

**IBN HALDUN UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF GUIDANCE AND
PSYCHOLOGICAL COUNSELING**

MASTER THESIS

**EXPLORING THE SOCIAL-EMOTIONAL LEARNING
SKILLS OF UNIVERSITY STUDENTS IN DIGITAL AND
AI-ENHANCED LEARNING ENVIRONMENTS**

DİLARA MARABA

**THESIS SUPERVISOR
ASSIST. PROF. MEHMET AKIN BULUT**

ISTANBUL, 2024

**IBN HALDUN UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF GUIDANCE AND
PSYCHOLOGICAL COUNSELING**

MASTER THESIS

**EXPLORING THE SOCIAL-EMOTIONAL LEARNING
SKILLS OF UNIVERSITY STUDENTS IN DIGITAL AND
AI-ENHANCED LEARNING ENVIRONMENTS**

by

DİLARA MARABA

**The project submitted to the School of Graduate Studies in partial
fulfillment of the requirements for the degree of Master of Arts in
Guidance and Psychological Counseling**

**PROJECT SUPERVISOR
ASSIST. PROF. MEHMET AKIN BULUT**

ISTANBUL, 2024

APPROVAL PAGE

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts in Guidance and Psychological Counseling.

Thesis Jury Members

Title - Name Surname

Opinion

Signature

_____	_____	_____
_____	_____	_____
_____	_____	_____

This is to confirm that this thesis complies with all the standards set by the School of Graduate Studies of Ibn Haldun University:

Date of Submission

Seal/Signature

ACADEMIC HONESTY ATTESTATION

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 Surname:

Signature:



ÖZ

DİJİTAL VE YAPAY ZEKA ARAÇLARIYLA DESTEKLENEN ÖĞRENME ORTAMLARINDA ÜNİVERSİTE ÖĞRENCİLERİNİN SOSYAL-DUYGUSAL ÖĞRENME BECERİLERİNİN KEŞFEDİLMESİ

Maraba, Dilara

Rehberlik ve Psikolojik Danışmanlık Tezli Yüksek Lisans Programı

Öğrenci Numarası: 224008005

Open Researcher and Contributor ID (ORC-ID): 0009-0009-6885-0582

Ulusal Tez Merkezi Referans Numarası: 10639919

Tez Danışmanı: Dr. Öğr. Üyesi Mehmet Akın Bulut

Haziran 2024, 110 Sayfa

Dijital teknolojilerin ve yapay zekânın entegrasyonu, öğrenmeyi ve öğretmeyi önemli ölçüde etkilemiş ve eğitim alanındaki koşulları yeniden şekillendirmiştir. Bu çalışma, dersleri dijital ve yapay zekâ araçlarıyla donatılmış temel bir yükseköğretim kurumundaki öğrencilerin sosyal-duygusal öğrenme (SDÖ) becerilerini ve deneyimlerini araştırmaktadır. Araştırma, dijital ve yapay zeka araçlarının kullanımının üniversite öğrencilerinin SDÖ becerilerini ve dolaylı olarak akademik başarılarını nasıl şekillendirdiğini araştırarak literatürdeki önemli bir boşluğu ele almaktadır. Bu nitel araştırma, iki temel amacı olan bir vaka çalışmasıdır: (1) üniversite öğrencilerinin SDÖ becerilerini ve buna bağlı olarak akademik başarılarını dijital ve yapay zeka ile geliştirilmiş öğrenme ortamlarında keşfetmek (2) dijital ve yapay zeka araçlarıyla uygulanan öğretim stratejilerinin SDÖ'yü nasıl şekillendirdiğini anlamak. Akademik, Sosyal ve Duygusal Öğrenme İşbirliği (Collaborative for Academic, Social and Emotional Learning), çalışmanın teorik çerçevesini oluşturmuş, böylece öğrencilerin SDÖ becerileri, öz farkındalık, öz yönetim, sosyal farkındalık, ilişki becerileri ve sorumlu karar verme olmak üzere beş ana yetkinlik üzerinden araştırılmıştır. Veriler, halihazırda dijital ve yapay zeka destekli öğrenmeye dahil olanlar arasından amaçlı olarak seçilen 12 öğrenci ve 6 öğretim üyesi ile yarı yapılandırılmış görüşmeler yoluyla toplanmıştır. Çalışmada tematik analiz yöntemi kullanılmıştır. Çalışmanın bulguları göstermektedir ki çok az sayıda olumsuz ifade

olması ile birlikte, öğrencilerin sosyal ve duygusal öğrenme becerileri ve akademik performansları, dijital ve yapay zeka araçlarının öğrenme ve öğretilmede kullanımına bağılı olarak büyük ölçüde olumlu şekillendiğı sonucuna ulaşılmıştır.

Anahtar Kelimeler: CASEL, Dijital ve Yapay Zeka Destekli Öğrenme, Sosyal ve Duygusal Öğrenme.



ABSTRACT

EXPLORING THE SOCIAL-EMOTIONAL LEARNING SKILLS OF UNIVERSITY STUDENTS IN DIGITAL AND AI-ENHANCED LEARNING ENVIRONMENTS

Maraba, Dilara

MA in Guidance and Psychological Counseling

Student ID: 224008005

Open Researcher and Contributor ID (ORCID): 0009-0009-6885-0582

National Thesis Center Reference Number: 10639919

Thesis/Project Supervisor: Assist. Prof. Mehmet Akın Bulut

June 2024, 110 Pages

The integration of digital technologies and AI has significantly influenced learning and teachings, and they have been shaping new circumstances in the educational realm. This study explores the social-emotional learning (SEL) skills and experiences of students within a foundational higher education institution whose courses are equipped with digital and AI tools. The research addresses a notable gap in the literature by investigating how using digital and AI tools shapes university students' SEL skills and, indirectly, academic successes. This qualitative research is a case study that has two primary aims: (1) to explore the SEL skills of university students and, depending on this, their academic success in digital and AI-enhanced learning environments and (2) to understand how teaching strategies that use digital and AI tools shape SEL. Collaborative for Academic, Social, and Emotional Learning constructed the study's theoretical framework, so students' SEL skills were investigated through self-awareness, self-management, social awareness, relationship skills, and responsible decision-making competencies. Data were collected through semi-structured interviews with twelve students and six faculty members, who were conveniently and intentionally chosen among those who already have been involved in digital and AI-enhanced learning. The study employs thematic analysis, and it was found that although there are very few negative statements, students' SEL skills and academic

performance are majorly positively influenced by the use of digital and AI tools in learning and teaching environments.

Keywords: CASEL, Digital and AI-enhanced Learning, Social and Emotional Learning.



ACKNOWLEDGEMENT

I would like to express my deepest gratitude to those who have supported and guided me throughout the process of completing this master's thesis.

First of all, I would like to thank my supervisor, Assist. Pr. Dr. Mehmet Akın Bulut for their invaluable guidance, patience, and encouragement. Their expertise and insightful feedback were instrumental in shaping this research and bringing this thesis to fruition. I am incredibly grateful for the time he dedicated to reviewing my work and for their support.

Also, I would like to thank all the participants and contributors to this research who generously shared their time and insights.

Finally, a special thanks go to me for my dedication, perseverance, and hard work in completing this study.

Dilara Maraba
ISTANBUL, 2024

TABLE OF CONTENTS

ÖZ	iv
ABSTRACT	vi
ACKNOWLEDGEMENT	viii
TABLE OF CONTENTS	ix
LIST OF TABLES	xii
LIST OF FIGURES	xiv
LIST OF SYMBOLS AND ABBREVIATIONS	xv
CHAPTER I INTRODUCTION	1
1.1. Background of the Study	1
1.2. The Statement of the Problem	4
1.3. The Purpose of the Study and Research Questions	5
1.4. The Significance of the Study	6
1.5. Assumptions of the Study.....	7
1.6. Limitations of the Study	8
1.7. Delimitations of the Study.....	8
1.8. Definitions	9
CHAPTER II LITERATURE REVIEW	10
2.1. Organization of the Review.....	10
2.2. Digital Learning	10
2.3. Artificial Intelligence in Education	13
2.4. Social Emotional Learning and Emotional Intelligence.....	15
2.5. Theoretical Framework-CASEL	17
2.6. Students’ Social and Emotional Skills and Experiences in Digital and AI-Enhanced Learning.....	21
CHAPTER III METHODOLOGY	26
3.1. Research Design	26

3.2. Target Population	27
3.3. Working Group.....	27
3.4. Data Collection.....	29
3.5. Data Analysis	30
3.6. Validity and Reliability	31
3.7. Researcher’s Role in the Study	32
CHAPTER IV FINDINGS	34
4.1. Findings Related to the First Research Question	34
4.1.1 Theme One: Digital and AI Tools Students Use in Learning	34
4.1.2. Theme Two: Positive and Negative Emotions that Students Experience in Digital and AI-Enhanced Learning Environment	37
4.1.3. Theme Three: Students' Methods to Overcome Negative Emotions and Challenges in Digital and AI-Enhanced Learning Environments	43
4.1.4. Theme Four: Students' Views of Positive and Negative Emotions that Their Peers Experience in Digital and AI-Enhanced Learning Environments	46
4.1.5. Theme Five: Students’ Learning and Relationship-Building Experiences in Digital and AI-Enhanced Environments	48
4.1.6. Theme Six: Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics	52
4.1.7. Theme Seven: Students' View about the Role of Using Digital and AI Tools in Learning on Their Academic Success	56
4.2. Finding Related to the Second Research Question	60
4.2.1. Theme One: Digital and AI Tools Faculty Members Use in Teaching.....	60
4.2.2. Theme Two: The Views of Faculty Members' Emotions Students' Experience in Digital and AI-Enhanced Environments	62
4.2.3. Theme Three: Faculty Members' Views about Methods Students Use to Overcome Negative Emotions in Digital and AI-Enhanced Learning Environments...67	
4.2.4. Theme Four: Faculty Members’ Views about Students’ Learning and Relationship-Building Experiences in Digital and AI-Enhanced Environments ..	70

4.2.5. Theme Five: Faculty Members’ Views about Students’ Manners Using Digital and AI Tools in Learning in Terms of Ethics.....	73
4.2.6. Theme Six: Faculty Members’ Perceptions about Ethical Use of Digital and AI Tools in Learning and Teaching	75
4.2.7. Theme Seven: Faculty Members’ Views Factors that Increase Academic Success of Students in Digital and AI-Enhanced Learning Environments	76
4.3. Finding Related to the Third Research Question	80
4.3.1. Theme One: Faculty Members’ Teaching Methods to Foster Learning While Using Digital and AI Tools	80
CHAPTER V CONCLUSION, DISCUSSION AND RECOMMENDATIONS..	85
5.1. Conclusion and Discussion	85
5.2. Recommendations	90
5.2.1. Recommendations for Policy Makers	90
5.2.2. Recommendations for School Counselors	91
5.2.3. Recommendations for Parents	92
REFERENCES	93
APPENDIXES	103
APPENDIX A	103
APPENDIX B	104
APPENDIX C	106
APPENDIX D	108
CURRICULUM VITAE.....	110

LIST OF TABLES

Table 3.1. Participants Demographic Information.....	28
Table 4.1. Digital and AI Tools Students Mostly Use in Learning.....	35
Table 4.2. Students' Positive Emotions in Digital and AI-Enhanced Learning Environments	37
Table 4.3. Students' Negative Emotions of Students in Digital and AI-Enhanced Learning	40
Table 4.4. Students' Methods to Overcome Negative Emotions and Challenges	43
Table 4.5. Students' Views of Positive Emotions that Their Peers Experience	47
Table 4.6. Students' Views of Negative Emotions that Their Peers Experience.....	47
Table 4.7. Students' Learning and Relationship Experiences in Digital and AI-Enhanced Environments.....	48
Table 4.8. Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics.....	52
Table 4.9. Students' Views about Positive Factors that Increase Academic Success in Digital and AI-Enhanced Learning Environments.....	56
Table 4.10. Students' Negative Views about Academic Success in Digital and AI-Enhanced Learning Environments	59
Table 4.11. Digital and AI Tools Faculty Members Use in Teaching	61
Table 4.12. Faculty Members' Views about Positive Emotions Students Experience in Digital and AI-Enhanced Environments	63
Table 4.13. Faculty Members' Views about Negative Emotions Students Experience in Digital and AI-Enhanced Environments	65
Table 4.14. Faculty Members' Views about Methods Students Use to Overcome Negative Emotions in Digital and AI-Enhanced Learning Environment	68
Table 4.15. Faculty Members' Views about Students' Learning and Relationship-Building Experiences in Digital and AI-Enhanced Environments	70
Table 4.16. Faculty Members' Views about Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics	73
Table 4.17. Faculty Members' Perceptions about Ethical Use of Digital and AI Tools in Learning and Teaching.....	75
Table 4.18. Faculty Members' Positive Views about Factors that Increase Academic Success in Digital and AI-Enhanced Learning Environments.....	77

Table 4.19. Faculty Members' Negative Views about Academic Success in Digital and AI-Enhanced Learning Environments..... 79

Table 4.20. Faculty Members' Teaching Methods to Foster Learning While Using Digital and AI Tools..... 80



LIST OF FIGURES

Figure 2.1. CASEL Framework	18
-----------------------------------	----



LIST OF SYMBOLS AND ABBREVIATIONS

AI	Artificial Intelligence
CASEL	Collaborative for Academic Social and Emotional Learning
CILT-AI	Coordinators for Innovative Learning and Teaching
LMS	Learning Management Systems
O-SEL	Online Social and Emotional Learning
P2S	Person-to-Person System
SEL	Social Emotional Learning



CHAPTER I

INTRODUCTION

1.1. Background of the Study

Emotions are an integrated part of human experience, impacting various cognitive, physiological, and behavioral domains, so the role of emotions in learning is apparent. Pekrun and Linnenbrink-Garcia (2014) state that learning can be either enhanced or hindered by a learner's emotional state, and cognitive and emotional processes interconnect in educational environments. It is necessary to have an in-depth understanding of the emotional process during teaching and learning to develop the well-being of both students and instructors (Menzheritskaya & Hansen, 2019). The emotional states of learners determine the degree to which they can challenge and solve the problem by leading to forms of attitudes (Immiedino-Yang & Damasio, 2011).

The crucial role of emotions in learning underscores the significance of educational models, such as Social and Emotional Learning (SEL), which focus on developing students' emotional and social competencies to develop their overall educational experience and human development. In other words, social and emotional learning is one prominent educational model that highlights the role of students' emotional and social abilities in both education and human development. SEL targets the enhancement of the abilities which are self-awareness, self-management, social awareness, relationship building, and responsible decision making, and it is not a method that only leads people to develop their capabilities to identify and regulate their emotions and behaviors but also others around them (Zilva, 2023). Recognizing and regulating emotions, establishing and reaching targets, making responsible decisions, constructing and maintaining positive relationships, and welcoming yourself and others' way of thinking are key abilities that should be gained by individuals, according to SEL (Durlak et al., 2011).

It encompasses developing students' academic and psychological well-being and helping them to become successful in different parts of life by leading them to notice the significance of improving their interpersonal skills, ethical decision-making, and emotional intelligence. When the literature is explored, it can be seen that students' emotional and social development is crucial for their overall success, especially academic performance, so SEL has a goal to provide lifelong success for students since they would have enhanced competencies to control their emotions and behaviors, so they can maintain becoming focused and motivated (Kamei & Harriot, 2020; Ratten, 2020; Zilva, 2023).

Academic, social, and emotional skills are three components that connect each other and support cognitive abilities' development (Benson, 2017). Throughout the brain's development, cognitive and social-emotional regulation skills have become intricately connected and integrated (Tennessee Department of Education, 2018). Buşu (2020) indicates that in a cause-and-effect relationship between cognitive intelligence and social and emotional intelligence, students who cannot manage their emotions in schools are likelier to have academic failure and social discrimination. In this regard, It is important to regulate emotions to achieve higher academic performance. Durlak et al. (2011) define SEL as an academic process where a person enhances emotional intelligence. The capacity to patiently wait for the conscious fulfillment of a commitment is a sign of emotional intelligence that includes learning how people manage problems related to their own emotions and develop positive relationships with those around them (Praditsang et al., 2015).

Elksnin and Elksnin (2003) found that students are at less risk of quitting school and being academically unsuccessful due to gaining a sense of emotional intelligence, so teaching methods and techniques that are based on SEL should be included not only in daily routines but also in curriculums to have healthy learning environments, specifically classrooms. Teaching methods designed through an SEL positively impact students' anger control, attention span, and academic performance (Jones et al., 2010). Panayiotou, Humphrey, and Wigglesworth (2019) state that tools that utilize the aspects of SEL avoid poor learning and academic failure, so students benefit from School-based SEL intervention by enhancing their psychosocial well-being and academic success. The integration of Social and Emotional Learning (SEL) into

curriculums fosters healthy learning environments. It improves academic outcomes, and the obvious impacts of this integration were mostly seen in digital education during the COVID-19 pandemic.

Digital learning has become increasingly prominent in educational settings due to its facilities impacting teaching and learning. OECD (2023) states that the remarkable development of digital education has accelerated by COVID-19, and there is a flourishing expectation that the role of digital technologies in education will expand and be permanent in teaching and learning. The terms "Digital Learning" and Digital Education" have emerged due to integrating advanced technology into the educational landscape. Digital learning encompasses using digital technologies and tools to enhance and ease the learning processes. 21st-century learners, who are digital natives, have different needs than previous generations, and in this respect, digital learning environments meet them by providing flexibility and personalization. Digital Learning Technology refers to a learning paradigm that allows students to access rich content and interact through wireless networks, mobiles, computers, AI, etc (Basit, 2023).

Moreover, artificial intelligence enhanced digital learning, providing personalized and adaptive learning experiences due to various intelligent technologies involving machine learning algorithms, data analytics, and language processing. Currently, it can be said that students and teachers who use digital and AI tools in the learning and teaching process are becoming more prevalent. Most innovations in education occurred due to the increased use of computers in the past decade. However, artificial intelligence is the element that shapes teaching and learning in classrooms both now and in the future (OECD, 2020). Artificial intelligence is an ongoing factor that has an ongoing impact on educational environments due to the new facilities that are provided to learners and teachers (Sharma & Sharma, 2023).

Following the integration of digital technologies, which involves AI, in education, the role of emotions in digital learning environments has emerged as one of the pivotal factors influencing the educational experience. In this respect, it is very significant that students are aware of their emotional states and regulate them to create motivation, engagement, and self-esteem in learning when they interact with online courses, virtual classrooms, interactive online and asynchronous learning platforms, like Nearpod, or

ChatGPT. Students' emotions, which impact their cognitive and affective learning skills, are essential in a technology-rich learning environment, shaping their academic success and well-being (Lajoie et al., 2020).

1.2. The Statement of the Problem

The role of emotions in learning and teaching is a remarkable subject that has newly started to focus on and integrated into curriculums. In this respect, as stated above, the emotional experiences of students impact academic success and, concomitantly, psychosocial well-being. In this respect, Collaborative for Social Emotional Learning provides five skills: self-awareness, self-management, social awareness, relationship building, and responsible decision-making, which represent the state of students' social-emotional learning skills. As a result of hundreds of research studies with more than one million participants, the intervention of Social Emotional Learning in schools across PreK-12 leads to increased academic success followed by higher grades, higher rate of attendance, and homework completion (CASEL, 2023).

The contemporary educational landscape is undergoing a profound metamorphosis propelled by the advent of digitalization, notably accentuated by the integration of artificial intelligence (AI). Thus, it can be said that this paradigm shift necessitates a comprehensive acknowledgment of the manifold ramifications it engenders for both students and educators alike. Also, leveraging digital and AI tools, such as learning management systems (LMS), chatbots, and Web 2.0 applications, can facilitate asynchronous online courses, virtual classrooms, and various online activities, thereby furnishing an extensive repository of information characterized by facile accessibility.

This digital milieu fosters a pedagogical environment characterized by flexible learning modalities, allowing students to engage in educational pursuits unbounded by temporal or spatial constraints. Moreover, integrating digital and AI tools enables the customization of educational experiences to cater to individual learners' idiosyncratic preferences, needs, and learning proclivities. Furthermore, these technologies allow educators to orchestrate more interactive and immersive learning experiences, wherein students can actively participate in collaborative endeavors such as group discussions

and peer feedback exchanges, thereby augmenting engagement and fostering a synergistic learning dynamic.

Digital tools have majorly taken place in learning and teaching due to the COVID-19 pandemic through online education; however, now, they are used with the integration of artificial intelligence in not only online education but also classrooms through different models, like blended learning, flipped learning, asynchronous learning, etc. Although digital educational technology existed before the pandemic, its usage accelerated and identified with online education. There is a considerable amount of study that targets exploring experiences in the scope of remote learning during COVID-19, but not enough research on social and emotional learning experiences of students in classrooms equipped with digital and AI tools (Unicef, 2023; Kohnke & Found, 2023).

In this regard, it can be stated that digital and artificial intelligence tools are more prevalently used in education through different learning and teaching models, and this creates diverse changes and needs in the educational realm, so there is a need to investigate the social-emotional learning experiences and skills of students in new learning and teaching that is equipped with digital and AI tools, which is a huge gap in the literature.

1.3. The Purpose of the Study and Research Questions

The fundamental aim of this study is to explore how students socially and emotionally experience learning enhanced by digital and AI tools, specifically in the context of SEL. SEL benefits students' academic success since they gain more skills to understand and manage emotions and behaviors (Naglieri, 2011). Since SEL enables students to efficiently manage their emotions, have self-regulation, keep focused, and read, students become more motivated to learn (Quraishi, 2019).

As stated above, since notions of SEL have a significant role in students' learning, it is significant to explore how the SEL skills of students are shaped in digital and AI learning environments, which have just been constructed.

This qualitative study has two major aims:

The first aim is to reveal the Social-Emotional Learning skills of university students in learning and teaching supported by digital and artificial intelligence tools and, indirectly, their academic success in a higher education institution as a case study.

The second purpose is to understand how teaching methods that include digital and AI tools shape the social and emotional learning of students in higher education.

In line with these purposes, the questions of the research were determined as follows:

- i. How do students socially and emotionally experience digital and AI-enhanced learning?
- ii. What are the observations of teachers on students' social and emotional learning skills in learning and teaching supported by digital and AI tools?
- iii. How do teaching methods or strategies that faculty members use shape students' social and emotional learning in digital and AI-enhanced learning and teaching environments?

1.4. The Significance of the Study

Students experience different emotions and social experiences while using digital and artificial intelligence tools, which are very new to most in classrooms and online learning. While some emotions positively impact students' academic performance and well-being, others lead to a decrease, so it is important to develop SEL skills. In this regard, students should be aware of their emotional state of themselves and others, manage their own emotions, build healthy relationships with peers and instructors, and make effective decisions that foster learning. Although excitement, happiness, and enjoyment increase academic achievement, fear, anxiety, and stress are the emotions that decrease it (Douglass & Islam, 2009). Students who have developed Social Emotional Learning skills can regulate their emotions and construct and maintain healthy classroom relationships, so they show higher academic performance (Denham et al., 2014).

