), 276–301.
- Pike, G. R., Kuh, G. D. & Gonyea, R. M. (2003). The relationship between institutional mission and students' involvement and educational outcomes. *Research in Higher Education*, 44(2), 241–261.
- Popa, D., Repanovici, A., Lupu, D., Norel, M., & Coman, C. (2020). Using mixed methods to understand teaching and learning in COVID 19 times. *Sustainability*, 12(20), 8726.
- Radhamani, R., Kumar, D., Nizar, N., Achuthan, K., Nair, B., & Diwakar, S. (2021). What virtual laboratory usage tells us about laboratory skill education pre- and post-COVID-19: Focus Transition to Virtual Instruction: A Microbiology Instructor's Challenges 33 on usage, behavior, intention and adoption. *Education and Information Technologies*, 26(6), 7477–7495.

- Ragan, T. J., & Smith, P. L. (1999). *Instructional design*. New York: Macmillan Publishing Company.
- Rao, S. (2022). Discussion on mental health problems related to COVID-19 for college students in China. In *2021 International Conference on Social Development and Media Communication (SDMC 2021)* (pp. 692-696). Atlantis Press.
- Reason, R. D., Terenzini, P. T. & Domingo, R. J. (2006). First things first: Developing academic competence in the first year of college. *Research in Higher Education*, 47(2), 149–175.
- Rest, J. & Narvaez, D. (2014). The college experience and moral development. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development: Volume 2: Research* (pp. 229-245). New York: Psychology Press.
- Ricon-Gallardo, S., & Fleish, B. (2016). Bringing effective instructional practice to scale: An introduction. *Journal of Educational Change*, 17(4), 379–383. <https://doi.org/10.1007/s10833-016-9288-2>
- Romaniuk, M. W., & Łukasiewicz-Wieleba, J. (2021). Challenges of administering university examinations remotely during the COVID-19 pandemic. *E-Mentor*, 90 (3), 22-31. <https://doi.org/10.15219/em90.1519>
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. London: Sage.
- Salmon, G. (2004a). *E-moderating: The key to teaching and learning online*. Psychology Press.
- Salmon, G. (2004b). E-moderating in higher education. In *Distance learning and university effectiveness: Changing educational paradigms for online learning* (pp. 55-78). IGI Global.
- Saraç, Y. (2021, March 3). The impact of online education during Covid-19 pandemic in Turkish higher education. *Anadolu Ajansı*. Retrieved from <https://www.aa.com.tr/en/analysis/analysis-the-impact-of-online-education-during-covid-19-pandemic-in-turkish-higher-education/2163525>

- Sarı, T., & Nayır, F. (2020). Education in the pandemic period: Challenges and opportunities. *Turkish Studies*, 15(4), 959-975. <https://dx.doi.org/10.7827/TurkishStudies>
- Saygı, Ş. (2024). *Culture(s) of assessment in higher education: A case study*. [Unpublished doctoral dissertation]. Middle East Technical University.
- Schleicher, A. (2020). The impact of Covid-19 on education insights from education at a glance 2020. OECD. Retrieved from <http://www.oecd.org/education/education-at-a-glance/>
- Scott, C. E., Green, L. E., & Etheridge, D. L. (2016). A comparison between flipped and lecture-based instruction in the calculus classroom. *Journal of Applied Research in Higher Education*, 8(2), 252-264.
- Senel, S., & Senel, H. C. (2021). Remote assessment in higher education during COVID-19 pandemic. *International Journal of Assessment Tools in Education*, 8(2), 181–199. <https://doi.org/10.21449/ijate.820140>
- Shim, W. & Walczak, K. (2012). The impact of faculty teaching practices on the development of students' critical thinking skills. *International Journal of Teaching and Learning in Higher Education*, 24(1), 16-30.
- Shirahada, K., Ho, B. Q., & Wilson, A. (2019). Online public services usage and the elderly: Assessing determinants of technology readiness in Japan and the UK. *Technology in Society*, 58, 101115.
- Silva, P., Lopes, B., Costa, M., Seabra, D., Melo, A. I., Brito, E., & Dias, G. P. (2016). Stairway to employment? Internships in higher education. *Higher Education*, 72, 703-721.
- Simsek, H. (1999). The Turkish higher education system in the 1990s. *Mediterranean Journal of Educational Studies*, 4(2), 133-153.
- Simsek, H. (2007). Turkish higher education. In P. Altbach & J. Forest (Eds.), *Handbook of international higher education*. Berlin: Springer.
- Singh, A. K., & Chander, M. (2020). Covid-19 and higher education. *Aegaeum Journal*, 8 (9), 1-20. Retrieved from https://www.researchgate.net/publication/344570214_COVID_19_and_Highe_r_Education

- Stephenson, J. (2012). Concept of capability and its importance in higher education. In J. Stephenson & M. Yorke (Eds.), *Capability and quality in higher education* (pp. 1-14). London and NY: Routledge.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Sultanova, L., Milto, L., & Zheludenko, M. (2021). The Impact of the Covid-19 Pandemic on the Development of Higher Education. *Acta Paedagogica Vilnensia*, 46, 132-147.
- Sümer, Z. H., Bikos, L. H., Güneri, O. Y., Demir, C. E. & Schuh, J. H. (2012). Field testing the college student experiences questionnaire in Turkey. *Journal of Educational and Instructional Studies in the World*, 4, 21-37.
- Tam, M. (2002). University impact on student growth: a quality measure? *Journal of Higher Education Policy and Management*, 24(2), 211-218.
- Tang, Y. M., Chen, P. C., Law, K. M. Y., Wu, C. H., Lau, Y., Guan, J., He, D. & Ho, G. T. S. (2021). Comparative analysis of student's live online learning readiness during the coronavirus (COVID-19) pandemic in the higher education sector. *Computers and Education*, 168, 1-17. <https://doi.org/10.1016/j.compedu.2021.104211>
- Tesch, R. (1984, April 23-27). *Phenomenological Studies: A critical analysis of their nature and procedures*. (Conference Presentation). American Educational Research Association Annual Meeting, New Orleans, LA.
- Thackaberry, A. (2020). Remote in a time of pandemic: Six considerations as we adapt to COVID-19. *The EvoLLLution*.
- Tosun, N. (2021). Distance Education Practices at Universities in Turkey: A Case Study during COVID-19 Pandemic. *International Journal of Curriculum and Instruction*, 13(1), 313-333.
- Tufan, Z. K. (2020). COVID-19 diaries of higher education during the shocking pandemic. *Gazi Medical Journal*, 31, 227-233. <http://dx.doi.org/10.12996/gmj.2020.61>
- Tulaskar, R., & Turunen, M. (2022). What students want? Experiences, challenges,

and engagement during Emergency Remote Learning amidst COVID-19 crisis. *Education and information technologies*, 27(1), 551-587.

UNESCO IESALC. (2020). COVID-19 and higher education: Today and tomorrow: Impact analysis, policy responses and recommendations. Retrieved from <http://www.iesalc.unesco.org/en/wp-content/uploads/2020/04/COVID-19-EN-090420-2.pdf>

Van Manen, M. (1990). *Researching the lived experience: Human science for an action sensitive pedagogy*. Canada: State University of New York Press.

Varshney, D. (2020). Impact of Covid-19 on higher online education: An examination. *2nd International Conference on Covid-19 Studies*.

Von Keyserlingk, Luise, Katsumi Yamaguchi-Pedroza, Richard Arum, & Jacquelynne S. Eccles. (2022). Stress of university students before and after campus closure in response to COVID-19. *Journal of Community Psychology*, 50 (1), 285-301.

Wagner, N., Hassanein, K., & Head, M. (2008). Who is responsible for E-learning success in higher education? A stakeholders' analysis. *Journal of Educational Technology & Society*, 11(3), 26–36.

Wahab, A., & Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies*, 10(3), 16

Wang, P., Ko, N., Chang, Y., Wu, C., Lu, W., & Yen, C. (2020). Subjective deterioration of physical and psychological health during the covid-19 pandemic in taiwan: their association with the adoption of protective behaviors and mental health problems. *International Journal of Environmental Research and Public health*, 17(18), 6827. <https://doi.org/10.3390/ijerph17186827>

Watson, R., Singh, U. G., & Nair, C. (2022). Experiences of female academics in Australia during COVID-19: Opportunities and challenges. *Journal of University Teaching & Learning Practice*, 19(1), 176-198. <https://doi.org/10.53761/1.19.1.11>

Wellington, J., & Szczerbinski, M. (2007). *Research methods for the social sciences*. New York: Continuum International Publishing Group.

Williams, C. (2002). Learning on-line: A review of recent literature in a rapidly expanding field. *Journal of further and Higher Education*, 26(3), 263- 272.

<https://doi.org/10.1080/03098770220149620>

Wood, C. I., Yu, Z., Sealy, D. A., Moss, I., Zigbuo-Wenzler, E., McFadden, C., Landi, D., & Brace, A. M. (2022). Mental health impacts of the covid-19 pandemic on college students. *Journal of American College Health*, 72(2), 463-468. <https://doi.org/10.1080/07448481.2022.2040515>

World Health Organization. (2021). Coronavirus. Retrieved from https://www.who.int/health-topics/coronavirus#tab=tab_1

World Bank. (2020a). Simulating the potential impacts of covid-19 school closures on schooling and learning outcomes: A set of global estimates. Washington, DC.: World Bank Group. Retrieved from <https://openknowledge.worldbank.org/handle/10986/33945>

World Bank. (2020b). The COVID-19 pandemic: Shocks to education and policy responses. Washington, DC.: World Bank Group. Retrieved from <https://openknowledge.worldbank.org/handle/10986/33696>

Yang, D. (2017). Instructional strategies and course design for teaching statistics online: perspectives from online students. *International Journal of STEM education*, 4, 1-15. 1 <https://doi.org/10.1186/s40594-017-0096-x>

Yıldırım, A., & Şimşek, H. (2018). *Sosyal bilimlerde nitel araştırma yöntemleri*. (11th ed.). Ankara: Seçkin Yayıncılık.

Yin, R. K. (2018). *Case study research and applications: Design and methods*. (6th ed.). Thousand Oaks, CA: Sage.

Yüksel, P., & Yıldırım, S. (2015). Theoretical frameworks, methods, and procedures for conducting phenomenological studies in educational settings. *Turkish Online Journal of Qualitative Inquiry*, 6(1), 1-20.

Zaki, A. F. (2022). Investigating the Impact of Extracurricular Activities on the Academic and Social Skills of University Students in Post-Covid-19: A Case Study. In *The Sharjah International Conference on Education in Post COVID-19* (pp. 251-262). Singapore: Springer Nature Singapore.

Zareef, M., & Ahmad, P. (2021). The impact of COVID-19 on university library services: A systematic literature review. *Library Philosophy and*

Practice, 2021, 1-13.

Zeng, H. L., Chen, D. X., Li, Q., & Wang, X. Y. (2020). Effects of seminar teaching method versus lecture-based learning in medical education: a meta-analysis of randomized controlled trials. *Medical teacher*, 42(12), 1343-1349.

Zhan, Q., Zhang, S., Wang, Q., Zhang, L., & Liu, Z. (2022). Analysis of the difference in college students' experience of family harmony before and after the covid-19 outbreak. *International Journal of Environmental Research and Public Health*, 19(10), 6265. <https://doi.org/10.3390/ijerph19106265>

Zhang, X., Al-Mekhled, D., & Choate, J. (2021). Are virtual physiology laboratories effective for student learning? A systematic review. *Advances in Physiology Education*, 45(3), 467–480. <https://doi.org/10.1152/advan.00016.2021>

APPENDICES

A. SEMI-STRUCTURED INTERVIEW QUESTIONS FOR STUDENTS

Öğrenci: _____

Tarih: _____

Başlangıç Saati: _____

Bitiş Saati: _____

Merhaba, ben Nilay Canbolat. ODTÜ Sosyal Bilimler Enstitüsü Eğitim Programları ve Öğretim Anabilim Dalında doktora öğrencisiyim. Tezim kapsamında pandemi süresince üniversitede verilen eğitim-öğretim süreçleri ile ilgili konuşmak ve görüşlerinizi almak istiyorum. Bu görüşmede amacım, sizin pandemi süresince verilen çevrimiçi eğitim tecrübelerinizi hakkında bilgi edinmek ve verilen eğitim-öğretimin pandemi sonrasında üniversite anlayışını nasıl şekillenebileceğine dair fikirlerinizi almaktır.

Kimlik bilgilerinizi kimse ile paylaşmayacak ve gizli tutacağım. Görüşme süresince verdiğiniz cevaplar araştırma raporunda isimleriniz belirtilmeden yansıtılacaktır.

Bu görüşmenin yaklaşık bir saat süreceğini tahmin ediyorum. Görüşme sırasında cevaplamak istemediğiniz soru olursa cevaplamayabilir ya da görüşmeyi istediğiniz zaman bırakabilirsiniz.

Ek olarak;

1. Söylediklerinizin hiçbirini kaçırmamak için görüşmeyi kaydetmek istiyorum. Bunun sizin için bir sakıncası var mı?
2. İzin verirseniz sorulara başlamak istiyorum. Başlamadan önce, eklemek ya da sormak istediğiniz bir şey var mı?

Sorular

1. Sizi daha iyi tanıyabilmek adına birkaç kısa soru ile başlamak istiyorum:

- a) Yaşınız:
- b) Bölümünüz:
- c) Sınıfınız:

2. Pandemi süresince yaşadığınız ortam nasıldı? Özellikleri nelerdi?

Çalışma alanı/teknik donanım/ ses, ışık, mobilya/öğrenim malzemeleri

3. Pandemi süresince eğitim aldığınız ortam nasıldı? Özellikleri nelerdi?

Yeterli teknolojik donanımınız var mıydı?

