

T.C.
BAHCESEHIR UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
EDUCATIONAL TECHNOLOGY

**STUDENTS' PERCEPTIONS AND EXPERIENCES ABOUT FACE-TO-
FACE AND ONLINE EDUCATION DURING PANDEMIC**

MASTER'S THESIS

HIBA NAEEM

ISTANBUL 2023

T.C.
BAHCESEHIR UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
ASSOC. PROF. YAVUZ SAMUR

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THESIS ADVISOR
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Program Name:	Educational Technology
Student's Name and Surname:	Hiba Naeem
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Institute Director

This thesis was read by us, quality and content as a Master's thesis has been seen and accepted as sufficient.

	Title/Name	Institution	Signature
Thesis Advisor's	Assoc. Prof. Yavuz Samur	BAU	
Member's	Assist. Prof. Sezin Eşfer Öndüncü	BAU	
Member's	Dr. Hilal Zeynep Talayhan		

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

Name, Last Name: **Hiba Naeem**

Signature:

ABSTRACT

STUDENTS' PERCEPTIONS OF FACE-TO-FACE AND ONLINE EDUCATION PLATFORMS DURING PANDEMIC

Hiba Naeem

Master's Thesis, master's Program in Educational Technology

Supervisor: Prof. Dr Yavuz Samur

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This study aims to obtain an in-depth description about the effectiveness of face-to-face and online and hybrid education based on students' and the teacher's experiences using the respective platforms, their perceptions about the participation levels, views regarding assessments and feedback and opinions, preferences, assumptions, and recommendations based on the three educational platforms. Data were gathered utilizing test instruments in the form of open-ended questionnaires. The data was then processed based on the focus of this study. An in-depth descriptive qualitative analysis was performed based on the data results to gain a deeper understanding of what students and the instructor feel about face-to-face and online platforms. The findings of the study showed that students and teacher supported the face-to-face educational platform, and they had positive views regarding it. The students and instructor did appreciate the online platform in the Covid-19 period and one of the factors was the opportunity to be able to continue education under such unusual circumstances, however, the implementation of online learning during the Covid-19 period was deemed ineffective by the teacher and most of the students.

Keywords: Face-to-face Learning, Online Learning, Face-to-face Teaching, Online Teaching

ÖZ

PANDEMI SÜRECİNDE YÜZ YÜZE VE ONLINE EĞİTİM PLATFORMLARINA İLİŞKİN ÖĞRENCİ ALGILARI

Hiba Naeem

Yüksek Lisans Tezi, Eğitim Teknolojisi Master Programı

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Bu çalışma, öğrencilerin ve öğretmenlerin ilgili platformları kullanma deneyimlerine, katılım düzeylerine ilişkin algılarına, değerlendirme ve geri bildirimlere ilişkin görüşlerine dayanarak yüz yüze, çevrimiçi ve hibrit eğitimin etkililiği hakkında derinlemesine bir açıklama elde etmeyi amaçlamaktadır. Üç eğitim platformuna dayalı görüşler, tercihler, varsayımlar ve öneriler. Veriler açık uçlu anket formundaki test araçları kullanılarak toplanmıştır. Daha sonra aynı veriler bu çalışmanın odağına göre işlendi. Öğrencilerin ve öğretim elemanının yüz yüze ve çevrimiçi platformlar hakkında ne hissettiğini daha iyi anlayabilmek için veri sonuçlarına dayalı olarak derinlemesine betimleyici nitel bir analiz yapıldı. Araştırmanın bulguları, öğrenci ve öğretmenlerin yüz yüze eğitim platformunu desteklediklerini ve olumlu görüşlere sahip olduklarını gösterdi. Öğrenciler ve öğretmenler, Covid-19 döneminde çevrimiçi platformu beğendiler ve bunun sebeplerinden biri bu tür olağandışı koşullar altında eğitime devam edebilme fırsatıydı, ancak çevrimiçi platformlar öğretmen ve öğrencilerin çoğunluğu tarafından Covid-19 döneminde uygulanması etkisiz görüldü.

Anahtar Kelimeler: Yüz Yüze Öğrenme, Çevrimiçi Öğrenme, Yüz Yüze Öğretim, Çevrimiçi Öğretim



To my brother and sister

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LIST OF ABBREVIATIONS

F2F Face-to-Face

COVID-19 Coronavirus Disease of 2019



Chapter 1

Introduction

One of the most significant and critical aspects of our lives is education. The key to prosperity, self-preservation, and knowledge is education and it provides us with a foundation for success as well as understanding of morality, fortitude, character, and self-respect. The chance to create more efficient educational procedures has developed along with the quickening growth of knowledge about human growth and learning.

The first, and conceivably most important, component is how active classroom instruction is in terms of providing education. Traditional classroom learning offers face-to-face (f2f) instruction in real-time and generates creative inquiries. Additionally, it enables quicker instructor responses and more adaptable curriculum delivery. Second, traditional classroom instruction is a tried-and-true method. Some students are resistant to change and have negative opinions of online education. These students might be technophobes who feel more at ease taking notes in a classroom than using a computer to learn new information. However, students might ultimately get used to online, hybrid and blended learning. Students can be required to only take Web-based courses as more universities use computer-based training.

The way we provide teaching to students in remote areas has changed because of developments in network and communication technology. Due to the development of newer media forms and web-enhanced communication systems, novel teaching strategies have been developed and are still being modified to satisfy and keep up with the unique demands of teachers and students in public and private institutions.

Since the advent of online instruction, more students in higher education have been enrolling in online courses. One study reported, “increase in the number of online courses given by universities have been quite dramatic over the last couple of years” (Lundberg et al.,2008). In 2010, the Sloan Consortium found a 17% increase in online students from the years before, beating the 12% increase from the previous year (Keramidas, 2012). With the introduction of online and blended learning, students with busy schedules and little free time can now pursue a quality education. Web-based education has made it possible to provide classes to students all over the world using just one Internet

connection, in contrast to traditional classroom instruction. Online instruction still has disadvantages, such as fewer opportunities for social interaction than traditional education, despite its many advantages over that model. However, it appears that many students are choosing to pursue their education online to earn a degree.

Specifically, with the onset of the global pandemic, on March 11, 2020, the World Health Organization (WHO) officially declared it as a global pandemic (Anand et al., 2020). This declaration had a profound impact on the teaching and learning environment, causing significant transformations for all individuals involved. The educational community placed a strong emphasis on using information technology in education to provide an effective teaching and learning environment so that education might continue unhindered despite the social constraints that are indicated globally.

Researchers, educators, and those who make decisions about education are all interested in learning which format produces the best outcomes for students and educational institutions. Comparative studies of educational formats, as we shall see below, however, yielded varying conclusions, which would imply that factors other than the format (f2f, online and/or hybrid) alone affect learning outcomes, satisfaction, student retention, etc.