This study has significance in fulfilling the existing gap that there is no distinct study to explore the Social and Emotional Learning and SEL skills of students who are engaging in learning and teaching supported by digital and AI tools not only in online education but also in classrooms where digital and AI tools actively used, such as flipped learning. In addition, not only this conducted study has become prominent since it points out SEL in digital and AI-enhanced learning, but it also focuses on higher education because there is a limited number of study that aims at social-emotional learning studies in higher education, and studies of CASEL cover PreK-12 education. Although emotions in learning and teaching have become more prevalent in the educational realm, there is still a notable lack of interest in higher education (Connelly & Salisbury, 2019).

1.5. Assumptions of the Study

The exploration of Social-Emotional Learning (SEL) experiences and skills of students in learning and teaching supported by digital and AI tools in higher education is grounded in several foundational assumptions. These assumptions underpin the rationale and scope of the research and guide the interpretation of findings and implications for practice. The following assumptions are the focus of the investigation.

The first assumption was that all participants completed semi-structured interviews and responded sincerely and truthfully to all questions. Secondly, it was assumed that all students involved in the study took courses designed or at least supported by digital or AI tools, and teachers have been using them in their teaching. In other words, it was supposed that all participants had experiences with digital and AI tools in learning and teaching. The third assumption was that interview questions are designed to be valid and reliable. Hence, participants can express their thoughts and feelings that represent their social-emotional learning experiences and skills in the framework of the CASEL model.

Furthermore, the research assumes that academic success and well-being of university students are positively influenced by SEL skills, so cultivating self-awareness, self-management, social awareness, relationship skills, and responsible decision-making can enhance students' development. Moreover, the study assumed that digital and

artificial intelligence (AI) tools had become integral parts of contemporary learning and teaching environments in higher education, and it was based on the recognition that digital technologies provide plentiful opportunities for improving SEL skills, enhancing instructional practices, and fostering interactive and engaging learning experiences for students.

1.6. Limitations of the Study

In this study, twelve university students and six faculty members were involved since the foundational university chosen has a certain number of students, so studying with a small number of people limits the study and cannot be generalized. In addition, choosing students and faculty members purposefully in this regard, students were chosen from ones who engaged in courses where digital and AI tools were actively used and who actively used those tools by themselves in learning, and faculty members were chosen among people who take assistance from the Center of Innovative Learning and Teaching with Artificial Intelligence at the University or joined workshops organized by it, is another limitation, which avoids generalization of the findings.

1.7. Delimitations of the Study

This study focuses on exploring university students' Social and Emotional Learning experiences and skills in technology-enhanced learning environments where digital and AI tools are actively used. Following this, it does not include online learning but also face-to-face classroom courses and students' own learning stages that were enhanced by digital and AI tools. The study was confined to undergraduate students in a foundational university, and data were collected between April and May 2024. Since the aim of the study is to understand the SEL skills and experiences of students, the Collaborative for Academic, Social and Emotional Learning is adopted as a theoretical framework of the study. In this respect, questions of interviews whose both students and faculty members were constructed and findings extracted from data were represented by following CASEL's five competencies, which are self-awareness, self-management, social awareness, relationship skills, and responsible decision making.

1.8. Definitions

- **Emotion:** “a complex reaction pattern, involving experiential, behavioral, and physiological elements, by which an individual attempts to deal with a personally significant matter or event” (APA Dictionary, 2024, online).
- **Social and Emotional Learning:** CASEL (2023) defines SEL as a process by which individuals of all ages gain and utilize the knowledge, skills, and attitudes necessary to build healthy self-identities, regulate emotions, reach personal and group objectives, demonstrate empathy, construct and maintain healthy and supportive relationships, and make thoughtful and compassionate choices.
- **Digital Learning:** Digital Learning is an innovative educational approach that integrates technology to enhance **traditional** face-to-face instruction, deliver remote and mobile education, combine classroom and online methods, and utilize digital information sources (Walker, 2024).
- **AI-Enhanced Learning:** AI-enhanced learning refers to the integration of artificial intelligence technologies and tools into education. It aims to enhance teaching and learning through personalized instruction, adaptive assessments, intelligent tutoring systems, and other AI-driven applications, thereby optimizing educational outcomes (Kayyali, 2024).

CHAPTER II

LITERATURE REVIEW

2.1. Organization of the Review

The chapter on literature review provides a comprehensive examination and synthesis of the student's social and emotional learning skills in digital and AI-enhanced learning. This section includes five major subjects: digital learning, artificial intelligence in learning, social-emotional learning, and emotional intelligence. This study's theoretical framework, Collaborative for Academic, Social, and Emotional Learning, is explained in the fourth section. Finally, since a few studies specifically focus on students' social-emotional experiences while using digital and AI tools in their learning, the fifth section of the literature review provides studies on students' SEL experiences through online education and technology-based learning.

2.2. Digital Learning

Due to the development of education technologies, education that involves learning and teaching has rapidly transformed over the last decade, and the terms 'Digital Education' and 'Digital Learning' have remarkably become pervasive. Digital education is currently a pivotal notion of learning and teaching, and it involves such types as blended learning, online learning, virtual education, and ICT-based education (Bansal, p. 65, 2023). It is currently considered that digital education, which has gradually spread in the teaching-learning processes, makes the whole education system more techno-centric and a more comprehensive field. However, Educational Technology or E-learning has accepted practices of Information Communication Technologies (ICT) in education in the past (Paul, 2022).

Digital learning is the application of technology to teaching and learning, and it can strengthen a constructivist approach that is student-centered and focuses on interactive

learning where questions and attention are prioritized (Carrier, 2017). Aggarwal and Mehndroo (2022) indicate that digital education refers to digital learning, where modern technological tools are used to enhance teaching and learning, considering educational needs. They summarize digital education trends as online learning, blended learning, flipped classrooms, video-based learning, MOOC, and game-based learning.

Online education, which refers to also e-learning or distance learning, is a type of teaching and learning activities that are followed through the Internet synchronously or asynchronously by using diverse digital tools and learning management systems, like Zoom, Canvas, Moodle, Google Classrooms, Blackboard, Nearpod, etc. Online education, delivered through different digital and AI tools, including LMS, multimedia resources, and video conferencing, provides flexibility to reach materials and participate in activities in terms of location and time (Means, 2013; Allen & Seaman, 2017). The scope of online education has the potential to expand by including developing technologies like artificial intelligence and virtual reality to foster learning and teaching experiences.

Blended learning is a combination of online and face-to-face education, and it is also known as hybrid education, where technology is integrated into traditional classrooms to offer more interactive and engaging learning experiences to students (Krishna et al., 2021). It aims to strengthen both in-person and digital learning to conduct more flexible and personalized educational experiences, and this regard Learning Management System has significance by organizing accurate resources, assignments, and communication between both learners to learners and learners to instructors (Picciano et al., 2021).

Kwon (2021) stated that flipped learning is a new student-centered pedagogical model where students make preparations before they come to the class by watching videos, engaging, reading through papers or digital tools, and then discussing in the classroom, and it has become a remarkable part of online education after coronavirus disease 2019. Klochko et al. (2020) indicated that digital technologies have gained an indivisible role in education and that digital technologies can be beneficial in flipped

learning pedagogy, and it can be a suggested method since it increases the efficacy of teaching activities.

Nikolova and Evtimova (2022) describe the themes of digital tools covering learning management programs, interactive worksheets, online quizzes, and educational games. Hanseruk (2022) states that using digital tools through the educational process is one of the key aspects of modern higher education institutions since they foster the effectiveness of learning, so teachers should be able to choose and use fruitful tools for student success, like Padlet which enables interactive learning by sharing information, videos, audio, etc. Digital tools, like Quizlet, Padlet, Google Classroom, Canva, and Nearpod, are the products of digital technologies, and they are used to develop the quality, effectiveness, and speed of learning and teaching, so it leads learners to become more attracted to the learning (Saraeva, 2022).

Krillova et al. (2022) state that digital technologies impact education, like all other parts of modern life, and they are beneficial due to increasing the quality of education and students' abilities, especially digital competencies. Digital tools in education bring considerable advantages; some are a decrease in educational costs and an increase in the quality and efficiency of educational management and institutions (Wagner, 2018; Foutsiki & Caridakis, 2019). Schlax et al. (2023) founded as a result of a quasi-experimental design where sixty-three trainee teachers worked with digital learning tools that enabled them to develop pedagogical knowledge and gain positive feedback.

Teaching practices can be developed to gain effective learning by digital technologies inside and outside classrooms. In this respect, educators not only use those tools directly with students to teach but also communicate with parents and third parties for open communication, knowledge sharing, networking, and collaboration (Nashe & Minea-Pic, 2020). Josué et al. (2023) digital tools enable interactive activities, simulations, gamification, and online assessments, making students more engaged and motivated to learn. Digital tools are used in online education and classrooms to create, practice, and distribute new teaching methods and educational approaches (Shegai, 2021). Akylbek (2022) claimed that digital tools lead students to think more critically when they are provided with a real-life problem that requires problem-solving.

Although digital learning provides several advantages, like effective time, improved teaching skills, collaborative learning and personalized learning, inclusivity, and professional development, there are also disadvantages, such as lack of technical skills, unclear instructors, lack of engagement, distraction, and stress (Soares, 2023). Stecula and Wozniak (2022) claimed that e-learning can make students less motivated and satisfied because of the lack of physical interaction with peers with the compression of the traditional classroom. The main risks of digitalizing education may be stronger motivation to learn, empathy, and leadership skills (Kuznetsova & Azhmukhamedov, 2020).

2.3. Artificial Intelligence in Education

Jain and Jain (2019) define artificial intelligence as an advancement where computers and machines perform tasks that are performed by the human mind and rational thought. In addition, August and Tsaima (2021) state that AI can conduct activities that require human intelligence. Artificial intelligence has two types: weak (narrow) and strong (general). Weak type is the most frequently used, and it is for specific tasks, while strong AI is used for more complex tasks that involve cognitive reasoning; people think in the same way (Bartneck et al., 2020).

Holmes et al. (2019) describe the meaning of 'AI for education' as integrating AI technologies to achieve more effective learning and teaching experiences for both teachers and students and administration, like using intelligent tutoring systems. The enhancement of AI and its integration into teaching through teachers' instructional practices is one of the significant results that educational technologies have brought about over the last decades. AI has cognitive functions that solve a problem, struggle with challenges, and make rational decisions, and it supports teaching by empowering instructional decision-making through intelligent tutoring systems, learning management systems, ML-based automatic scoring systems, or teaching assistants (Guilherme, 2019; Spector & Ma, 2019).

The use of AI in education includes adaptive learning systems, which ensure that students gain content at their competency level by adjusting the difficulty and pace of lessons based on their real-time performance (VanLehn, 2011). AI tools allow

instructors to do automated grading and assessment of assignments, so not only do they evaluate in routines, but students can also obtain fast feedback after they perform (D'Mello et al., 2012). Shi (2023) classified five prominent pedagogical roles, which are following student progress, participating in instruction, creating assessment practices, offering pedagogical suggestions for teachers, and leading teachers' effective pedagogical decision-making and action-taking of Artificial Intelligence, as a result of conducting a meta-analysis including 44 study reviews.

Different AI tools are used in teaching and learning. However, ChatGPT is the most frequently used. ChatGPT is the most prevalent AI tool since it provides personalized learning, instant feedback, and availability (Orange, 2023). Although using ChatGPT in higher education provides research support, teaching-supported assistance, improved human-computer interaction, and automated grading, there are risks, like online testing security and plagiarism (Tkachenko, 2023). Students can use ChatGPT as a tool to create initial ideas for assignments, like essays. However, they should be aware that the provided responses are accurate and credible and encouraged to synthesize their ideas with those provided (Al-Afnan, 2023).

Artificial Intelligence enables individuals to produce learning outputs, like writing papers, articles, etc., faster and easier, so it allows for saving time and effort (Bhbosale et al., 2020). Al-Khawlah et al. (2023) carried out quantitative research where 184 students were asked to take advantage of AI tools in their learning through surveys, and the majority of them said that AI led them to develop their learning experiences by allowing a considerable amount of information and enhancing task management. In addition, it provides notes and reviews and leads students to improve social interaction. Arones et al. (2022) posited that integrating technology in learning environments facilitates collaborative efforts among university students and enhances their social interactions, subsequently leading to improved academic performance.

Aoun (2017) stated that using AI in higher education faces a challenge, which is managing the large volume of information that is provided to learners. Tao et al. (2019) conducted a study with 140 teachers of master education and PhD programs by participating in observation and conducting surveys to investigate the advantages and disadvantages of AI usage in education. It was revealed that students who interacted

with AI tools in learning experiences lack leadership, critical thinking, and disconnection with emotions since they feel like imitating human action without emotional sense.

2.4. Social Emotional Learning and Emotional Intelligence

Many studies show that emotions are not crucial in psychology, education, and neuroscience (Yin et al., 2017). Learners' attention is stimulated by emotions, which shape what is learned and what is preserved, so it can be said that emotions are one of the fundamental components of learning (King & Chen, 2019). The cognitive process, which involves attention, perception, learning, memory, reasoning, and problem-solving in individuals, is influenced by emotions, and in this respect majorly, the way people feel has a pivotal role in the attention and motivation of behavior, so concomitantly learning of people (Tyng et al., 2017).

Pekrun (2014) indicates that emotions profoundly shape learning since they control students' attention, so they determine the motivation for the subject. Emotions can be classified as positive and negative, to which degree they are intense and frequent. Pekrun (2014) states that “The classroom is an emotional place” where students experience excitement during studying, pride due to accomplishments of tasks, shame because of failure or boredom during class hours, and those all impact their performance. He also indicates that social emotions, such as empathy, admiration, or contempt, also play a significant role in a student’s learning and achievements.

The majority of the literature shows that the academic achievement of students is related to emotions such as happiness, excitement, enjoyment, relief, anxiety, and stress (Rowe et al., 2015). Motivational components, like autonomy and active participation among university students, elicit positive achievement emotions that increase students' academic performance (Menzheritskaya & Hansen, 2019). Tan et al. (2021) conducted a meta-study where 506 articles were reviewed from different databases, and nine interventional and five observational studies were included among them to explore the role of academic emotions in various learning environments and in this respect, they found that positive academic emotions, like self-efficacy and

motivation, is stronger stimulator to foster academic performance than negative emotions, like anxiety, stress.

Emotional experiences and social interactions are two interwoven components of learning. In this respect, while emotional engagement elicits social interaction for sincere relationships and deep learning, social interaction directs positive emotional engagement in the learning process (Ciotto & Gagnon, 2018). Interpersonal behaviors and peer-related skills, like giving compliments, working collaboratively, listening, and following teachers' instructions, are important emotional experiences shaping learning (Basu & Mermillod, 2011).

Social Emotional Learning is one of the remarkable approaches that have newly emerged in education, and it focuses on the development of social and emotional skills of learners to become successful person in terms of both personal, social, and academic life. SEL is a process in which all individuals gain knowledge and abilities to construct and preserve healthy identities and relationships, regulate emotions, respect others with empathy, and make responsible decisions (Storey, 2019). Many researchers define *Social Emotional Learning* as social, emotional, and cognitive skills and behaviors that shape individuals' success in social relationships (Longe, 2011; Goldman, 1995). Fare (2022) states that SEL originates from Emotional Intelligence, which refers to the ability to be aware of, understand, regulate, and effectively use someone's and others' emotions to construct sincere relationships and to direct social situations.

Emotional Intelligence is a term that was proposed by Mayer and Salovey, and it is explained as an ability to use emotional information that is provided in cognitive functioning, like reasoning (APA Dictionary, 2024). Mayer and Salovey (1997) defined Emotional Intelligence as the capability to perceive and reflect emotion, change it in thought, grasp and make sense of emotions, and manage them for yourself and others (as cited in Mayer et al., 2011). There are three processes emotional information goes through, which are (1) the appraisal and manifesting of emotions, (2) the controlling of emotions, and (3) the benefiting of emotions in adaptive ways, emotional information (Neubauer & Freudenthaler, 2005).

Goleman (1995) enhanced the definition of emotional Intelligence by establishing five components: self-awareness, self-regulation, social skills, motivation, and empathy. In this regard, recognizing one's thoughts and emotions covers self-awareness, managing one's emotions refers to self-regulation, social skills are the tools for establishing relationships with others, using emotions in making decisions corresponds to motivation, and empathy is the understanding and reacting to other individuals' emotions. Unlike Goleman, who mostly associates Emotional Intelligence with inherited traits, Mayer and Salovey have a set of abilities that can be learned in the cognitive field.

Emotional Intelligence is the basis of Social and Emotional Learning, and it is currently considered a social-emotional ground since it is related to gathering knowledge and skills to regulate emotions and social relationships (Antoñanzas et al., 2014). Dusenbury and Wiessberg (2017) indicate that SEL is used as a model that promotes Emotional Intelligence, which includes the ability for self-awareness, self-management, relationship skills, social awareness, and responsible decision-making among children across countries (as cited in Wood, 2020). To summarize, Emotional Intelligence is interwoven and linked to the SEL, which targets gaining students' essential abilities to understand and manage emotions to navigate complex social environments and build positive relationships.

2.5. Theoretical Framework-CASEL

To explore the student's emotional experiences while using digital and AI tools in learning, this study is grounded on the Collaborative for Academic, Social, and Emotional Learning (CASEL) model of SEL. The CASEL is the model of SEL that has been widely used in educational settings, and it has been broadly accepted as the theoretical framework in diverse research (Roas, Tolan, 2017). A theoretical framework supports a researcher in explaining key concepts and relationships that are aimed to construct in the scope of research questions or topics, and it offers a basis that shows appropriate research methods and methods (Creswell & Creswell, 2017).

The Collaborative for Academic, Social and Emotional Learning (CASEL) was founded by Daniel Goleman and Eileen Rockefeller Growled in 1994. It majorly

maintains evidence-based SEL practices in K12 education and continues to expand the field of SEL through research and field practices (CASEL, 2023). According to the CASEL, SEL is a process in which individuals gain the ability to improve health identities, regulate emotions, achieve personal or collaborative aims, and make sensible and empathic decisions (Wilde, 2023). There are five components of social-emotional learning through the lens of CASEL: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, and these five work collaboratively to balance individuals' cognitive, emotional, and social skills (Paradiso, 2023).

The CASEL components are coded, representing a whole meaning in the SEL model. In this respect, self-awareness and self-management are coded together to represent the self. At the same time, social awareness and relationship skills are elements that are coded together as pertaining to other people. All four create responsible decision-making (Alexander & Vermette, 2019).

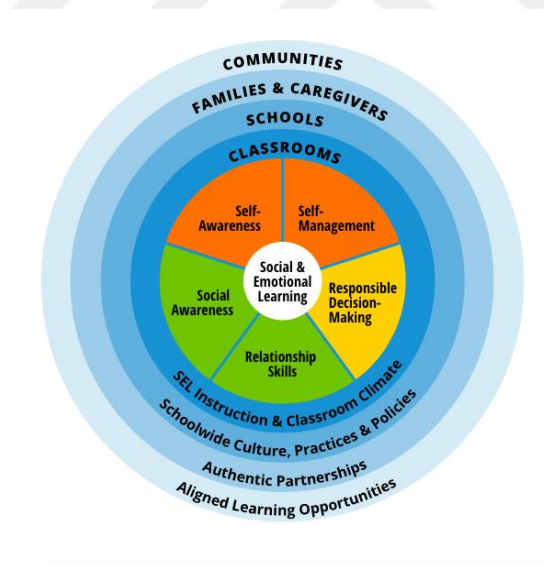


Figure 2.1. CASEL Framework

(CASEL, 2023)

CASEL defines self-awareness (2023) as *“the ability to understand one’s own emotions, thoughts, and values and how they influence behavior across contexts. This includes capacities to recognize one’s strengths and limitations with a well-grounded*

sense of confidence and purpose.”Self-awareness is a product of the metacognitive process, which involves people exploring their strengths and weaknesses and becoming aware of their emotions' effects on their behavior (Lou, 2015).

Self-awareness is metacognition about self, and it covers reflecting on an individual's strengths and weaknesses while recognizing them and then monitoring and, when required, adjusting for the behavior at the end. At a glance, students who can think about their thinking (metacognition) can gain and develop self-awareness skills in their learning experiences and benefit from them in their learning experiences (Carthew et al., 2020). Johns et al. (2019) indicate that self-awareness provides students with broad minds and flourished self-efficacy, allowing them to realize their strengths and have accurate self-perception.

CASEL (2023) defines self-management as *“the ability to manage one's emotions, thoughts, and behaviors effectively in different situations and to achieve goals and aspirations. This includes the capacities to delay gratification, manage stress, and feel motivation and agency to accomplish personal and collective goals.”* Self-management includes control of one's drives, stress management, and self-motivation, which all require regulation of thoughts, emotions, and actions (Glenn, 2022).

Teaching students how to manage their stress levels by providing coping strategies in the scope of self-management skills has a strong impact on reducing anxiety in students, so it creates an advantage to have higher academic success (Rana et al., 2022). Montilus and Jin (2020) conducted research with 47 university students through surveys. They found that the skill of self-management, which requires metacognitive thinking, setting goals, and tracking the whole process by being aware of one's thoughts and emotions and regulating them so as to be able to evaluate learning performance, has a vital role in engaging students in mobile learning.

CASEL (2023) explains social awareness as understanding the world from other individuals' perspectives and developing empathy for all people, especially those from different backgrounds and cultures. Social awareness demands students to have an inner thinking process to understand other people's emotions and thoughts. It does not

only involve feeling compassion for others but also understanding historical and social norms and assistive resources from family, school, and community (Duggan, 2023).

Someone's personal experiences, intellectual background, empathy toward social problems, and self-awareness consist of social awareness (Osher et al., 2016). Social awareness boosts learning since it requires involving, contributing, and making decisions about social issues by providing a solution (Matitaputty et al., 2018). It was revealed that social awareness enables collaborative learning that helps students develop critical thinking skills, creativity, and proactive decisions (Carezo & McWhirter, 2012; Thierry et al., 2022).

CASEL (2023) explains that people with relationship-building skills can establish and maintain healthy and supportive relationships with individuals from different backgrounds. In addition, they can precisely communicate, actively listen, collaborate with other people in work and solving problems, constructively negotiate conflicts, and take action to meet the needs of individuals from different social and cultural groups. Atkins et al. (2023) conducted a longitudinal study with ninth-grade public and private high school students, and they found that relationship skills in the scope of SEL are positively related to academic achievements. Hence, students with well-established relationships with peers and parents show higher GPA scores.

The final component of CASEL is responsible decision-making, which is described as the ability to perform accurate actions by making caring and constructive choices regarding individual and social interactions that include diversity. In addition, considering the consequences and benefits of actions for personal, social, and collective well-being is a part of being able to make responsible decisions (CASEL, 2023). Individuals who can make responsible decisions have the ability to choose an alternative that positively contributes to themselves or other people, considering ethical and social norms and respecting people (Van Huynh, 2018).