Kendiniz mi edindiniz, kurum mu verdi?

Bunları biriyle paylaşmanız gerekti mi? (bilgisayar, telefon, tablet, internet bağlantısı)

Dersleri ne şekilde takip ettiniz? (senkron, asenkron, her ikisi, online platformlar)

Öğretim üyelerine ulaşmada ve iletişim kurmada tecrübeleriniz nasıldı?

Sınıf arkadaşlarınıza ulaşmada ve iletişim kurmada tecrübeleriniz nasıldı? (grup çalışması, proje, çalıştay, vs)

4. Dijital becerileriniz ve donanımınız nasıldı? Bunun eğitim-öğretime etkisi nasıl oldu?

Teknoloji kullanmaya eğiliminiz nasıldı?

Pandemi öncesi çevrimiçi ders deneyiminiz var mıydı?

Derste kullanacağınız platformu daha önce kullandınız mı?

- Kullanmayı biliyor muydunuz? Nasıl öğrendiniz? Destek aldınız mı?
Kişisel bilgi ve becerilerinizin eğitimi takip etmede yeterli olduğunu düşünüyor muydunuz? Şimdi nasıl düşünüyorsunuz?
5. Öğretim üyelerinin teknolojik bilgi ve donanımının derse etkileri nasıl oldu?
6. Üniversite/bölüm çevrimiçi eğitim sürecine yönelik teknik, idari ve akademik destek sağladı mı? Nasıl?
7. Ders dışı aktivitelerden yararlandınız mı? Evet ise nasıl yararlandınız? Faydalı buldunuz mu?
seminer, danışmanlık hizmeti, kariyer planlama, kulüp faaliyetleri
8. Çevrimiçi eğitimin özellikleri nelerdi?
Sunulan ders içerikleri hakkındaki düşünceleriniz/tecrübeleriniz nelerdir?
Ders materyalleri hakkındaki düşünceleriniz/tecrübeleriniz nelerdir?
Yöntem ve teknikler hakkındaki düşünceleriniz/tecrübeleriniz nelerdir?
Ölçme ve değerlendirme hakkındaki düşünceleriniz/tecrübeleriniz nelerdir?
9. Yüz yüze öğrenmeye kıyaslarsanız çevrimiçi eğitimde ne tür farklı deneyimleriniz oldu?
öğrenme/akademik başarı/sosyalleşme/vs
10. Çevrimiçi eğitim sürecinin öğrencilerin bilgiyi yapılandırma üzerindeki etkileri nelerdir? Kendi deneyimlerinize örnekleyiniz.
11. Yüz yüze eğitime kıyasla pandemi süresince verilen eğitimin üniversitenin/bölümünüzün öğretim programına nasıl bir etkisi olduğunu düşünüyorsunuz?
12. Sizce uzaktan eğitime geçmenin güçlü/olumlu yönleri neler olabilir?
13. Uzaktan eğitimde karşılaştığınız en önemli sorunlar/aksaklıklar nelerdir? Bu aksaklıklarla nasıl baş ettiniz?/nasıl bir çözüm ürettiniz?
14. Pandemi süresince eğitimin çevrimiçi olmasının pandemi sonrası süreçte üniversiteyi nasıl değiştirdiğini/değiştireceğini düşünüyorsunuz?
öğrenci/hoca/ortam/vs
15. Üniversite ne içindir? Pandemi sonrası bunun cevabı değişti mi?

Görüşmemizin sonuna gelmiş bulunuyoruz. Paylaştığınız bilgiler için çok teşekkür ederim. Bu çalışmaya katkı sağlayacağını düşündüğünüz ve eklemek istediğiniz bir şey var mı?

B. SEMI-STRUCTURED INTERVIEW SCHEDULE FOR ACADEMICS

Öğretmen: _____
Başlangıç Saati: _____

Tarih: _____
Bitiş Saati: _____

Merhaba, ben Nilay Canbolat. ODTÜ Sosyal Bilimler Enstitüsü Eğitim Programları ve Öğretim Anabilim Dalında doktora öğrencisiyim. Tezim kapsamında pandemi süresince üniversitede verilen eğitim-öğretim süreçleri ile ilgili konuşmak ve görüşlerinizi almak istiyorum. Bu görüşmede amacım, sizin pandemi süresince verilen çevrimiçi eğitim tecrübelerinizi hakkında bilgi edinmek ve verilen eğitim-öğretimin pandemi sonrasında üniversite anlayışını nasıl şekillenebileceğine dair fikirlerinizi almaktır.

Kimlik bilgilerinizi kimse ile paylaşmayacak ve gizli tutacağım. Görüşme süresince verdiğiniz cevaplar araştırma raporunda isimleriniz belirtilmeden yansıtılacaktır.

Bu görüşmenin yaklaşık bir saat süreceğini tahmin ediyorum. Görüşme sırasında cevaplamak istemediğiniz soru olursa cevaplamayabilir ya da görüşmeyi istediğiniz zaman bırakabilirsiniz.

Ek olarak;

1. Söylediklerinizin hiçbirini kaçırmamak için görüşmeyi kaydetmek istiyorum. Bunun sizin için bir sakıncası var mı?
2. İzin verirseniz sorulara başlamak istiyorum. Başlamadan önce, eklemek ya da sormak istediğiniz bir şey var mı?

Sorular

1. Sizi daha iyi tanıyabilmek adına birkaç kısa soru ile başlamak istiyorum:

- a) Yaşınız:
- b) Bölümünüz:
- c) Göreviniz/Akademik Unvanınız:
- d) Ne kadar süredir üniversitede ders veriyorsunuz? :

2. Pandemi süresince eğitim verdiğiniz ev ortamı nasıldı? Özellikleri nelerdi?

Yeterli teknolojik donanımınız var mıydı? Kendiniz mi edindiniz, kurum mu verdi?

Bunları biriyle paylaşmanız gerekti mi? (bilgisayar, telefon, tablet, internet bağlantısı)

Dersleri ne şekilde yaptınız? (senkron, asenkron, her ikisi, online platformlar)
Öğrencilere/akademisyenlere/idareye ulaşmada ve iletişim kurmada tecrübeleriniz nasıldı? (Problem olduysa nasıl aştınız?)

3. Dijital becerileriniz ve donanımınız nasıldı? Bunun eğitim-öğretime etkisi nasıl oldu?

Teknoloji kullanmaya eğiliminiz nasıldı?

Pandemi öncesi çevrimiçi ders deneyiminiz var mıydı?

Derste kullanacağınız platformu daha önce kullandınız mı?

Kullanmayı biliyor muydunuz? Nasıl öğrendiniz? Destek aldınız mı?

Kişisel bilgi ve becerilerinizin çevrimiçi eğitim vermeye yeterli olduğunu düşünüyor

muydunuz? Şimdi nasıl düşünüyorsunuz?

Üniversite/bölüm çevrimiçi eğitim sürecine yönelik teknik, idari ve akademik

- destek sağladı mı? Nasıl?
4. Çevrimiçi eğitime geçince tepkiniz ne oldu? Nasıl bir hazırlık süreci geçirdiniz?
Neler yaptınız?
hedef ve amaçlarda düzenlemeler/değişiklikler
içerikte düzenlemeler/değişiklikler
öğretim teknik ve materyallerinde düzenlemeler/değişiklikler
değerlendirme sisteminde düzenlemeler/değişiklikler
5. Pandemi sürecinin ve çevrimiçi eğitime geçmiş olmanın size kişisel ve psikolojik olarak nasıl bir etkisi oldu?
motivasyon/stres düzeyi/iyi olma hali/vs
6. Pandemi sürecinin ve çevrimiçi eğitime geçmiş olmanın eğitimci kimliğinize nasıl bir etkisi oldu?
performans/motivasyon/liderlik/vs
7. Çevrimiçi eğitimi daha etkili kılma yöntemleriniz nelerdi?
hedefler
içerik
öğretim teknikleri/materyal hazırlama/teknolojik araçlar kullanma/
öğrenci gelişimi gözlemlleme/ölçme-değerlendirme araçları geliştirme
(Nasıl? Yaşadıysanız ne tür sorunlarla karşılaştınız? Nasıl önlemler aldınız?)
8. Pandemi süresince ölçme ve değerlendirme alanında eğitim/destek aldınız mı? Evet ise, kendi imkânlarınızla mı, yoksa kurum size böyle bir destek sağladı mı? Ne tür destek?
9. Öğrencilerin kişisel donanımlarının derse nasıl bir etkisi oldu?
10. Öğrencilerin teknolojik bilgi ve donanımlarının derse nasıl bir etkisi oldu?
11. Pandemi süresince verilen eğitimin öğrenci alışkanlık/tutumlarına ve akademik başarılarına etkileri nelerdi?
motivasyon/stres düzeyi/iyi olma hali/kendi kendine öğrenme alışkanlık ve becerilerinin gelişmesi/öğrencinin bilgiyi yapılandırma süreçleri
12. Yüz yüze eğitime kıyasla pandemi süresince verilen eğitimin üniversite öğretim programına nasıl bir etkisi olduğunu düşünüyorsunuz?
13. Uzaktan eğitime geçmenin güçlü/olumlu yönleri nelerdir?
14. Uzaktan eğitimde karşılaştığınız en önemli sorunlar/aksaklıklar nelerdir? Bu aksaklıklarla nasıl baş ettiniz? Nasıl bir çözüm ürettiniz?
15. Pandemi süresince eğitimin çevrimiçi olmasının pandemi sonrası süreçte üniversiteyi ve üniversite eğitim ve öğretimini nasıl değiştirdiğini/değiştireceğini düşünüyorsunuz?
öğrenci/hoca/ortam/vs
16. Üniversite ne içindir? Pandemi sonrası bunun cevabı değişti mi?

Görüşmemizin sonuna gelmiş bulunuyoruz. Paylaştığınız bilgiler için çok teşekkür ederim. Bu çalışmaya katkı sağlayacağını düşündüğünüz ve eklemek istediğiniz bir şey var mı?

C. HSEC APPROVAL FORM

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

Sayı: 28620816 /

20 MAYIS 2022

Konu : Değerlendirme Sonucu

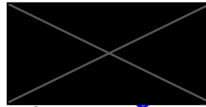
Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof. Dr. A. Cennet Engin DEMİR

Danışmanlığını yürüttüğünüz Nilay CANBOLAT'ın "Öğrenci-Öğretim Üyesi Algı ve Tecrübeleri Açısından Pandeminin Yükseköğretim Kurumlarından Eğitim Programları ve Öğretime Etkisi" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **0298-ODTÜİAEK-2022** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.



Prof.Dr. Mine MISIRLISOY
İAEK Başkan

D. INFORMED CONSENT FORM

Bu çalışma, ODTÜ Eğitim Bilimleri Bölümü öğretim üyesi Prof. Dr. Cennet Engin Demir'in danışmanlığında ODTÜ Sosyal Bilimler Enstitüsü Eğitim Programları ve Öğretim Anabilim Dalı doktora öğrencisi Nilay Canbolat tarafından yapılan bir çalışmadır. Çalışmanın amacı, Yükseköğretimde pandeminin sebep olduğu eğitim-öğretim sürecindeki değişiklikleri ele almak, öğrenci-öğretmen bakış açısı ile deneyimlerinden yola çıkarak pandemi sonrası yükseköğretim kurumlarında eğitim ve öğretim süreçlerinde neler yapılabileceği hususunda öngörude bulunmaktır.