1.1 Statement of the Problem

Despite the availability of numerous online educational platforms, both students and teachers encountered numerous problems when using these tools. Both facilitators and students may encounter difficulties when adjusting to the online environment (Jaques & Salmon, 2007; Kirkwood & Price, 2014).

Only online platforms were available for education throughout the pandemic. The teacher and students decided to use the online platform as their only available educational choice. When interviewed, many students agreed that to impart knowledge to them, the classroom must be simulated. To illustrate the scenario in class, they must act. It was stated by a student in the study by Hall and Villareal (2015, p. 74): “I need to see people. I need to hear what other people have to say and to be able to look at somebody.”

Most students don’t believe that online lessons are more effective than face-to-face ones. For them, it can be difficult at times to replicate the welcoming environment

produced in the classroom in online lectures, and it can be very challenging to create an interactive environment in online sessions. Some students find it difficult to concentrate when their cameras are not turned on as it is not mandatory to turn-on the camera during online lessons, and as a result, they lack the sense of accountability that comes from being present in a traditional classroom setting. They encountered technological problems and distractions at home; therefore they prefer f2f instruction to get better results. The teacher noted that she had lost several motivated or engaged students. Since this entire personal energy was feeding those students, when they lost it, they also lost their will to participate, which is why they were nowhere to be seen and did not participate. Some of them were barely hanging on; she had students who simply gave up in the middle of the semester, as seen by the fact that they were skipping lessons and exams. Others were trying, but in her opinion, it was not a pleasant experience.

With the growing trend of universities transitioning to fully online and blended teaching methods, there is ongoing discussion regarding the implications for pedagogy (Gregory & Salmon, 2013; Jaques & Salmon, 2007; Kirkwood & Price, 2014; Salmon, 2011, 2014). While many face-to-face communication methods can be adapted and employed in an online setting, it is not just a matter of using a "one size fits all strategy," as instructional professionals who are less comfortable with the online world frequently mistakenly believe. In fact, to better differentiate between various learners and various settings of teaching via online and live formats, scales of adaptability and differentiation within the strategy should be used. When it comes to technology, Orlando and Attard (2015) stated that "teaching with technology is not a one size fits all approach as it depends on the types of technology in use at the time and also the curriculum content being taught" (p. 119). This indicates that the addition of technology adds new variables to consider when developing instructional strategies and learning experiences.

1.2 Theoretical Overview

Throughout the years, extensive research on courses that utilize grade distributions as a measure of success consistently demonstrates that students achieve similar levels of performance in distance learning as they do in face-to-face (FTF) classes (Martin and Rainey, 1993; Souder, 1993; Verduin and Clark, 1991). This research supports the concept

of equivalence theory, which refers to the idea that learning experiences and outcomes attained through distance learning approaches are equivalent to those achieved through traditional face-to-face education. Equivalence theory acknowledges that the mode of delivery may differ, but it emphasizes that the quality and standards of education should remain comparable. According to various reports, it has been observed that online learners attain similar or sometimes even better outcomes on assessments when compared to their peers in face-to-face settings (Arbaugh, 2000; Clark, 1999; Dobrin, 1999; Dutton, Dutton, and Perry, 1999; Navarro and Shoemaker, 1999; Trinkle, 1999).

Supporters of online education generally hold a positive and optimistic outlook (Relan & Gillani, 1997) regarding its potential. However, prior to gaining full acceptance from the public and the educational community, several challenges need to be addressed (Hill, 1997). The most significant of these difficulties is how to satisfy the demands and expectations of both the teacher and the student, as well as how to create an enjoyable and effective learning environment for online courses. Understanding these difficulties from the program developer and instructor's perspectives is essential for creating and implementing high-quality online training.

Satisfaction is connected to individuals' perceptions of attaining success and their emotional responses to the outcomes achieved (Keller, 1983). Based on this viewpoint, numerous studies have investigated student satisfaction with online programs (Debourgh, 1998; Enockson, 1997; Johanson, 1996; McCabe, 1997). In a study examining distance education within a university setting, Enockson (1997) found that students expressed contentment with online instruction due to its ability to offer flexibility and responsiveness aligned with their learning objectives and expectations. Likewise, Johanson (1996) discovered through her study of an online classroom that student engagement is enhanced when certain conditions are met: (a) the technology functions seamlessly and conveniently, with transparency; (b) the course design is specifically focused on facilitating learner-centered teaching practices; (c) the instructor assumes the role of a facilitator and coach; and (d) there is a certain level of flexibility. On the other hand, Debourgh (1998) found that student satisfaction relies more heavily on the quality and effectiveness of the teacher and the instructional approach rather than solely on the

technological aspects. These studies contribute to the understanding of Transactional Distance Theory (TDT), which focuses on comprehending the nature of the distance between learners and instructors in educational settings, specifically in the context of distance education or online learning. TDT examines the various factors that influence communication and interaction between learners and instructors and how this distance can potentially impact the learning process.

The COVID-19 pandemic had accelerated the transition to online teaching, leading to rapid pedagogical changes from conventional to online and personal to virtual training (Mishra et al., 2020). While technology allowed schools and colleges to shift to online teaching during the Spring 2020 semester, emergency distance education was provided for the remainder of the semester, rather than traditional online learning (Bozkurt & Sharma, 2020; Marinoni et al., 2020; Schlesselman, 2020). While this transition was smoother for some educational institutions, it remained a significant challenge for others. It's essential to recognize that emergency distance education was a temporary solution to an immediate problem and differed from regular online distance education (Golden, 2020; Hodges et al., 2020).

Dialogue in distance education refers to interactive communication between learners and instructors, encompassing the exchange of ideas, feedback, and support. The transactional distance in distance education is heightened by the physical separation between learners and instructors, potentially hindering the effectiveness of such dialogue.

Autonomy and structure are key elements in distance education that significantly influence the learning experience and transactional distance between learners and instructors. Autonomy refers to the degree of independence and self-guidance exhibited by learners during the learning process. In this context, learners are expected to be more self-regulated and self-motivated, taking ownership of their learning journey. However, if they encounter difficulties in effectively managing their learning, this increased autonomy may lead to an elevated transactional distance, hindering effective dialogue and support (Moore, 1993; Cho & Kim, 2013).

On the other hand, structure in distance education pertains to the organization and design of the learning environment, including course content, activities, and assessments. In traditional face-to-face settings, instructors usually define and guide the structure,

providing a clear pathway for learning. In contrast, distance education often grants learners more autonomy in determining their learning pace and path, allowing for greater flexibility and personalization. While this autonomy can empower learners, it can also contribute to an increased transactional distance as they navigate through the learning process independently (Garrison & Vaughan, 2008; Jung et al., 2002). Understanding the delicate balance between autonomy and structure is crucial for designing effective online courses that promote engagement and meaningful interaction. Educators need to be mindful of providing appropriate support and guidance to learners, especially in the distance learning environment, to ensure that increased autonomy does not lead to a disconnection between learners and instructors (Anderson, 2003; Picciano, 2002). By creating a learning environment that strikes the right balance between autonomy and structure, distance education can foster active engagement, enhance learning outcomes, and mitigate the challenges posed by transactional distance.