Developing skills in these five domains allows students to be successful and flourish in confidence to fulfill their potential and become emotionally stable (Joshi & Sokhey, 2021). Students who lack SEL skills are not able to develop healthy coping and problem-solving skills, so they have poor attendance, higher dropout rates, and lower

grades, which make them emotionally and academically dysfunctional (Eklund et al., 2018). Taylor et al. (2017) carried out a pivotal study in which students who gain SEL skills with the 13 percentile point higher academic performance construct healthy and strong social relationships and behave more accurately than students who don't have developed SEL skills.

Blewitt et al. (2020) claim that SEL competencies lead learners to be more engaged in learning and to develop their cognitive abilities when it is an integrated curriculum. Students who have CASEL abilities are more talented in solving problems in terms of both academic and social, so they achieve higher academic achievement (McCormick et al., 2019). Simon (2023) carried out a qualitative study with students in higher education through interviews, and it was found that strategies that cover the implementation of social and emotional learning lead to boosting students' cognitive abilities, fostering motivation to participate in lessons, and developing self-confidence and concomitantly academic success.

Students with high SEL skills, like managing emotions in a challenging situation, which may include all academic, emotional, or social difficulties, will be good problem solvers when they become adults since they will be more confident and have self-esteem (Rana et al., 2022; Özgünlü et al., 2022). Hamid et al. (2015) revealed that students have higher academic achievement in interactive learning environments where they have an opportunity to share their knowledge, so they are more able to think empathically and reach learning satisfaction. OECD (2022) conducted international research with students who are between 10 and 15 years old, their parents, and teachers on how students' social-emotional skills impact their academic and other parts of life; it was revealed as a result that those skills contribute to the development of cognitive and social abilities, so students have psychological well being.

2.6. Students' Social and Emotional Skills and Experiences in Digital and AI-Enhanced Learning

It was clearly seen when the literature was elaborately reviewed that students' emotional experiences in terms of digital education were investigated in the scope of online learning after the COVID-19 pandemic since it caused them to deal with

negative emotions like anxiety, low motivation or lack of self-esteem. The significance of social and emotional aspects of learning has been recognized due to the COVID-19 pandemic; in this respect, the skill of social-emotional learning and self-directed learning have a key role in supporting learning (Blaschke, 2021; King, 2023). In this respect, most of them focused on how social-emotional learning methods influence students' emotional state and academic success; in other words, what are the effects of the integration of SEL in online education on students' emotional well-being and academic achievement?

Fonseca (2020) states that using digital tools can support the skills of social-emotional learning among students so they are aware of their strengths and engage in personalized education. To be successful in digital learning environments, students should develop self-management and self-organization skills since these skills represent to which degree they are motivated to learn and to what extent they are metacognitively involved in whole learning processes (Yakovleva et al., 2020). Zeybek (2023) conducted a mixed method study with 350 elementary school teachers through closed-question survey and semi-structured interviews to explore their experiences while they are using digital technologies in teaching, and she found that digital technologies empower emotional well-being, engagement in learning, academic success of students, so it is significant to integrate SEL and educational technologies.

Dun and Kenndy (2019) conducted research with 524 undergraduate students to investigate the impact of emotional, cognitive, and behavioral engagement with digital tools in learning on students' academic achievement and motivation. They revealed that students who get technology-enhanced instruction have higher levels of intrinsic motivation and are, therefore, more engaged in the classroom. Shubina and Kulakli (2019) argued that despite the various drawbacks of employing technological tools in education, these tools significantly enhance creativity, self-regulation, intrinsic motivation, and self-efficacy. In a similar vein, Shirish, Chandra, and Srivastava (2021) noted that technological tools in e-learning amplify students' learning by fostering their productivity and creativity skills.

Chen et al. (2023) conducted research to explore the relationship between technology and learning satisfaction, specifically by focusing on emotional experiences, social belonging, online behaviors, and high-order thinking. It is said in the research that students stated that technological tools have ease of use, so it motivates them to learn. In addition, using digital tools can stimulate social learning by allowing collaborative work and a sense of belonging, so they show high-order thinking. Omariba (2021) argued that the integration of technological tools into educational settings can significantly enhance students' critical thinking abilities, thereby fostering greater academic achievement.

Nolan (2016) conducted a qualitative study to explore the perception of K-12 teachers about social-emotional skills in fully online learning environments by following thematic analysis. In this scope, it investigated the present state of students' SEL skills and how teachers design those learning settings to promote students' SEL skills. The findings of the study demonstrate that SEL skills, which include being able to self-regulate, effectively collaborate, and be motivated, were vital for the academic and personal success of students in the future. In addition, teachers indicated that online learning allows social interaction, so students in online settings work collaboratively like their peers who are in face-to-face classrooms.

Lefter (2022) aimed to explore the use of SEL in online learning and how students can be impacted by the incorporation by assigning 42 preservice teachers from a college to perform specific methods of SEL in the scope of qualitative research where teacher and students provide their perceptions through interviews, and it was revealed after a thematic analysis was done that developed SEL skills enhance not only students' emotional well-being but also cognitive learning. Furthermore, students who are engaged in the Online-SEL program (O-SEL) expressed that they feel a greater sense of connection, inclusion, and acceptance during activities designed based on O-SEL, so they have higher self-confidence and self-efficacy.

Zhang and Yu (2023) conducted quantitative research with 356 students who were subject to online asynchronous lessons that covered different hours to each other, from the Nursing department of a university through questionnaire survey, and It was found that person-to-system (P2S) can significantly enhance positive emotional experiences

since online asynchronous education allows bountiful resources, and person to person (P2P) can significantly promote positive emotions hence asynchronous interaction provides students to perform also frequent interaction, so students have better cognitive interaction. In addition, students engaged in person-to-content (P2C) asynchronous interaction experience considerably positive emotions due to deep cognitive interaction and consolidated social and collaborative learning.

Ch'ng (2019) researched to explore emotional experiences during e-learning with participants who were 40-55 years old and had recently participated in online learning through an LMS system. They were assigned to keep weekly journals and face-to-face interviews in the context of qualitative research, where data was analyzed. The participants were delighted, pleased, relaxed, at ease, calm, and tired. In addition, feelings of satisfaction were analyzed using Nvivo. It was revealed that all participants experienced the emotions of excited tension, which were secondary feelings that participants experienced.

Loderer et al. (2018) conducted a meta-analysis to delve into emotions in digital learning environments, and they found that enjoyment, anxiety, and boredom are the three prominent emotions learners experience. Kay (2022) explored the role of emotions in learning where technological tools, including online tutorials and online videos, are used by using Oatley & Johnson-Laird's Emotion Construct Scale is a seven-point Likert. It was reached that happiness is the most frequent emotion and anxiety is the second and anger is the third feeling that students express. Furthermore, participants who expressed happiness also stated that they felt more comfortable while they were engaging in activities through those tools.

Hilliard (2022) conducted an empirical study with 294 students through online surveys, discussion boards, and semi-structured interviews to explore the students' emotional experiences during online group activities, specifically the range of emotions, their causes, regulations, and their impact on student's performance. It was majorly seen as a result of a study that students experienced anxiety before they were involved in collaboration, frustration during the collaboration, and relief after it. Also, it was revealed that students feel high self-confidence and self-esteem and show high enjoyment and enthusiasm during online learning. Furthermore, social support

avoidance, directing thoughts, and active task-related behaviors are the initial strategies to regulate emotions, and successfully managing regulation supports students' academic and social performance.

Blau et al. (2020) carried out a qualitative case study with 78 university students from the educational science department, and it was found that using collaborative digital tools in education fosters academic achievement and social-emotional thinking. Although the disposition of students to use digital tools is positive, and they prefer to be involved in digital interaction, sometimes they perceive digital learning as temporal and informal, as opposed to face-to-face learning being more real (Akcil & Bastas, 2020; Radha et al., 2020).

Overall, the literature shows that the use of digital has become increasingly prevalent in education, initially driven by the COVID-19 pandemic's shift to online learning. Their integration has expanded to include artificial intelligence (AI) within various educational models, such as blended learning, flipped learning, and asynchronous learning. Consequently, the incorporation of digital and AI tools in education through various teaching models has led to diverse changes and emerging needs within the educational sector. This underscores the necessity to investigate how SEL skills are developed in new learning environments enhanced by digital and AI tools, addressing a significant gap in existing research. Thus, the primary objective of this study is to explore how students' social and emotional learning skills play a critical role in student's academic success by equipping them with skills to understand and manage emotions and behaviors. It is influenced by the use of digital and AI tools.

CHAPTER III

METHODOLOGY

3.1. Research Design

It is essential to determine an appropriate design for reliable research. In this respect, this study was designed as qualitative research that conveniently reveals students' SEL experiences and learning skills supported by digital and AI tools. Qualitative studies involve collecting empirical data, which provides elaborated insights about real-life problems and social phenomena through case studies, interviews, observations, life stories, visual text, etc. (Creswell & Poth, 2018). Qualitative research focuses on subjective experiences and context to reveal the complexity of individuals' experiences (Cresswell, 2017). Qualitative research allows researchers to be strongly involved in the study and to gather rich and elaborate data, facilitating individuals' perspectives, histories, and experiences regarding emotions and behavior (Kemperaj & Chavan, 2013). In addition, this study utilized a case study technique to conduct an in-depth exploration of students' Social-Emotional Learning skills within the framework of a foundation university. A case study is one of the most prevalent methods used in qualitative research in social studies, like psychology or management, and it provides elaborative data from the target population (Priya, 2021).

In order to explore and understand students' subjective social and emotional experiences and SEL skills, semi-structured interviews were employed with 12 university students and instructors in this study. A semi-structured Interview is an effective tool to reveal participants' unique experiences and perspectives, especially within specific communities and groups (Blackford, 2022). According to Hennink et al. (2011), interviewees' interviewees' personal thoughts, feelings, and behaviors in specific contexts are better obtained through conversation in interviews. This study aims to reveal common themes in the scope of SEL experiences and skills of university students by sorting semi-structured interviews out so how those are shaped in learning

supported by digital and AI tools can be explored. Semi-structured interviews allow us to show commonalities and similar perspectives across study participants (Karatsareas, 2022).

3.2. Target Population

The characteristics of the study population cover students and instructors who have previously used digital and AI tools, like ChatGPT and LMS, such as Canvas, during class hours, asynchronous courses, doing homework, etc.

3.3. Working Group

Since this study aims to discover emotional experiences regarding SEL in digital and learning environments, it includes a purposive sampling model focusing on who interacted with digital and AI tools in learning. Also, it represents convenience sampling due to the easy and fast accessibility of students and instructors who choose to study at a foundational university. Purposive sampling is usually used in qualitative studies, which aim to explore unique and fruitful information that represents insights into the experiences, perspectives, and behaviors of participants by particularly choosing subjects of the study (Suen et al., 2014). Convenience sampling is one of the techniques that prioritizes accessibility to choosing participants of research, and it allows for receiving quick data (Andrade, 2021).

Twelve students and six instructors who have experienced digital and AI learning and teaching at Ibn Haldun University are the samples of this study. In accordance with the purposive sampling, it was ensured that students involved in the study took courses such as “Educational Technologies,” where digital and AI tools were effectively and frequently used in class time and homework. In addition, faculty members who actively use those tools while teaching in their courses are purposefully engaged in the study. In this respect, they were chosen among people who took assistance and collaboratively worked with the Coordinatorship of the Innovative Learning Center of the university, which provides practical support on how digital and AI tools are utilized in teaching and concomitantly learning. Also, among the faculty members who received support from CILT-AI, those who participated more frequently in training

workshops at the university aimed at integrating digitalization and AI tools into their courses were prioritized. To be more clear, students and faculty members were chosen among people who have already experienced digital and AI learning and teaching.

Table 3.1. Participants Demographic Information

Code	Age	Gender	Department	Interview Duration
Student 1	22	Male	Psy. Counselling	18:05:00
Student 2	22	Female	Psy. Counselling	22:03:00
Student 3	22	Female	Psy. Counselling	19:02:00
Student 4	23	Female	Psy. Counselling	15:03:00
Student 5	23	Female	Psy. Counselling	25:03:00
Student 6	22	Female	Psy. Counselling	12:32:00
Student 7	22	Female	Psy. Counselling	19:52:00
Student 8	22	Female	Psy. Counselling	14:21:00
Student 9	22	Female	Psy. Counselling	14:56:00
Student 10	22	Female	Psy. Counselling	21:49:00
Student 11	22	Female	Psy. Counselling	16:02:00
Student 12	22	Female	Psy. Counselling	15:02:00

Table 3.1 shows that most students who joined the study are 22 years old, and their major is Psychological Counseling and Guidance. Also, it can be seen that besides the majority of the faculty members are male, they have different majors. In addition, the duration of interviews with students took approximately 17.5 minutes, and those with faculty members took almost 21.3 minutes.

3.4. Data Collection

Semi-structured interviews were conducted with twelve students and six instructors through online Zoom meetings and face-to-face conversations depending on accessibility and convenience in four non-consecutive weeks. All interviews were conducted in Turkish, and they were first transcribed into Turkish and then translated into English. Before carrying out the study and conducting interviews, all permissions are taken from responsible authorities to ensure that the study is conducted within the framework of ethical rules and does not harm any living creature or violate any rights of humans. At this point, the ethical approval document obtained from the university's ethics committee for the conduct of the study is included in Appendix A. In addition, all participants were informed about the scope and intention of the study, and informed consent was obtained from them at the beginning of each interview. In this regard, participants were let know their identity, and the information they gave will be kept private, and they will not definitely be shared with third parties. The conversations during the interviews were recorded as audio.

Establishing a rapport and sincere relationship that makes them feel participants comfortable in order to reach more accurate answers was held at the initial of the interviews. During the semi-structured interviews, participants were informed about the subjectivity of answers to questions, so there was no true or false response, and they were encouraged to give more elaborate information by asking supportive and explanatory questions and providing examples or relevant terms if needed. All participants who joined the study answered all questions, and most of them provided a considerable amount of information.

3.5. Data Analysis

Qualitative data collected from semi-structured interviews with participants was analyzed through thematic analysis. Braun and Clark (2006 a) define thematic analysis as a method that involves identification, analysis, and reporting themes within data, so it allows collected data to be represented in organized and rich details. Thematic analysis in qualitative research has the advantage of not only providing theoretical flexibility but also giving the opportunity to stretch research questions, data collection, and ways of producing meaning (Braun & Clark, 2017). Participants' emotions, thoughts, and behavior in 'experiential' scientific studies on a particular subject or in a specific environment can be discovered by using Thematic Analysis that focuses on describing patterns that are related to the participant's perspectives, feelings, and lived experiences (Braun & Clark, 2006b).

Thematic analysis of collected data in this study was done following the steps below.

The first step is data familiarization, where all audio records are transcribed and attentively read and re-read to familiarize themselves with the content so that comprehensive insight into participants' narratives and experiences is reached.

Secondly, each data item was coded in accordance with the open-coding approach, which initial codes were employed for the division of data. Coding is not only a basic method that decreases data, but it is also an analytic process. The codes grab the semantic and conceptual reading of collected data (Braun & Clark, 2013). Creswell (2013) stated that open coding enables researchers to examine the text and form salient categories.

In the third step, which is searching themes, common phrases and patterns across participants' narratives within codes were grouped. While doing this, it was prioritized that codes be systematically reviewed to gather meaningful information units. It ended by collating all coded data pertinent to every theme.

The fourth step was reviewing themes, where all themes were controlled, whether they worked or did not within both the relevance to the coded data and the full data set. In

order to ensure coherence and convenience in answering the research questions, each theme was carefully investigated.

Then, after attentively reviewing and elaborating, each theme was given a concise, remarkable, and descriptive name for analysis.

Two participants in the study were given the emerging themes to read and say to what extent they matched their answers to the questions on the research subject in the interviews. Thus, the study's data analysis was strengthened.

Furthermore, to support the study's credibility due to inter-coding reliability, one researcher coded a subset of the transcripts and created themes. The themes were discussed to what degree they met with the study's themes, and then a consensus was made.

In the last step, themes and codes are represented at tables in accordance with the APA 7th style and explained in paragraphs to be clearly understood.

3.6. Validity and Reliability

Validity and reliability are significant components of scientific studies. In order to ensure the validity and reliability of findings in qualitative studies, criteria such as the researcher's competency and transferability must be indicated.

To ensure the validity and reliability of semi-structured interview questions, the literature was elaboratively investigated by following CASEL's social and emotional learning model, and ten questions for students and eight questions for faculty members were constructed at initial. Then, to construct the dependability of the study, they were developed with expert opinions by meeting two specialists from the Guidance and Psychological Counseling Department face-to-face. After that, the questions were checked whether they were concise, clear, and grammatically well-constructed by two experts, one in Turkish and one in English. In this respect, some grammar mistakes and some points that caused clarity and confusion in meaning were corrected. No questions were removed from or included in the list, so the debriefing was conducted

accurately. In the next stage, to ensure the validity of the questions, pilot interviews were conducted with three students and one faculty member. At this point, all interviews were conducted smoothly, and there were no questions that were not understood or responded to.

The data collection process was executed by the researcher in an environment that fosters trust and sincerity. All interviews were conducted face-to-face, and they were all recorded as audio. To ensure the accuracy of the data in reflecting the participants' own thoughts, participant confirmation was obtained by summarizing the data for them after each interview, thereby providing an opportunity for participants to add any additional information. In other words, member checking was met by allowing participants to review and verify provided data. And their interpretations. The verifiability of data was consolidated by recording all data from the interview.

Furthermore, triangulation was followed to strengthen the validity of the research findings, which aim to reveal students' SEL skills, so interviews were conducted with students and faculty members. Moreover, the researcher first analyzed the data collected, and themes were constructed manually. Then, to ensure the validity of the findings, ChatGPT thematically analyzed collected data. In the third stage, another person manually conducted a thematic analysis, and the themes found were shared with the researcher after they discussed them, and they were finalized after consensus.

3.7. Researcher's Role in the Study

For a researcher conducting a qualitative case study on Social and Emotional Learning (SEL) skills in digital and AI learning environments, competence in conducting semi-structured interviews is essential. In this respect, firstly, the researcher is competent to design and follow interview protocols for exploring nuanced aspects of SEL within digital and AI-enhanced learning environments by understanding the research topic and qualitative methodology. Also, because of the researcher's ability to establish rapport and facilitate meaningful dialogue during interviews, participants felt comfortable expressing their perspectives and experiences related to SEL skills, contributing to the study's validity and reliability. In addition, the effective communication skills of the researcher led to reaching deeper understandings without

imposing bias or leading response, which is the critical aspect of maintaining methodological rigor in qualitative research.

Moreover, ethical awareness, confidentiality adherence, and participant consent principles underscore the researcher's competence. To demonstrate a commitment to ethical guidelines, the researcher respected the rights and privacy of participants by fostering trust and transparency throughout data collection. By upholding these ethical standards, the researcher enhanced the credibility of findings and contributed ethically sound insights to the broader academic discourse on SEL in digital and AI learning environments. Thus, the researcher's competence in conducting semi-structured interviews was grounded in methodological expertise, interpersonal skills, and ethical integrity, collectively supporting the rigor and reliability of the study's outcomes.

CHAPTER IV

FINDINGS

This section systematically presented the study's findings to align with its objectives and research questions. Given the research's theoretical framework, rooted in the CASEL model, the investigation delved into the Social-Emotional Learning (SEL) skills and experiences of university-level students, focusing on the framework's five dimensions: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. A thematic analysis revealed key insights and patterns from the gathered data.

The first research question of the study is, “How do students socially and emotionally experience digital and AI-enhanced learning and teaching?” To answer this question, a semi-structured interview consisting of 10 questions was conducted with 12 students in a foundation university.

The second research question, which is “What are the observations of teachers about students’ social and emotional experiences and skills in learning and teaching supported by digital and AI tools?” was explored through 7 semi-structured interview questions. The third research question “How do teaching methods or strategies affect student’s social and emotional learning in digital and AI-enhanced learning?” was found by adding one extra question in the same interviews.

4.1. Findings Related to the First Research Question

4.1.1 Theme One: Digital and AI Tools Students Use in Learning

To explore which digital and AI tools students predominantly use when they learn and to understand their role in social-emotional learning, they were asked the question, ‘Which digital or AI tools do you use in your learning in your courses, doing

homework individually or collaboratively, etc.?', and the theme 'Digital and AI Tools Student Mostly Use in Learning' was obtained.

Table 4.1. Digital and AI Tools Students Mostly Use in Learning

Digital and AI Tools	Frequency (f)	Percentage (%)
ChatGPT	10	83,3
Canva	9	75,0
Nearpod	7	58,3
Gamma	5	41,6
Sutori	5	41,6
Tingling	3	25,0
Miro	3	25,0
Scribbr	2	16,6
Quilbolt	2	16,6
Grammarly	2	16,6
Notion	2	16,6
Quillbolt	2	16,6
Padlet	2	16,6
Flipsnack	2	16,6
Open Knowledge Map	1	8,30
Google Academy	1	8,30
Mind Map	1	8,30
Scholarly	1	8,30
Open AI	1	8,30
Mentimeter	1	8,30
Hypersave	1	8,30
Google Bart	1	8,30
Quizlet	1	8,30
Google Docs	1	8,30
Scispace	1	8,30
Google Scholar	1	8,30
Whatsapp	1	8,30
Khoot	1	8,30
Neuromind Map	1	8,30

Table 4.1 shows that students mostly use ChatGPT, Canva, and Nearpod when they learn. Also, Gamma, Sutori, and Tinglink are tools students prevalently use when they prepare homework, like preparing presentations. Moreover, it is seen at Table 4.1 that Miro, Scribbr, Quillbolt, Grammarly, Notion, Quillbolt, Padlet, Flipsnack, Canvas, Open, Knowledge Map, Google Akademi, Mind Map, Scholarly, Open AI, Mentimeter, Hypersave, Wismi, Mindmap, Quotes, Google Bart, Quizlet, Google Docs, Scispace, Google Scholar, Khoot, Watsapp, Neuromind Map are less likely used digital tools compared to others. There are a number of expressions provided below to give an example:

"...when I am preparing a lecture, a presentation, or an assignment, I usually use Google Academy, for example. I use Open Knowledge Map mostly to find articles from there. I use ChatGPT usually to show my references, to look at how to show them right away." (Student 1)

"I usually use artificial intelligence when I make presentations. There is Canva. There is Nearpod. Nearpod. Also, there is Sutori. You know, such as ChatGPT, etc. I think I use them in an effective way. There is also Google Bart." (Student 8)

"Canva, Nearpod, or Tinglink. That was also a very great application. I met these. As we said, Gamma. I'm using the Gamma App. I'm already familiar mostly with ChatGBT. If I wasn't really embarrassed, I'd open it right now. I'm using ChatGBT." (Student 2)

"Sutori, TingLink, Nearpod. I learned three of these in class and for the first time. That's what we used. Apart from that, I do not know if it counts as artificial intelligence, but various presentation preparation programs. I used Gamma many times. I used ChatGPT to get ideas. These are what always come to my mind as artificial intelligence." (Students 11)

"...I used Quillbolt, Padlet. I used Quillbolt very often as a paraphrase application. There was Tinglink with that. I do not know if it is still active anymore, but I used it many times." (Students 5)

4.1.2. Theme Two: Positive and Negative Emotions that Students Experience in Digital and AI-Enhanced Learning Environment

In the scope of self-awareness in the CASEL framework, it is essential to understand one's feelings, thoughts, and strong and weak points. In this respect, students were asked how they positively and negatively feel while they learn through digital or AI tools both in classrooms and other learning environments enhanced by those tools, and the theme is 'Positive and Negative Emotions that Students Experience in Digital and AI Enhanced Learning Environments' was obtained.