Bu araştırmaya katılım gönüllük esasına dayanmaktadır. Görüşme sonucunda elde edilecek veriler sadece araştırmacı tarafından kullanılıp analiz edilecek ve tez çalışması kapsamında ve bilimsel yayınlarda kullanılacaktır. Görüşme formunda kimliğinizi ortaya çıkaracak sorular sorulmamaktadır ve kimliğinizi ortaya çıkarabilecek bilgiler gizli tutulacak ve kullanılmayacaktır. Görüşme formu, kişisel rahatsızlık verecek soruları içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz. Böyle bir durumda, görüşmeye devam edemeyeceğinizi söylemek yeterli olacaktır. Görüşme sonunda, bu çalışmayla ilgili sormak istediğiniz sorular cevaplanacaktır. Çalışma hakkında daha fazla bilgi edinmek için ... adresinden ve ... numarasını arayarak iletişim kurabilirsiniz. Bu çalışmaya katıldığınız için şimdiden teşekkür ederim.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

Ad-Soyad

Tarih
----/----/----

İmza

E. INITIAL THEMES, CATEGORIES AND CODES

Themes	Subthemes	Categories	Codes
Academic College Experiences	Instructional Practices	Content	lack of first term content covering the same topics adding up-to-date topics deficiency in applied courses
		Course delivery	asynchronous synchronous both
		Teaching strategies	varying from teacher to teacher material adaptation teaching through PPT lecturing recording lessons only sharing notes access to lecture notes in-class interaction
		applied courses	simulations and recordings of experiments no field practice
		measurement and evaluation	process oriented evaluation product oriented evaluation oral exam reliability of exams
		permanent changes on instructional practices	using online components hybrid course delievery for the first term increase in material diversity sharing materials and recordings not sharing materials or recordings adding online components change in teaching styles sharing lab recordings going on with the old system in measurment changes in evaluation system

Themes	Subthemes	Categories	Codes
Academic College Experiences	The role of the students	computer literacy & technical equipment	adequate computer literacy sufficient technical equipment lack of technical equipment
		personal competencies	physical problems psychological problems personal and family problems lost generation* manner problems* preferring face to face education* preferring online education*
		student autonomy	the necessity of gaining autonomy before university varying autonomy depending on the student decreased autonomy increased student autonomy structuring information preferring face to face education feasibility of online education being more autonomous* being less autonomous* decrease in student discipline*
		learning environment	students' own houses problem with accommodation sharing with the family members having personal room

Themes	Subthemes	Categories	Codes
Academic College Experiences	The role of the academics	readiness & experiences for online teaching	having online lesson experience not having online lesson experience individual exploration of online education online training seminars experiencing uncertainty not being standardized material development and tech integration support from university
		computer literacy & technical equipment	not sufficient computer literacy computer literacy depending on the academic adequate computer literacy lack of sufficient technical equipment having sufficient technical equipment
		personal competencies	psychological problems personal and family problems
		educator Identity	academic research Increasing in course load and stress more tolerant and making arrangements for sts developing new perspectives staying loyal to the old increased technical knowledge motivation increase in teacher motivation* increased toleration* decrease in trust in students* mentoring skills the importance of mentoring* decrease in teacher dependance*
		teaching environment	house office
		extracurricular activities	stopping attending not attending attending

Themes	Subthemes	Categories	Codes
Nonacademic College Experiences	university atmosphere	campus life	getting crowded/less crowded continuing anxiety
		university culture	no change in METU culture change in METU culture
		interaction out of class	communication with academics communication between students communication among academics increase in teacher-student interaction* decrease in teacher-student interaction* decrease in interaction between teachers*
	the changing nature of university	the necessity to redefine the university the fact that the change will be understood in a long time very comprehensive value education academic knowledge generation and research providing education dissatisfaction with the faculty	

* codes regarding after the pandemic

Themes	Subthemes	Categories	Codes
views of the students and academics on online education	the strongest aspects of online education	for students	
		spending time with family	
		no distraction	
		access to information	
			access to lecture notes
		self improvement	
		interpretation-based questions	
		taking multiple courses as there are no overlapping courses	
		takehome exams	
		flexibility	
			time saving
			financial comfort
		the practicality of the digital platform	
			decrease in anxiety during presentations
			being interested in using digital platform
		easy interaction with the teacher	
			increased tolerance in exams
			increased tolerance
		face-t-face education isn't required	
		increased autonomy	
		for academics	
		variety of course materials	
			interactive teaching
		adaptability critical thinking	
		academic studies	
		flexibility	
			affordable access to information
			online meetings
			ease of access to the teacher
			make-up lessons
			saving time

Themes	Subthemes	Categories	Codes
views of the students and academics on online education	the weakest aspects of online education	for students	
		unfair success	
		exam difficulty	
			nonstandardization
		not to learn	
		poor technical knowledge of the teacher	
		the effect of interaction on motivation	
			decrease in teacher-student interaction
		technical inadequacy	
			sharing the Internet with family members
			increase in test anxiety
			misfortune in the exam
			causing inequality of opportunity
		staying at home	
			not being able to benefit from campus facilities
			not being able to get socialized
			motivation
			studying every hour
			health issues
			health anxiety
			coping with family problems
			inability to focus at home
		for academics	
		being caught unprepared	
			emergency training
			lack of infrastructure
		the deterioration of student psychology	
		decreased respect for personal space	
		inadequacy of online education	
			not being suitable of online education for applied courses
			lack of conceptual knowledge in theoretical courses
			failure to ensure exam reliability
			the necessity of education being face to face in terms of interaction

Themes	Subthemes	Categories	Codes
views of the students and academics on online education	Decision making processes	turning the pandemic into an opportunity and developing the university	the necessity for integrating the technology generating an income
		the necessity of face- to- face higher education	lost year
		the campus 's generation of the sense of belonging	
		Department-based suitability of online education	possibility of theoretical courses being online the necessity of practice courses to be online
		the need to develop online education	technical equipment requirement for online education the need to provide in-service training to teachers

Themes	Subthemes	Categories	Codes
Academic College Experiences	Instructional Practices	Content	lack of first term content covering the same topics adding up-to-date topics deficiency in applied courses
		Course delivery	asynchronous synchronous both
		Teaching strategies	varying from teacher to teacher material adaptation teaching through PPT lecturing recording lessons only sharing notes access to lecture notes in-class interaction
		applied courses	simulations and recordings of experiments no field practice
		measurement and evaluation	process oriented evaluation product oriented evaluation oral exam reliability of exams
		permanent changes on instructional practices	using online components hybrid course delievery for the first term increase in material diversity sharing materials and recordings not sharing materials or recordings adding online components change in teaching styles sharing lab recordings going on with the old system in measurment changes in evaluation system

F. MEMBER CHECK FORM

Nilay Canbolat, Ph.D. Candidate

Phone: ...

Email: ...

A Phenomenological Inquiry into Instructional Strategies and College Experiences of Administrators, Academics and Students at University before and after the Covid-19

Dear Participant,

Please find a copy of the enclosed transcript of our interview about the effects of Covid-19 on instructional strategies and college experiences as well as code book that is driven from the data you provided. Please feel free to review them and to take some notes of any part of the interview and codebook that is not correct for you. Also, please evaluate the transcript and codebook as a whole and select appropriate statement below. Thank you.

Please select the appropriate statement below:

_____ I approve the interview transcript/codebook without reading.

_____ I approve the interview /codebook as it.

_____ I approve the interview transcript/codebook with some changes and notes.

_____ I do not approve the interview transcript/codebook.

Name of participant_____

Signature of participant_____

Email_____

Date_____

H. CURRICULUM VITAE

EDUCATIONAL BACKGROUND

MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA

Faculty of Education

English Language Teaching- MA

Date of Graduation: February, 2013

CumGPA: 3.64/4.00

MIDDLE EAST TECHNICAL UNIVERSITY, ANKARA

Faculty of Education, Department of Foreign Language

English Language Teaching

Date of Graduation: June, 2008

CumGPA: 3.21 / 4.00

MERSİN ANATOLIAN TEACHER'S TRAINING HIGH SCHOOL, MERSİN

Date of Graduation: June, 2004

CumGPA: .4.80 / 5.00

WORK EXPERIENCE

Dates (from-to): April 2017 -Present

Name and address of employer: Middle East Technical University - Ankara / Türkiye

Type of business or sector: Education / English Instructor

Dates (from-to): September 2008 –February 2017

Name and address of employer: TOBB University of Economics and Technology - Ankara / Türkiye

Type of business or sector: Education / English Instructor/ Assistant Director

SKILLS

Foreign Languages:

	<i>Reading</i>	<i>Writing</i>	<i>Listening</i>	<i>Speaking</i>
English:	Advanced	Advanced	Advanced	Advanced
German:	Basic	Basic	Basic	Basic

MS Office Programs (Word, PowerPoint, Excel, FrontPage) – Excellent Internet Applications

MA THESIS

Investigating ELT Instructors' Perceived Competencies: Challenges and Suggestions. (2013). Unpublished Master Thesis. Middle East Technical University, Ankara, Türkiye.

CONFERENCE PRESENTATIONS

Canbolat, N. (2015). Evaluation of Small World, Big English Project. Paper presented at 3rd International Congress on Curriculum and Instruction. Çukurova University, Adana, Türkiye.

I. TURKISH SUMMARY/TÜRKÇE ÖZET

GİRİŞ

Üniversite, öğrencilerin çeşitli olanaklar ve kaynaklar yardımıyla akademik ve akademik olmayan etkinliklere katılmaları için önemli bir yerdir, ve bu da onların öğrenme çıktılarını elde etmelerine ve kişisel gelişim ile kişilerarası iletişim becerilerini geliştirmelerine yardımcı olur (Bai vd., 2022). Bu, öğrencilerin ahlaki gelişimine (Newman & Newman, 1978; Pace, 1984; Rest & Narvaez, 2014), kimlik oluşumuna (Chickering & McCormick, 1973; Newman & Newman, 1978), politik ve sosyal tutumlarına (Lottes & Kurilof, 1994) ve akademik olmayan üniversite deneyimleri yoluyla entelektüel ve kişisel gelişimlerine katkıda bulunur (Pascarella et al., 2004). Bu nedenle, üniversitenin öğrenciler üzerinde büyük bir etkisi vardır ve bu etkinin derecesi üç değişkene bağlıdır (Newman & Newman, 1978): 1) öğrenci-öğretim üyesi etkileşiminin düzeyi, 2) öğrencilerin kimlik durumu ve 3) öğrenci değerleri ile üniversite değerleri arasındaki uyum derecesi.

Hali hazırda değişen bir dünyada, üniversiteler rollerini ve işlevlerini korumaya çalışırken mevcut trendlere de uyum sağlamaya çalışırlar. Covid-19, çevrimiçi öğrenime geçişe neden olarak üniversiteleri dramatik bir şekilde etkilemiştir. Yükseköğretimin süreci ve etkinliğini belirleyen hayati unsurlar olarak kabul edilen üniversite deneyimleri (Pace, 1984), bu keskin geçişten etkilenmiştir. Bu da sınıflar, kütüphaneler, laboratuvarlar, yurtlar, öğrenci birlikleri, spor salonları, stadyumlar, stüdyolar, galeriler, tiyatrolar ve oditoryumlar gibi tesislerdeki etkinliklerin yanı sıra öğretim üyeleriyle etkileşim, öğrenci kulüplerine ve organizasyonlarına katılım, öğrenci dostlukları, gayri resmi sohbetler ve çeşitli ilişkiler gibi fiziksel bir mekâna bağlı olmayan deneyimleri de etkilenmiştir.

Sonuç olarak, bu çalışma, Covid-19 öncesi ve sonrası lisans öğrencilerinin ve akademisyenlerin akademik ve akademik olmayan üniversite deneyimlerini tanımlama ve üniversitenin doğasında algılanan değişiklikleri izleme ihtiyacından doğmuştur. Bu, olası bir acil durumda veya Covid sonrası dönemde etkili bir üniversite yaşamına olası çıkarımlara katkıda bulunmayı amaçlamaktadır. Bu bağlamda, fenomenolojik bir

sorgulama yapılmış ve aşağıdaki araştırma soruları cevaplanmıştır:

1. Lisans öğrencilerinin ve akademisyenlerin üniversite deneyimleri Covid-19 öncesi ve sonrası nasıl değişmiştir?
 - a) Akademik üniversite deneyimleri Covid-19 öncesi ve sonrası nasıl değişmiştir?
 - b) Akademik olmayan üniversite deneyimleri Covid-19 öncesi ve sonrası nasıl değişmiştir?

YÖNTEM

Bu çalışma, ODTÜ Fen-Edebiyat Fakültesi'ndeki biyolojik bilimler, kimya, tarih, matematik, felsefe, psikoloji, fizik, sosyoloji ve istatistik olmak üzere dokuz bölümdeki lisans öğrencilerini ve akademisyenleri hedef almıştır. Fakülte, yaklaşık 3880 lisans öğrencisi ile birlikte programlarına kayıtlı 440 yüksek lisans ve 390 doktora öğrencisine sahiptir. Aynı zamanda üniversitenin diğer fakültelerine de bazı temel dersler, seçmeli dersler ve bazı laboratuvar ve uygulamalı çalışmalar sunmaktadır. Bu nedenle, araştırmacıya öğrencilerin ve akademisyenlerin gözünden üniversite deneyimlerine dair derinlemesine bir bakış sağlar.

Nitel yöntemler küçük örneklem gruplarında derinlemesine bilgi gerektirdiğinden, bu çalışmada bilgi açısından zengin vakaları seçmeyi hedefleyen amaçlı örnekleme yöntemi kullanılmıştır (Patton, 2002). Çalışmadaki katılımcılar, araştırmacının sonunda ortak bir anlayış oluşturabilmesi için incelenen fenomeni deneyimlemiş olanlar arasından özenle seçilmiştir (Creswell, 2007). Çalışma için fenomenolojinin doğasında yer alan maksimum çeşitlilik örnekleme stratejisi ilk olarak cinsiyet, unvan, bölüm, deneyim yılı/sınıfı, teknoloji kullanma deneyimi, uzaktan eğitim deneyimi gibi kriterleri dikkate alarak katılımcıları seçmek için uygulanmıştır.

Bu doğrultuda, Haziran 2022 ile Eylül 2022 arasında veri doygunluğuna ulaşılan kadar, Covid-19 öncesi ve sonrası öğretim ve öğrenim süreçlerini deneyimlemiş olan 32 akademisyen ile 56 üçüncü ve son sınıf öğrencileri ile görüşmeler yapılmıştır. Böylece katılımcılar, Covid-19 öncesi, sırası ve sonrasında

üniversitedeki öğretim uygulamaları ve üniversite deneyimlerini karşılaştırıp kıyaslayabilmiş ve kendi açılarından yaşadıkları değişimi tanımlayabilmişlerdir. Her bölümdeki katılımcı sayısı, akademisyenlerin ve lisans öğrencilerinin mevcut olma durumuna, veri doygunluğuna ve çalışmaya katılım gönüllülüğüne bağlı olarak değişmiştir.

Mayıs 2022'de Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulu (HSEC)'nden çalışmanın onayını aldıktan sonra, 2021 ve 2022 bahar akademik yılında çalışma için derinlemesine bir görüşme yapılmıştır. Etik konular göz önünde bulundurularak, hem katılımcıların hem de görüşme verilerinin anonimliği sağlanmış ve ses kaydı izinleri alınmıştır. Görüşmeler öncesinde ve sırasında, araştırmacı katılımcılarla bölümlerinde (binalar, kafeteryalar, ofisler ve laboratuvarlar) zaman geçirmiş, onların dahil olduğu kültürü anlamaya çalışmış ve bağlamı daha derinlemesine anlamak ve olası yanlış bilgileri azaltmak için onlarla güven ve ilişki kurmuştur.