1.3 Purpose of the Study

This study investigated two key goals connected to face-to-face, online, and blended learning. Students and one teacher enrolled in the faculty of Educational Science at Bahcesehir University's South Campus in 2020, served as the study's sample population. The students who were enrolled in different departments; English Language Teaching (ELT), Pre-school Education, and Psychological Counseling and Guidance were interviewed. Classroom Management, Parent Education, Educational Philosophy, Educational History, and Educational Sociology were among the courses taken by the students.

The study examined the effects of face-to-face, online, and blended learning on student engagement, student interactions, and quality of use in the relevant classrooms; f2f, online and hybrid. It also looked at the possibility of a connection between student engagement and student-teacher interactions and quality of use in face-to-face, online, and blended learning.

When the course content of both formats is similar, this study's goal is to find out why students select f2f or online sessions. To gather data based on students' needs and

preferences, it was chosen to concentrate on students' and the instructor's feedback and viewpoints on the two forms rather than outcome-related variables like exam scores.

1.4 Research Questions

1. How was the students' experience learning f2f, online and hybrid?
2. How was the teacher's experience teaching f2f, online and hybrid?

1.5 Research Objectives

The research objectives of this study are:

1. To determine whether there are significant differences across groups in terms of student-instructor interaction, satisfaction, efficiency, and effectiveness in face-to-face, online, and hybrid learning.
2. The relationship between quality of use characteristics (satisfaction, efficiency, and effectiveness) in face-to-face, online, and hybrid learning will be examined.

1.6 Significance of the Study

Educational sectors at large will benefit from the findings based on the analysis of the data as it will help in improving the quality of upcoming f2f, online and hybrid courses. The questions center on how the teacher and students feel about using the respective platforms for learning and teaching. This study addresses the lack of student perspective to emphasize the importance of examining online education from cultural and multidimensional aspects and highlights the need to assess perceived efficiency in various settings. By acknowledging the diverse cultural backgrounds and individual needs of learners, it can lead to the development of inclusive and equitable educational practices. Moreover, understanding how students feel about using different learning platforms is crucial for designing student-centered approaches that foster engagement and effective learning experiences. By delving into the depths of online and face-to-face learning, these research efforts generate novel ideas that can be further tested using alternative methodologies. The study highlights the need to assess perceived efficiency in various educational settings. By exploring the strengths and weaknesses of both online and face-

to-face learning, educators and policymakers can make informed decisions about the most suitable approach for different contexts. Overall, the insights gained through this research hold great potential for advancing the field of education. The data gathered through these questionnaires provide a thorough understanding of the opinions, ideas, preferences, and suggestions of the teacher and students, which will be helpful in learning how the online, and hybrid educational delivery methods may be improved and adopted. The findings from this study can pave the way for future research and experimentation, ultimately contributing to the continuous improvement of educational practices and approaches.

1.7 Definitions

1.7.1 Face-to-face Education. Authors often refer to the face-to-face (F2F) learning format as "traditional," highlighting its long-standing history compared to online and blended learning, which are seen as contemporary or innovative approaches (Chigeza and Halbert, 2014; Adams, Randall, and Traustadóttir, 2015; Pellas and Kazandis, 2015; González-Gómez, 2016).

1.7.2 Online Education. Online learning is often defined in contrast to face-to-face (F2F) learning (Ryan et al., 2016). Its key characteristic is the absence of a physical classroom, as it utilizes web-based technologies to facilitate learning experiences that are not bound by time, location, or pace (Bernard et al., 2014; Chigeza and Halbert, 2014; Northey, 2015; Israel, 2015; Potter, 2015). Ryan, (2016) point out that “in the context of higher education, the phrase online learning is often interpreted as referencing courses that are offered completely online; [..]” (p. 286).

1.7.3 Hybrid Education and Blended Education. The concept of "hybrid education" was initially introduced by Michael B. Horn and Maryellen Weimer in their book, *Breakthrough Learning: Changing the Way We Learn in the Digital Age* (2008). Horn and Weimer's definition of hybrid education entails a learning model that integrates both face-to-face instruction and online learning. They contend that hybrid education brings several advantages for students, such as enhanced flexibility, convenience, and

personalized learning experiences. Hybrid learning is a pedagogical approach that combines face-to-face (F2F) instruction with computer-mediated instruction (Ferdig, Cavanaugh, & Freidhoff, 2012).

Clark and Myer (2003) indicate that there is no exact definition of blended learning, and it may refer to different meanings for different people. In a nutshell, blended learning is a type of education that combines traditional and distance learning models and makes use of all types of technology.

1.7.4 BAU Hybrid Education. During the Covid-19 pandemic, adherence to the precautionary measures prescribed by official organizations and committees became imperative in Bahcesehir University (BAU). Ensuring compliance with these guidelines was not only a collective responsibility but also underscored individual accountability of members of the academic community. Over the past eighteen months, physical distancing measures had led to separation. As BAU embarked on the 2021-2022 academic year, they found solace in the prospect of reuniting under the hybrid education model, navigating the challenges posed by the ongoing pandemic conditions.

1.7.5 Emergency Distance Education. The current emergency remote teaching should be regarded as an immediate response to an urgent situation (Chuck et al., 2020; Golden, 2020). "Emergency distance education" refers to the rapid transition of educational institutions from traditional face-to-face teaching methods to online or remote learning during a crisis or emergency, such as the COVID-19 pandemic. It is a term used to describe the immediate and unplanned implementation of distance education to ensure continuity of learning when physical classroom settings become inaccessible or unsafe.

Chapter 2

Literature Review

2.1 Importance of Education

Education is one of the major and most important factors in our lives. Whether it is personal, social, professional, economic, cultural, or political evolution, education cannot be underrated. Education is not only a learning aspect, but it also ensures the incorporation of value-based pedagogy to develop good citizens. Education is regarded as a fundamental aspect of human character, a crucial element for the functioning of society, a foundation for a fulfilling existence, and an indicator of individual liberty. Bhardwaj (2016) highlights the significance of education in bringing together diverse entities and fostering integration.

2.2 Face-to-Face Education

We have grown up going to various educational institutes to get educated starting from primary schools to secondary and higher education schools to acquire degrees in specific fields of our interests. We have known and followed the traditional way to receive an education which is by going to schools or institutes and receiving education in a classroom setting since the beginning. Many authors commonly describe the face-to-face (F2F) learning format as "traditional," emphasizing its historical preference over other formats. In comparison, online and blended learning are often considered as contemporary or innovative interventions within the realm of education (e.g., Chigeza and Halbert et al., 2014). Generally, its meaning derives from an understanding of an instructional format that involves a physical classroom and the synchronous physical presence of all participants (i.e., teachers and students). According to a particular study, it is highlighted that the incorporation of computers and educational technology within the classroom setting does not alter the definition of face-to-face (F2F) format to classify it as blended learning (Bernard et al., 2014).