Table 4.2. Students' Positive Emotions in Digital and AI-Enhanced Learning Environments

Positive Emotions of Students Codes	Frequency (f)	Percentage (%)
Motivated	9	75,0
Happy	6	50,0
Confident	6	50,0
Satisfied	4	33,3
Excited	4	33,3
Comfortable	4	33,3
Modern	2	16,6
Safe	2	16,6
Productive	2	16,6
Enjoyed	1	8,30
Astonished	1	8,30
Enthusiastic	1	8,30
Proud	1	8,30
Professional	1	8,30
Creative	1	8,30
Self- Regulated	1	8,30

To investigate the positive emotions regarding self-awareness skills, students are asked the question, "Could you define the positive emotions you experience in the digital and AI-enhanced learning environments?" According to data from participants, it was seen in Table 4.2 that motivation, happiness, confidence, satisfaction, excitement, comfort, modernity, safety, and productivity are positive emotions that they mostly experience. Also, they feel enjoyed, astonished, enthusiastic, proud, professional, creative and self-regulated. The exemplary expressions of students about their positive emotions, while they are using digital and AI tools in learning, were listed:

"We can say I am motivated. Being motivated would be more accurate because my willingness to learn increases when we use digital and AI tools. I also think that we are now living in a digital age. You know, the feeling of being behind the times obviously makes people more like this. How can I put it like this? You are out of the age, I mean outdated, but when I use these tools, I feel more like this, you know. Yes, I'm doing something good. I'm catching up. I am todayish and modern." (Student 1).

"...I can easily handle something that I have made such a big deal in my head with the help of artificial intelligence, and my motivation for that lesson increases. I want to do more things. I want to produce." (Student 4)

"I think it motivates me for the lesson. In addition to that, sometimes when there is something like an activity or a game, I think it brings energy to the lesson and motivates us." (Student 5)

"In digital environments, I am more talkative and energetic, and I want to talk more about things. I am happier. The class is not sleeping, and participation is high. I want to be more active there, too. It excites and motivates me for the lesson. I feel motivated." (Student 8)

"...I felt very happy when I was involved in it. I also felt something like this. I felt professional. I was a first-year student, but I still know something, and I can apply it to this practice. I think I felt competent. At that time, I was a little proud of myself." (Student 3)

"...I mean, it is a very good thing that it saves time for me, and that's a very good thing. It helps me, and I trust myself more. The fact that there is nothing to miss makes my sense of trust a lot. I trust its accuracy." (Student 12)

"First of all, the feeling of satisfaction. In other words, the first thing that comes to my mind is feeling satisfied due to reaching the material I was looking for quickly. This made me extremely happy. As a positive feeling. Apart from that, there is also excitement." (Student 10)

"...I can definitely feel better because I can learn better. My satisfaction level is at least increased because I have learned more." (Student 2)

"They gave me much confidence. I felt more confident because I knew what steps to take. I was very excited to see how would make my work easier." (Student 6)

"In those lessons, I was actually always excited. I mean, what new thing are we going to learn? How can I use them? Where can they be used?" (Student 9)

"I felt more like I was talking to a very knowledgeable person, and this gave me confidence. I mean, whenever I wanted to learn something, I could consult him; he would have access to much more accurate information than me, so I trusted his answers more than I trusted myself." (Student 5)

"For example, the fact that our professors use some digital tools in the classroom makes me feel um in this way. I mean, the lesson is not just unidimensional. I can interactively join. This makes my learning more better." (Student 11)

"...The more you see other examples of presentations from Canva, for example, or when you see ChatGPT's answers, the more you add to it. So it becomes something various. I mean, of course, I feel satisfied. Artificial intelligence. I mean, I like to use it because it makes things easier. That is why it makes me happy." (Student 7)

The students' reflections uncover a shared sense of increased motivation and satisfaction when using digital and AI tools in their learning experiences. Many

students feel more competent and confident since these tools help them learn more effectively and efficiently. In addition, it can be inferred that the digital and AI-enhanced learning environments foster a more energetic and participative classroom atmosphere that makes lessons feel more dynamic and engaging. Also, students appreciate that they can interactively engage in the lessons and develop an ability to quick information, which boosts their confidence and trust in their learning process. Additionally, they can feel proud and professional when they successfully use these tools, finding them helpful in saving time and enhancing their overall learning satisfaction. Finally, the excitement of exploring new technologies and their applications also can contribute to a heightened sense of motivation and enthusiasm for their studies.

Table 4.3. Students' Negative Emotions of Students in Digital and AI-Enhanced Learning

Negative Emotions of Students In Digital and AI- AI-Enhanced Learning Codes	Frequency (f)	Percentage (%)
Overwhelmed	5	41,6
Easy-going	5	41,6
Inadequate	4	33,3
Stressed	2	16,6
Unsecured	2	16,6
Uncreative	2	16,6
Rusty	2	16,6
Tired	1	8,30
Challenged	1	8,30
Regretful	1	8,30
Confused	1	8,30
Frustration	1	8,30
Distracted	1	8,30
Bored	1	8,30

To explore the negative emotions regarding self-awareness skills, students are asked, "Could you define the negative emotions you experience in the digital and AI-enhanced learning environments?" It was represented in Table 4.3 according to the data gathered from students that they feel more overwhelmed, easygoing, inadequate, stressed, unsecured, uncreative, and rusty. Also, tiredness, challenge, regret, confusion, frustration, distraction, and boringness are other negative emotions they experience while interacting with digital and AI tools. There are some example expressions listed below of students:

"Constantly working with these tools sometimes depends a little bit on the time we use; it can be negative and exhausting if the teacher continuously uses it during the lesson. It can be overwhelming." (Student 4)

"...we say that there should be a balance in everything. Sometimes, our professors use too many digital tools, especially in the lectures, which can overwhelm me after a while. I feel like I am bored. I can say to myself something like this again: Will I do something again and again?" (Student 10)

"There are times when I doubt myself that I could not have written it, or sometimes I think that I am a person who cut corners." (Student 9)

"Sometimes I feel inadequate, you know, I think artificial intelligence can already do this. For example, I asked Gamma, can you prepare a presentation on this topic? It does. I asked for a draft, but it prepared it much better than me; sometimes, it made me feel inadequate. Sometimes, it makes me feel like I'm taking the easy way out. Sometimes, I cannot attribute my success to myself. I feel as if it is their success. I don't feel as if I have achieved something." (Student 8)

"...the tool was complicated how we were doing this, how we were doing that, and so on. At that time, I was a little stressed. It is necessary to explore it slightly more because of its complexity." (Student 9)

"I felt insecure, I mean, I felt very unsafe. Think about it, you know, I'm done with ChatGPT everything; if it's like this now, what can it do in a few years?" (Student 2)

"... That's when I feel like it's numbing my brain so much. Sometimes I feel as if my thinking power is very low." (Student 6)

"I can do it anyway; they help me anyway. For example, a topic, let's say CBT. I will prepare a presentation about CBT. I know the topic, but my information is not enough. If I prepare a presentation with the help of these tools, maybe it will be more useful, but when I do it by writing directly to Gamma, I feel I cut corners, and the information is still lacking in my mind, so it makes me feel a little guilty." (Student 11)

"I felt like I wasn't learning anything, like I wasn't learning anything real. I felt like I wasn't learning any real knowledge, you know, negative information. So, it was out of the traditional lesson perception for me. So, I cannot say I learned this certain information. It wasn't like we had learned a lot of information. it wasn't like we learned this information or we covered that." (Student 3)

"...You know, the designs they can create, the texts they write, and so on. However, my conscience is not clear because I think I do it for the grade and I don't learn much." (Student 11)

"First of all, I mean, when I was learning how to use the tool in the first place, sometimes I had challenges, especially when I was learning how to use the tool. I don't know what a simple writing style is if I am doing something; I mean, there are times when it is very difficult. Technology is not something I am overly interested in." (Student 6)

"Some digital or AI tools can be a bit complicated. At first, I had to struggle initially, so I had to do trial and error until I learned how to use it. Some of the tools can be really high-level. I may feel frankly inadequate in using them." (Students 10)

To summarize the phrases above, while digital and AI tools generally enhance learning, students also express several concerns and challenges. At this point, excessive use of these tools can be overwhelming and exhausting for students, and they can feel bored. Furthermore, some students experience self-doubt and feel inadequate when digital and AI tools produce superior results, making them feel as if

they are taking shortcuts or not genuinely achieving success. There are other concerns about the complexity and initial learning curve of these tools that can be stressful and frustrating. Additionally, the reliance on digital and AI tools can make students feel that they don't learn deeply or authentically, so they feel guilty and dissatisfied. Lastly, the fear of becoming too dependent on technology and its potential future capabilities can also contribute to insecurity and unease.

4.1.3. Theme Three: Students' Methods to Overcome Negative Emotions and Challenges in Digital and AI-Enhanced Learning Environments

Self-management is the second skill desired for students to have in the CASEL model, and it covers effectively managing emotions, increasing motivation to reach goals, coping with stress, and controlling thoughts and behavior. By following this, students are asked how they manage negative feelings and how they cope with challenges in learning environments supported by digital and AI tools, and the theme "Students' Methods to Overcome Negative Feelings and Challenges in Digital and AI-Enhanced Learning Environments" was revealed after data was gathered and analyzed.

Table 4.4. Students' Methods to Overcome Negative Emotions and Challenges

Students' Methods to Overcome Negative Emotions and Challenges Codes	Frequency (f)	Percentage (%)
Producing and involving authentic arguments	5	41,6
Using digital and AI tools only as assistive tools	5	41,6
Using digital and AI tools in a reasonable time	3	25,0
Practicing digital and AI tools more by yourself	2	16,6
Checking the works with other digital and AI tools	2	16,6
Avoiding the use of too many tools at the same time	1	8,30
Peer Learning	1	8,30
Using digital AI tools in a more superficial	1	8,30
Getting help from Web 2.0 tools	1	8,30

Table 4.4. (cont.)

Suggestions about the ethical use of digital and AI tools	1	8,30
Developing academic knowledge	1	8,30
Following lessons with more attention	1	8,30

In order to explore the self-management skills of university students in learning environments supported by digital and AI tools, the question "When you think of an example of a time you experienced negative emotions or undesired situations while using digital and AI tools, how did you regulate or manage your emotions?" was asked to them. At this point, findings, as seen in Table 4.4, show that students mostly manage their negative emotions by producing authentic arguments, involving them in the created works, and using digital and AI tools only as assistive tools. Furthermore, using digital and AI tools in a reasonable time, practicing digital and AI tools more by yourself, and checking the works with other digital and AI tools are other three standard methods that students follow to control undesired feelings and thoughts. Moreover, it can be seen in Table 4.4 that to cope with negative emotions because of the interaction with digital and AI tools during learning; students provide support to each other, try to use those tools at a simple level, and do not use many tools at the same time, get help from web 2.0 tools about how they are effectively used. Also, they suggest to themselves that using those tools is a fact of the current day and is ethical. In addition, developing their academic knowledge and paying much attention to lessons are other management strategies they adopt. There are example expressions of students related below:

"That's why sometimes, in assignments that I care about, I try to use fewer tools that give me ideas, such as ChatGPT or Gamma, to avoid feeling inadequate. For example, I get help at the design point, but I don't get help at the idea or information exactly, so that would be my product. My solution, my coping method, is to use this average. Also, not too much, not too little. So the average, I try to use it by finding a balance, using it in a reasonable time." (Student 8)

"...then I wonder if we have become rusty; for example, if ChatGPT didn't exist, I would not be able to write this. I think like this, but then I think, No, it's not like that. If I write, I will write again. I mean, I give a suggestion myself. I think everyone uses it; it is obvious that everyone uses it. Or I think everyone is going through this—and artificial intelligence. As technology advances, there will be artificial intelligence in common. It would be absurd to be deprived of this." (Student 9)

"... you know what I told myself when I was feeling negative? I tried to do activities that I forced myself to think a little more, or I tried to do activities that I forced myself to develop, such as at least reading books. I think I should improve myself a little more when I felt inadequate, so I started to move towards areas where I would feel adequate." (Student 6)

"These tools make us passive. Maybe because I trusted AI completely, I can say that I coped with these negative feelings, such as inadequateness, by thinking about what more I could contribute to the work provided by AI and how I could make it more authentic; the thing made by my hand." (Student 3)

"I felt that it was restricting or forcing me in some way. It could be because of the lack of options. I felt confused about what I learned in the lesson. It was challenging at first. I listened to the lesson better and practiced more on my own. I mean, I like to strive." (Student 11)

"Afterwards, for example, how do I cope with this stress? After the class, I once tried that digital or artificial intelligence tool by myself. Also, I can watch YouTube videos about how to use it. I can also learn in this way." (Student 10)

"I use other artificial intelligence tools. For example, I think Turnitin is also an artificial intelligence. I try to find out whether what I do is plagiarism or not. Then, I rearrange what I do according to the results. So, I can say I check artificial intelligence with artificial intelligence tools again. Let me put it that way." (Student 12)

"I asked my friends about that thing when I felt stressed. You know, how we would do this and that and so on. When they showed me how to use it, I felt a little more relaxed. I think I completed those few things after everyone else." (Student 7)

"When I felt overwhelmed, I took a break there for a while or a few days. For example, I needed to get my head together, and after I sat down again, I had to continue. That's the time when I felt the most overwhelmed or exhausted." (Student 1)

"I'm trying to use it at a simpler level. Trying to use it all simultaneously made me feel inadequate at first. Moreover, it was tiring like that. However, then, for a few years, I have created a standard format I follow for myself." (Student 4)

Students have adopted various strategies to manage negative emotions and challenges they experienced while using digital and AI tools in learning. In this respect, many of them aim to balance their usage time and avoid over-reliance to maintain a sense of competence and ownership over their work. Also, it can be seen that some students use these tools for specific aspects, such as design, while independently handling ideation and information synthesis to preserve the authenticity of their outputs. To counter feelings of inadequacy, students can engage in activities that bolster their confidence, such as extensive reading or independently practicing. They also seek peer support or consult tutorials to manage initial learning difficulties. When overwhelmed, students can find relief in taking breaks or simplifying their approach. Additionally, it can be said that using AI tools to verify the accuracy or originality of their work can provide reassurance. Overall, students commonly can employ strategies that include balanced tool usage, seeking additional resources, and maintaining personal involvement in their academic endeavors to effectively cope with integrating digital and AI tools in their learning processes.

4.1.4. Theme Four: Students' Views of Positive and Negative Emotions that Their Peers Experience in Digital and AI-Enhanced Learning Environments

In the CASEL framework, social awareness is the third skill that is desired to gain students, so students should be able to recognize and find out other individuals' emotions, appreciate different perspectives, to develop empathy. At this point, the theme, "Students' Views of Positive and Negative Emotions That Their Peers Experience in Digital and AI-Enhanced Learning Environments," is reached after students were questioned about their peers' emotions they observed and realized.

Table 4.5. Students' Views of Positive Emotions that Their Peers Experience

Students' Views About Positive Emotions That Their Peers Experience Codes	Frequency (f)	Percentage (%)
Motivated	4	33,3
Energetic	4	33,3
Happy	4	33,3
Active	3	25,0
Enthusiastic	3	25,0
Confident	1	8,30
Satisfied	1	8,30
Enjoyed	1	8,30
Social	1	8,30
Astonished	1	8,30
Mindful	1	8,30

In order to find out how students are aware of their peers' positive emotions during learning enhanced by digital and AI tools in the scope of the ability social awareness, the question "According to your observation, how do your friends emotionally experience digital and AI-enhanced learning? How do they feel?" were asked to students, and as it is represented on Table 4.5 that their peers mostly feel motivated, energetic, happy, active. In addition, they said that feeling confident, satisfied, enjoyed, social, astonished, and mindful are other remarkable positive emotions that their peers experience.

Table 4.6. Students' Views of Negative Emotions that Their Peers Experience

Students' Views of Negative Emotions That Their Peers Experience Codes	Frequency (f)	Percentage (%)
Stressed	3	25,0
Nervous	3	25,0

Table 4.6. (cont.)

Regretful	3	25,0
Dissatisfied	2	16,6
Inadequate	2	16,6
Unhappy	1	8.30
Challenged	1	8.30
Scared	1	8.30

The question “According to your observation, how do your friends emotionally experience digital and AI-enhanced learning? How do they feel?” also led to the reveal of student’s views about negative emotions that their peers experience in digital and AI-enhanced learning environments. In this respect, Table 4.6 shows that stress, nervousness, regret, dissatisfaction, and inadequateness are the negative emotions that their peers mostly have. Also, they feel unhappy, challenged, and scared, according to observations in learning where digital and AI tools are used.

4.1.5. Theme Five: Students’ Learning and Relationship-Building Experiences in Digital and AI-Enhanced Environments

In CASEL’s social-emotional learning model, relationship skills are the fourth competency that is expected students to have, and it mainly covers communication, social engagement, teamwork, making sincere connections with others, and empathy. Students were asked how they experienced technology-enhanced learning in terms of social learning, and the theme, which is “ Students’ Learning and Relationship Building Experiences in Digital and AI Enhanced Environments,” was obtained.

Table 4.7. Students’ Learning and Relationship Experiences in Digital and AI-Enhanced Environments

Student’s Learning and Relationship Experiences Codes	Frequency (f)	Percentage (%)
Collaboratively Learning	11	91,6

Table 4.7. (cont.)

Peer Learning	10	83,3
Effective Communication	9	75,0
Group Working	8	66,6
Brainstorming	5	41,6
Establishment of Intimacy	4	33,3
Critical Thinking	3	25,0
Socializing	3	25,0
Non-verbal Communication	1	8,30
Personalized Learning	1	8,30

"How do you feel about digital and AI-enhanced learning environments allowing you to study collaboratively?" and "How does using digital and AI tools shape your social learning and relationship between your peers?" questions were asked to students to investigate their relationship skills and by following this purpose Table 4.7 represents that collaborative learning, peer learning, and effective communication are the three codes students most commonly expressed that they experience in digital and AI-supported learning environments. In addition, it can be seen in Table 4.7 that using digital and AI tools encourages students to be engaged in brainstorming, intimate relationships, critical thinking, and being more socialized. Moreover, although the majority of students state they collaboratively interact, it was represented that using digital and AI tools can also lead students to non-verbal and personalized learning. Exemplary expressions of students are listed below:

"It definitely allows open communication, and our social interaction with our friends becomes very strong. For example, in that class, if we need to do an assignment or express an opinion using a digital tool, we communicate with each other. We say, for example, three of us need to make a single comment, or there are five of us, there is a single category, and we need to express an opinion. We start to exchange ideas with each other. We start talking and interacting with each other socially, like how this should be and what you think. Then we started to get to know each other. Because when no one knows each other in the classroom, being in a class together does not exist." (Student 1)

"...I think it affects a lot. For example, when a discussion board opens, everyone interacts there. Everyone can see everyone's comments, so somehow, we see the thoughts of the people around us on that topic and react to them. An interaction occurs between us. Suddenly, a social environment emerges. I think it improves sociality. I also think it improves classroom cohesion, intimacy, and strong communication." (Student 6)

"These tools are already here, let's say Canva, for example. You can open a file and work on it simultaneously with your group of friends. Or with other digital tools. So I think these tools have facilitated group work and working with your friends. And I don't know if there is open communication. I think open communication is something related to group dynamics rather than the arrival of digital tools." (Student 12)

"It is something that increases our communication with our peers, our group friends. It increases our communication with our classmates, and since it is new for all of us, no one judges. Don't say how you cannot know this stuff. So everyone is open to learning. There is also courage in asking in the group." (Student 3)

"...Well, normally, group work is not for me since it requires coming together and working. However, at Miro and Sutori, we also did group assignments with them. We also did group assignments using NearPod. I think they make group work easier and with more fun because you can do something together without having physically come together." (Student 8)

"...For example, he asked me how we use this tool. He asked me how to make it easier. Then, I showed him. I taught him that you can do it like this. I have shown him a lot like this." (Student 9)

"In general, we always learn about these things through our friends. I mean, I rarely learn from the internet and so on. For example, I had trouble making a presentation, and my friend said, "Oh, don't you know this application? Look, you can make a draft from here." I can also say that there is an AI tool that makes qualified academic translations instead of Google Translate. It is a shortcut like this." In general, I have always learned from my friends and also taught it to my friends." (Student 7)

"I feel more comfortable expressing myself. I don't think about what they will think when I express myself. Interaction, I mean. Our interactive communication increases. I think that classroom atmosphere becomes very relaxing." (Student 2)

"In the online courses, our lessons were already taught on Zoom. On Zoom, our professors assigned us group discussions through Breakout Rooms. He was directing us there as groups. When you entered there, we were having a discussion about a certain topic related to the lectures. I remember that I could learn better from each other's ideas. I think I was able to develop different perspectives at that time. Also, for example, when we had a group homework assignment or a group presentation, we could work on a presentation collaboratively with four people using digital tools." (Student 10)

"For example, if I mention the group assignment, when we set up a WhatsApp group, let's say it was our group where four or five people joined, we could actively communicate there about what we should do for the presentations or other homework. Again, sometimes, our professors could set a job description for us regarding the duties of the people in the group by announcing it on Canva. He was communicating with us through this, so the job description became clearer." (Student 11)

"I think it contributes a lot to collaborative work, but I think it can push everyone to individualize a little bit after they learn because you can do everything on your own. You don't need an expert opinion, peer support, whatever. It's already there. Everything is laid out in front of you, so maybe it can increase individualization a little bit. However, in the classroom environment, I think it can increase group work, such as Nearpod.... I think it depends on how it is used. If you use it in a group-oriented way, I think it increases collaborative work; if you don't use it that way, I think it increases individualization. We can say that it can be completely organized according to the intention." (Student 9)

It can be stated that students highlight the transformative impact of digital and AI tools on fostering enhanced communication, social interaction, and collaborative learning environments. These technologies allow groups to join through digital and AI-supported tools, such as Canva, Miro, and NearPod, regardless of physical proximity.

Furthermore, it can be inferred that digital and AI tools create a conducive atmosphere where students engage in open discourse and knowledge exchange without apprehension, thereby promoting peer learning and mutual support. Furthermore, digital tools facilitate structured group discussions and assignments, enabling students to broaden their horizons and deepen their understanding of course content. However, they have a distinct concern that these tools inadvertently encourage individualization by providing comprehensive solutions independently of peer and expert input. Consequently, the effectiveness of digital technologies in boosting collaborative learning depends on their deliberate incorporation into instructional strategies that value group-focused communication and knowledge-sharing creation.