Görüşmelerden elde edilen veriler, Ağustos ile Aralık 2022 arasında kelimesi kelimesine yazıya dökülmüştür. Araştırmacı, transkriptleri kontrol ederek verileri organize etmiş ve basitleştirmiştir. Transkriptler, çapraz kontrol ve görüşme doğrulama formunun imzalanması için katılımcılara gönderilmiştir. Bunun üzerine, verileri analiz etmek için pratikliği açısından MAXQDA 2022 kullanılmıştır. Araştırmacı, gördüklerini, duyduklarını ve anladıklarını yorumladığı için yorumlayıcı bir sorgulama benimsenmiştir. Dolayısıyla, araştırmacı verilerin yorumlayıcısı ve aynı zamanda temsil eden kişi olmuştur (Creswell, 2007). Sonuç olarak, araştırmacı, katılımcıların deneyimlerini daha doğru yorumlamak için yalnızca ne söylendiğini değil, aynı zamanda nasıl söylendiğini anlamak amacıyla kaydedilenleri okurken dinlemiş, çalışmaya katkıda bulunabilecek herhangi bir şeyi kaçırmamak için satırlar arasında gidip gelmiş, kavramsal benzerliklere göre ortaya çıkan temalar arasında bağlantılar kurmaya çalışmış ve kapsamlı bir tema seti oluşturmuştur. Ayrıca, fenomenin özü, katılımcıların algıları ve deneyimlerinden türetildiği için tüm katılımcılar aynı zamanda araştırma ortaklarıdır. Bu nedenle, süreçten ortaya çıkan temaları şekillendirmek için katılımcılarla iş birliği yapmış, kodlamayı onlara gönderip görüşlerini almıştır (Moustakas, 1994).

Bu fenomenolojik çalışmadaki veri analizi, beş temel süreci içermektedir: 1) Araştırmacının, katılımcıların yaşanmış deneyimlerini olabildiğince nesnel bir şekilde anlamak amacıyla önceden yaşadığı deneyimleri bir kenara bırakması (bracketing), 2) Araştırmacının verileri inceleyip yaşanmış deneyimlerin altındaki önemli ifadeleri vurgulaması (horizontalization), 3) Bu ifadelerden anlam kümeleri geliştirip temalar oluşturması, 4) Bu temaları kullanarak katılımcıların deneyimlerini ve bu deneyimleri etkileyen bağlamı (yapısal betimleme ya da imgesel varyasyon olarak adlandırılan) tanımlaması ve son olarak 5) Yapısal ve metinsel betimlemeyi göz önünde bulundurarak, fenomenin "özünü" (değişmez yapıyı) sunması (Moustakas, 1994; aktaran Creswell 2007).

BULGULAR, TARTIŞMA VE SONUÇ

Üniversite, öğrencilerin çeşitli olanaklardan ve kaynaklardan yararlanabileceği ve akademik ve akademik olmayan faaliyetlere aktif olarak katılabileceği değerli bir yerdir. Bu durum, öğrencilerin içsel gelişimlerini ve kişiler arası iletişim becerilerini geliştirmektedir (Bai vd., 2022). Covid-19'un neden olduğu acil uzaktan öğretim (ERT) nedeniyle hem akademik hem de akademik olmayan üniversite deneyimleri etkilenmiş, bu durum sadece fiziksel derslerin yasaklanmasına değil, aynı zamanda kütüphaneler, laboratuvarlar, spor faaliyetleri gibi olanakların kullanımının uygulanamaz hale gelmesine ve iletişim kanallarında değişikliklere yol açmıştır (Aristovnik vd., 2020; Cao vd., 2020). Covid-19, üniversitelerde dijitalleşmenin kaçınılmaz olduğunu göstermiş ve paydaşlara bu tür bir acil durumda çevrimiçi öğrenmenin güçlü ve zayıf yönlerini deneyimleme fırsatı sağlayarak, akademik ve akademik olmayan üniversite deneyimlerine yönelik gelecekteki uygulamalar için değerlendirilmesini sağlamıştır.

Lisans Öğrencilerinin ve Akademisyenlerin Covid-19 Öncesi ve Sonrası Akademik Üniversite Deneyimleri

Pandemi döneminde, yüz yüze eğitimden çevrimiçi öğrenmeye ani geçiş nedeniyle acil uzaktan öğretim (ERT) benimsenmiştir. Bu geçiş, öğretmen hazırlığı, altyapı, eğitim politikası ve kaynaklar açısından çevrimiçi öğrenme için gerekli olan planlama ve hazırlık için çok fazla fırsat sunmamıştır. Bu nedenle, öğrencilerin akademik üniversite deneyimlerini doğrudan etkileyen öğretim uygulamaları, çok

fazla hazırlık ve hazır bulunma durumu olmadan belirlenmiş ve uygulanmıştır. Ayrıca, Covid-19, öğrenci ve akademisyenlerin akademik üniversite deneyimlerini etkileyen becerilerini de etkilemiştir. Çalışma, akademik üniversite deneyimlerine ilişkin bazı önemli bulguları aşağıda belirtildiği gibi ortaya koymuştur:

A. Covid-19 Öncesi ve Sonrası Öğretim Uygulamaları

Acil uzaktan öğretime (ERT) ani bir şekilde geçiş yapmak zorunda kalan akademisyenler, ders hedefleri ve amaçları, içerik, öğretim ve öğrenme stratejileri, ve son olarak ölçme ve değerlendirme gibi konular üzerinde düşünmek için fazla zaman bulamamış ve bu konularla ilgili öğrenci geri bildirimi alma şansı yakalayamamışlardır. Çalışmanın ortaya koyduğu gibi, akademisyenler, ERT süresince de aynı yüksek kaliteli eğitimi sağlamak istediklerinden Covid-19 öncesi ile aynı hedef ve amaçları sürdürmeye çalışmışlardır. Ancak hedefler ve amaçlar çevrimiçi öğrenmeye uyarlanmalı ve öğretim uygulamaları ile uyumlu hale getirilmeliydi. Pandemi sonrasında ise, pandemi öncesi ile aynı hedef ve amaçlar belirlenmiştir.

Çalışmanın ortaya koyduğu bir diğer konu ise ERT'nin derslerde içerik eksikliğine yol açmış olmasıdır. Çevrimiçi öğrenmenin ilk döneminde, hazırlıksızlık ve belirsizlik nedeniyle içerik planlandığı gibi işlenememiştir. Yapılan tek şey, ERT'nin önerdiği ölçüde derslerin taleplerini olabildiğince karşılamak olmuştur. Çevrimiçi öğrenmenin sonraki dönemlerinde ise, lisans programlarında derslerde bilgi eksikliği oluşturmamak için aynı içerik korunmaya çalışılmıştır. Hatta, beşeri bilimler bölümlerinde teknolojinin yardımıyla güncel konuların entegrasyonu veya daha fazla kaynak ve materyal kullanılması gibi içerik genişletilmeleri olmuştur. Öte yandan, laboratuvarlar veya saha uygulamaları yapılamamıştır. Pandemi sonrasında ise, akademisyenler beşeri bilimler bölümlerinde güncel konular eklemek gibi küçük değişikliklerle aynı içeriği sunmuşlardır.

Ders hedefleri, amaçları ve içeriklerinin yanı sıra, ERT, öğretim ve öğrenme yaklaşımlarında da değişikliğe yol açmıştır. Yang (2017) tarafından belirtildiği gibi, çevrimiçi öğretim stratejileri bazı unsurlardan oluşur: (1) asenkron ve senkron iletişim veya ders anlatımı yoluyla etkileşimi teşvik etme (2) kavramların uygulanmasını kolaylaştırma (3) video gösterimleri kullanma ve (4) güçlü bir sosyal varlık veya öğrenme topluluğuna ait olma duygusu sağlamadır. Bu noktada, akademisyenler, ders

anlatımında asenkron, senkron veya her ikisini kullanarak etkileşimi teşvik etmeye çalışmış, grup veya sınıf içi tartışmalarla kavramların uygulanmasını kolaylaştırmış, ders ve deneylerin video kayıtlarını öğrencilerle paylaşmış, ve ders anlatım stillerini daha interaktif hale getirmek için çeşitlendirmişlerdir. Ancak, bu çalışma, birçok araştırmacı tarafından da iddia edildiği gibi, ERT'nin temel amacının sağlıklı bir eğitim ekosistemini yeniden oluşturmak değil, geçici olarak eğitim erişimini sağlamak olduğunu belirttiği için, yukarıda bahsedilen kriterlerin ne ölçüde yönetilebildiğinin tartışmalı olduğunu vurgulamaktadır (Adedoyin & Soykan, 2023; Barbour vd., 2020; Bozkurt & Sharma, 2020; Hodges vd., 2020; Tulaskar & Turunen, 2021).

Ders anlatımı, kapanmanın ilk döneminde sınıf notlarının ve kayıtların öğrencilere paylaşılması ve e-posta yoluyla iletişime geçilmesi ya da önceden kayıtların sağlanması ve senkron olarak soru-cevap oturumlarının yapılması şeklinde asenkron olarak gerçekleştirilmiştir. İkinci dönemden itibaren ise bölümlere bağlı olarak senkron derslerin yüzdesi bir bölümden diğerine değişmiştir. Senkron ders yapmayı tercih eden bölümler, öğrencilerin dersleri asenkron olarak takip etmelerine yardımcı olmak için ders kayıtlarını da paylaşmışlardır. Bu çalışma ayrıca, çevrimiçi eğitimin motivasyon eksikliği, yetersiz teknolojik altyapı ve etkileşim eksikliğinden kaynaklı psikolojik sorunlara yol açması sebebiyle pandemi sonrasında hem akademisyenler hem de öğrenciler tarafından yüz yüze derslerin tercih edildiğini göstermiştir.

Uygulamalı derslerde ise, deneylerin video veya simülasyonlarının hazırlanması büyük çaba ve zaman gerektirmiştir. Yüklenen videolar yardımıyla, öğrenciler deneyleri takip edebilmiş ve sonrasında öğrencilerden laboratuvar raporları yazmaları ve quizler yapmaları istenmiştir. Ancak hem akademisyenler hem de öğrenciler, cihazlara veya numunelere önceden dokunma fırsatı bulamamanın, öğrencilerin uygulamalı dersler için bilgi eksikliği yaşamalarına neden olduğu hususunda eleştirmişlerdir. Öte yandan, pandemi sonrasında, deney kayıtlarının arşivi, öğrenciler ve akademisyenler tarafından etkili bulunmuş ve tamamlayıcı materyal olarak paylaşılmaya devam etmiştir. Pandeminin sonunda öğrencilere yoğunlaştırılmış bir telafi programı sunulmuş olsa da bu program tüm deneyleri telafi etmek için yeterli olmamıştır. Bu durum, deneylerin izlenmesinin veya sonradan yapılmasının, deneylerin eşzamanlı yapılması ve yüz yüze eğitimde olduğu gibi eğitmenlerden anlık

geri bildirim alma fırsatını sağlamak kadar etkili olmadığını göstermiştir. Bu noktada, pandemi sonrasında fen bilimlerindeki uygulamalı dersler için harmanlanmış öğrenme yaklaşımının benimsenmesi iyi bir fikir olabilir.

Öte yandan, beşeri bilimler bölümleri de saha uygulamalarını gerçekleştirememiş ve bunun yerine teoriye ve tartışmalara daha fazla odaklanılmıştır. Takip eden yıllarda telafi edilmeyen bu durum, öğrencilerin mezuniyet öncesinde o derslerden elde etmeleri gereken altyapı bilgisi veya becerileride eksikliğe, gelecek çalışmalarında veya mesleklerinde yetersiz hissetmelerine neden olmuştur. Bu nedenle, saha uygulamalarını çevrimiçi ortamda etkili bir şekilde gerçekleştirebilmek ve bu derslerin amaçladığı becerileri öğrencilere kazandırmak için yenilikçi yollar uyarlanmalıdır. Sonuç olarak, fakültedeki uygulamalar bölümden bölüme değişmiştir. Bu durum, uygulamalı derslerin, bölümlerin veya akademisyenlerin inisiyatifine bırakılmaması için bir denetim mekanizmasının gerekliliğini ortaya koymuştur.

Sınıf içi etkileşimi artırmak için kullanılan öğretim ve öğrenme stratejilerine gelince, ders anlatımında çeşitli teknikler kullanılmıştır. Bunlar, videolar ve görseller ekleyerek çevrimiçi kaynakları entegre etmek, sanal platformlarda konuları açıklamak için bir tablet veya PowerPoint slaytlarını kara tahta olarak kullanmak ve ders kayıtlarını paylaşmak şeklindedir. Çalışma, kayıtların paylaşılmasının öğrencilerin derslere hazırlıklı olmalarına ve akademisyenlerin soru-cevap oturumları için daha fazla zaman ayırmalarına yardımcı olduğunu göstermiştir. Ayrıca, teknolojik altyapı eksikliğinden kaynaklanan sorunları ortadan kaldırmıştır.