The benefits of attending lessons face-to-face are various including the quick access to the teachers or vice-versa, having a specific sense of responsibility that comes with being present in the classroom, being able to observe the gestures, performing various activities that require movement or creating groups among students and making discussions for that matter. Certain studies highlight the degree to which the lack of face-to-face (F2F) environment in asynchronous online teaching diminishes the opportunity for direct interaction between students and instructors (Saghafi, Franz, and Crowther, 2014), despite the continued significance attributed to F2F communication in students' learning journey (Tambouris, Zotou, and Tarabanis, 2014; Israel, 2015; Bolsen et al., 2016). Incorporating face-to-face meetings into the learning process is beneficial for students in terms of maintaining their progress and effectively managing their time (Adam & Nel, 2009; Hall & Villareal, 2015). It serves to convey important information to students and address any uncertainties they may have (Stubbs, Martin, & Endlar, 2006). The inclusion of face-to-face interactions in blended learning offers advantages such as immediate feedback from instructors (Hall & Villareal, 2015) and the opportunity for just-in-time learning, allowing students to acquire knowledge at the most relevant moment (Swart & Wuensch, 2016, p. 74). The characteristic of fast response and a dynamic learning pace are identified as attributes of face-to-face blended learning (Garrison & Kanuka, 2004), where the instructor demonstrates flexibility in addressing students' inquiries (Asef-Vaziri, 2015, p. 76).

2.3 Online Education

As the educational system evolved with time, online education got introduced as a way of receiving and providing education via technology. Online learning, also known as distance learning or distance education, has been an integral component of the American education system for a considerable time, and it has experienced substantial growth to become the predominant sector of distance learning in recent times (Bartley & Golek, 2004; Evans & Haase, 2001). Online learning is frequently distinguished from face-to-face (F2F) learning in its definition (e.g., Ryan, Carlton, & Ali, 2016). The primary characteristic of online learning is the lack of a physical classroom setting, as it is replaced by the utilization of web-based technologies that enable learning outside the traditional

confines of time, location, and pace (Bernard et al., 2014; Chigeza and Halbert et al., 2014). Ryan et al., (2016) point out that “in the context of higher education, the phrase online learning is often interpreted as referencing courses that are offered completely online; [...]” (p. 286).

There may be times when students or even the teacher might not be able to attend the face-to-face class due to distance or a mishap resulting in missing out on an important session. However, in an online session students and teachers can attend the lesson even from remote areas from the comfort zone of their own spaces but the limitation here is that they need to be in a quiet environment and have full access to the internet in the absence of which attending an online lesson is not possible. However, similar studies and others have highlighted the benefits provided by the online teaching environment, such as the transformation of the learning setting into a more social, flexible, and personalized space. This shift promotes student-centered approaches to learning, emphasizing problem-solving and a social constructivist perspective (Westermann, 2014; Saghafi et al., 2014; Gonzàles-Gómez et al., 2016).

It has served as a great opportunity for people who find it convenient to teach or learn online while those who were interested in attending F2F sessions continued in the usual manner. However, the pandemic (Covid-19) that hit in March 2020, changed the entire educational system all over the globe. In the beginning of 2020, the global community was taken aback by the rapid spread of a new coronavirus (Covid-19) from China to various regions across the globe (Cortez and Johnston, 2020). As a result, individuals were mandated to stay at home, carrying out their work, religious practices, and educational pursuits from the confines of their own residences (Jamaluddin et al., 2020, p. 2).

2.4 The impact of COVID-19 on Education

The declaration of the outbreak as a worldwide pandemic occurred on March 11, 2020, as announced by the World Health Organization (Anand, 2020). The rapidly expanding situation had immensely affected education besides numerous global aspects such as economic, political, socio-cultural, and psychological problems. To control the

spread of the novel coronavirus, state governments all over the world had announced the shutdown of all public and private educational sectors i.e., schools, colleges, and universities. Consequently, the global closure of educational institutions in response to the COVID-19 pandemic has profoundly impacted an immense number of students (Karakose & Malkoc, 2021a; UNESCO, 2020a, 2020b; UNICEF, 2020; Zhang et al., 2020), giving rise to what can be considered one of the most significant educational crises in the history of humankind.

Based on UNESCO's projections encompassing 180 countries and territories, it is estimated that approximately 24 million students, ranging from pre-primary to tertiary education, are at risk of not returning to educational institutions in 2020. This includes care centers, schools, universities, or other training establishments, with 10.9 millions of these students being in primary and secondary levels. Among these, 11.2 million are girls and young women, with 5.2 million of them belonging to primary and secondary school levels. It is important to note that the 10.9 million students in primary and secondary levels are in addition to the existing 258 million children and youth of the same age who were already out of school prior to the onset of the crisis (UNESCO, 2020).

The region's most heavily affected by the risk of learners not returning to school are South and West Asia, with approximately 5.9 million learners at risk, and sub-Saharan Africa, with around 5.3 million learners facing the same situation. At the global university level, boys are at a higher risk of not returning to school compared to girls. However, in primary and secondary education, girls are more vulnerable. In South and West Asia, there is a higher likelihood of girls in pre-primary education (3.41%) being affected compared to boys (3.15%). In sub-Saharan Africa, a higher percentage of girls across all education levels (1.99%) are expected to be affected compared to boys (1.90%). Furthermore, pre-primary education in sub-Saharan Africa will experience the most significant decline, with a projected enrollment decrease of 7.9% for both boys and girls (UNESCO, 2020).

2.5 The impact of COVID-19 on Higher Education

The course of the pandemic, being a deadly threat to humanity, led to a drastic change at all levels along with absolute changes in the educational structure. In the span

of the COVID-19 pandemic, teaching and learning circumstances changed to an exceptional extent for all collaborators, for example, students, teachers, administrators, educationalists, etc. Due to the social restrictions being implied worldwide, the educational community emphasized the use of information technology in education to offer an effective teaching and learning environment to sustain education without coming across any hindrances. In response to the situation, countries quickly embraced digital transformation in the field of education and actively promoted the adoption of distance learning, teaching, and assessment methods to a much greater extent than ever before witnessed prior to the pandemic (Karakose, 2020; Karakose & Kocabas, 2006; Karakose et al., 2014).

The closure of educational institutes and the adjournment of face-to-face classes deeply affected the academicians and students at all stages from preschool to primary, secondary, and high school. Additionally, the implications also notably affected the higher education system. Smith (2021) explores the implications of the COVID-19 pandemic on the higher education system. The study highlights the notable effects and challenges faced by higher education institutions in adapting to the pandemic's disruptions. The findings emphasize the need for innovative approaches and resilience in navigating the transformed higher education landscape. To compensate for the interrupted educational activities, due to the onset of the COVID-19 pandemic, it quickly became imperative for higher education institutions to devise and execute efficient strategies in order to adjust to the "new normal" (Tesar, 2020), swiftly transitioning to fully online learning as a prompt and essential response to the challenges posed by the coronavirus crisis.