4.1.6. Theme Six: Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics

The fifth competency of CASEL's social-emotional learning model is making responsible decisions, which is an ability to produce constructive decisions about yourself and other people around you with the consideration of ethics, social norms, and safety. In this regard, it is expected that students will be able to define problems and situations and predict the consequences of the action taken by taking care of their rights and well-being and that of other individuals in society. In the scope of making responsible decisions, students who joined in this study were asked how they ethically use digital and AI tools in learning, and the theme, which is 'Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics', was reached.

Table 4.8. Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics

Students' Manners Using Digital and AI Tools Codes	Frequency (f)	Percentage (%)
Using tools as guidelines	10	83,3
Using tools as draft	10	83,3
Using tools as supportive tools	9	75,0
Creating and involving personal arguments and ideas	8	66,6

Table 4.8. (cont.)

Avoiding copy-paste information	7	58,3
None	2	16,6

The questions are: How do you feel about using digital and AI tools in learning in terms of ethics? How do you use digital and AI tools in terms of ethics while you are learning? Are there ways you follow using those tools responsibly?' were provided to students to investigate their skills of making responsible decisions when they are using digital and AI tools in learning, and as a result, Table 4.8 shows that students mostly use those tools as guideline, draft and supportive tool in their learning. Furthermore, Table 4.8 states that in order to avoid any ethical violation, they force themselves to create personal arguments and ideas and involve these in the outputs provided by digital and AI tools. Moreover, avoiding pasting information is another way students use to keep track of ethical manners. Finally, Table 4.7 shows that there are a few students who don't take into consideration the ethical manner for using those tools, so they don't have a particular way that they follow. There are some example expressions listed below:

"...For example, if I have looked at Google Scholar or found a source from an Open Knowledge Map, I read it, I assign it. Then, after referencing where I need to reference, I pay attention to where I reference. I look very much at where it was taken from, who made it, whether it is its own source, and whether it is the result of that source. After showing that source, I read it again with another artificial intelligence, and I went to Scribbr. I write that source, or I write the name of the article. After I had named the article, I checked it again from there. I look at that definition again. For example, I look for plagiarism in the models I make myself. I try to test myself as well. In that way, I check ethics again from there. I check it by putting it on. I go to another place again. I go to Dergipark and try to find the DOI. I add the DOI. I add the website. Like I said, I am I'm constantly trying to make it okay. I want to be sure of myself. We have professors and friends on the other side of the assignment. It needs to look good from that side, so it needs ethics for everyone. That's why I pay attention to these issues." (Student 1)

"If I am going to write an article about a topic, I ask ChatGPT. Then, I read it with its general main headings and used it as a draft. It gives me an opinion about what I am going to do. Then I turn to find an article. After collecting a few articles, I read them and wrote my article. Also, I use those tools to paraphrase. I don't think it's a violation of ethics. I don't take exactly from it. Even if I do, I change the words again. Alternatively, I paraphrase it on my own. I combine all these things I've done, and you end up with an article." (Student 7)

Maybe I can draw a line here. When I am convinced that with the help of artificial intelligence, a work, a project, a presentation, an article, etc., is mine, the ethical discussion ends for me. In other words, if I can say that the work, presentation, writing, etc., that I have done is mine, if it includes my ideas, even if I have done it with artificial intelligence, it is ethical because it contains something from me, I think that in this sense, I do not make the ethical discussion here. Because it is no longer something artificial intelligence does, it is like something that contains something from myself." (Student 11)

"For example, if they share basic information, I have some knowledge beforehand... It usually gives me an idea. I'm looking for keywords that they specifically provide. I look at who this information belongs to. Alternatively, if it is shifting towards a new field, if it asks for information about that field and gives new information, I take the keywords for them and search for them. That's how I reach sources like this. I try to pay attention." (Student 3)

"This is how we had already covered this issue in the ethics course. As I said, I use it to get ideas. For example, I do not think it's ethical to take the whole idea given to me. I don't think it's ethical anyway. In the homework, on the slide, etc. I try to pay attention to this. I mean, I try to pay attention to not to do that. Sometimes, when I don't necessarily follow ethics, you know when I'm lazy. But it is ethical when I don't take the whole idea and just use it as a draft." (Student 8)

"...sometimes if I would prepare a presentation on a topic, it gives me titles that I would use. I think it is very easy to use it in this way. I don't think there is much of a problem regarding ethics. I think it can be used to make a general outline as a draft.

However, of course, I think it is very unethical to copy and paste information and use it directly. I have never used it in that way." (Student 4)

"...I mean, for example, I don't copy and paste. I put my own ideas in there. Only if I'm going to make a direct citation. For example, I take it directly. Other than that, I always give citations, provide references, and tell where I got it from. For example, I don't do that. I take the work completely from ChatGPT, saying I wrote it myself. I just use it to organize my ideas. Otherwise, I think that having your own idea and just doing it directly is unethical. I think you can't move forward anyway. You take one step or two steps, but you can't take a third step. Because when you don't have your own idea, that artificial intelligence gets blocked at some point. It doesn't work very well." (Student 9)

"I do not use ChatGPT, and it is not for my exams. For instance, now, our assignments have become such that the ChatGPT is free to use, resources are open, and we do something accordingly. There is no problem. I mean, there is no problem in terms of ethics. This is how I think." (Student 2)

"...You know, I use ChatGPT, of course, but how do I use it? For example, if there is a certain topic, I write about it. I just get ideas about it. That idea gives me something for what I will write later. It provides convenience. You know, I don't copy and paste it directly, but I write it by adding it myself and by thinking about it. Here, for example, I think you have also used it ethically." (Student 10)

To summarize, the statements by the students collectively highlight a common trend in utilizing AI tools, such as ChatGPT, within educational contexts while conscientiously pointing out ethical issues and concerns. It can be understood that they underscore the utilization of AI and digital tools primarily for gathering ideas, drafting outlines, and facilitating comprehension of subjects so they can avoid plagiarism and direct content replication. Furthermore, each student accentuates the imperative of integrating personal insights and knowledge, upholding ethical norms through meticulous source attribution, and avoiding verbatim copying. Moreover, they emphasize the pivotal role of individual engagement and diligence in academic endeavors, positing AI as a facilitator rather than a substitute for personal creativity

and intellectual ideation. Ultimately, it can be said that their discourse advocates for a judicious approach where tools that enhance digital technologies, including AI, increase research and writing processes, underpinned by principles of academic integrity and originality.

4.1.7. Theme Seven: Students' View about the Role of Using Digital and AI Tools in Learning on Their Academic Success

To extend the scope of this study and explore the role of digital and AI tools in learning on students' academic performance, students' views were investigated, and the theme 'Students' View About The Role of Using Digital and AI Tools in Learning on Their Academic Success' was reached.

Table 4.9. Students' Views about Positive Factors that Increase Academic Success in Digital and AI-Enhanced Learning Environments

Students' Views About Positive Factors that Increase Academic Success Codes	Frequency (f)	Percentage (%)
Becoming more motivated	8	66,6
Permanent learning	3	25,0
Having more enthusiasm	3	25,0
Reaching diverse resources	3	25,0
Doing more qualitative homework	3	25,0
Feeling more productive	2	16,6
Becoming self-regulated	2	16,6
Group Working	2	16,6
Becoming more concentrated	1	8,30
Having more fun	1	8,30
Critical Thinking	1	8,30
Using active learning techniques	1	8,30
Brainstorming	1	8,30
Feeling adequate	1	8,30

Table 4.9. (cont.)

Fast learning	1	8,30
Feeling more confident	1	8,30

The question 'How do your experiences in the digital and AI-enhanced learning environments influence your academic performance?' at this point, Table 4.9 shows that feeling motivated in learning is the predominant factor that increases students' academic success. It can be said that since digital and AI-enhanced learning environments allow permanent learning, having more enthusiasm, reaching diverse resources, and doing more qualitative homework, students' academic performance has been positively impacted. In addition, they feel productive, self-regulated, and engaged in group work, and their academic success increases. Moreover, Table 4.9 demonstrates that becoming more concentrated, having more fun, conducting critical thinking, using active learning techniques, brainstorming, feeling adequate, fast learning, and feeling more confident are other distinct factors that strengthen academic success. There are expressions listed below:

"It has a very important effect because sometimes, when our teachers only perform lectures through slides, it is difficult to focus on the lesson. It is challenging to understand the lesson. When we don't know what to look for after the lecture, we really have a hard time, but when our lecturer uses an artificial intelligence tool, it becomes more enjoyable, and we can concentrate. For example, some of our professors use Nearpod. We can both write and discuss on Nearpod. We shoot videos from there, and from there, we can go to YouTube. We either talk to each other via video, or we become a group and express our opinions as a group. We compare the ideas in the groups. The information is more permanent since it is a more active learning system where everyone is involved. I like that the most, and it increases my motivation a lot. I am a person who thinks that one should learn in class. After the class, if I remember what I did in the class, I feel like I have listened to the lesson. I feel like I have learned."
(Student 1)

"It has a very positive effect. As I mentioned before, since I can easily handle something that I have exaggerated in my head with the help of artificial intelligence,

my motivation for that lesson increases. I want to do more things, I want to produce"
(Student 12)

"...I believe that it has increased my academic success because the quality of these assignments has increased a little bit because I aimed to get high grades based on the advice given by artificial intelligence. What kind of advice, whether it is the comments made by ChatGPT, the effects, pages, design, etc., that artificial intelligence recommends when preparing a presentation, I think it will be more effective thanks to these suggestions on a subject basis." (Student 11)

"As I said, since using these tools makes my learning very interactive, my participation in the lesson and my willingness to learn increase. This makes me feel more confident about the subject I learn." (Student 9)

"It helps me prepare for the exams more quickly. I don't miss a deadline or anything. I used to miss them before. I mean, when I did not follow something, I missed it. So I think it increases my productivity." (Students 4)

"Again, we are talking about a positive effect on academic success. As I said, if you can access it easily and it affects your motivation positively in more creative ways, you are already more enthusiastic. You make an effort to do even better. And so what happens? Your academic motivation increases, and your success increases due to this." (Students 5)

"...and there was group work. When I was in an online course, we were doing group presentations rather than individual ones. I remember very clearly that we prepared a presentation and used different themes through Canva. We combined our ideas and themes, so we got the best grade." (Student 6)

"When you don't have time to make an article summary, an application makes an article summary; for example, paste the thing into it and upload the article to it. It will give you a few things from there: blah, blah, blah. So, it motivated me in that regard. I was able to prepare my presentations well. It helped me. Aesthetic: I am a bit

obsessive about that. Both the aesthetics and the information content of my presentations were good. I guess that's it." (Student 7).

It can be summarized that students' academic achievement, motivation, and engagement have all increased due to the use of digital tools and artificial intelligence (AI) in educational environments per their discourses. Furthermore, they claim that digital and AI tools, such as ChatGPT and Nearpod in learning create revolutionary effects since they promote collaborative learning settings and improve interactivity during classes. They emphasize how duties like organizing group projects, preparing presentations, and summarizing articles may be done quickly and easily, which can increase the quality of work and ensure that deadlines are met.

Table 4.10. Students' Negative Views about Academic Success in Digital and AI-Enhanced Learning Environments

Students' Negative Views About Their Academic Success Codes	Frequency (f)	Percentage (%)
Becoming lazier	2	16,6
Decreasement of learning fast	2	16,6

Although most students state that digital and AI tools positively impact their academic performance, there are also a few negative expressions. Table 4.10 demonstrates that students may become lazier, decreasing their learning speed. There are expressions listed below:

"Well... I can say that I have become lazy. As I said, I often think about how I was doing it before. Because, let's say—very basic information, like which research methods are used for writing an article. I don't find articles one by one and all of them, and I write the article. Thus, I can say that I've become a bit lazy. I don't put too much effort into my courses. I still do, but I do it less than I used to, making the information temporary. "(Students 3)

"Then I wonder if I have blunted. For example, if ChatGPT did not exist, I would not be able to write. I think like this. I sometimes feel that my learning skills are declining, so I am lazier" (Students 8)

Although students mostly state positive views that using digital and AI tools supports academic performance, they also indicate a concurrent concern depending on over-reliance on digital and AI tools, potentially leading to complacency and giving less effort in specific academic endeavors. They stated that this dependence prompts introspection among students about the sustainability of their learning habits and the preservation of intrinsic motivation. Therefore, while digital and AI tools can offer significant benefits by optimizing efficiency and learning outcomes, they can necessitate a balance to ensure that students maintain their autonomy and cultivate enduring academic skills alongside technological integration.

4.2. Finding Related to the Second Research Question

To consolidate the study and reach its purpose, faculty members are asked which digital and AI tools they use in teaching. Their observations about students' social and emotional experiences and skills in learning and teaching supported by digital and AI tools and the themes below are obtained by following CASEL's social-emotional learning model.

4.2.1. Theme One: Digital and AI Tools Faculty Members Use in Teaching

To explore students' social-emotional learning skills in technology-enhanced learning environments and find out how using digital and AI tools shapes those skills, faculty members were first questioned about which digital or artificial intelligence tools they use in teaching. In this regard, the theme 'Digital and AI Tools Faculty Members Use in Teaching' was created.

Table 4.11. Digital and AI Tools Faculty Members Use in Teaching

Digital and AI Tools Faculty Members Use Codes	Frequency (f)	Percentage (%)
Canvas	5	83,3
ChatGPT	5	83,3
Nearpod	3	50,0
DeepL	3	50,0
Canva	3	50,0
Quizzes	3	50,0
Perusal	3	50,0
Kahoot	3	50,0
Padlet	2	33,3
Edpuzzle	2	33,3
Quilbolt	2	33,3
Actionbold	1	16,6
Quizlet	1	16,6
Miro	1	16,6
Gamma	1	16,6
ChatPDF	1	16,6
Google Bart	1	16,6
Bing AI	1	16,6
Gemini	1	16,6
Notion	1	16,6
Master in Physics Pearson	1	16,6
Mendeley	1	16,6
Dropbox	1	16,6
Google Workspace	1	16,6
Beautiful AI	1	16,6
Moodle	1	16,6
Google Classroom	1	16,6
Whatsapp	1	16,6

Table 4.11. shows that faculty members mostly use ChatGPT and Canvas in teaching, and Nearpod, DeepL, Canva, Quizzes, Perusal, and Khoot are other commonly used digital and AI tools. In addition, faculty members commonly use Padlet, Edpuzzle, and Quilbolt when they teach students. Moreover, even though they are less likely to be used, Actionbold, Quizlet, Miro, Gamma, ChatPDF, Google Bart, Bing AI, Gemini, Notion, Master in Physics Pearson, Mendeley, Dropbox, Google Workspace, Beautiful AI, Moodle, Google Classroom, Whatsapp are digital and AI tools faculty members prefer. Some exemplary phrases of faculty members are shared below:

"I use an application like Miro to create timelines and concept maps. I use another timeline and material development application, like Sutori. Again, I use Canvas and LMS very often. Especially because it also allows group working. Again, I use various AI applications, such as ChatGPT, Gamma App, a presentation tool, and various other applications, such as site Scispace and ChatPDF, as research tools." (Faculty Member 5)

"I use Canvas. Canvas, as an LMS, we already use its layout. Apart from that, I don't know, I use Dropbox. When it comes to digital, of course, that also enters. After that, I can use Google Workspace for some things. These are the ones I can think of. We also use DeepL." (Faculty Member 3)

"I used Edpuzzle and Padlet a lot, but now that Nearpod is a platform that includes them all, you can do the ones in Padlet with Collaborate Board. In Edpuzzle, you do it by putting questions into the videos. So I am currently using Nearpod because Nearpod is more comprehensive." (Faculty Member 6)

4.2.2. Theme Two: The Views of Faculty Members' Emotions Students' Experience in Digital and AI-Enhanced Environments

To understand students' emotional experiences in digital and AI-enhanced learning environments, faculty members were asked how their students emotionally experienced digital and AI-enhanced learning. After analyzing students' responses, the theme 'The Views of Faculty Members about Students' Emotions in Digital and AI-Enhanced Environments' was created.

Table 4.12. Faculty Members' Views about Positive Emotions Students Experience in Digital and AI-Enhanced Environments

Faculty Members' Views about Positive Emotions of Students Codes	Frequency (f)	Percentage (%)
Motivated	3	50,0
Energetic	2	33,3
Enthusiastic	2	33,3
Happy	2	33,3
Excited	2	33,3
Engaged	2	33,3
Curious	1	16,6
Satisfied	1	16,6
Confident	1	16,6
Creative	1	16,6
Comfortable	1	16,6

The question “According to your observations, what negative and positive emotions do students experience in your teaching where you use digital and artificial intelligence tools?” asked faculty members to understand students’ emotions they experience in digital and AI-enhanced learning environments. Table 4.12. demonstrates that students are more prevalently motivated, energetic, enthusiastic, happy, excited, and engaged. In addition, they feel curiosity, satisfaction, confidence, creativity, and comfort while they learn with digital and AI tools. Some of the expressions belonging to the faculty members are listed below:

“Now I realize that different faculty members demand students to read, listen to, and comment on the slides all the time. This makes the students a bit tired and bored, and they do not participate in the lesson. Even if they do participate, they participate for the obligation. But when we use this kind of artificial intelligence and web 2.0 tools, we integrate them. I realized that the student's contribution to the lesson increased.

So, it is a cognitive learning method. The most important contribution of using artificial intelligence for learners is that they participate in the lesson willingly. Secondly, they are curious about the lesson, and the rate of boredom in the lesson decreases more.” (Faculty Member 1)

“...so we have clear observation of the students' happiness, excitement, I do not know, motivation. My observations convinced me of this because I have been teaching, and they are happier, satisfied, excited, and motivated to learn.” (Faculty Member 2)

“There is also an excitement in students when you constantly change those platforms because students have something different. So it can break the monotony a little bit. Especially in games, I can say that the environment of such a classroom changes in an instant. So the atmosphere becomes more lively.” (Faculty Member 6)

“So when I told students, for example, to bring the computers to the class today, we are going to use ChatGPT, they were shocked. However, I think this is a very normal thing these days. I can say that the students were a bit surprised. But I think there is a general satisfaction. If you ask what a boring lesson is now, all students say that it is the lesson where the teacher comes and reads the slide from where he sits. This is over now.” (Faculty Member 4)

“I mean, I think it is supportive in terms of self-confidence because digital tools are places where the individual's ideas come to the forefront, where they reveal their ideas, their design, their aesthetic style, so I think students can be more themselves. They can reflect on themselves. More personalized, more personalized. For example, I think this greatly affects that student's participation in that lesson.” (Faculty Member 5)

The faculty members who joined in this study emphasize several key aspects regarding students' positive emotions they experience in digital and AI-enhanced learning environments. Firstly, these tools lead students to feel more motivated and engaged by fostering willingness to participate and curiosity in lessons, consequently reducing boredom and increasing active involvement. Secondly, it can be stated by inferring faculty members' discourses there is a remarkable improvement in student happiness and satisfaction in these learning settings. Additionally, supporting these tools with

active learning strategies, such as games breaks monotony, so students feel excited. Moreover, digital tools can promote self-expression and confidence among students, allowing them to showcase their ideas and personal styles, thereby enhancing their overall participation and learning experience. Finally, it can be said that these insights underscore the transformative impact of technology-enhanced learning on the modern educational realm, making learning more dynamic, engaging, and student-centered.

Table 4.13. Faculty Members' Views about Negative Emotions Students Experience in Digital and AI-Enhanced Environments

Faculty Members' Views about Negative Emotions of Students Codes	Frequency (f)	Percentage (%)
Inadequate	2	33,3
Unsecured	2	33,3
Overwhelmed	2	33,3
Imposter	2	33,3
Anxious	2	33,3
Dependent	1	16,6
Nervous	1	16,6
Bored	1	16,6
Confused	1	16,6
Distracted	1	16,6
Easy going	1	16,6
Childish	1	16,6

Furthermore, in the scope of negative emotions, Table 4.13. shows that students also feel inadequate, insecure, overwhelmed, imposter, and anxious depending on using digital and AI tools in learning. In addition to that they are less likely to feel dependent, nervous, bored, confused, distracted, easygoing, and childish. There are sample expressions of faculty members listed below:

“I can't say that it makes them addictive but dependent. For example, if he didn't use the translation tool, maybe he would be afraid to speak. Why? Even though he is a university student, would they make fun of him? Or would I do something wrong? Because people are like this, I did something wrong. I should already be a perfect person. Oh my God! I'm like God. I shouldn't make a mistake. Unfortunately, I think this student lacks self-confidence and basic knowledge. He is always practicing with the help of those tools, so they think that I can't do it because it's not there.” (Faculty Member 1)

“If the lecturer is using 30 different digital or AI tools at the same time, the student may feel confusion, feelings of confusion, if this a feeling, I do not know, you should know better, or anxiety, nervousness, uncomfortably due to the confusion.” (Faculty Member 6)

“If students are new to these tools, these tools are students. I see the nervousness or anxiety of not knowing how to use these tools in them. I also realize that, since we are very involved in such tools when we overuse them, I observe that boredom, a sense of boredom, also develops sometimes. In other words, even if it is digital, overuse or excessive use leads to a transition to negative emotions like being bored or bored.” (Faculty Member 2)

“... I mean, they feel a little overwhelmed. How is that in Turkish? I think they feel overwhelmed. I mean, they may be right; maybe we will give them too much of a workload, I do not know. So, they usually say they feel overwhelmed. So there is that part. And, of course. Digital tools have something like this: they can cause distraction.” (Faculty Member 3)

“When students use AI right now, they especially experience an "imposter" feeling. In other words, they feel that they have committed fraud, taken something they did not deserve, and deceived someone. They may feel that they deceive others with the knowledge that they have not produced themselves, so ultimately they feel inadequate and unqualified.” (Faculty Member 5)

“The limits and the framework of these digital tools and even artificial intelligence are not clear at the moment. So how do we use it? What is the ethical framework? How do

we do it is ethical? Since there is such uncertainty, I think it creates anxiety in students. For example, let us say he wrote a paper, and let us say he corrected his language in ChatGPT in an editorial sense. The student thinks, "Did I make a mistake? Am I doing something bad?... I think it creates a sense of anxiety and guilt in students. This is due to the lack of clear boundaries and tools." (Faculty Member 4)

"They are generally happy when they use the digital tool directly. I do not observe anything that makes them unhappy, but sometimes they can be unhappy when they use an old application." (Faculty Member 5)

"Negatively, they can sometimes find it childish. For example, especially for that reason, as I said, I do not use it too much in my compulsory courses whose subjects are serious." (Faculty Member 6)

Regarding the negative emotional experiences of students, faculty members emphasize that using digital and AI tools can boost confidence by enabling students to overcome linguistic barriers or perform tasks more efficiently. However, they can cause students to undermine self-confidence and discourage independent thinking because of over-reliance. Secondly, using multiple digital tools simultaneously can overwhelm students, which may make them feel confused, anxious, and distracted, especially when unfamiliar with these digital and AI-enhanced learning environments. Moreover, according to the faculty members' discourses, excessive use of digital tools can lead to boredom among students. Furthermore, students may feel like imposters or experience guilt when using these tools to enhance their work, questioning their capabilities. Another point that can be highlighted is that ethical uncertainties about the ethical boundaries and implications surrounding the use of digital and AI tools cause students to have anxiety and apprehension.