Ancak, çevrimiçi öğrenmede ekrandan ders anlatırken akademisyenler ve öğrenciler arasındaki etkileşim eksikliği, derslerin takip edilip edilmediğini anlamayı zorlaştırmış ve öğrencilerin derslere katılımını olumsuz etkilemiştir. Akademisyenler, interaktif ve işbirlikçi bir öğrenme ortamı yaratmaya çalıştıklarını iddia etse de öğrenciler ders materyallerinin çevrimiçi öğrenmeye adapte edilmediğini, teknik altyapının yetersiz olduğunu ve akranlarıyla işbirliği yapmanın zor olduğunu düşünmüşlerdir. Salmon (2004a) tarafından belirtildiği gibi, öğretim görevlileri, sadece sınıfta yaptıklarını çevrimiçi olarak tekrar ederek etkili bir e-moderatör olamazlar; çevrimiçi öğrenmenin gereksinimlerini karşılayacak şekilde derslerini geliştirmeleri gerekir. Bu nedenle, Salmon (2004a) tarafından önerildiği gibi,

çevrimiçi öğrenme için özel olarak e-moderatörler işe alınmalı, eğitilmeli ve geliştirilmelidir.

Pandemi sonrasında çevrimiçi öğrenmenin öğretim uygulamaları üzerindeki uzun vadeli etkilerine gelince, çalışmanın bulguları, akademisyenlerin ve öğrencilerin ders notlarını veya kayıtlarını paylaşmanın sınıf içi etkileşim ve katılımı azalttığı için bazen tercih edilmese de, deney kayıtları da dahil olmak üzere derslerin kayıtlarının arşivine sahip olmaktan memnun olduklarını ortaya koymuştur. Ayrıca, Haider ve Al-Salman'ın (2023) çalışmasıyla uyumlu olarak, araştırmanın bulguları, beşeri bilimler bölümünde müfredata güncel konular eklenmesi, çevrimiçi soru-cevap oturumlarının dahil edilmesi ve yazılım programları ile videolar gibi çevrimiçi materyallerin entegrasyonunun etkili bulunduğunu göstermiştir. Bu noktada, gözden geçirilmiş ders materyalleri, derslerin ve deneylerin kayıtlarından oluşan bir arşiv oluşturulması ve ders anlatımında teknolojinin entegrasyonu, öğrencilerin derslerle ilgili daha rahat ve memnun hissetmelerine yardımcı olmuştur.

Öğretim ve öğrenme ortamını köklü bir şekilde değiştiren karantina döneminde, akademisyenler ofislerini, laboratuvarlarını veya evlerini, öğrenciler ise aile evlerini ya da ev arkadaşlarıyla paylaştıkları yerleri kullanmışlardır. Bu noktada, aile üyeleriyle öğrenme ve öğretim ortamını paylaşmak oldukça zorlayıcıydı ve hem öğrenciler hem de akademisyenler kişisel alanlarını koruma ve ortamlarını düzenleme konusunda zorluk yaşadılar. Özellikle konaklama bulmakta zorlanan ya da muhafazakar ailelerle yaşamak durumunda kalan öğrenciler, kaygı, düşük dikkat süresi ve motivasyon eksikliği gibi psikolojik sorunlarla karşılaştılar.

Kütüphane, öğrenme ortamının önemli bir parçası olarak, öğrencilerin araştırma becerilerini geliştiren ve onlara rehberlik eden çeşitli kaynakların bulunduğu bir yer olmanın yanı sıra, grup öğrenmesi, sosyalleşme ve işbirliği için de önemli bir mekandı. Ancak pandemi sırasında öğrenciler kütüphane binasına ve basılı kaynaklara erişim sağlayamadılar ve bu durum, çalışma performanslarını ve iyi oluş hallerini olumsuz etkiledi. Pandemi sürecinde kütüphanenin sağladığı çevrimiçi kaynaklara erişim iyi bir seçenektir; ancak pandemi sonrasında öğrenciler bu çevrimiçi kaynaklara erişemedi ve bu durum onları hayal kırıklığına uğrattı. Bu nedenle, öğrenci öğrenme performansını ve iyi oluşunu desteklemek için hem basılı hem de çevrimiçi kaynaklara

sahip uygun alanlar sağlamak, kütüphanenin kullanımını artırmak için gereklidir.

Araştırmanın da gösterdiği gibi, ölçme ve değerlendirme süreci de ciddi şekilde etkilenmiştir. Değerlendirme türleri, ürün odaklı olmaktan ziyade süreç odaklı hale gelmiş, ölçme ve değerlendirme ile ilgili güvenilirlik sorunları ortaya çıkmış ve sınavların yüz yüze yapılmasının gerekliliği vurgulanmıştır. Ayrıca bazı bölümlerde sözlü sınavların uygulanması zorunlu hale gelmiş ve bu durum hem öğrencilerin stres seviyesini hem de akademisyenlerin iş yükünü artırmıştır. Bu noktada, diğer çalışmaların (Hargreaves, 2007; Oosterhof vd, 2008) da önerdiği gibi, sadece geçerlilik, güvenilirlik ve adalet ilkeleri değil, aynı zamanda formatif ve summatif değerlendirmeler gibi farklı ölçme yöntemlerinin de başarılı bir değerlendirme sistemi için adapte edilmesi gerektiği belirtilmiştir.

Pandemi sırasında üniversitelerde ölçme ve değerlendirme uygulamaları ile ilgili olarak, Dison ve Padayachee (2022) tarafından kaydedilen acil değerlendirme stratejileri ortaya çıkmıştır. Akademisyenler, güvenlik önlemleri almak için soru sayısını azaltma, soru türlerini ve/veya sınav ağırlıklarını değiştirme ve sınavlara ayrılan süreyi değiştirme gibi değerlendirme türlerinde farklılıklar yapmıştır. Ancak, pandemi sonrasında sınav kağıtlarını çevrimiçi ortamda tutmaya ve değerlendirmeye devam etmek ve ödevlere çevrimiçi geri bildirim sağlamak haricinde, akademisyenler altyapı eksikliği ve sınav güvenilirliği nedeniyle çevrimiçi değerlendirme araçlarını kullanmayı bırakmıştır.

Çevrimiçi öğrenmede, bazı akademisyenler, kopya çekme riskini azaltmak ve öğrencilerin ders takibini sağlamak için ödev ve quizlerin sayısını artırarak süreç odaklı değerlendirmeyi tercih etmiş ve ara sınavlar ile final sınavlarının ağırlığını azaltmışlardır. Süreç odaklı değerlendirme öğrenci özerkliğinin artmasını sağlamış, ancak aynı zamanda dersten derse değişiklik gösteren ödev sayılarını yetiştirmeye çalışan öğrencilerin stresini artırmıştır. Diğer taraftan, bazı akademisyenler kopya çekmeyi en aza indirmek veya kağıtları notlandırma iş yükünü azaltmak için ürün odaklı değerlendirme yöntemini benimsemiş veya sürdürmüştür. Çalışmanın bulguları, özellikle pandemi öncesinde bu tür ürün odaklı soruları tercih etmeyen bazı bölümlerin, pandemi süresince bu tarz sorulara daha olumlu baktığını göstermiştir. Çevrimiçi öğrenmede kağıtları notlandırmayı daha yönetilebilir hale getirmek veya

güvenilirlik adına çoktan seçmeli soruların kullanılması, hem akademisyenler hem de öğrenciler tarafından öğrencilerin ihtiyaçlarını ve derslerin amaçlarını göz ardı ettiği için eleştirilmiştir. Sonuç olarak, ürün odaklı değerlendirme, fen bilimlerinde öğrencilerin daha düşük notlar almasına yol açmıştır. Beşeri bilimlerde ise, öğrencilerin bilgilerini tam anlamıyla yansıtamamaları ve öğrendiklerini yorumlayamamalarıyla sonuçlanmıştır. Ancak pandemi sonrasında, bu çalışma, iş yükündeki artışa rağmen, daha yüksek düzeyde düşünme becerileri gerektiren süreç odaklı değerlendirmenin, çoğu akademisyen ve öğrenci tarafından daha fazla tercih edildiğini ortaya koymuştur. Bu durum, öğrencilerde daha az strese neden olmuş ve akademisyenlerin öğrencilerin ilerlemesini takip etmelerini ve ödevler ve projelerden kısmi kredi vermelerini sağlamıştır. Öte yandan, beşeri bilimlerde çoktan seçmeli sorular gibi uygunsuz ve etkisiz soru türlerini kullanmaya devam eden akademisyenler, daha az zaman harcayarak kolay yolu seçmekle eleştirilmiştir.

Ölçme ve değerlendirme konusunda, literatür çevrimiçi değerlendirmenin geçerliliği ve güvenilirliği ile ilgili artan endişelere işaret etmektedir (Gaytan & McEwen, 2007; Okada vd., 2019). Akademisyenler, pandemi sırasında çevrimiçi öğrenmede adil bir değerlendirme sistemi sağlamak için çok çaba sarf ettiler ve güvenlik önlemleri için çeşitli yollar denemişlerdir. Ancak çalışma, değerlendirme türünün zaten daha çok süreç odaklı olduğu beşeri bilimlere kıyasla, fen bilimlerinin ölçümde kopyayı önlemek için daha fazla değişiklik yapmak ve daha fazla önlem almak zorunda kaldıklarını göstermiştir. Öte yandan, teknolojik yetersizlik, arka plan gürültüsü, aile üyelerinin varlığı ve konsantrasyon sorunları gibi koşullar altında karşılanması gereken bu önlemler ve kısıtlamalar nedeniyle öğrencilerin sınav kaygısı büyük ölçüde artırmıştır. Ayrıca, sınavlar için belirlenen süreyi sınırlamak veya zor ve uygunsuz sorular sormak, çok fazla detaya odaklanarak ana hedeflerin kaçırılmasına veya çalışan öğrencilerin dahi düşük notlar almasına neden olmuştur. Güvenilirlik sorunları nedeniyle, akademik başarı ile ilişkili olmayan not artışını ifade eden not enflasyonu ortaya çıkmıştır (Baglione & Smith, 2022, Kostal vd., 2016; Saygı, 2024, s. 260'ta alıntılanmıştır).

Sınavların güvenilirliğini sağlamak için bazı bölümler, öğrencilerden sorulara adım adım açıklamalar getirerek cevaplarını haklı çıkarmalarını istemek veya ek sorularla anlayışlarını kontrol etmek suretiyle sözlü sınavlar gerçekleştirmiştir. Adil

ve sorunsuz bir değerlendirme sağlamak amacıyla sözlü sınavlar hazırlamak, akademisyenlerin iş yükünü artırmış, öğrenciler üzerinde ise büyük bir baskı yaratmıştır. Bu da pandemi sonrasında sözlü sınavların kaldırılmasının neden olmuştur. Son olarak, çalışmanın bulguları, kopyayı önlemek için tüm yolları denemek ve çevrimiçi ölçme ve değerlendirmede güvenilirliği sağlamanın imkansız olduğunu göstermekle birlikte, adaleti sağlamak amacıyla yüz yüze sınavların hem öğrenciler hem de akademisyenler tarafından bir gereklilik olarak kabul edildiğini ortaya koymuştur.

B. Akademik Üniversite Deneyimlerini Etkileyen Öğrenci Özellikleri

Bu çalışma öğretim uygulamalarının yanı sıra öğrencilerin teknolojik yeterlilik ve donanım, kişisel beceriler ve yeterlilikler ile öğrenen özerkliği gibi özelliklerinin akademik üniversite deneyimlerini belirlediğini ortaya koymuştur. Bilgisayar okuryazarlığı ve teknolojik donanım açısından, öğrenciler, akademisyenlere kıyasla, teknolojik yeterlilikleri sayesinde çevrimiçi öğrenmeye daha kolay uyum sağlayabilmişlerdir. Bunun dışında, öğrencilerin teknolojik araçlar edinmek zorunda kalmaları, onlara mali bir yük getirdi ve altyapı eksikliği, öğrencilerin derslerde kameralarını kapatmalarına veya dersleri eşzamanlı olarak takip etmelerine neden olmuştur. Bu durum, sınıf içi etkileşimden yoksun kalmalarına ve uzun vadede sosyalleşmelerinin azalmasına yol açmıştır.

Kişisel yeterliliklere gelince, öğrenciler, Covid öncesi döneme kıyasla daha fazla sorun yaşadılar. Uyku bozuklukları, konsantrasyon sorunları, motivasyon eksikliği, kaygı, depresyon ve düşük dikkat süresi gibi ciddi psikolojik sorunlar yaşamışlardır. Ayrıca, görme veya duruşla ilgili fiziksel sorunların yanı sıra, aile baskısı ve akademik ve/veya ekonomik kaygılar gibi kişisel sorunlar da deneyimlemişlerdir. Öğrenciler arasında intihar eğiliminin öncekine göre arttığını ve çoğu öğrencinin izolasyon ve sosyalleşmenin azalması nedeniyle tükenmişlik yaşadığını göstermiştir. Çalışmanın bulguları, çevrimiçi öğrenmede sosyalleşme ve üniversite kültüründen yoksun kalmanın, psikolojik sorunlarının arkasındaki neden olduğunu ortaya koymuştur. Bu nedenle, yüz yüze eğitimin etkileşimi artırmadaki ve ailelerde karşılaşılan sorunları ortadan kaldırmadaki olumlu rolü kabul edilmelidir.