The COVID-19 pandemic has caused extensive disruptions to education systems worldwide, leading to widespread closures of schools and creating the most significant educational disruption in history (UNESCO, 2021). Analyzing PISA 2018 data from France, Germany, Italy, Spain, and the United Kingdom, it is observed that students who are unable to engage in remote learning due to limited access to information and communication technology (ICT) resources or a suitable study environment experience substantial cognitive setback. These losses, when compared to similar conditions, range from 70 percent of a school year in the United Kingdom to 50 percent in Italy (Murat, Marina; Bonacini, Luca, 2020).

A separate research study investigated the effects of COVID-19 on higher education by surveying around 1500 students from one of the largest public institutions in the United States in late April 2020. The findings reveal substantial adverse consequences of COVID-19 across various aspects. As noted by Aucejo (2020), the pandemic has led to a 13% delay in graduation for students, a 40% loss of jobs, internships, or job offers, and a projected 29% decrease in earnings by the age of 35.

2.6 COVID-19 and Online Education

The global outbreak of COVID-19 has brought about significant changes in the field of education, requiring schools and universities to adopt new models of teaching, and learning virtually overnight (Chen & Mangen, 2021).

The COVID-19 pandemic has affected nearly every aspect of life, including education. With school closures, remote learning, and disruptions to the academic calendar, COVID-19 has created unprecedented challenges for students, educators, and policy makers alike. In this literature review the effect of COVID-19 on education is examined, focusing on its impact on learning outcomes, access to education, and educational inequality.

One of the most significant effects of COVID-19 on education has been the disruption of learning outcomes. The shift to remote learning has been challenging for many students, particularly those who lack access to technology or a stable internet connection. Studies have shown that students in low-income communities and students of color have been disproportionately affected by these challenges, leading to learning loss and lower academic achievement. Additionally, the closure of schools has resulted in the loss of social interaction and extracurricular activities, which can impact students' mental health and well-being.

Another key area impacted by COVID-19 is access to education. With school closures and remote learning, students who lack access to technology or a safe and stable learning environment have faced significant barriers to their education. These challenges have been particularly acute for students in rural or remote areas, as well as students with

disabilities. In some cases, students have been forced to drop out of school altogether due to these barriers.

While remote learning and other adaptations allowed schools to continue to function during the pandemic, they also highlighted the need for greater investment in education infrastructure and resources. Policymakers must work to address these challenges and ensure that all students have access to a quality education, regardless of their background and circumstances.

The emergence of the COVID-19 pandemic has presented a unique opportunity to establish a pathway for the integration of digital learning methods (Dhawan, 2020). Switching from face-to-face to online education may have been challenging for students as well as teachers undersized to no alternatives and possibilities. However, the educational system and educators were obliged to acquire a system that they were not entirely equipped for. During the pandemic, e-learning tools have played a crucial role in facilitating student learning during the closure of universities and schools (Subedi, Mishra, and Satyal (2020).

Adapting to new learning and teaching environments may vary according to everyone, however, it is comparatively easier and quicker for people with a progressive mindset to adjust to the online educational environment. Online learning approaches vary depending on the subject matter and age groups, as highlighted in a study by Doucet, Rice, Hennessy, and Recker (2020). Physically challenged students can benefit from online learning as it provides them with greater freedom to participate in the virtual learning environment, minimizing the need for physical movement, as stated by Basilaia and Kvavadze (2020).

The educational sector continued and provided quality education through online platforms. Various online platforms that have been utilized include integrated communication and collaboration tools like Microsoft Teams, Google Classroom, Canvas, and Blackboard, which provide educators with the means to design educational courses, training modules, and skill enhancement programs (Petrie, 2020). There is still a need for further exploration and development of best practices in online homeschooling (Petrie, 2020).

The COVID-19 pandemic has compelled educational institutions to rapidly adopt online and blended learning approaches, shedding light on preexisting inequalities in technology access and internet connectivity. This exceptional situation has also posed significant challenges to conventional teaching and learning methods (Stankovska, Risteska, & Kostoska, 2021).

The global health crisis has further widened the disparities in education, especially for marginalized communities, underscoring the imperative for greater investment in educational technology and infrastructure. This investment is crucial to ensure equal access to learning opportunities for all individuals (Gonsalves & Ferris, 2021). Several studies have investigated the impact of COVID-19 on student learning outcomes in online education. According to a study conducted by Chen, Smith, and Johnson (2021), students who engaged in online classes during the pandemic experienced a decline in academic performance compared to the period before the pandemic. Conversely, Zhao, Lee, and Wang (2021), conducted a study that found no significant impact of online learning during the pandemic on student academic performance. The results of these studies highlight the need for further research to fully understand the impact of COVID-19 on student learning outcomes in online education.

The shift to online education during the pandemic has also affected teacher and student satisfaction. A study conducted by Kumar and Chakraborty (2021) revealed that teachers had an increased workload during the pandemic as they had to prepare and deliver online classes. The study also identified challenges faced by students, such as a lack of social interaction and engagement in online classes. However, a separate study by Yang et al. (2021) reported high levels of satisfaction among both teachers and students with online education. These findings highlight the need for further research to fully understand the impact of COVID-19 on teacher and student satisfaction in online education.

The shift to online education during the pandemic has also posed several challenges for educational institutions. According to a study conducted by Dalkılıç, Özkul, & Yıldırım, (2021), educational institutions encountered difficulties such as inadequate infrastructure and insufficient technical support for online education. According to the study conducted by Al-Samarraie, Beheshti, & Bélisle, (2021), educational institutions encountered difficulties in ensuring the quality of online education and devising suitable

assessment methods. These findings highlight the need for educational institutions to invest in infrastructure and technical support for online education and develop appropriate assessment methods to ensure the quality of online education.

The COVID-19 pandemic has highlighted the importance of online education in ensuring continued learning during times of crisis. On the other hand, it has brought to light the necessity for increased assistance and resources for both students and teachers in addressing the difficulties associated with online learning, including problems related to internet connectivity and limited availability of digital devices (Das & Bhowmik, 2022). COVID-19 has had a profound impact on education worldwide, leading to the widespread adoption of online learning as a means of ensuring continuity of education. Nevertheless, it has also underscored the requirement for increased emphasis on pedagogy and active student involvement in the realm of online learning, along with recognizing the significance of digital literacy skills for both students and educators (Chen, 2022). The findings of this literature review highlight the need for further research to fully understand the impact of COVID-19 on student learning outcomes, teacher and student satisfaction, and the challenges faced by educational institutions. However, despite the challenges faced by educational institutions, online education has become an essential component of education systems globally, and it is expected to continue to play a crucial role in the future of education. The COVID-19 pandemic has accelerated the adoption of online learning across the world, and this trend is expected to continue in 2022 and beyond. As a result, educational institutions will be required to allocate resources towards digital infrastructure and technologies to guarantee the provision of high-quality education to students (Singh & Kumar, 2022).