4.2.3. Theme Three: Faculty Members' Views about Methods Students Use to Overcome Negative Emotions in Digital and AI-Enhanced Learning Environments

Faculty members' observations about students' methods to cope with negative experiences are explored in the scope of understanding the self-management skills of

students, and the theme is Faculty Members' Views About Methods Students Use To Overcome Negative Emotions in Digital and AI-Enhanced Learning Environments ” was obtained.

Table 4.14. Faculty Members' Views about Methods Students Use to Overcome Negative Emotions in Digital and AI-Enhanced Learning Environment

Faculty Members' Views about Coping Methods of Students Codes	Frequency (f)	Percentage (%)
Using different digital or AI tools	3	50,0
Using tools from simple to complex	2	33,3
Peer Support	1	16,6
Demanding much more time to get used to the tools	1	16,6

Students are provided the question, ‘Are your students aware of their emotions, and how do they regulate or manage their negative emotions in your teaching where you use digital and artificial intelligence tools?’ to reveal the ways they use to manage negative emotions they feel in learning supported by digital and AI tools, in this respect, the Table 4.14. represents that students mostly use different digital and AI tools while they are engaging learning. They choose simpler tools at initial, and afterward, they use more complex tools. In addition, To manage negative emotions, they feel that their peers have a significant role in providing support to learn, and they demand much time from faculty members to use those tools. Some faculty members’ expressions, which are about students’ coping methods, are provided below:

“Of course, since the students, at least the group I work with, is a bit more of a team student group, I see that they have learned very well, whether from YouTube, peer support, help-seeking from YouTube or various web 2.0 resources, in order not to be uncertain or to avoid confusion, so they are more effective, and learn faster how to use them... for example, when I tell them to use Nearpod, instead of going into Nearpod and getting lost and going crazy, they watch videos about Nearpod, get support from

a friend who uses Nearpod, or access information from Google resources to increase their comfort and reduce their anxiety or tension. I see it happen often, and that's again the great learning effect of help-seeking on the SRL side.” (Faculty Member 2)

“...for example, it is better that instead of asking a direct question, when you divide that question into several parts and use artificial intelligence tools, the student can learn something he does not know by starting from what he already knows. You know, from simple to complex, as we say, from abstract to concrete. When we lead students to have kind of brainstorming, even if/she doesn't think of it at the moment when he/she answers to other friends, he/she increases his/her participation in the lesson by saying, "Was that the answer what he/she wanted to ask?". You know, they can become more self-confident.” (Faculty Member 1)

“In my own classes, we relieve it a little bit by extending the duration of the assignments. Usually, by demanding it. Like extending the due date for the assignments. I mean, do they have a method on their own? How do they cope? I do not know this, of course. However, what they usually demand from us is more time, less homework, etc”. (Faculty Member 3)

“I mean, for example, they fear that when they submit the assignment, will the teacher find out they used AI? At this point, the student does it like this. He asks his other friend. He says you used it. Did you get caught? You did not get caught. Okay. Okay. So I will not get caught either. Or there are various things. AI-proofing the tools. In other words, they eliminate this anxiety with various digital applications and tools. For example, let's say a student dictated a paper to ChatGPT. He wants it not to be understood by the lecturer as produced by Chat GPT. They use such applications, so we can say that checking works with other digital or AI tools.” (Faculty Member 4)

To summarize, faculty members provide valuable insights into how students overcome negative emotions and challenges while learning through digital and AI tools. Firstly, students rely on collaborative learning methods, such as peer learning, to reduce confusion and enhance their competence in using these tools. Secondly, integrating AI tools into learning activities can facilitate a progressive learning approach, where students build knowledge incrementally from known concepts to more complex ideas, fostering deeper understanding and confidence. Faculty members also observed that

students demand extended assignment deadlines and more time to reduce pressure on themselves. Furthermore, it seems that students are quite concerned about the moral consequences of utilizing AI in their academic work, leading them to look for assurance and use techniques to prevent being noticed. This emphasizes the necessity of clear guidelines and assistance in order to use digital tools ethically. These opinions address issues with student participation, task management, and ethical concerns while highlighting the changing role of technology in improving education opportunities.

4.2.4. Theme Four: Faculty Members’ Views about Students’ Learning and Relationship-Building Experiences in Digital and AI-Enhanced Environments

To investigate how student’s relationship skills are shaped in digital and AI-enhanced learning environments, faculty members are asked their observations about how those tools allow social interaction and relationship building, and the theme is Faculty Members’ Views About Students’ Learning and Relationship Building Experiences in Digital and AI-Enhanced Environments was reached.

Table 4.15. Faculty Members’ Views about Students’ Learning and Relationship-Building Experiences in Digital and AI-Enhanced Environments

Faculty Members’ Views About Students’ Learning and Relationship-Building Experiences Codes	Frequency (f)	Percentage (%)
Group Working	6	83,3
Peer Learning	3	50,0
Brainstorming	3	50,0
Collaborative Learning	3	50,0
Socializing	1	16,6
Intimate Relationship Building	1	16,6
Interactive Learning	1	16,6

The question is, “How do students socially interact in your courses where digital and AI tools are used? “How digital and artificial intelligence tools shape the experiences of students in terms of relationship building?” were asked by faculty members to

investigate the ways students interact, communicate, and engage in teamwork, and it is seen in Table 4.15. that students predominantly engage in group work due to the utilization of digital and AI tools. Also, learning enhanced by digital and AI tools leads students to engage in peer learning and brainstorming. Moreover, even though they are less likely to be experienced, students create social and intimate relationships and join interactive learning. There are expressions provided below as examples.

“I have to say that all my courses are online, so these students, who have no physical communication, communicate with each other in writing through these platforms. Actually, this is particularly why I use these tools. This communication. In writing, I don't know, but the fact that they write something on the Collaborative Board like Padlet means they interact from there. For example, they respond to each other in writing, again through discussions on Canvas. So, I also feel that the relationships in the classroom have become stronger. I mean, I feel that the cooperation between them has also become stronger.” (Faculty Member 6)

“Of course, if we think about things like ChatGPT or DeepL, which are artificial intelligence tools, they use them more on their own. When they use those tools on their own, it reduces socialization. However, if we use working tools, such as Dropbox, I don't know, or Google Workspace, it facilitates group work. It depends a little bit on the tools we use. I mean, it depends on the purpose of the tool. Also, we can consider Zoom to be digital, so some students use Zoom for group work. As I said, we use Dropbox.” (Faculty Member 3)

“...for example, when you write a comment, a like comes right below it, or at that moment, for example, there is such a feature in Mentimeter. They can send comments through the board or that event; for example, sometimes we do voting. I also like to create discussions like that. I mean, I ask questions that they may have an opposing opinion, and then some of them support or argue it. I mean, for example, when I say how much you agree with the view that women drive worse than men, you know, you get a lot of laughter, and you can get comments like Why did you vote for him from the discussion boards? Because there is a grouping there when I say grouping, I mean they produce ideas together. Sometimes, I give projects as group assignments, where one manager, one social media expert, one strategist, and one finance department

have to take on the role of the finance department. They need to work together there and transform them into mechanisms that will turn that wheel together. When they do this, they say they learn more efficiently.” (Faculty Member 5)

“So, when you use digital tools like Actionbold, it is up to the instructor. You can do it individually or in group assignments. Thus, making students peer creates peer learning as a result of the observations, according to my observations. I believe it affects learning positively.” (Faculty Member 1)

“I open a discussion on Canvas before they come to class, so students have already thought about it, read each other's opinions, and even commented on each other's ideas. I believe this supports collaborative learning and peer learning. There is also something like this: the university environment is a place where ideas are also shaped. Thus, they are very influenced by each other while shaping their ideas. In that sense, those digital tools provide a lot of social interaction.” (Faculty Member 4)

“...so even in an environment like Zoom, Miro, Sutori, a competition with Flashcard applications strengthens people's social aspects incredibly even when they are not physically together. Anyway, again, maybe you don't need to take notes, but there is a theory in distance education studies. It's called the distance effect. For an interactive and highly interactive course, the distance narrows as the course goes on. Both social and cognitive distance shrinks. It even says, "I mean, interactive, lively and funny.” (Faculty Member 2)

Overall, faculty members offer comprehensive insights into the relationship skills of students in digital and AI-enhanced environments. At this point, firstly, using tools like Padlet and Canvas enhances written communication among students and collaborative interactions and strengthens the classroom's friendship atmosphere. In addition, it can be said that while AI tools, such as ChatGPT and DeepL, may lead students to individual studying, tools like Dropbox and Google Workspace facilitate group work and cooperative learning experiences. Furthermore, interactive features like likes, comments, and voting on platforms like Mentimeter promote active participation and idea generation among students, fostering peer learning and engagement. Faculty members also emphasize that digital tools enable an increase in

the effectiveness of project-based group assignments so students' teamwork can develop. Moreover, asynchronous discussions on platforms like Canvas stimulate pre-class engagement and peer interaction, contributing to collaborative and peer learning Dynamics. Overall, these perspectives can point out the crucial role of digital technologies in enhancing both social interaction and cognitive engagement in online education.

4.2.5. Theme Five: Faculty Members' Views about Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics

The faculty members are questioned about their observations about how do ethically their students use digital and AI tools to understand their skills of making responsible decisions in the scope of CASEL's social-emotional learning model, so the theme which is 'Faculty Member Views About Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics' was found out.

Table 4.16. Faculty Members' Views about Students' Manners Using Digital and AI Tools in Learning in Terms of Ethics

Faculty Members' Views About Student Ethical Manner Codes	Frequency (f)	Percentage (%)
Peer Modelling	3	50,0
No specific manner for ethics	3	50,0

The ethical manner that students demonstrated in Table 4.16. after faculty members responded to the questions 'With the consideration of making responsible decisions, how do you describe your students' attitudes and behaviors toward using digital and AI tools in learning? And How do they ethically use those in their learning?'. Table 4.12 shows that students predominantly model their peers while they use digital and AI tools, to make it clearer that they follow the way their peers do. Furthermore, they use diverse digital and AI tools to check whether the stuff is plagiarized or not. There are example phrases of faculty members below:

“I feel like the ethics codes are not being followed; that's the first part. The second part is that students are adversely affected by each other. I mean, cheating, what someone does, for example, I look at a discussion board on Canvas, someone else who filled it in at the last minute, a student who is lazier, can plagiarize the ideas of a student who has worked two days upstairs.” (Faculty Member 2)

“Ethical manners are weak, very weak in undergraduate students. I wouldn't say it is different for graduate students, but it is very weak for undergraduate students. They basically see it as getting through this. We can already understand this. So you give homework. Half of them are almost altered versions of the same text. I mean, they're taking from artificial intelligence. Everyone is using it. Some people use paraphrase programs, but it doesn't change the story much anyway.” (Faculty Member 5)

“I am obvious that they are not paying attention to the ethical use of those tools because we don't pay attention either. Because there are no ethical standards for the use of these digital tools. So everyone is acting completely instinctively right now.” (Faculty Member 4)

In short, the faculty members' observations uncover the ethical manners of students while using digital and AI tools in learning. They emphasize that students often pursue their peers' practices in navigating these tools, which can include both ethical and unethical behaviors. Also, it can be said that this modeling behavior raises concerns about the lack of established methods or clear strategies to guide students in ethically using these tools. The absence of definitive guidelines contributes to a landscape where ethical standards can be ambiguous or inconsistently applied. Consequently, students may inadvertently or intentionally engage in practices such as plagiarism or inaccurate use of resources without fully understanding the ethical implications.

4.2.6. Theme Six: Faculty Members' Perceptions about Ethical Use of Digital and AI Tools in Learning and Teaching

Table 4.17. Faculty Members' Perceptions about Ethical Use of Digital and AI Tools in Learning and Teaching

Faculty Members' Perceptions About Ethical Use of Digital and AI Tools Codes	Frequency (f)	Percentage (%)
Constructing a common ethics code	3	50,0
Guiding students for ethical use	1	16,6

“Of course, we need more action to do something about ethics in AI learning. Maybe we need to take measures. Students also benefit from the deficiency. If we make an official regulation about this and maybe punish a few people, then it can evolve towards a more ethical place. But of course, we also lack something about this. So the basic need here is this. What is ethical? What is unethical? In which determination, will be punished? There is a need for a regulation on this. There is no such regulation at the universities. Theoretically, what if he filed a lawsuit... The court will decide, but there's not much you can blame because AI does not always give exactly the same results. If the student insists, he may become justified, so there should be an official regulation that everyone in academia can follow.” (Faculty Member 3)

“I am very glad that you asked a question about ethics, because the ethical dimension of this job is very important, but the most ambiguous and uncertain part of it right now. I mean, if its limits are confined, everyone will be relieved. I think even rather than the whole world coming together and creating some codes, at least universities, and even their departments should come together and come up with some points of agreement. They should decide in terms of AI use in teaching and learning, we are okay with these, but not okay with those. These are ethical, on the contrary, these are unethical behaviors, etc. I think there should be small little jobs like this, starting from departments or universities.” (Faculty Member 4)

“Ethics is everywhere, and no measure, no mechanism eliminates crime. Today, theft is criminalized, but it is also punishable, but this does not mean that theft has come to an end. Therefore, I prefer to gain students' ethical manners, that embody ethics police in their hearts rather than being so prohibitive. I mean, they can violate academic integration even if I take a written exam, they can violate ChatGPT even if I ban it, they can violate it even if I include it. So there is no end to this. And I cannot stand over them and assign a process for them to carry out a process that is completely unethical. But what can I do? I can put that ethics policy in their hearts through my guidance. In short, I guide them on how to effectively use those tools without violating ethics, so they can continue to learn.” (Faculty Member 5)

In brief, the discourses of faculty members sign that there is a significant concern and uncertainty in how to use digital and AI tools in learning processes for students. That is to say, the faculty members observing students are not well-provided with guidelines or obligations, so they tend to violate ethics in learning. Additionally, it can be concluded, based on faculty members' sentences, that ethical behavior is particularly weak among undergraduate students, who often view assignments as mere hurdles to overcome, frequently submitting minimally altered AI-generated texts. This issue also can affect graduate students to some extent. Overall, these insights highlight the urgent need for well-framed ethical standards to guide the responsible use of digital technologies in learning.

4.2.7. Theme Seven: Faculty Members' Views Factors that Increase Academic Success of Students in Digital and AI-Enhanced Learning Environments

To reveal how digital and AI-enhanced learning environments shape academic success, faculty members' opinions were explored, and the theme ‘Faculty Members Views Factors that Increase Academic Success in Digital and AI-Enhanced Learning Environments’ was obtained.

Table 4.18. Faculty Members' Positive Views about Factors that Increase Academic Success in Digital and AI-Enhanced Learning Environments

Faculty Members Views About Factors that Increase Students' Academic Success Codes	Frequency (f)	Percentage (%)
Motivation	3	50,0
Group Working	2	33,3
Brainstorming	2	33,3
Allowing Multiintelligences	1	16,6
Happiness	1	16,6
Engagement	1	16,6

The faculty members who joined in the study were provided with the question, ‘How do you observe the academic performance of students in learning environments by digital and AI tools?’ in this respect, Table 4.18. shows that the academic success of students is positively impacted since they are predominantly more motivated. Also, learning in a group and brainstorming are other factors that strengthen the academic performance of students. Furthermore, the table demonstrates that although they are less likely to be observed, their academic success is positively affected since students can learn in accordance with multiple intelligences, in other words, different learning styles, and they feel happy and engaged. A number of example expressions of faculty members are provided below:

“It positively affects academic success due to their participation in the class increases. They want to participate more.” (Faculty Member 1)

“I see an increase in the academic performance of students who are not very active verbally because, for me, as a teacher, when they do not express themselves verbally, of course, there is something low grading in their performance in class. However, through these tools, I see that students who cannot express themselves verbally actually express themselves in writing. I realize that those students actually have very interesting ideas and that there is progress related to the course of the lesson. In this

way, it actually enables students to be involved in the classroom, to be involved in the in-class performance. This, of course, increases their academic performance.” (Faculty Member 6)

“It indirectly affects academic success, of course. In other words, when the student is happy and motivated or feels that way, his interest in the lesson increases. When interest increases, learning outcomes literally increase. Therefore, learning increases.” (Faculty Member 2)

“They feel more involved. But on the other hand, they can also follow the easier way, so the homework given may be very similar to previous years. They take this assignment from other friends and use similar techniques or they may ask me for a sample file so that they have a template in their minds. They prepare very similar things. That's decreased academic success.” (Faculty Member 5)

“One of the main reasons why I use digital learning tools is to reach students with different learning styles. Now, of course, I think this increases academic success a lot. I mean, there is a difference between a lecturer who just says, “I'll teach my subjects, I'll explain them, I'll do my exams, I'll leave and a lecturer who says I teach my lesson, I ask you, you tell me your ideas, then we research together, then we discuss, then we make a presentation. Of course, there is a big difference in the performance of a student whose teacher uses such methods.” (Faculty Member 4)

To summarize, the faculty members emphasize that utilizing digital learning tools, including AI, positively impacts academic success by enhancing student participation and engagement. Also, they noted that such tools enable students to develop themselves in writing, revealing valuable insights and improving their academic performance. Increased student motivation and interest, facilitated by interactive teaching methods, directly correlate with improved learning outcomes. Overall, the consensus among the faculty members shows that incorporating digital and AI tools in learning allows for diverse learning styles significantly, providing an enhancement in classroom dynamics and academic success.

Table 4.19. Faculty Members' Negative Views about Academic Success in Digital and AI-Enhanced Learning Environments

Faculty Members' Negative Views About Academic Success Codes	Frequency (f)	Percentage (%)
Decreasement in writing ability	1	16,6
Decreasement in reasoning ability	1	16,6

Despite the majority of opinions given by faculty members being positive, there are also negative views, and Table 4.19. shows that students' writing and reasoning skills may be decreased. There are faculty members' expressions as an example listed below:

“Learning continues during the exam. There seems to be less effort during the exam if digital tools are used by teaching. I mean, you can criticize many things in memorization and learning, but at least you have to transfer a certain interest to your mind and present it there in a limited time. But when it is done digitally, students have more time and there is a higher risk of copying and cheating. Can I explain? I have some doubts in this respect.” (Faculty Member 5)

“We expect students to acquire four main skills. These are good writing, good reading, good listening, and good understanding. Now, if artificial intelligence is used especially in writing and reading, the student's acquisition of these skills weakens. If you dictate to ChatGPT or correct the language of the text in Grammarly instead of yourself, this will cause the student's writing skills to weaken. So the student should be able to use these skills. It's like this. If a student uses a calculator, they cannot learn multiplication and addition. If he/she cannot learn multiplication and addition, his/her math skills will not develop. Therefore, students themselves need to make an effort to develop their writing and reading skills. What happens when the artificial intelligence does this? He does not do it himself and this skill does not develop. Therefore, digital should only be used if it has a certain infrastructure. Therefore, I think it has a serious negative impact in this sense. I have observed a negative impact on students, especially in developing their writing and reading capacity. Of course, it can also negatively affect thinking skills.” (Faculty Member 3)

In examining the impact of digital tools on the academic success of students, faculty members also shared negative views and concerns regarding the potential pitfalls of the tools. It is noted that while these tools can facilitate learning and assessment, they may inadvertently diminish student engagement and increase susceptibility to academic dishonesty during examinations. Furthermore, it can be claimed that there is a consensus on the criticality of students actively cultivating foundational skills such as writing, reading, listening, and comprehension without over-reliance on automated aids like Grammarly or ChatGPT because being too dependent on these tools constraint the development of critical thinking and independent learning capabilities of students.

4.3. Finding Related to the Third Research Question

4.3.1. Theme One: Faculty Members’ Teaching Methods to Foster Learning While Using Digital and AI Tools

To reveal the third research question, which is ‘How do teaching methods or strategies affect students’ social-emotional learning in digital and AI-enhanced learning environments?’ faculty members were asked the question, ‘Is there any method that you adopt to foster learning by promoting positive emotions for students while using digital or AI tools in teaching?’, and the theme that is ‘Faculty Members’ Teaching Methods to Foster Learning While Using Digital and AI Tools’ was created as a result of data from faculty members analyzed.

Table 4.20. Faculty Members’ Teaching Methods to Foster Learning While Using Digital and AI Tools

Faculty Members’ Teaching Methods Codes	Frequency (f)	Percentage (%)
Demonstration and practice	3	50,0
Integrating active learning techniques	2	33,3
Using LMS as a course syllabus	2	33,3
Collaborative learning by making groups	2	33,3

Table 4.20. (cont.)