Hu ve Kuh (2003) ile Pascarella vd. (2011) tarafından belirtildiği gibi, öğrenme

çıktılarının elde edilmesi için, üniversite ortamı tarafından sağlanan öğrencilerin öğrenme deneyiminin ve öğrenme katılımının kalitesi önemli bir rol oynar; ancak, bu durum Covid-19 tarafından olumsuz etkilenmiştir. Yüz yüze eğitime kıyasla, öğrencilerin derse devam oranı ve katılımı, sınıf içi etkileşim ve akranlar arasındaki iş birliğinin eksikliği nedeniyle keskin bir şekilde düşmüştür. Çalışmanın bulguları, öğrenciler arasındaki etkileşim ve iş birliği eksikliğinin bir diğer nedeninin ders materyallerinin ve kayıtlarının erişilebilirliği olabileceğini göstermiştir. Ne yazık ki, bu durum, yüz yüze eğitime uyum sağlama güçlüğü ve çevrimiçi öğrenmede motivasyon eksikliği, tükenmişlik ve yabancılaşma hissetmeleri nedeniyle derslere sosyal olmak amacıyla katılan öğrenciler olsa da, pandemi sonrasında da devam etmiştir. Daha da kötüsü, kaygılı ve izole hissederek, bölümlerine aidiyet duygusunu kaybetmişlerdir. Bu noktada, bu birliktelik duygusunu tazelemek için iyileştirme faaliyetleri ve toplantılar düzenlenebilir.

Çalışmanın bulguları, öğrencilerin kendi hızlarında öğrenmelerinin (kayıtlar, ders materyalleri ve çevrimiçi kaynaklar yardımıyla kendi öğrenme zamanlarını düzenlemeleri) öğrenen özerkliklerini artırdığını göstermiştir. Öte yandan, çevrimiçi öğrenme sırasında öz-disiplin eksikliği, kayıtların ve ödevlerin iş yükünü yetiştirilmesinde zorluk yaratmıştır. Bu nedenle, von Keyserlingk ve diğerleri (2020) tarafından da belirtildiği gibi, öğrencilerin stres düzeyleri, öğrenen özerkliğini gerektiren kendi hızında öğrenmeye dayalı olarak değişiklik göstermiştir.

Tinto'nun teorisinin belirttiği gibi, öğrencilerin kampüs yaşamına ne kadar entegre hissettikleri, ders tamamlama konusundaki bağlılıklarını belirler (Pascarella & Terenzini, 1979, s. 197). Bai vd. (2022) tarafından belirtildiği gibi, üniversite deneyimleri ile öğrenme çıktıları arasında doğrudan bir bağlantı vardır. Ayrıca, kampüs ortamına ilişkin algıları, öz yeterliklerini ve öğrenme çabalarını etkileyerek öğrenci öğrenme çıktılarında rol oynar (Hu & Kuh, 2003). Üniversite kültürünü deneyimlemeyen ve çevrimiçi alınan derslerde gerekli bilgi ve becerileri edinemeyen öğrenciler, kayıp bir nesil olarak görülmüştür. Özellikle, ilk ve ikinci sınıflarını çevrimiçi geçiren öğrencilerin, üçüncü ve dördüncü sınıflar için gereken bilgi eksikliğini telafi etmek amacıyla yoğun bir programa ihtiyaç duydukları belirtilmiştir. Bunun yanı sıra, öğrenciler daha talepkar hale gelmiş, çevrimiçi öğrenme sırasında ve sonrasında yalan söyleme, bahaneler uydurma ve akademisyenlerin hoşgörüsünü

suistimal etme gibi kötü davranışlar sergilemişlerdir. Bu durum, üniversite kültürü aktarımında etkileşimin önemini göstermektedir.

C. Akademik Üniversite Deneyimlerini Etkileyen Akademisyen Özellikleri

Salmon (2004a), etkili ve etkileşimli çevrimiçi öğrenme için akademisyenlerin edinmesi gereken çeşitli roller ve becerileri tanımlamak amacıyla e-moderating terimini kullanarak, e-moderatörlerin rolleri için dört kategori belirlemiştir: yönetsel, teknolojik, sosyal ve pedagojik. Bu noktada, öğrencilerin üniversite deneyimlerini etkileyen akademisyenlerin özelliklerini çevrimiçi eğitim okuryazarlığı, bilgisayar okuryazarlığı ve teknolojik donanım, kişisel yeterlilikler ve eğitici kimlik olarak değerlendirmek gereklidir.

Yönetsel rol açısından bu çalışma, akademisyenlerin çevrimiçi okuryazarlığının düşük olduğunu çünkü çevrimiçi öğrenmeye böyle bir geçiş için hazır olmadıklarını ve bu geçişe kişisel, teknolojik ve akademik olarak uyum sağlamak için zamanları olmadığını göstermiştir. Bu nedenle, öğretim stratejilerini yönetmekte zorluk çekmişler ve öğretim ve öğrenme sürecini daha sorunsuz ve etkileşimli hale getirmek, ayrıca ölçme ve değerlendirme güvenilirliğini sağlamak için büyük zaman ve çaba harcamışlardır. Tüm bu çabalar, onların iş yükünü önemli ölçüde artırmıştır. Çevrimiçi öğrenme, böyle bir acil durum için deneyim kazanmalarına yardımcı olmuş ve teknoloji entegrasyonunda profesyonel olarak kendilerini geliştirme ihtiyacını göstermiştir.

Williams (2002) çevrimiçi öğrenmenin öğretim kadrosu arasında bir tutum değişikliği gerektirdiğini ve bunun temel bir kültürel değişimden az olmadığını belirtmektedir. Bu nedenle, böyle bir değişimin kısa sürede gerçekleşmesini beklemek gerçekçi olmayacaktır. Çevrimiçi öğrenme deneyimi açısından, akademisyenler pandemiden önce bu konuda hiçbir deneyime sahip değillerdi ve çevrimiçi öğrenmeye üniversiteden yeterli destek alamadan, deneme yanılma yoluyla bireysel çaba ile uyum sağlamak zorunda kalmışlardır. Inglis ve diğerleri (2000) üniversitenin akademisyenlere iki şekilde yardımcı olabileceğini belirtmiştir: 1) çevrimiçi materyaller tasarlama, geliştirme ve üretme konusunda teknolojik yetkinliklerini artırmak ve öğrencileriyle çevrimiçi öğretim yapma fırsatları sunmak, 2)

akademisyenlerin çevrimiçi öğrenmenin etkili sunumu ve çevrimiçi öğrencilerin desteklenmesi konusundaki becerilerini artırarak, genellikle eğitim tasarımcıları, grafik tasarımcılar, bilgisayar teknisyenleri, multimedya programcıları, görsel-işitsel teknisyenler, metin editörleri, e-kütüphaneciler ve kaynak sağlayıcılarla iş birliği içinde uzman bir yaklaşım benimsemek. Ancak çalışmanın bulguları, üniversitenin böyle bir acil duruma tamamen hazırlıksız olduğunu ve verilen seminerlerin etkili ve erişilebilir bulunmadığını göstermiştir. Sonuç olarak, e-moderatörlerin yönetsel rolü ERT'ye ani geçiş nedeniyle tam olarak yerine getirilememiş ve birçok araştırmacının da belirttiği gibi ERT'ye uyum sağlamakta zorluk çekmişlerdir. Ancak, pandemi sonrasında akademisyenler böyle bir acil duruma daha hazır, hazırlıklı ve deneyimli hale gelmiştir.

Akademisyenlerin teknolojik rolü göz önüne alındığında, çalışma, yeterli ekipmana sahip olmamalarının dersleri yürütmede veya derslerin kayıtlarını hazırlamada zorluklara neden olduğunu göstermiştir. Teknolojik yeterlilik açısından, akademisyenler genellikle kendilerini yeterli bulmuş veya zamanla birbirlerinden, aile üyelerinden veya üniversiteden yardım alarak kendilerini geliştirmişlerdir. Ancak bazı akademisyenlerin, özellikle yaşlı olanların, etkili ve etkileşimli dersler veya çevrimiçi ödevler yürütmek için teknolojik olarak yeterli olmadığı sonucu çıkmıştır. Öte yandan, araştırma görevlileri ve aile üyelerinin yardımıyla süreci sorunsuz bir şekilde yönetebilen yaşlı akademisyenler de olmuştur. Bu noktada, Shirahada ve diğerleri (2019) tarafından önerildiği gibi, bu çalışma teknolojik yeterliliğin yaşlıların kişisel inançlarına bağlı olduğunu, yaşlarına değil, ve ilgili sosyal destekle becerilerini geliştirebileceklerini ortaya koymuştur.

Çalışma, akademisyenlerin sosyal rolü açısından, çevrimiçi öğrenmeyi sorunsuz ve etkili bir şekilde yürütme konusunda kişisel yeterliliklerinin bireye bağlı olduğunu belirtmiştir. Akademisyenler, öğrenciler ve/veya meslektaşlar arasındaki etkileşim eksikliği nedeniyle çevrimiçi eğitimde kendilerini depresif ve motivasyonsuz hissetmiştir. Ayrıca sağlıkları ve sevdikleri için oldukça endişeli olmaları uyku bozuklukları veya depresyona sebep olmuştur. Ek olarak, akademisyenler arasında kadın akademisyenlerin anne, eş, kız evlat, danışman ve araştırmacı gibi üstlenmesi gereken çeşitli roller nedeniyle bir cinsiyet farkı olduğu ortaya çıkmıştır.

Akademisyenlerden gelen destek, öğrencilerin çevrimiçi öğrenmeden memnuniyetini etkileyen ana faktördü (Aristovnik vd., 2020). Bu nedenle, eğitici kimliği veya pedagojik rol açısından, birçok akademisyen artan iş yüklerine rağmen öğrenme sürecini mümkün olduğunca kolaylaştırmak için rehberlik becerilerinde kendilerini yetkin hissetmiştir. Ancak, çevrimiçi öğrenmede öğrencilerle ve meslektaşlarıyla etkileşim eksikliği nedeniyle en çok zorlandıkları şey, öğrencilerin hayatlarına dokunamamaları ve dolayısıyla yüz yüze eğitimde olduğu kadar onlara yardımcı olamamalarıydı. Bu nedenle, iş tatminleri de azalmıştır. Pandemi sonrasında, çalışmada akademisyenlerin etkileşimli dersler yürütme fırsatı buldukları ve güvenilirlik sorunlarının baskısı olmadan daha rahat oldukları için daha motive göründükleri belirtilmiştir. Öte yandan, bazı akademisyenler ve öğrenciler, bireyselleşme ve sosyalleşmeme nedeniyle aralarındaki etkileşimin çevrimiçi öğrenme sonrasında azaldığını iddia etmiştir.

Akademisyenlere olan bağımlılığın azalmasına rağmen, öğrenciler kişisel ve profesyonel gelişimleri için akademisyenlerin rehberlik ve danışmanlık becerilerini gerekli bulmuşlardır. Ancak çalışmanın bulguları, öğrencilerin bazı akademisyenleri ulaşılmaz ve sorunlarını aşmalarına yardımcı olmakta hoşgörüsüz bulduklarını ve üniversitenin onlara destek sağlamadığını belirterek hayal kırıklığına uğradıklarını göstermiştir. Pandemi sonrasında, çalışmada, öğrencilerin ulaşmaktan memnun oldukları alternatif bilgi kaynaklarına rağmen, akademisyenlerin rolünün yeniden değerlendirildiği ancak öncekilerle aynı olduğu kabul edilmiştir. Monteith ve Smith (2001) tarafından belirtildiği gibi, bu rolleri yerine getirmek için öğrenci etkileşimi hem akademisyenler hem de öğrenciler tarafından bir zorunluluk olarak kabul edilmiştir.

Akademik performans açısından, çalışma akademisyenlerin performanslarındaki değişikliğin çevrimiçi öğrenmeye bağlı olarak yetkinliklerine bağlı olduğunu ortaya koymuştur; ancak pandemi sırasında akademik araştırmalarda bir düşüş olduğu görülmektedir. Öte yandan, akademisyenler çevrimiçi öğretime materyal uyarlama, çevrimiçi etkileşimli dersler yürütme ve çevrimiçi seminerlere veya kurslara katılma konularında yeni bakış açıları kazanarak teknoloji yardımıyla kendilerini profesyonel olarak geliştirmiştir. Ayrıca pratiklik sorunları nedeniyle ders onayları ve seminerler, konferanslar gibi toplantılara çevrimiçi olarak devam etmişlerdir.

D. Covid-19 Süresince Öğrenci ve Akademisyenlerin Akademik Üniversite Deneyimlerine dair Alguları

Çalışmanın bulguları, çevrimiçi öğrenmenin en güçlü yönlerinin teknoloji kullanımında gelişim, ders kayıtları ve notlarının arşivlenmesi, eleştirel düşünme becerilerinin geliştirilmesi ve akademisyenlerin akademik araştırmalarındaki artış olarak kabul edildiğini ortaya koymuştur. Öğrenciler açısından ise çevrimiçi öğrenmenin en güçlü yönleri öğrenci özerkliğinin artması, süreç odaklı değerlendirme ile iç ve dış kaynaklara kolay erişim olarak değerlendirilmiştir. Bununla birlikte, hem öğrenciler hem de akademisyenler, çeşitli bilgi kaynaklarına ve kişilere zaman ve mekân esnekliği ile erişebilmenin çevrimiçi öğrenmenin en güçlü özelliklerinden biri olduğunu belirtmişlerdir. Çevrimiçi öğrenmenin en zayıf yönleri arasında ise hem öğrenciler hem de akademisyenler güvenilirlik sorunlarını, etkileşim eksikliği ve/veya izolasyon hissi nedeniyle psikolojinin bozulmasını, altyapı ve ekipman eksikliğini saymışlardır. Ayrıca, akademisyenler çevrimiçi öğrenmeye hazırlıksız olmayı ve uygulamalı dersler ve/veya teorik dersler için çevrimiçi öğrenmenin yetersizliğini de zayıf yönler arasında belirtmişlerdir.