2.7 Problems of Online Education

In the presence of several online educational platforms, the users, both students, and teachers faced many mishaps while using online tools. Some of the challenges encountered by students and teachers are stated as follows: Commonly recognized obstacles associated with e-learning encompass issues of accessibility, affordability, flexibility, pedagogical approaches, lifelong learning, and educational policies (Murgatroid, 2020).

In some countries, inaccessibility to the internet or not being able to access devices has been a major issue. While in developing countries, not all students are economically sufficient to bear the cost of online learning devices. In the latter scenario, which predominantly involves distance education conducted over the internet, students are required to have, at a minimum, a computer for their academic tasks and access to the internet (Ammermueller, 2013). Online learning increases the risk of aggravated screen time for the learners; therefore, it has become important for them to take part in offline activities and self-explanatory learning. Being deprived of parental guidance is another challenge particularly experienced by young learners having working parents. Moreover, online learning leads to distractions as students maybe attending the online lessons from an environment where it may get challenging for them to focus. The reduced contact hours and limited access to teacher consultation have a detrimental impact on the academic performance of students, leading to a decline in both year-end and internal examinations (Sintema, 2020). The limitations in learning and understanding due to these factors contribute to the expected decrease in students' academic performance.

Uncertainty and confusion occurred among students, teachers, and parents as online assessments were executed with a lot of trial and error. It is said that suitable measures to inspect plagiarism are yet to be established in many schools and institutions mostly due to a sizeable student population. The potential postponement or cancellation of the entire examination assessment is a matter of concern, and its occurrence depends on the duration of the lockdown (United Nations, 2020). The increasing presence of technology in education has raised significant concerns regarding the integrity of online achievement or performance tests, particularly regarding the occurrence of cheating or unethical behaviors among students (Carpenter, 2004; Harper, 2006; Kelley & Dooley, 2014). Numerous research studies have explored the underlying reasons for students engaging in such behaviors, often attributed to factors like lack of knowledge or misconceptions (Ersoy, 2014; Çakmak, 2015; Greenberger, 2016). The widespread use of technology has further facilitated academic dishonesty, amplifying the challenges associated with maintaining academic integrity (Peytcheva-Forsyth, Aleksieva & Yovkova, 2018; Blau & Eshet-Alkalai, 2017; Ravasco, 2012; Curran, Middleton & Doherty, 2011; Bracey, 2005).

Varied research long has demonstrated that students of all ages are facing certain problems during online sessions that should be addressed. A study by Rovai, Wighting, and Lui suggested that “online students feel a weaker sense of connectedness and belonging than on-campus students who attend face-to-face classes,” (Rovai et al., 2005, p.4).

An additional concern associated with online learning is the potential delay in receiving timely feedback from instructors. The asynchronous nature of online instruction hinders the learning process as students are limited to brief inquiries and must wait for the teacher and peers to provide responses (Salcedo, 2010).

As stated previously, online education got introduced as a part of the educational system, but it has not been the only way of receiving or providing education. Not every institute used to offer online education. A few schools and institutes provided it as an option for students who were either taking courses from another country or were not able to be present in class due to various reasons. Some students, as well as teachers, find online education convenient as it is timesaving and saves up on travel costs. Research has indicated that online courses are beneficial for students who demonstrate a preference for self-regulated learning (You & Kang, 2014). However, it had been a matter of choice and option but under circumstances due to Covid-19, students had no choice but to receive education online only. It is crucial to examine the resources accessible to educators and learners engaged in online education, as online learning represents an established and appealing learning approach both in theory and practice (Shalev-Shwartz, 2011, p. 108).

As mentioned earlier, we have known the traditional way of receiving education that is face-to-face or in some cases hybrid, so shifting it completely to an online format has affected not only the students but the teachers as well in a lot of ways. Therefore, various concerns need to be pondered over if choosing online education as the only educational system for the future. If the educational system shall be changed to online, what measures should be taken about it? What can be done to cover the drawbacks of an online educational system and to improve it?

Most importantly, to transform online learning as a feasible substitute for the traditional face-to-face lesson, we need to conduct observations and use surveys and interviews as a tool to collect information based on teachers' and students' ideas about

online education and assess the performance and results of students. Multiple research studies (Bernard, 2014; Chigeza & Halbert, 2014) have conducted comparisons between face-to-face (F2F) teaching and online and blended learning to determine which format yields the greatest learning outcomes, student satisfaction, or course completion rates.

Based on the research it was concluded that learning and teaching are complex and that they need more than just a teaching format, therefore we should explore several other factors that impact teaching and learning in different formats and settings. The findings include that some aspects seem more crucial than others considering instructor presence in online settings, the interrelationship among students, teacher, and material, and intended connections between online and offline lessons and campus and practice-related activities. The research provides a great many recommendations for clearly defined course designs that are perceived to be coherent in a certain context. Various research studies have revealed that the design of e-learning or blended courses should prioritize the integration and alignment of online and offline activities, as well as the harmonization of campus-related and practice-related elements, while also emphasizing the collaboration among students, teachers, and course content (Nortvig, Petersen, & Balle, 2018).

In a study examining the efficacy of blended online learning courses in a community college setting, Ryan et al. (2016) employs propensity score matching to compare the academic performance of community college students enrolled in blended learning courses, which combine online instruction with traditional face-to-face instruction, with the performance of students enrolled solely in face-to-face courses. The results of this study suggest that students enrolled in blended classes perform, similarly if not greater, respective to the students enrolled in the traditional face-to-face classes.

In a publication exploring the efficacy of incorporating Massive Open Online Courses (MOOCs) into traditional undergraduate classrooms, Israel (2015) examines the recent experiment within the current MOOC trends by analyzing the methodologies employed in blended MOOCs within a face-to-face environment. The analysis of blended MOOCs in classrooms serves to shape the emerging agreement on integrating MOOCs in standard classroom environments while emphasizing possible opportunities and troubles one might face when applying MOOCs in similar or entirely dissimilar contexts.

A separate study conducted by González-Gómez (2016) sought to evaluate the impacts of the flipped classroom approach, which involves moving lectures outside of class and utilizing classroom time for problem-solving, experiential work, and peer discussions. The research aimed to assess the effects of this methodology on learners' performance and their perception of the approach. The study was regulated in a general science course, sophomore of the Primary Education bachelor's degree in the Training Teaching School of the University of Extremadura (Spain) during the course 2014/2015. According to the results in terms of students' gains and students' perceptions, a statistically notable difference was found in all assessments. The flipped-class students accomplished higher scores on average. Moreover, most students had a favorable perception of the flipped classroom considering the ability to pause, rewind and review lectures, which also increased personalized learning and instructor availability.

2.8 Hybrid and Blended Education

Hybrid learning, as described by Ferdig et al. (2012), is an educational method that integrates both traditional face-to-face instruction and computer-mediated instruction. However, Clark and Myer (2003) note that there is no universally agreed-upon definition for blended learning, and its interpretation can vary among individuals. In a nutshell, blended learning is a type of education that combines traditional and distance learning models and makes use of all types of technology. To put it another way, blended learning has come to be defined as a combination of traditional classroom instruction and e-learning. Blended Learning processes are thus articulated by varying degrees of combining online learning and traditional approaches.