Guiding students to write effective prompts	1	16,6
Following ARCS model	1	16,6
Making routines by using certain tools	1	16,6
Quick communication due to digital tools, like Canvas	1	16,6

Table 4.20. demonstrated that most of the faculty members who joined the study first demonstrated how to use tools and then allowed students to practice in order to strengthen learning. Furthermore, it is seen that integrating interactive active learning techniques into the lesson plan supported by digital or AI tools, using learning management systems as tools for students to follow course syllabus, and making student groups engage in collaborative learning due to the technology-enhanced tools are another distinct method that faculty members use. Moreover, Table 4.20. shows that although they are less likely to be conducted, following the ARCS model, making routines by using certain tools and having quick communication with faculty members due to digital tools, such as Canvas. There are expressions of faculty members listed below:

“I usually follow the demonstrate-practice model myself. I use these tools myself for 2-3 weeks in class so that students gradually get familiar with them. Maybe they can click on a code, or a link and see it. After that, I have them do their tasks through these tools. There are also times when I tell students to choose a partner and do it together. Again, in order to increase the motivation of the students, to help them overcome their negative feelings, after three weeks of demonstration, I say, “Şeyma, you do this, Mehmet, you do that.” (Faculty Member 2)

“...in other words, it is not very effective to say do this, click here, enter here in one go. It is better to show it visually on the board or if we are doing a lesson on Zoom, it is better for students to practice after explaining how it will be on Zoom, how to use it, and what they should do. Doing that accelerates the student's ability to use artificial intelligence. If there is something they don't know, they can ask us questions in any way, they can send emails together, and so on. However, they also learn from their

friends. They ask each other, 'How was that? I also encourage them to learn together, but the most important factor here is that the instructor explains it in a visual way, in the simplest way at the beginning.' (Faculty Member 1)

"I use these tools as learn by doing, learn by interacting, learn by gaming. Plus, in the second stage, you can add to them when I am individually playing a game on one screen, using something like Nearpod on another screen. Besides interacting, I can also say collaboration by opening a parenthesis and learning by collaborating. In other words, I want first students to use it alone and then learn with the group. The third one is learning by gaming. Here, I use active learning methods such as competitions, mountain climbing, question and answer, matching pairs in Nearpod, and similar, Flashcard-like tools." (Faculty Member 2)

"Now, writing an article at the undergraduate level seems too heavy for students, but since it is a theory course when they research the theory in more detail and present it to me in the form of an article, they both gain an academic discipline and they have researched the theory in detail and they learn. Now, when I make them do this, for example, I make them do this a lot. I know they will use ChatGPT, I say, use it. I mean, when there is no ban, they falter like this. But now this comes into play there. In order to use ChatGPT, you need to know how to write prompts. It is a language-based model and knowing how to communicate with that language-based model as a human being, being able to create that common language, and getting what you really want is an area they do not know. So when I say to do this with artificial intelligence, they don't know how to control it, how to fix it. So I teach my students how to give them the right prompt. As a result, yes, maybe he prepares it using ChatGPT. But it makes the same effort with my requests as it would without using ChatGPT. In this way, not only do I include artificial intelligence in the work, but they also learn how artificial intelligence should be integrated. It is not only a lesson, but also an increase in digital competence. I mean, I know students who use artificial intelligence differently because of my course." (Faculty Member 5)

"Some students, for example, because the classes are online, they may be more easygoing. They can be late for classes. I don't know, because they are watched from home, they can behave a little more freely. For example, I had a discussion on Canvas

this week. I said that we would make this lesson a semi-synchronous lesson. Through written discussion. Discussion on Canvas. I mean, I gave them directives, and I said, here is the word. Answer these questions in the discussion. Also, you give answers to each other. Then I said we would start the class in two hours. We will start at 11 o'clock. In this way, the students did not feel they had extra stuff to do, because I made them do this during class time. They would be prepared before they join the class. As if they were having a discussion in class.” (Faculty Member 6)

“When you tell a student to learn Mendeleev, it is a persecution for the student. They won't learn. That's why you sit them next to you. You will show them that you open it like this, you do it like this. So it is very fast. You will teach the student in 15-20 minutes. Otherwise, they will not learn when you tell them to learn by themselves.” (Faculty Member 3)

“I also follow the ARCS model when I use these vehicles. It is the model I have been using for a long time. It already has many ingredients that good teachers discover naturally. This is mine too.” (Faculty Member 2)

“I mean routines. I think routines are very important in such platforms. I mean that routine when we have certain routines, students know what the next step is. In this way, they start doing it immediately without them saying anything. I mean, for example, Nearpod, I mean, as soon as I share the Nearpod link on the chat, they already know where to go and what to do and how to participate in which activity.” (Faculty Member 4)

“...what do I do in Nearpod? For example, videos, if I use a video in Nearpod, I put questions in it, because I realized that when you don't put questions to the students, their focus can be easily distracted. And I definitely put reflective questions in those questions. That is, I put things that they can reflect on themselves. That is the questions are not questions that will measure the content of the video, that is, what was explained in this video, but they can connect the content in the video with their own lives or the work they have done before. I definitely use questions in Nearpod videos to lead them to produce subjective arguments.” (Faculty Member 6)

The faculty members provided insights into effective pedagogical practices and considerations when utilizing digital and AI tools in teaching. First of all, it is seen that they can adopt an approach that provides students phased introduction of tools by starting with demonstrations and then gradually familiarizing them to students over several weeks. This method can aim to enhance engagement and mitigate potential challenges such as cheating, ensuring students actively participate and develop skills through collaborative and individual tasks. In addition, there was consensus on the importance of guiding students to write accurate and effective prompts while using tools, such as ChatGPT to maintain academic integrity. Moreover, they can use strategies such as semi-synchronous lessons via platforms like Canvas to optimize student participation and preparation. Structured routines and adherence to models like ARCS (Attention, Relevance, Confidence, Satisfaction) can also be used to sustain student interest and facilitate learning activities seamlessly. Finally, it can be seen that techniques such as incorporating reflective questions in Nearpod videos are used for promoting deeper engagement and personal connection to course content.

CHAPTER V

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

5.1. Conclusion and Discussion

This study explored the social and emotional learning skills and experiences of university students in digital and AI-enhanced learning environments, and the findings highlighted critical insights into how digital and AI tools shape students' SEL competencies. While finding out the SEL skills, the CASEL's five core competencies, which are self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, were followed both while constructing semi-structured interview questions and conducting thematic analysis. The findings related to the three research questions and their discussion in comparison with the literature are presented below.

First of all, students were asked how they feel when they interact with digital and AI tools in learning in the scope of self-awareness competency, and it was clearly seen from the data that 'feeling motivated' is the most prevalent emotion that students experience in digital and AI-enhanced learning environments, and in parallel to this, faculty members stated that motivation is the most obvious emotion that digital and AI tools promote. Dun and Kennedy (2019) revealed that technology-enhanced learning leads students to have higher intrinsic motivation, so they are more engaged in lessons.

Students feel happy because they feel productive and comfortable according to their expressions, while semi-structured interviews were conducted.

Kay (2022) points out that engaging online tutorials, which are enhanced by digital tools, make individuals happier and they also feel comfortable. It was found that students prevalently feel excited, and the given reason in students' comments is that

learning with digital tools is new for them. In addition to the insights from students and literature, faculty members who joined in this study also expressed that using digital tools, which include AI, provides an opportunity for students to feel comfortable due to the fact that they allow more interactive and fun class hours. By paralleling these, Ch'ang (2019) also found out that excitement, delightfulness, and feeling of relaxation are primary emotions individuals experience during e-learning. Josué et al. (2023) also found similar findings that students are more engaged, excited, and motivated in technology-enhanced learning that allows interactive activities, gamification, and simulations.

Hilliard (2022) revealed that students who are involved in online courses have high self-confidence, enthusiasm, and enjoyment, and likewise, this study found out that students who learn with digital tools, whether in class or other learning environments, are more enjoyed and develop enthusiasm. Faculty members also reported that enthusiasm was one of the most frequently experienced emotions among students.

Another remarkable emotion the study highlights is that those tools helped them fulfill their potential by contributing to developing their creativity, productivity, and self-regulation skills, so they feel proud of themselves.

Shubina and Kulakli (2019) claimed that although using technological tools in education has a number of disadvantages, it can be said that creativity, self-regulation, intrinsic motivation, and self-efficacy skills are strengthened by them. Similarly, Shirish, Chandra, and Srivastava (2021) stated that students' learning is boosted by technological tools in e-learning since they lead them to improve their productivity and creativity skills.

When students were asked about their negative feelings during learning supported by digital and AI tools, it was found that they predominantly feel overwhelmed if they are overused. Furthermore, students feel easy-going, inadequate, and lack academic competencies themselves since those tools enable them to reach fast and diverse information and instant templates for homework. At this point, feeling inadequate and overwhelmed are the two most distinct notions faculty members observe among students while they are interacting with digital and AI tools in learning.

On the other hand, literature provides that anxiety, boredom, and tension are the three most prevalent emotions. Loderer et al. (2018) claim that students feel anxiety and boredom when they learn in digital learning environments, and Kay (2022) stated that students become anxious and feel anger while they participate in activities during online tutorials. By paralleling the literature, this study also showed that anxiety, stress, nervousness, and boredom are other emotions students experience in digital and AI-enhanced learning environments.

Moreover, the study found that the most obvious reason students feel inadequate and regretful is to be able to obtain fast and rich information, so they make less effort. At this point, to cope with these negative emotions, they force them to create their arguments and combine them with information supplied by digital or AI tools. In addition, according to students' expressions in interviews, most of them use those tools as only assistive tools that facilitate their learning and avoid copying and pasting information. In this respect, they use digital and AI tools to obtain drafts that enlighten their path to correct the editorial language of homework, such as by checking grammar mistakes.

Also, they use many other digital tools to check if their work is authentic and manage negative emotions. By doing all of these, the critical point that students follow is to avoid copy-paste information and create their ideas and authentic arguments. Moreover, the study revealed that students manage their negative emotions and circumstances in technology-enhanced learning due to peer support, so they help each other how to use those tools more effectively.

Studies focus on defining and developing social awareness skills of individuals, including students, in the scope of social and emotional learning. However, this study explored the ability with which students define their peers' feelings in digital and AI-enhanced learning. The findings show that they know how their peers feel and state that being motivated, energetic, happy, active, and enthusiastic are the distinct emotions they observe.

On the contrary, the study revealed that students observe their peers who feel stress, nervousness, regret, inadequacy, dissatisfaction, inadequacy, unhappiness, and fear,

and explain the reason they mentioned that if their peers are immature and are not familiar with the technology or have a bias to use them they feel stressed and nervous themselves. In addition, some of them feel regretful since they use AI tools, like ChatGPT, to obtain fast and instant information.

Furthermore, the study revealed that digital and AI-enhanced learning environments allow students to build relationships and engage in collaborative and peer learning. Similarly, Nolan (2016) indicated that online learning allows students to work collaboratively, so academic performance and intimate relationship constructs increase. It was found that students develop communication and critical thinking skills and are involved in brainstorming and group work in learning environments equipped with digital and AI tools. Omariba (2021) claimed that using technological tools enhances the critical thinking skills that contribute to academic achievement.

The students' expression provides that discussion boards on digital tools, like Canvas, Padlet lead them to not only create personal ideas and express them so they can see different perspectives but also allow them to work collaboratively by discussing one subject as groups after presenting the group's argument consists of multiple dimensions. Also, it can be inferred from students' expressions that digital tools allow many people to be on the same page, so their competency in working with other people fruitfully is enhanced.

The study investigated the ethical manners that students follow in learning through using digital and AI tools, and it was found that they mostly tend to use those tools as guidelines, drafts, and supportive tools, so they want to avoid any circumstances of cheating or plagiarism by forcing themselves to produce personal ideas and argument in learning. Their comments state that they use digital tools, for instance, to get ideas and to construct mind maps, so they would have an instant learning map that shows how to go through them. That leads to creating fast and more productive learning outcomes.

On the other hand, faculty members stated that students are generally unaware of the ethical use of digital and AI tools, especially when preparing homework, like writing papers or creating presentations. At this point, they claimed that students model their

peers, so they use the tools in ways their peers use, so it can be said that they do not follow any specific manner for ethics. The reason for this, they argued, is that digital tools have already taken place in not only daily life but also educational settings, so there is a lack of a code of ethics for everyone to follow. In other words, they said that there is no mechanism to control whether ethics is followed or not in learning.

Beyond this, the study uncovered the role of using digital and AI tools on higher education students' academic success by exploring their opinions through interviews. It was found that the majority of the views about it are positive, and they mostly stated that since they have high motivation to join the lesson, they become more successful, so they get high grades. According to students' expressions, they are more enthusiastic and enjoy lessons equipped with digital and AI tools, which makes them more focused, so the knowledge they gather becomes permanent. Similarly, Douglass and Islam (2009) indicated feelings of happiness, excitement, and enjoyment when individuals learn to increase academic achievement while stress, anxiety, and fear decrease.

In addition, students claim that digital and AI tools increase their academic success since they allow them to work collaboratively in groups, broaden their horizons, and develop academic knowledge by discussing a subject, creating arguments, and considering others' perspectives. Arones et al. (2022) argued that technology-enhanced learning leads university students to work collaboratively and consolidate social interaction, positively affecting their academic performance. Although most students provided positive comments, a small portion of them stated that using digital tools may lead them to become lazier and decrease learning speed since they can access fast and instant information.

With respect to academic achievement, likewise, students and faculty members claimed that since students are happy, motivated, and engaged in group work and brainstorming in learning environments supported by digital and AI tools, their academic success is developed. Similarly, Blue et al. (2020) revealed that digital tools enable students to work collaboratively, so they are more engaged and their academic performance increases. On the other hand, they stated that student's writing and reasoning skills may be damaged because digital tools provide them instant information, and they practice less in writing; for instance, they use Quillbolt to

paraphrase or DeepL to translate the papers in English, so their competencies related domains are not sufficiently enhanced. At this point, it can be seen that students and faculty members mostly define factors that either increase or decrease academic achievement in common.

In the scope of the third research question of this study, faculty members' teaching methods that foster learning and SEL skills were uncovered, and demonstrating to students how to use digital tools in learning and then encouraging them to practice is the remarkably common method they used. According to their claims, this way relieves students and avoids feeling confused or stressed. In addition, they try to integrate active learning techniques into the lesson through digital tools so students' positive feelings increase. The faculty members indicated they utilize the facilities that enable group work so students learn collaboration.

5.2. Recommendations

5.2.1. Recommendations for Policy Makers

To effectively harness the transformative potential of digital and artificial intelligence (AI) tools in educational settings, policymakers should prioritize equitable access and support for all stakeholders. This should begin with ensuring ubiquitous access to reliable internet and digital devices, complemented by comprehensive digital literacy initiatives aimed at both students and educators. Continuous investment in professional development programs is essential to empower teachers with the requisite skills for integrating technology into pedagogical practices and navigating the ethical complexities associated with AI. Anderson and Putman (2019) found that since teachers do not have sufficient competency to integrate digital tools, they need training. In addition, Fonseca (2020) suggested that it is significant to yield students SEL skills through technology-enhanced learning tools, and in this regard, the training of instructors and professional development programs should be highlighted.

Furthermore, policymakers should advocate for inclusive and ethical AI practices within educational frameworks, focusing on strategies to mitigate bias and uphold ethical standards that promote fairness, transparency, and accountability. Supporting

the integration of digital SEL programs within online learning platforms can foster comprehensive student development while equipping educators with the requisite resources and training to incorporate SEL into digitally enhanced learning environments effectively. Continuous monitoring and evaluation of the efficacy of digital and AI tools in education, alongside active stakeholder engagement, can provide essential insights for refining policies and practices. By implementing these strategies, policymakers can cultivate an educational landscape where digital and AI technologies enrich learning experiences, promote equitable access, and prepare students to meet the evolving challenges of future societies and workplaces.

5.2.2. Recommendations for School Counselors

School counselors can foster Social Emotional Learning (SEL) skills through the strategic use of digital and AI tools. By integrating SEL activities into digital platforms, for instance, learning management systems or digital SEL applications, school counselors can provide interactive modules, mindfulness exercises, and personalized self-assessment tools that promote emotional awareness and regulation among students. AI-enhanced tools can further support counselors in providing personalized interventions tailored to student's specific needs, leveraging data insights to identify SEL challenges early and adapt support strategies effectively. In addition, online counseling sessions conducted via video conferencing platforms enable counselors to reach students remotely, offering guidance on SEL competencies despite physical distances. If there is an opportunity to work collaboratively with educators in the school, counselors can integrate SEL into the curriculum through interdisciplinary projects that foster teamwork, empathy, and digital citizenship skills.

In addition to student-focused initiatives, school counselors can educate parents on supporting SEL development at home through digital resources and workshops. These initiatives aim to promote responsible digital citizenship, ethical use of AI technologies, and critical digital literacy skills among students. By continuously evaluating the effectiveness of these strategies and staying informed about emerging digital technologies in SEL, counselors can adapt their approaches to meet evolving student needs effectively. This holistic approach can empower students to navigate the

digital and AI-enhanced educational landscape confidently, fostering a positive and enriching educational journey aligned with their overall growth and development.

5.2.3. Recommendations for Parents

Parents play a pivotal role in facilitating their children's educational engagement with digital and artificial intelligence (AI) technologies. Understanding the educational utility of these tools and maintaining regular oversight of their usage is fundamental. Parents should acquaint themselves with the specific digital and AI applications utilized by their children to effectively guide their learning experiences. Promoting digital and offline activities, such as reading and creative pursuits and feasible time durations, can ensure a holistic learning environment. They can encourage the development of critical thinking skills, including questioning online information sources and imparting knowledge about digital safety, fostering responsible usage behaviors. Collaborative exploration of digital tools with parents can enhance understanding and assist children in overcoming challenges they encounter. Keeping abreast of advancements in educational technology and maintaining open lines of communication regarding digital experiences can enable parents to provide informed guidance and support.

Moreover, parental involvement in school activities, such as attending parent-teacher conferences and participating in workshops focused on digital literacy and how they lead their children to learn with AI, can enrich their capacity to support their children's educational endeavors effectively. By following these guidelines, parents can empower their children to navigate the digital and AI-enhanced educational environments confidently, fostering a constructive and enriching educational journey aligned with their personal and academic developments.

REFERENCES

- Aggarwal, M. V., & Mehndroo, M. (2022). Digital transformation in education. *Specialusis Ugdymas*, 1(43), 9723-9732.
- Al-Tkhayneh, K. M., Alghazo, E. M., & Tahat, D. (2023). The advantages and disadvantages of using artificial intelligence in Education. *Journal of Educational and Social Research* 13(4).
- Allen, I. E., & Seaman, J. (2017). Digital Compass Learning: Distance Education Enrollment Report 2017. Babson survey research group.
- Alordiah, C. O., Osagiede, M. A., Omumu, F. C., Okokoyo, I. E., Emiko-Agbajor, H. T., Chenube, O., & Oji, J. (2023). Awareness, knowledge, and utilization of online digital tools for literature review in educational research. *Heliyon*, 9(1).
- Andrade, C. (2021). The inconvenient truth about convenience and purposive samples. *Indian journal of psychological medicine*, 43(1), 86-88.
- Antoñanzas, J. L., Salavera, C., Teruel, P., Sisamon, C., Ginto, A. I., Anaya, A., & Barcelona, D. (2014). Emotional intelligence and personality in student teachers. *Procedia-Social and Behavioral Sciences*, 132, 492-496.
- Anthony, C. J., Elliott, S. N., DiPerna, J. C., & Lei, P. W. (2020). The SSIS SEL Brief Scales–Student Form: Initial development and validation. *School Psychology*, 35(4), 277.
- APA Dictionary. (2024). *Emotion*. Retrieved from <https://dictionary.apa.org/emotion>
- Atkins, J. L., Vega-Uriostegui, T., Norwood, D., & Adamuti-Trache, M. (2023). Social and Emotional Learning and Ninth-Grade Students' Academic Achievement. *Journal of Intelligence*, 11(9), 185.
- August, S. E., & Tsaima, A. (2021). Artificial intelligence and machine learning: an instructor's exoskeleton in the future of education. In J. Ryoo & K. Winkelmann (Eds.), *Innovative Learning Environments in STEM Higher Education: Opportunities, Challenges, and Looking Forward* (79-105). Springer.
- Basit, A. (2023). Adoption of Digital Learning Technology: An Empirical Analysis of the Determinants in Telecom Sector. *International Journal of Advanced Engineering, Management and Science*, 9(3).
- Basu, A., & Mermillod, M. (2011). Emotional intelligence and social-emotional learning: An overview. *Online Submission*, 1(3), 182-185.

- Bhbosale, S., Pujari, V., & Multani, Z. (2020). Advantages and disadvantages of artificial intelligence. *Aayushi International Interdisciplinary Research Journal*, 77, 227-230.
- Blaschke, L. M. (2021). The dynamic mix of heutagogy and technology: Preparing learners for lifelong learning. *British Journal of Educational Technology*, 52(4), 1629-1645.
- Blau, I., Shamir-Inbal, T., & Avdiel, O. (2020). How does the pedagogical design of a technology-enhanced collaborative academic course promote digital literacies, self-regulation, and perceived learning of students?. *The internet and higher education*, 45, 100722.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- CASEL. (2023). Retrieved from <https://drc.casel.org/what-is-sel/>
- CASEL. (2024). Retrieved from <https://casel.org/fundamentals-of-sel/what-does-the-research-say/>
- Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist*, 26(2), 120-123.
- Chatterjee, R., Bandyopadhyay, A., Chakraborty, S., & Dutta, S. (2023). Digital education: the basics with slant to digital pedagogy-an overview. In A. Choudhury, A. Biswas & S. Chakraborti (Eds.), *Digital learning based education: transcending physical barriers* (1st ed., 63-80). Springer.
- CH'NG, L. K. (2019). Learning emotions in e-learning: How do adult learners feel?. *Asian Journal of Distance Education*, 14(1), 34-46.
- Chen, T., Luo, H., Feng, Q., & Li, G. (2023). Effect of technology acceptance on blended learning satisfaction: The serial mediation of emotional experience, social belonging, and higher-order thinking. *International Journal of Environmental Research and Public Health*, 20(5).
- Ciotto, C. M., & Gagnon, A. G. (2018). Promoting social and emotional learning in physical education. *Journal of Physical Education, Recreation & Dance*, 89(4), 27-33.
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The journal of positive psychology*, 12(3), 297-298.
- Connelly, L., & Joseph-Salisbury, R. (2019). Teaching Grenfell: the role of emotions in teaching and learning for social change. *Sociology*, 53(6), 1026-1042.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.

- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches* (3th ed.) Sage Publications.
- D'Mello, S., Olney, A., Williams, C., & Hays, P. (2012). Gaze tutor: A gaze-reactive intelligent tutoring system. *International Journal of human-computer studies*, 70(5), 377-398.
- Denham, S. A., Bassett, H. H., Zinsser, K., & Wyatt, T. M. (2014). How preschoolers' social-emotional learning predicts their early school success: Developing theory-promoting, competency-based assessments. *Infant and Child Development*, 23(4), 426-454.
- DeMink-Carthew, J., Netcoh, S., & Farber, K. (2020). Exploring the potential for students to develop self-awareness through personalized learning. *The Journal of Educational Research*, 113(3), 165-176.
- Douglass, E., & Islam, M. (2009, July). *Emotional wellbeing of first year university students: Critical for determining future academic success* [Presentation paper] First Year in Higher Education Conference. Townsville, Australia.
- Dunn, T. J., & Kennedy, M. (2019). Technology Enhanced Learning in higher education; motivations, engagement and academic achievement. *Computers & Education*, 137, 104-113.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child development*, 82(1), 405-432.
- Eklund, K., Kilpatrick, K. D., Kilgus, S. P., & Haider, A. (2018). A systematic review of state-level social-emotional learning standards: Implications for practice and research. *School Psychology Review*, 47(3), 316-326.
- Elksnin, L. K., & Elksnin, N. (2003). Fostering social-emotional learning in the classroom. *Education*, 124(1).
- European Commission. (2020). Digital education action plan (2021–2027): Resetting education and training for the digital age. Retrieved from education.ec.europa.eu/focus-topics/digital/action-plan
- Fare, A. E. (2023). *Educators' Perspectives of Students' Emotions Through the Facilitation of Circles* (Doctoral dissertation, Cardinal Stritch University).
- Fonseca, S. (2020). Social and Emotional Learning & Technology: A report on research and best practices. Retrieved from aelumiar.com/beemotionaltechie
- Foutsitzi, S., & Caridakis, G. (2019, July). *ICT in education: Benefits, challenges and new directions* [Paper Presentation]. 10th International Conference on Information, Intelligence, Systems and Applications (IISA). Patras, Greece.