Çevrimiçi öğrenmenin gelecekteki yansımaları açısından, birçok akademisyen ve öğrenci, yüz yüze eğitimin, spontane ve çevresel öğrenmenin gerçekleştiği vazgeçilmez bir unsur olduğuna inanmaktadır. Bazı çalışma alanları ve meslekler çevrimiçi olabilse de, çevrimiçi öğrenmede etkileşim eksikliği nedeniyle formal eğitimin sürdürülebilir ve etkili olamayacağı görüşü hakimdir. Bu nedenle, çevrimiçi öğrenme yalnızca gerekli koşullar sağlandığında bazı alanlarda veya teorik ve servis derslerinde bir seçenek olarak düşünülebilir. Bununla birlikte, yeterli teknolojik altyapı sağlanmalıdır. Ayrıca, öğrencilerin dikkatini ve katılımını sürdürmek için iyi tasarlanmış materyaller, daha uygun e-öğrenme platformları ve etkileşimli derslerle donatılmış iyi organize edilmiş bir eğitim programına ihtiyaç vardır. Çalışmanın bulguları, öğrencilerin araçları kullanmaları ve deneyler yapmaları gereken sınavlar veya uygulamalı derslerde çevrimiçi öğrenmenin tamamen uygulanamayacağını da göstermiştir. Değerlendirme açısından, bazı çalışmalar, eğitim teknolojisi araştırmacılarının alternatif değerlendirme araçları, laboratuvar dersleri için simülasyonlar ve sanal gerçeklik geliştirerek, bu araçların daha erişilebilir hale gelmesi

ve derslerin olabildiğince kapsayıcı ve katılımcı olmasını sağlayacak yenilikler yapılmasını önermektedir.

Sonuç olarak, üniversite eğitimi, acil durumlar ve gelecekteki yansımalar ile ilgili bazı öngörüler dikkate alınarak, teknoloji entegre edilerek geliştirilmelidir. Üniversitenin, akademisyenlere değişen durumlara göre derslerini uyarlamaları için teknik destek ve rehberliğin yanı sıra, öğretim uygulamaları konusunda hizmet içi eğitim programları sağlaması gerektiği açıktır (Wagner vd., 2008). Ayrıca, öğrenci geri bildirimleri de dikkate alınarak öğretim ve öğrenme sürecini daha standart ve sorunsuz hale getirmek için bir kontrol mekanizması olmalıdır. Son olarak, Salmon (2004a)'nın belirttiği gibi, ders kayıtları sayesinde zaman ve para tasarrufu sağlanabileceği için çevrimiçi öğrenme, üniversitelere çevrimiçi dersler ve sertifikalar sunarak gelir elde etme konusunda yardımcı olabilir.

Lisans Öğrencilerinin ve Akademisyenlerin Covid-19 Öncesi ve Sonrası Akademik Olmayan Üniversite Deneyimleri

Campagna (1969), eğitimde kişisel gelişimi öğrenciler için en önemli unsur olarak görür ve bu gelişimin akademik olan deneyimlerden çok akademik olmayanlara bağlı olduğunu diğer araştırmacıların (Mahan, 2010; Pak, 2020; Pascarella vd., 2011) da belirttiği gibi vurgular. Bu noktada, kampüsteki ilişkilerin kalitesi, öğretim üyeleriyle etkileşim ve öğrenci başarısını destekleyen birimler, öğrenci gelişimi üzerinde olumlu bir etkiye sahiptir. Bu nedenle, üniversitelerin öğrencilere sosyal, entelektüel, kişisel, fiziksel yetkinliklerini geliştirebilecekleri bir atmosfer ve deneyim sunması bir zorunluluktur. Daha tatmin edici akademik olmayan fırsatların oluşturulabilmesi için bu tür faaliyetlere daha fazla tesis sağlanmalı ve daha fazla zaman ayrılmalıdır; ancak Covid-19, akademik olmayan üniversite deneyimleriyle ilgili olanakları ve faaliyetleri sekteye uğratmıştır.

Pascarella ve diğerleri (2004) tarafından belirtildiği üzere, üniversite ortamı bir kültür oluşturulmasına yardımcı olur. Bu noktada, araştırmanın bulguları, çevrimiçi öğrenmede paydaşlar arasındaki etkileşim eksikliği nedeniyle, kuşaklar arası kültürel aktarımın kesintiye uğramasıyla üniversite kültürünün değiştiğini ortaya koymuştur. Kültürün üst sınıflardan öğrenilebileceğini öne süren diğer çalışmalara (Baruth vd., 2021; Drachsler vd., 2021; Gaal, 2023) paralel olarak, araştırma, lisans eğitiminin ilk

iki yılını üniversite kültürünü deneyimlemeden tamamlayan öğrencilerin bu kültürü öğrenebilecekleri üst sınıflarla etkileşimde bulunmadıklarını kaydetmiştir. Sonuç olarak, üniversitenin ne anlama geldiği, üst sınıflardaki öğrenciler için daha alt sınıflardakilerden farklılık göstermiştir.

Bunun yanı sıra, Denovan ve Macaskill'in (2013) belirttiği gibi, birinci sınıf öğrencileri genellikle bağımsızlık arayışı, yeni ufuklar kazanma ve yeni sosyal ortamlarla karşılaşma ihtiyacı içindedirler. Ancak araştırma, bu öğrencilerin üniversite kültürüne entegre olamadığını ve ne yazık ki bu durumun ahlaki gelişimlerini olumsuz etkilediğini göstermiştir (Rest & Narvaez, 2014). Sonuç olarak, bu öğrencilerde kaba ve saygısız davranışlar, daha bireysel düşünme eğilimleri ve belirli durumlara karşı duyarsız tepkiler gibi olumsuz tutumlar gözlemlenmiştir. Sadece birinci sınıf öğrencileri arasında değil, aynı zamanda son sınıf öğrencileri arasında da çevrimiçi öğrenmenin neden olduğu bireyselleşme sonucu tolerans ve işbirliği azalmıştır.

Pandemi öncesi döneme kıyasla, öğrenciler birliktelik ve kolektif bilinçlerini kaybetmiş, duruma birlikte tepki verme, protesto etme ve haklarını savunma yetilerini yitirmişlerdir. Üniversite kültüründeki nesil farkına ek olarak, mevcut rektörlük ve üst yönetim de öğrencilerin bir araya gelerek pandemi öncesinde olduğu gibi demokratik bir atmosfer oluşturmalarını engelleyen bir diğer neden olarak kabul edilmiştir. Lottes ve Kurilof (1994) tarafından belirtildiği gibi, öğrenciler akademik olmayan üniversite deneyimleriyle siyasi ve sosyal tutumlarını şekillendirememişlerdir. Bu durum, ODTÜ kültüründe oluşan nesil farkının pandemi sonrasında zamanla telafi edilip edilemeyeceği konusunda endişelere yol açmıştır.

Pace'in teorisine göre, öğrenci büyümesi ve gelişimi, öğrenci tarafından algılanan kurumsal çevrenin ve öğrenci tarafından harcanan çabanın ortak etkisiyle gerçekleşmesinden kaynaklanır (Tam, 2002). Pandemi kampüs yaşamından uzak kalan öğrenciler kampüs hayatına yabancılaşmışlardır. Araştırmanın bulgularına göre, üniversite kampüsü aidiyet duygusu sağlayarak, "ODTÜ ruhu" olarak adlandırılan bir olgu yaratmıştır ve bu ruh olmadan üniversite anlamsız hale gelmiştir. Pandemi sonrasında kampüs hayatının değeri anlaşılmış ve kampüs, sosyal etkinliklere katılmak, öğrenci kulüplerine ve topluluklarına katılmak ve çeşitli olanaklardan yararlanmak için ikinci bir şans olarak görülmüştür.

Üniversite atmosferini belirleyen bir diğer unsur, sınıf dışı etkileşimdir. Farklı gruplar arasında yüksek kaliteli etkileşime sahip öğrenciler, öğrenme için harcadıkları çabayı etkiler ve bu nedenle destekleyici ve yaklaşılabılır akademisyenlerin yanı sıra işbirlikçi ve arkadaş canlısı bir çevre arayışında olurlar (Hu & Kuh, 2003). Araştırma, pandemi sırasında öğrencilerin destekleyici bir öğrenme ortamına sahip olamadıkları zamanlar olduğunu ve bunun öğrenmelerini ve motivasyonlarını olumsuz etkilediğini ortaya koymuştur. Bunun yanı sıra, etkileşim, teknolojik altyapının varlığına ve uygunluğuna bağlıydı. Birkaç utangaç öğrenci çevrimiçi iletişimde kendilerini daha rahat hissetmiş olsalar da, çoğu öğrenci beden dili ve jestlerin eksik olduğu çevrimiçi iletişim araçlarını yetersiz bulmuş ve bu platformlar üzerinden karışık mesajlar alınabileceğini belirtmiştir. Çevrimiçi öğrenme sonrasında, araştırma, akademisyenler ve öğrenciler arasındaki etkileşimde, çeşitli nedenlerle (rahatsızlık hissi, bireyselleşme, izolasyon, motivasyon ve enerji eksikliği) bir düşüş yaşandığını ve bunun üniversitedeki işbirliği ve uyumu olumsuz etkilediğini göstermiştir.

Bunun yanı sıra, ders dışı faaliyetler, öğrencilerin üniversite kültürünü kazanmalarına (Koç & Koç, 2021), sınıf dışı temas kurmalarına ve iyilik hallerini korumalarına (Finnerty vd., 2021) ve akademik ve sosyal beceriler kazanmalarına (Zaki, 2022) olanak tanır. Araştırmanın bulguları, ders dışı faaliyetlerin pandemide öğrencilerin psikolojik sorunlarını aşmalarına ve akranlarıyla daha güçlü bağlar kurmalarına yardımcı olduğunu, ancak bu faaliyetlere katılımlarının yüz yüze eğitimle karşılaştırıldığında dramatik bir şekilde düştüğünü veya kesintiye uğradığını ortaya koymuştur. Bu durum, öğrencilerin çevrimiçi platformları sosyalleşmek için kullanmaktan bıkmış olmalarından ve çevrimiçi olarak faaliyetlere, kurslara ve seminerlere katılmaya isteksiz hale gelmelerinden kaynaklanabilir. Öte yandan, bu platformlar, öğrencilere normalde finansal kaynak eksikliği veya zaman yetersizliği nedeniyle katılamadıkları ders dışı faaliyetlere katılma şansı vermiştir. Bunun yanı sıra, akademik ve profesyonel gelişimle ilgili kurslara veya seminerlere katılımında bir artış olmuştur; bu, çevrimiçi platformların sağladığı zaman ve mekan esnekliği sayesinde olabilir. Ancak, pandemi sonrasında, ders dışı faaliyetlere katılım, pandemi öncesine kıyasla bir düşüş göstermiş, ve bu durum öğrenciler arasında daha az birlikteliğe yol açmış olabilir.

Üniversitenin doğası, ülkenin vizyonu, ekonomik durumu ve politik duruşuna

bağlı olarak zaten değişiyordu, ancak Covid-19 bu değişimi hızlandırdı ve daha belirgin hale getirdi. Üniversitenin değişen doğasına paralel olarak, misyonu da değer eğitiminden özerkliğe, eğitimden araştırmaya, kültür kazanmaktan bir meslekte uzmanlaşmaya doğru çeşitlendi. Temel olarak, üniversite, geleneksel veya disiplin temelli yaklaşım ile performans veya sistem temelli yaklaşımlara göre bilim ve araştırma üretmek için, deneyimsel veya kişisel ilgi yaklaşımına göre mesleki beceriler geliştirmek için olsa da (Peach, 2010), üniversitenin vizyon sahibi olma, ufuklarını genişletme, ortak bir anlayış geliştirme, kültür kazanma ve topluma hizmet etme amacı olmalıdır. Sosyal-eleştirel yaklaşıma göre, üniversite, merak uyandıran, toplumsal uyanış ve aydınlanmayı teşvik eden, bir toplumu reforme etmeyi amaçlayan özerk bir kurum olmalıdır (Peach, 2010). Çevrimiçi öğrenme, öğrencilere ve akademisyenlere üniversitenin temel misyonunun değer eğitimi olduğunu, yani insanları entelektüel, bağımsız ve saygılı sosyal varlıklar olarak yetiştirmek olduğunu, akıl yürütme becerilerine ve bilgeliklerine sahip, yaşadıkları topluma duyarlı ve eleştirel bireyler olarak yetişmeleri gerektiğini fark ettirmiş ve takdir ettirmiştir (Newman & Newman, 1978; Pace, 1984).

Değer eğitimine ek olarak, üniversite kampüsü, aidiyet duygusu sağlar ve kampüsün yardımıyla bir kültür oluşturmaya yardımcı olur. Farklı kültürel ve sosyal geçmişlere ve dini inançlara sahip çeşitli insanlarla etkileşimde bulunarak, öğrenciler yeni bakış açıları kazanabilir ve sevgi, empati, sempati, saygı ve duyarlılık gibi değerleri öğrenebilirler. Aynı zamanda, kendilerini keşfedebilir, kendi varlıklarını değerlendirebilir, bir kimlik oluşturabilir ve toplumda bir yer edinebilirler (Chickering & McCormick, 1973; Newman & Newman, 1978). Ancak çevrimiçi eğitim, öğrencilerin üniversite kültürüyle kaynaşmalarını engellemiş ve onları sadece ders çalışıp sınavları geçmeye odaklanan bireyler haline getirmiştir. Bu durum, öğrencileri sosyal etkileşimden ve eleştirel düşünme becerilerinin gelişiminden mahrum bırakmış ve sonuç olarak bir kültürel boşluk oluşmasına neden olmuştur. Bu boşluk zamanla telafi edilmelidir çünkü üniversite, etkileşim ve sosyalleşme yoluyla farklı bakış açılarının karşılaştığı, benliği ve toplumu reforme etme amacı taşıyan bir yerdir (McKinney vd., 2004; Pascarella vd., 2004).