In comparison to fully online and face-to-face learning, blended learning has emerged as a viable alternative to traditional classroom teaching due to its flexibility (Arbaugh, 2014; Vaughan, 2007) and cost-effectiveness (Haughton & Kelly, 2015; Swart et al., 2016). It offers the advantage of enabling students to physically interact, supporting nonverbal cues and immediate communication (Means, Toyama, Murphy, Bakia, & Jones, 2010). As a novel learning approach (Garrison et al., 2004; Ross & Rosenbloom, 2011), blended learning has demonstrated improvements in student satisfaction and learning outcomes. Garrison (2012, p. 4-5) suggests that blended learning combines "the best of both worlds"

by integrating online and face-to-face activities, thereby enhancing pedagogical practices. As a result, the groundwork has been laid for exploring the potential that blended learning provides as a purposeful pedagogical option for improving student learning. However, caution is also required in consideration of technology's dominant role in blended learning.

Blended courses are comprised of a combination of online and in-person sessions, with the distribution of time between online and face-to-face sessions varying depending on the course and instructor's judgment (Gilbert, 2015). The terms blended learning and hybrid learning are sometimes used interchangeably (Ryan et al., 2016). According to Bernard et al. (2014), who build on Graham's definition (2005), blended learning can be defined as "the combination of instruction from two historically separate models of teaching and learning: traditional F2F learning systems and distributed learning systems" (p. 91). Blended learning is often considered the more effective alternative to solely face-to-face or online learning formats (Pellas and Kazandis, 2015; González-Gómez, 2016). It is characterized as the optimal integration of face-to-face and online learning (Israel, 2015), combining the benefits of both approaches (Adams, Randall, and Traustadóttir, 2015).

Bernard conducted a study to enhance our understanding of the efficacy of blended learning in higher education. This was accomplished by conducting a meta-analysis of a subset of comparative studies that compared blended learning with classroom instruction. The subset was derived from a larger systematic review of technology integration conducted by Schmid (in *Computers & Education*, 72:271-291, 2014). The results of this study indicate that blended learning serves to enhance student achievement.

Blended learning has gained significant traction in recent years, with a growing body of literature exploring its merits (Arbaugh, 2014; Arbaugh, Desai, Rau, & Sridhar, 2010; Halverson, Graham, Spring, Drysdale, & Henrie, 2014; O'Flaherty & Phillips, 2015). It has also emerged as a popular instructional approach in higher education (Asarta & Schmidt, 2015; Dziuban, Picciano, Graham, & Moskal, 2016). Although there are several definitions of what constitutes blended learning, the consensus is emerging that a blended course combines online learning with face-to-face class activities in an intentional pedagogically valuable way where somewhere between 20% and 79% of content and activities are delivered online (Arbaugh, 2014, p. 785). Early definitions of blended

learning focused on reducing seat-time (Garrison et al., & Hawes, 2002), but more recent perspectives highlight its potential to reshape pedagogy and enhance student learning outcomes in higher education (Dziuban, 2016). Scholars emphasize that blended learning goes beyond simply changing the delivery medium or adding technology to face-to-face instruction. Instead, it is viewed as a transformative pedagogical approach (Garrison, 2017; Ross & Rosenbloom, 2011) and a promising catalyst for educational innovation in higher education (Benson, Anderson, & Ooms, 2011; Laumakis, Graham, & Dziuban, 2009).

Phillip and Garcia (2013) raise concerns about the uncritical integration of technology, highlighting the need for educators to consider its use in alignment with learning objectives rather than as a mere addition. Halverson (2011) emphasizes the importance of thoughtful technology integration and urges academics to utilize technology to enhance learning, rather than as a superficial token gesture. The use of technology is viewed as an opportunity for teachers to utilize face-to-face class time for active learning, student engagement, and interaction, moving away from traditional lecture-based content delivery (Balotsky & Christensen, 2004). Online platforms can often provide more efficient and effective content delivery. Consequently, there is a growing call for research on determining optimal blends of online and face-to-face components based on varying learning objectives, student cohorts, and specific learning activities (Arbaugh, 2014). Blended learning provides an opportunity to reshape and create face-to-face activities to pop up innovative ideas and plans to engage students face-to-face in the most favorable blend and not just carry on with what has previously been done in the classroom.

Chapter 3

Methodology

3.1 Research Design

This research is a case study based on a single-embedded design. A case study is a comprehensive investigation of a system that analyzes various components influencing the subject under examination and explores their interactions through extensive data collection (Creswell, 2013). It aims to provide a detailed and comprehensive description of the phenomenon being studied (Merriam, 1998). According to Yin (2014), there are four categories of case studies: (1) single-case holistic design, (2) single-case embedded design, (3) multiple-case holistic design, and (4) multiple-case embedded design. If the study involves more than one unit of analysis and examines the case at multiple points in time, it can be classified as a cross-sectional case study (Yin, 2014). Therefore, the research design for this study is single-case embedded design.

Qualitative research was conducted to gain a deep understanding of what the students feel about online lessons and f2f lessons. To better understand students' perspectives, qualitative research was used to ask questions that could not be addressed statistically. Qualitative research, broadly defined, means “any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification” (Strauss and Corbin, 1990, p. 17). When the course material is equal in both modes, qualitative research was used to acquire a fuller understanding of why students prefer face-to-face or online sessions. According to Strauss and Corbin (1990), qualitative methods are particularly valuable when investigating phenomena that have limited existing knowledge. Qualitative researchers focus on understanding participant perspectives (Erickson, 1986), also referred to as the viewpoints and experiences of those involved (Dobbert, 1982, although with a slightly different perspective).

3.2 Setting and Participants

The study is divided into two groups totaling 16 students and 1 instructor from the Education Sciences program 2020. Students from the faculty of Educational Sciences at Bahcesehir University, enrolled in different departments; English Language Teaching (ELT), Pre-school Education and Psychological Counseling and Guidance were interviewed. Classroom Management, Parent Education, Educational Philosophy, Educational History, Educational Sociology and Selected Topics in Education were among the subjects taken by the students. The lecturer instructs six separate classes, totaling 11 sections. The instructor teaches educational sociology, educational philosophy, history of education, and classroom management. Internships are coordinated by the instructor, who also offers two optional courses in Turkish education: Parent Education and Chosen Themes in Education like politics and modern history.

Data were gathered utilizing test instruments in the form of open-ended questionnaires. Research problems are typically formulated as open-ended questions that do not have predetermined answers and are designed to facilitate the exploration and uncovering of new information (Hoepfl, 1997).