- Glenn, D. E. A. (2022). *Social Emotional Learning: Teachers' Perceptions and Understandings regarding the Five Social Emotional Learning Competencies* [Doctoral dissertation, University of Saint Elizabeth]. ProQuest Dissertations and Theses.
- Goleman, D. (1995). *Emotional Intelligence*. Bantam Books: N. Y.
- Graham, C. R., & Halverson, L. R. (2021). Blended Learning Research and Practice. In *Handbook of Open, Distance and Digital Education*. Springer.
- Guilherme, A. (2019). AI and education: the importance of teacher and student relations. *AI & society*, 34, 47-54.
- Harley, J. M., Lajoie, S. P., Frasson, C., & Hall, N. C. (2017). Developing emotion-aware, advanced learning technologies: A taxonomy of approaches and features. *International Journal of Artificial Intelligence in Education*, 27, 268-297.
- Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods* (2nd ed.). Sage Publications.
- Henseruk, H., Boyko, M., Martyniuk, S. (2022). Digital instruments of communication in the educational process of the institution of higher education. *The scientific issues of Ternopil Volodymyr Hnatiuk National Pedagogical University* 1(1), 31-39.
- Hamid, S., Waycott, J., Kurnia, S., & Chang, S. (2015). Understanding students' perceptions of the benefits of online social networking use for teaching and learning. *The Internet and higher education*, 26, 1-9.
- Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. Retrieved from vtechworks.lib.vt.edu/items/8dcb9793.
- Immordino-Yang, M. H., & Damasio, A. (2011). We feel, therefore we learn: The relevance of affective and social neuroscience to education. *LEARNing Landscapes*, 5(1), 115-131.
- Jain, S., & Jain, R. (2019). Role of artificial intelligence in higher education—An empirical investigation. *IJRAR-International Journal of Research and Analytical Reviews*, 6(2), 144-150.
- Jones, S. M., Brown, J. L., Hoglund, W. L., & Aber, J. L. (2010). A school-randomized clinical trial of an integrated social-emotional learning and literacy intervention: Impacts after 1 school year. *Journal of consulting and clinical psychology*, 78(6), 829.
- Jones, S. M., McGarrah, M. W., & Kahn, J. (2019). Social and emotional learning: A principled science of human development in context. *Educational Psychologist*, 54(3), 129-143.

- Joshi, S., & Sokhey, G. (2021). Enhancing Self-esteem of Children through Emotional Intelligence Intervention Approach. *Indian Journal of Positive Psychology*, 12(4), 367-371.
- Josué, A., Bedoya-Flores, M. C., Mosquera-Quiñonez, E. F., Mesías-Simisterra, Á. E., & Bautista-Sánchez, J. V. (2023). Educational Platforms: Digital Tools for the teaching-learning process in Education. *Ibero-American Journal of Education & Society Research*, 3(1), 259-263.
- Kamei, A., & Harriott, W. (2021). Social emotional learning in virtual settings: Intervention strategies. *International Electronic Journal of Elementary Education*, 13(3).
- Kay, R. (2022). Examining the Role of Emotions in Learning with Technology. *Journal of Digital Life and Learning*, 2(2), 12-26.
- Kayyali, M. (2024). Future Possibilities and Challenges of AI in Education. In R. Sharma & A. Bokurt (Eds.), *Transforming Education With Generative AI: Prompt Engineering and Synthetic Content Creation* (45-65). IGI Global Publishing
- Karatsareas, P. (2022). Semi-structured interviews. *Research methods in language attitudes*, 99-113.
- Kemparaj, U., & Chavan, S. (2013). Qualitative research: A brief description. *Indian Journal of Medical Sciences*, 67(3/4), 89.
- King, R. B., & Chen, J. (2019). Emotions in education: Asian insights on the role of emotions in learning and teaching. *The Asia-Pacific Education Researcher*, 28(4), 279-281.
- King, J. A. (2023). *The Effects of Teachers' Preconceptions of Social-Emotional Learning Training in the 1:1 Technology Environment* [Doctoral dissertation, Concordia University]. ProQuest Dissertations & Theses.
- Kirillova, T. K., Burtseva, E. V., Rak, I. P., Karelin, V. M., Ryspaeva, C. K., Akhunzhanova, M. K., Chukhrov, A. S., Kruglova, M. S., Sudakov, O. V., Sudakov, D. V., Sagitova, V. R., Savina, M. I., Smirnova, O. G., Shutova, N. V., Shutkina, Z. A., Barsukov, A. V., Polynskaya, I. N., Potolokova, M. O., Suvorova, E. V., Kugai, A. I., Petrova, L. G., Shevchenko, N. N., Elfimova, A. V., Maslennikova, S. F., Mezenina, O. B., & Medvedeva, A. A. (2022). Pedagogy and psychology as sciences for the formation of the potential of modern society. Baltija Publishing.
- Klochko, O., Fedorets, V., Tkachenko, S., & Maliar, O. (2020). *The Use of Digital Technologies for Flipped Learning Implementation* [Paper presentation]. ICTERU Workshops. Ukraine.
- Kuznetsova, V., & Azhmukhamedov, I. (2020). Advantages and risks of using the digital educational environment. *ARPHA Proceedings*, 3, 1369-1381.

- Kwon, O. Y. (2021). Flipped learning: an alternative pedagogical approach in the untact age. *Journal of exercise rehabilitation*, 17(4), 222.
- Lajoie, S. P., Pekrun, R., Azevedo, R., & Leighton, J. P. (2020). Understanding and measuring emotions in technology-rich learning environments. *Learning and Instruction*, 70, 101272.
- Lapidot-Lefler, N. (2022). Promoting the Use of Social-Emotional Learning in Online Teacher Education. *International Journal of Emotional Education*, 14(2), 19-35.
- Longe, J. L. (2011). *The Gale encyclopedia of children's health: infancy through Adolescence* (2nd ed.) Gale Publication.
- Lou, H. C. (2015). Self-awareness—an emerging field in neurobiology. *Acta Paediatrica*, 104(2), 121-122.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Cherkasskiy, L. (2011). Emotional intelligence. In R. J. Sternberg & S. B. Kaufman (Eds.), *The Cambridge handbook of intelligence* (1st. Ed., pp. 528–549). Cambridge University Press.
- McCormick, M. P., Neuhaus, R., Horn, E. P., O’connor, E. E., White, H. I., Harding, S. & McClowry, S. (2019). Long-term effects of social–emotional learning on receipt of special education and grade retention: Evidence from a randomized trial of insights. *Aera Open*, 5(3), 2332858419867290.
- Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers college record*, 115(3), 1-47.
- Meirbekov, A., Maslova, I., & Gallyamova, Z. (2022). Digital education tools for critical thinking development. *Thinking Skills and Creativity*, 44, 101023.
- Menzheritskaya, J., & Hansen, M. (2019). The role of emotions in higher education teaching and learning processes. *Studies in Higher Education*, 44(10), 1709-1711.
- Montilus, K. D., & Jin, T. (2020). Embedding self-management into mobile learning experiences. *The Emerging Learning Design Journal*, 7(1), 3.
- Naglieri, J. A., LeBuffe, P., & Shapiro, V. B. (2011). Universal screening for social–emotional competencies: A study of the reliability and validity of the DESSA-mini. *Psychology in the Schools*, 48(7), 660-671.
- Neubauer, A. C., & Freudenthaler, H. H. (2005). Models of emotional intelligence. *Emotional intelligence: An international handbook*, 2005, 31-50.
- Nikolova, M., & Evtimova, T. (2022). Digital Educational Tools–Potential, Application, and Perspectives. *Journal of Mathematics, Computer Science and Education*, 5(1),64-83.

- Nolan, A. W. (2016). *The social and emotional learning and character education of K-12 online students: Teacher perspectives*. [Doctoral dissertation, State University of New York at Albany]. Proquest Dissertations & Theses.
- Nusche, D., & Minea-Pic, A. (2020). ICT resources in school education: What do we know from OECD work. Retrieved from one.oecd.org/document/EDU/EDPC/
- OECD. (2021). *Beyond Academic Learning: First Results from the Survey of Social and Emotional Skills*. OECD Publishing.
- Omariba, A. (2021). Technology-Enhanced Classroom to Enhance Critical Thinking Skills: Teachers' Perspectives. In *Research Anthology on Developing Critical Thinking Skills in Students* (pp. 488-506). IGI Global.
- Oranga, J. (2023). Benefits of Artificial Intelligence (ChatGPT) in Education and Learning: Is ChatGPT in Education and Learning: Is ChatGPT Helpful? *International Review of Practical Innovation, Technology and Green Energy (IRPITAGE)*, 3(3), 46-50.
- Özgünlü, M., Erbil, F., & Göl-Güven, M. (2022). Social and emotional learning (SEL): How it finds a place in an early childhood education curriculum in Turkey. *Journal of Childhood, Education & Society*, 3(2), 139-150.
- Paradiso, L. M. (2023). *Using Social-Emotional Learning to Improve Student Self-Esteem and Academic Success* [Doctoral dissertation, Caldwell University]. ProQuest Dissertations & Theses.
- Paul, P. K. (2022). Digital Education: The Aspects and Growth in Socio-Economic Development—Towards sophisticated Education 4.0 Practice. *Indian Journalscom* 67(5), 971-980.
- Pedró, F. (2020). Applications of Artificial Intelligence to higher education: possibilities, evidence, and challenges. *IUL Research*, 1(1), 61-76.
- Pekrun, R., & Linnenbrink-Garcia, L. (2014). Introduction to emotions in education. In *International handbook of emotions in education* (1st ed., pp. 1-10). Routledge.
- Priya, A. (2021). Case study methodology of qualitative research: Key attributes and navigating the conundrums in its application. *Sociological Bulletin*, 70(1), 94-110.
- Quraishi, S. O. R. (2019). *Teachers' Individual and Collective Sense-Making of a Social and Emotional Learning Program* [Doctoral dissertation, The Florida State University]. ProQuest Dissertations & Theses.
- Trivedi, K.K. (2021). Blended Learning: A Combination of Traditional and Online Teaching Learning. *International Journal of Advanced Research in Science, Communication and Technology*, 4(3), 222-225.

- Rafferty, L. A., & Asaro-Saddler, K. (2020). Effective Self-Management Strategies. In U. Sherma & S. Salend (Eds.), *Oxford Research Encyclopedia of Education*. Oxford University Press.
- Rana, A., Gulati, R., & Wadhwa, V. (2022). Essence of Stress Coping and Counseling in Students Life. *Indian Journal of Health and Wellbeing*, 13(2), 228-231.
- Ratten, V. (2021). Coronavirus (Covid-19) and entrepreneurship: cultural, lifestyle and societal changes. *Journal of entrepreneurship in emerging economies*, 13(4), 747-761.
- Rowe, A. D., Fitness, J., & Wood, L. N. (2015). University student and lecturer perceptions of positive emotions in learning. *International Journal of Qualitative Studies in Education*, 28(1), 1-20.
- Reichert-Schlax, J., Zlatkin-Troitschanskaia, O., Frank, K., Brückner, S., Schneider, M., & Müller, A. (2023). Development and evaluation of digital learning tools promoting applicable knowledge in economics and German teacher education. *Education Sciences*, 13(5), 481.
- Sandanayake, T. C., Madurapperuma, A. P., & Dias, D. (2011). Affective E learning model for Recognising learner emotions. *International Journal of Information and Education Technology*, 1(4), 315.
- Saraeva, N. (2022, November). *Digital Tools in Foreign Language Education* [Paper presentation]. 4th International Conference on Control Systems, Mathematical Modeling, Automation and Energy Efficiency (SUMMA). Lipetsk, Russia.
- Shegai, I.N. (2021). Using digital tools during distance learning: Teacher Experience. *Viae Educationis Studies of Education and Didactics* 2(1), 36-44.
- Shevchenko, N. N., Elfimova, A. V., Maslennikova, S. F., Mezenina, O. B., & Medvedeva, A. A. (2022). *Pedagogy and psychology as sciences for the formation of the potential of modern society*. Baltija Publishing.
- Shi, L. (2023). *Exploring the Emerging Roles of Artificial Intelligence in Teaching Practices and Its Relationships with Teachers* [Doctoral dissertation, University of Georgia]. ProQuest Dissertations & Theses.
- Shirish, A., Chandra, S., & Srivastava, S. C. (2021). Switching to online learning during COVID-19: Theorizing the role of IT mindfulness and techno eustress for facilitating productivity and creativity in student learning. *International Journal of Information Management*, 61, 102394.
- Shubina, I., & Kulakli, A. (2019). Pervasive learning and technology usage for creativity development in education. *International Journal of Emerging Technologies in Learning (Online)*, 14(1), 95.

- Soares, D. (2023). The use of digital technology in health learning during the COVID-19 pandemic: A systematic review. *JPMA. The Journal of the Pakistan Medical Association*, 73(2), S135-S139.
- Spector, J. M., & Ma, S. (2019). Inquiry and critical thinking skills for the next generation from artificial intelligence back to human intelligence. *Smart Learning Environments*, 6(1), 1-11.
- Suen, L. J. W., Huang, H. M., & Lee, H. H. (2014). A comparison of convenience sampling and purposive sampling. *Hu li za zhi*, 61(3), 105.
- Stecula, K., & Wolniak, R. (2022). Advantages and disadvantages of e-learning innovations during COVID-19 pandemic in higher education in Poland. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 159.
- Storey, M. (2019). Engaging minds and hearts: Social and emotional learning in English Language Arts. *Language and Literacy*, 21(1), 122-139.
- Tan, J., Mao, J., Jiang, Y., & Gao, M. (2021). The influence of academic emotions on learning effects: a systematic review. *International journal of environmental research and public health*, 18(18), 9678.
- Tao, B., Díaz, V., & Guerra, Y. (2019). Artificial intelligence and education, challenges and disadvantages for the teacher. *Arctic Journal*, 72(12), 30-50.
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child development*, 88(4), 1156-1171.
- Tyng, C. M., Amin, H. U., Saad, M. N., & Malik, A. S. (2017). The influences of emotion on learning and memory. *Frontiers in psychology*, 8, 235933.
- Van Huynh, S. (2018). Social awareness and responsible decision making of students in grade 4 and 5 in Vietnam. *Journal of education and human development*, 7(4), 7-15.
- VanLehn, K. (2011). The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems. *Educational psychologist*, 46(4), 197-221.
- Walker, M.D. What is Digital Learning? *In: Digital Learning. How modern technology is changing education*. Sickelbrook publishing.
- Wagner, D. A. (2018). Technology for education in low-income countries: Supporting the UN sustainable development goals. In I. Lubin (Ed), *ICT-supported innovations in small countries and developing regions: Perspectives and recommendations for international education*, (1st ed., 51-74).

- Wilde, P. K. (2023). *Teachers' Perceptions of the Impact of Online Social-Emotional Learning Professional Development at a Small Rural High School* [Doctoral dissertation, Lamar University-Beaumont]. ProQuest Dissertations & Theses.
- Wood, P. (2020). Emotional intelligence and social and emotional learning:(Mis) Interpretation of theory and its influence on practice. *Journal of Research in Childhood Education*, 34(1), 153-166.
- Yin, H., Huang, S., & Wang, W. (2016). Work environment characteristics and teacher well-being: The mediation of emotion regulation strategies. *International journal of environmental research and public health*, 13(9), 907.
- Zeybek, F. (2023). *Digital Social-Emotional Learning: An Explanatory Sequential Mixed-Methods Study of Elementary School Teachers' Experiences in Teaching Social-Emotional Learning with Digital Technology* [Doctoral dissertation, New Jersey City University]. ProQuest Dissertations & Theses.
- Zhang, T., & Yu, S. (2023). Effects of Asynchronous Interaction on Positive Emotional Experiences of Learners during Online Learning. *International Journal of Emerging Technologies in Learning*, 18(8), 48.
- Zilva, D. R. (2023). The Role of Social and Emotional Learning in Student Success. *Journal of Education Review Provision*, 3(1), 13-17.

APPENDIXES

APPENDIX A

Evrak Tarih ve Sayısı: 26.03.2024-39016



T.C.
İBN HALDUN ÜNİVERSİTESİ
Sosyal ve Beşeri Bilimler Bilimsel Araştırma ve Yayın Etiği
Kurulu Başkanlığı



Sayı : E-71395021-050.04-39016
Konu : Etik Kurulu Kararı - Dilara
MARABA

26.03.2024

İLGİLİ MAKAMA

Kurulumuza başvuran Dilara MARABA'nın, "Exploring Social Emotional Learning Experiences and Skills of University Students in Learning and Teaching Supported by Digital and Artificial Intelligence Tools" isimli projesi; amaç, araştırma türü, veri toplama araçları, süreç ve işlemler, veri analizleri dikkate alınmak suretiyle 15.03.2024 tarihinde değerlendirilerek 2024/03-05 karar numarası ile etik açıdan uygun bulunmaktadır.

Bilgilerini ve gereğini arz/rica ederim.

Prof. Dr. Alev ERKİLET
Başkan

APPENDIX B

BİLGİLENDİRİLMİŞ GÖNÜLLÜ ONAM FORMU

Sizi İbn Haldun Üniversitesi Eğitim Bilimleri Fakültesi PDR Bölümü yüksek lisans öğrencisi Dilara Maraba tarafından yürütülen "**Exploring the Social-Emotional Learning Skills of University Students in Learning and Teaching Supported by Dijitale and Artificial Intelligence Tools**" başlıklı araştırmaya davet ediyoruz. Bu araştırmanın amacı dijital öğrenme ortamlarında üniversite öğrencilerinin sosyal duygusal öğrenme becerilerin bir vakıf üniversitesi özelindeki halihazır durumunun keşfedilmesidir. Araştırmada sizden tahminen 15-20 dakika ayırmanız istenmektedir. Bu çalışmaya katılmak tamamen **gönüllülük** esasına dayanmaktadır. Çalışmanın amacına ulaşması için sizden beklenen, bütün soruları eksiksiz, kimsenin baskısı veya telkini altında olmadan, size en uygun gelen cevapları içtenlikle verecek şekilde cevaplamanızdır. Bu formu okuyup onaylamanız, araştırmaya katılmayı kabul ettiğiniz anlamına gelecektir. Ancak, çalışmaya katılmama veya katıldıktan sonra herhangi bir anda çalışmayı bırakma hakkına da sahiptir. Bu çalışmadan elde edilecek bilgiler tamamen araştırma amacı ile kullanılacak olup kişisel bilgileriniz **gizli tutulacaktır**; ancak verileriniz yayın amacı ile kullanılabilir. Eğer araştırmanın amacı ile ilgili verilen bu bilgiler dışında şimdi veya sonra daha fazla bilgiye ihtiyaç duyarsanız araştırmacıya şimdi sorabilir veya ... e-posta adresi üzerinden ulaşabilirsiniz.

Yukarıda yer alan ve araştırmadan önce katılımcıya verilmesi gereken bilgileri okudum ve katılmam istenen çalışmanın kapsamını ve amacını, gönüllü olarak üzerime düşen sorumlulukları anladım. Çalışma hakkında yazılı ve sözlü açıklama aşağıda adı belirtilen araştırmacı/araştırmacılar tarafından yapıldı. Bana, çalışmanın muhtemel riskleri ve faydaları sözlü olarak da anlatıldı. Kişisel bilgilerimin özenle korunacağı konusunda yeterli güven verildi.

Bu koşullarda söz konusu araştırmaya kendi isteğimle, hiçbir baskı ve telkin olmaksızın katılmayı kabul ediyorum.

Katılımcının

Adı-Soyadı:

İletişim Bilgileri/e-mail:

İmzası:

Araştırmacının

Adı-Soyadı: DİLARA MARABA

İmzası:



APPENDIX C

Interview Questions for Students

1. Which digital or AI tools do you use in your learning in your courses, doing homework individually or collaboratively etc.

ChatGPT, Character.AI, Quilbolt, Midjourney, Perusall, Nearpod, Sutori, Carnegie Learning, Generative AI, Smart, Sparrow, DreamBox, Coursera, Querium, Woot Math, GradeSlam, TutorMe, OpenAI, Pearson AI, Eklavya- Auto descriptive answer evaluation, Kaltura, Duolingo, Edmentum, DocuExprt, Edmodo, Carnegie Speech, Cognii, Virtual TA, Turnitin, Squirrel AI, Audiopen.ai, Thinkster Math, Quizlet, Descript.ai, Writely AI, Google Bard, Gamma, Grammarly, Canvas

2. “Could you define the positive emotions you experience in the digital and AI-enhanced learning environments?”

3.“Could you define the negative emotions you experience in the digital and AI-enhanced learning environments?”

4. “When you think of an example of a time you experienced negative emotions or undesired situations while using digital and AI tools, how did you regulate or manage your emotions?”

5. How do your experiences in the digital and AI-enhanced learning environment influence your academic performance?

6. Could you explain your self-confidence / self-efficacy during the use of digital and AI-enhanced learning? How do you feel about your competency/ self efficacy for using digital and AI in learning?

7. What different emotions arise when you compare your digital learning experience to traditional in-person education?

8. According to your observation, how do your friends emotionally experience digital and AI enhanced learning? How do they feel during learning supported by digital and AI tools?

9. Have you supported anyone of your friends during digital learning experience when she/he needs help? Or how do you feel about digital and AI-enhanced learning environments allow you to study collaboratively?

10. How do you feel about using digital and AI-enhanced learning in terms of Ethics? How do you use digital and AI tools in terms of ethics while you are learning? Are there ways you follow using those tools responsibly?



APPENDIX D

Interview Questions for Faculty Members

1. Which digital or artificial intelligence tools do you use in your teaching?

ChatGPT, Character.AI, Quilbolt, Midjourney, Perusall, Nearpod, Sutori, Carnegie Learning, Generative AI, Smart, Sparrow, DreamBox, Coursera, Querium, Woot Math, GradeSlam, TutorMe, OpenAI, Pearson AI, Eklavya- Auto descriptive answer evaluation, Kaltura, Duolingo, Edmentum, DocuExprt, Edmodo, Carnegie Speech, Cognii, Cognii, Virtual TA, Turnitin, Squirrel AI, Audiopen.ai, Thinkster Math, Quizlet, Descript.ai, Writely AI, Google Bard, Gamma, Grammarly, Canvas

2. According to your observations, what negative and positive emotions students experience in your teaching where you use digital and artificial intelligence tools? (before, during and after)
3. Are your students aware of their emotions and how do they regulate or manage their negative emotions in your teaching where you use digital and artificial intelligence tools?
4. How do students socially interact in your courses where digital and AI tools are used?
5. How do you observe academic performance of students in learning environments enhanced by digital and AI tools?
6. Is there any method that you adopt to increase positive emotions of students and to foster learning while you teaching with digital and AI tools?

7. 'With the consideration of making responsible decision, how do you describe your students attitudes and behaviors toward using digital and AI tools in learning?



CURRICULUM VITAE

Personal Information:

Name Surname: Dilara Maraba

E-mail (1):

E-mail (2):

Education:

2017-2022 Ibn Haldun University, Guidance and Psychological Counseling

2022-2024 Ibn Haldun University, Master Arts of Guidance and Psychological Counseling

Experience:

2022-continue Research Assistant at Department of Educational Sciences, Ibn Haldun University