Çevrimiçi öğrenme, üniversiteyi yalnızca eğitim ve araştırma ile sınırlamakla kalmamış, aynı zamanda öğrencileri daha çok dil öğrenme, araştırma yapma ve

özgeçmişlerini geliştirme gibi profesyonel gelişime odaklanmaya itmiştir. Ancak, öğrenciler ve akademisyenler, çevrimiçi öğrenmenin neden olduğu üniversitenin değişen doğasının telafi edilebileceğine, çevrimiçi öğrenme sırasında ortaya çıkan eğitimsel sorunların aşılabileceğine ve üniversitenin bilişsel becerilere ve toplumsal reformasyona odaklanan değerinin pandemi öncesi olduğu gibi korunabileceğine inanmaktadır.

Uygulamaya Yönelik Çıkarımlar

Görülmektedir ki çevrimiçi öğrenme, üniversiteler için bir seçenekten daha fazlasıdır ve özellikle zorlu zamanlarda, acil bir durumda, öğrencilerin üniversite deneyimlerini eskisi gibi en üst düzeyde yaşamalarına yardımcı olmak için gerekli beceri ve gereksinimlerle donanmış olmaları gerekmektedir. Bu nedenle, Covid-19 sürecinde karşılaşılan zorluklar, bu ortamı yaratmak için bir avantaj olarak ele alınmalıdır.

Standartlaştırılmamış ve acil bir duruma hazır olunmaması, yükseköğretimin bu tür durumlarda zorlanmasına ve hem öğrencilerin hem de akademisyenlerin akademik ve akademik olmayan alanlarda zorluklar yaşamasına neden olmuştur. Sonuç olarak, tüm paydaşların görüşlerini dikkate alarak ve üniversitelere, onların özgün kaynaklarını göz önünde bulundurarak esneklik sağlanması, Türkiye’de yükseköğretim için acil durumlarda köklü bir politika değişikliği yapılması gerekmektedir.

Üniversite, öğrencilerin, akademisyenlerin ve akademik olmayan personelin akademik ve akademik olmayan üniversite deneyimlerini sorunsuz bir şekilde yürütmelerine yardımcı olacak bir merkez kurabilir. Özellikle akademik üniversite deneyimleri için şu pedagojik önlemler alınmalıdır: 1) öğrencilerin ve akademisyenlerin bilgisayar okuryazarlığını geliştirmek için sistematik eğitim programları; 2) akademisyenler için çevrimiçi öğretim konusunda hizmet içi eğitim programları; 3) iyi tasarlanmış materyallerle yapılandırılmış ve planlı bir çevrimiçi öğrenme modeli geliştirmek için tutarlı bir plan; 4) öğrencilerin dikkatini ve katılımını sürdürebilmek için daha uygun e-öğrenme platformları ve interaktif dersler; 5) öğrencilerin kendilerini izole ve kafası karışmış hissetmelerini önlemek için tutarlı geri bildirim; 6) eğitim teknolojisi araştırmacıları tarafından geliştirilen laboratuvar dersleri için alternatif değerlendirme araçları, simülasyonlar ve daha geniş erişilebilir ve dolayısıyla daha ilgi çekici ve kapsayıcı olmak için sanal gerçeklik; ve 7) varsa,

eksik altyapı bilgisini telafi etmek için düzenli telafi dersleri.

Bunun yanı sıra, güvenilir ağ altyapısı sağlanarak, tabletler veya bilgisayarlar gibi daha uygun fiyatlı cihazlar sağlanarak ve telekurslar, TV, radyo, çevrimiçi dersler ve seminerler gibi çeşitli modları etkinleştirerek, teknolojiyle ilgili zorluklar aşılmalıdır. Ayrıca, internet bağlantı maliyetini sınırlamak için telekomünikasyon şirketleriyle işbirliği yapılmalıdır. 21. yüzyılın bir gerekliliği olarak üniversite, akademisyenlerin etkili dersler yürütebilmeleri için kullanabilecekleri teknolojik donanım ve altyapı ile donatılmalıdır. Ayrıca, hem öğrencilerin hem de akademisyenlerin herhangi bir teknolojik araç ve/veya yeterlilikle ilgili zorlukları aşabilmeleri için kolayca yardım alabilecekleri teknolojik merkezler olmalıdır.

Akademik olmayan üniversite deneyimlerine gelince, sosyal zorlukların çözülmesi gerekmektedir. Çevrimiçi öğrenme, öğrencilerin ve akademisyenlerin üniversite kampüsünün öğrencilerin entelektüel, sosyal ve akademik gelişimindeki değerini görmelerini sağlamıştır. Ayrıca, her paydaş, üniversitenin misyonunu yeniden düşünmeye ve eğitimin yanı sıra araştırma ve mesleki uzmanlıkla birlikte, değer eğitiminin üniversite deneyimleri aracılığıyla öğrenci kimliği oluşturmak, ahlaki gelişim sağlamak ve sosyal uyanış yaratmak için paha biçilemez olduğunu keşfetmiştir. Bu nedenle üniversite kampüsü, değer eğitimi sağlamak için bir fırsat olarak görülmelidir.

Sosyal zorlukları aşmak için, yeni öğrenme ortamları yaratarak öğrencileri kendi aralarındaki ve akademisyenlerle etkileşimleri ve işbirliği artırılmalıdır; bu ortamlar, öğrencilerin insanlarla tanışma, öğretim üyeleriyle ilham verici konuşmalar yapma, laboratuvarlarda araştırmacılarla işbirliği yapma ve öğrenci kulüpleri ve topluluklar için kullanılan çevrimiçi platformlar aracılığıyla kampüsteki sosyal hayatı yaşama fırsatına sahip olabilecekleri ortamlar olmalıdır. Bunun yanı sıra, çevrimiçi platformları kullanmanın esnekliğinden yararlanarak, daha fazla ders dışı etkinlik düzenlenmeli ve öğrenci kulüpleri ve topluluklarının daha işlevsel hale gelmeleri için bir bütçe ayrılmalıdır. Böylece daha fazla etkinlik düzenleyebilir ve alandaki öncül isimlerle ulusal ve uluslararası bir ağ oluşturabilirler, ayrıca üniversite kültürünü yeni gelen öğrencilere aktarabilirler.

Öğrencilerin psikolojik iyi olma hallerini korumak için ücretsiz ruh sağlığı hizmetleri sunulmalıdır. Bu noktada, sosyal destek sadece öğrencilere değil, aynı zamanda akademisyenlere de sağlanmalıdır. Öğrenciler ve öğretim üyeleri arasında

düzenli olarak ilgi ve paylaşım toplantıları düzenlenebilir, böylece üniversite deneyimleri geliştirilebilir.

Ayrıca, öğrencilerle üniversite yönetimi arasında demokratik bir atmosfer oluşturmak amacıyla doğrudan bir bağlantı olmalıdır. Öğrencilerin ilk elden deneyimlerinden içgörüler kazanarak, üniversite öğrencilerin ve akademisyenlerin görüşlerine önem vermeli, onlarla bir birlik duygusu oluşturmalı ve üniversitede karşılaştıkları zorlukları göz önünde bulundurmalı ve çözmelidir.

Bu nedenle, tüm paydaşlar, eğitimin sosyalliğini, kapsayıcılığını ve erişilebilirliğini sürdürmenin yanı sıra erişilebilir ve akıllı öğrenme ortamları, eğitim kaynakları ve araçları geliştirmek için yakın işbirliği içinde olmalıdır.

Gelecek Araştırmalar için Öneriler

Bu çalışma, nitel bir analiz olarak, Covid-19 öncesi ve sonrasında lisans öğrencilerinin ve akademisyenlerin akademik ve akademik olmayan üniversite deneyimlerindeki değişimlere dair kavrayışlarını ortaya koymuştur. Çalışmanın amacı doğrultusunda, akademik ve akademik olmayan üniversite deneyimleriyle ilgili karşılaşılan zorluklar sunulmuş ve bu zorluklarla başa çıkmaya yönelik uygulamalar önerilmiştir.

Bulgular, bu olgunun nitel bir yaklaşımla incelenmesinin, lisans öğrencilerinin ve akademisyenlerin üniversite deneyimlerini derinlemesine araştırma ve anlama imkanı sağladığını doğrulamaktadır. Bu olguyu daha iyi anlamak amacıyla, çalışma ileriye dönük araştırmalar için bazı çıkarımlar sunmaktadır.

Pandeminin sona ermesi nedeniyle bu çalışmanın tekrarlanması mümkün olmasa da, doğal afetler gibi eğitimin çevrimiçi olarak yürütülebileceği başka durumlar da vardır, dolayısıyla bu tür acil durumlar için hazırlıklı olunmalıdır. Bu bağlamda, pandemiden bağımsız olarak, Türkiye'nin diğer şehirlerinde bulunan üniversitelerdeki üniversite deneyimleri analiz edilebilir ve olası bir acil durumda bir yol haritası oluşturulabilir.

Bunun yanı sıra, çeşitli üniversite deneyimlerini ve farklı insan gruplarını (yöneticiler, akademik olmayan personel, ebeveynler, vb.) içeren farklı yöntemler (karma yöntem veya nicel yöntem) kullanılarak üniversite deneyimleri çok yönlü bir

bakış açısıyla incelenebilir. Ayrıca, eylem araştırması ve tasarım tabanlı araştırma gibi diğer araştırma yöntemleri, pandemi sonrasında öğrencilerin ve akademisyenlerin üniversite deneyimlerini iyileştirmek amacıyla kullanılabilir.

Uzunlamasına araştırma tasarımı, zamanla meydana gelen bağlamsal değişiklikleri ve mezun olan öğrencilerin ve akademisyenlerin algılarındaki değişiklikleri keşfetmek için daha derin bir içgörü sağlayabilir. Örneğin, söz konusu mezunların nerede çalıştığı, işverenlerinin onlardan ne derece memnun olduğu ve pandemi sırasında aldıkları eğitimin iş dünyasında rekabet edebilmek için yeterli kabul edilip edilmediği araştırılabilir. Ayrıca, mezun oldukları üniversiteye dair algıları analiz edilerek, çevrimiçi öğrenmenin üniversiteye aidiyet duygusu üzerindeki etkisi incelenebilir. Diğer yandan, pandemi sonrasında akademisyenlerin algıları ve deneyimlerine dair çalışmalar yapılarak, onların kişisel ve profesyonel hazır bulunuşluklarının, öğrencilerin acil bir durumda akademik ve akademik olmayan üniversite deneyimlerini etkili bir şekilde yaşamalarına yardımcı olma düzeyleri incelenebilir.

Son olarak, belge analizi gibi ek veri toplama yöntemleri kullanılarak, pandeminin veya depremin akademik üniversite deneyimleri üzerindeki kalıcı etkileri, özellikle de öğretim uygulamaları incelenebilir. Böylece, akademisyenlerin öğretim uygulamalarında meydana gelen kalıcı değişiklikler araştırılabilir.

J. THESIS PERMISSION FORM/TEZ İZLEME İZİN FORMU

(Please fill out this form on computer. Double click on the boxes to fill them)

ENSTİTÜ / INSTITUTE

- Fen Bilimleri Enstitüsü** / Graduate School of Natural and Applied Sciences ☐
- Sosyal Bilimler Enstitüsü** / Graduate School of Social Sciences ☒
- Uygulamalı Matematik Enstitüsü** / Graduate School of Applied Mathematics ☐
- Enformatik Enstitüsü** / Graduate School of Informatics ☐
- Deniz Bilimleri Enstitüsü** / Graduate School of Marine Sciences ☐

YAZARIN / AUTHOR

Soyadı / Surname : Canbolat
Adı / Name : Nilay
Bölümü / Department : Eğitim Bilimleri, Eğitim Programları ve Öğretim /
Educational Sciences, Curriculum and Instruction

TEZİN ADI / TITLE OF THE THESIS (İngilizce / English): The College Experiences Of The Undergraduate
Students And Academics Before And After Covid-19: A Phenomenological Inquiry

TEZİN TÜRÜ / DEGREE: **Yüksek Lisans / Master** ☐ **Doktora / PhD** ☒

1. **Tezin tamamı dünya çapında erişime açılacaktır.** / Release the entire work immediately for access worldwide. ☒
2. **Tez iki yıl süreyle erişime kapalı olacaktır.** / Secure the entire work for patent and/or proprietary purposes for a period of **two years**. * ☐
3. **Tez altı ay süreyle erişime kapalı olacaktır.** / Secure the entire work for period of **six months**. * ☐

* Enstitü Yönetim Kurulu kararının basılı kopyası tezle birlikte kütüphaneye teslim edilecektir. /
A copy of the decision of the Institute Administrative Committee will be delivered to the library
together with the printed thesis.

Yazarın imzası / Signature

Tarih / Date

(Kütüphaneye teslim ettiğiniz tarih. Elle doldurulacaktır.)
(Library submission date. Please fill out by hand.)

Tezin son sayfasıdır. / This is the last page of the thesis/dissertation.