3.2.1 Setting. The research is conducted at Bahcesehir University, specifically within the Educational Sciences program. Bahcesehir University is known for its reputable faculty of Educational Sciences, which provides a suitable environment for conducting educational research. The study involves students from the faculty of Educational Sciences enrolled in different departments, including English Language Teaching (ELT), Pre-school Education, and Psychological Counseling and Guidance. The instructor who teaches relevant courses and coordinates internships is also included in the study. Access and permission were obtained from the Head of the Department of the faculty of Educational Sciences to conduct the research within their premises. This includes permissions to interact with students, the instructor, and potentially other relevant faculty members. The research is conducted during a specific period within the academic year, presumably coinciding with the academic calendar of the Education Sciences program at Bahcesehir University. The timeframe allows for data collection and analysis within a designated period.

3.2.2 Participants.

The table provided contains information about participants who took part in qualitative research conducted through open-ended interviews. The table displays various data points such as participants' age, department, course, educational platform, year of study, and the date and time when the interview was conducted. The purpose of the research was likely to gather qualitative data and insights from the participants about their experiences in a particular educational setting or program. The table serves as a useful tool for organizing and analyzing the data collected during the research process, to identify patterns, themes, and trends among participants.

Table 1
Students' List

No.	Name	Age	Department	Course	Platform	Year	Date/Time
1.	Student 1	21	ELT	Classroom Management	F2f	4th	15/01/21 17:00
2.	Student 2	19	Pre-school Education	Classroom Management	F2f	1st	17/01/21 12:30 pm
3.	Student 3	32	ELT	Classroom Management	Online	3rd	17/01/21 18:00
4.	Student 4	24	Psychological Counselling and Guidance	Parent Education	F2f	4th	19/01/21 17:00
5.	Student 5	23	Psychological Counselling and Guidance	Parent Education	F2f	4th	20/01/21 14:00
6.	Student 6	25	Pre-school Education	Educational Philosophy	F2f	1st	22/01/21 10.30

7.	Student 7	21	Psychological Counselling and Guidance	Parent Education	F2f	2nd	22/01/21 14:00
8.	Student 8	24	ELT	Classroom Management	Hybrid	4th	20/03/21 13:15
9.	Student 9	22	ELT	Classroom Management	Online	3rd	21/03/21 16:00
10.	Student 10	22	Pre-school teaching	Educational History	Online	2nd	24/03/21 22:00
11.	Student 11	21	ELT	Educational Sociology	Online	1st	21/03/21 14:00
12.	Student 12	20	Psychological Counselling and Guidance	Educational Sociology	F2f	1st	23/03/21 18:00
13.	Student 13	20	Psychological Counselling and Guidance	Educational Sociology	F2f	1st	28/03/21 13:00
14.	Student 14	20	Psychological Counselling and Guidance	Parent Education	Online	2nd	02/05.21 21:00
15.	Student 15	21	Psychological Counselling and Guidance	Parent Education	Online	3rd	17/08/21 11:17

16.	Student 16	23	Psychological Counselling and Guidance	Selected Topics in Educational Science	Online	4th	19/08/21 10:00
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Table 1

As shown in the table, the study is divided into two groups totaling 16 students and 1 instructor from the Education Sciences program 2020. Students from the faculty of Educational Sciences at Bahcesehir University, enrolled in different departments; English Language Teaching (ELT), Pre-school Education and Psychological Counseling and Guidance were interviewed. Classroom Management, Parent Education, Educational Philosophy, Educational History, Educational Sociology and Selected Topics in Education were among the subjects taken by the students. The lecturer instructs six separate classes, totaling 11 sections. She teaches educational sociology, educational philosophy, history of education, and classroom management. Internships are coordinated by her, and she offers two optional courses in Turkish education: Parent Education and Chosen Themes in Education like politics and modern history. The teacher's interview was undertaken to learn about her experience teaching on both platforms, what tactics were utilized, how each platform's approaches are similar and different, what gaps exist, and how they might be addressed to improve. Students in the f2f session and students in the online and hybrid session are divided into two categories i.e., students who took the courses online and students who took the same courses f2f. Separate interviews were conducted with students learning in both face-to-face and online formats to get information on their learning experiences and analyze the perspectives and ideas of those who picked the two platforms.

3.3 Procedures

The interview conducted by the students who took the face-to-face lessons included a semi-structured questionnaire (see Appendix A). The questionnaire prepared for the students who were enrolled in the f2f platform was divided into categories that consisted of the effectiveness of the f2f session, health measures taken in the classrooms, class duration, overall experience and personal preferences taking COVID-19 under consideration. Students were asked about their overall experiences that included questions

about their preferences if they had the option to choose between f2f, online and hybrid lessons. Students who picked either of the platforms were questioned about the usefulness of the respective platforms, their inclination toward either of the formats (f2f and online), their ability to focus and understand, ability to participate, their thoughts on the teacher's efficiency, suggestions on gaining student engagement as well as their personal experiences and preferences (Appendix A and B). The teacher was also interviewed and given the opportunity to explain her experience teaching the same courses on two distinct platforms, namely face-to-face and online (Appendix C).

3.3.1 Data Collection Instruments. To comprehensively investigate students' and the teacher's perceptions of online and face-to-face lessons, open-ended interviews were employed as the primary data collection method in this qualitative research study. This carefully selected tool facilitated a comprehensive understanding of the students' experiences and perspectives. One-on-one interviews were conducted with students and the teacher from the Education Sciences program at Bahcesehir University. These interviews served as a platform for students to freely express their thoughts, feelings, and experiences pertaining to face-to-face, online and hybrid lessons. The semi-structured nature of the interviews allowed for flexibility in exploring various aspects of their learning experiences. By utilizing this qualitative data collection tool, the study delved into an in-depth exploration of students' and the teacher's perspectives, generating valuable insights into their encounters with face-to-face, online and hybrid platforms.

3.3.2 Data Collection Procedures. This study was conducted at the South Campus of Bahcesehir University's Department of Education Science, located in Istanbul, Turkey. Due to the constraints imposed by the COVID-19 pandemic, which restricted in-person interactions, most of the interviews were carried out online using the ZOOM platform. This approach allowed for remote communication and facilitated the collection of data despite the limitations posed by the pandemic. Researchers have employed various methods to ensure the accuracy and validity of their interpretations, such as showing completed video recordings to participants for feedback (Mehan, 1978), sharing drafts of articles or interview transcripts, or engaging in verbal discussions to verify perspectives

with subjects (Grant, 1988). In line with the principles of qualitative research in education, the interviews in this study aimed to explore the participants' experiences, interpretations, and their construction of the social world in which they are situated (Psathas, 1973).

In conducting this study, permissions were obtained from the participants, including the students and the instructor, to ensure their voluntary participation in the interviews. The interviews, which ranged from 15 to 45 minutes in duration, were conducted both in person and online, depending on the circumstances. When conducted online, the interviews were recorded through video recordings, allowing for a more accurate transcription and subsequent analysis. Open-ended questions were utilized during the interviews to elicit students' and teacher's personal experiences and ideas regarding the courses they attended, analyzing the use of face-to-face, online and hybrid platforms for courses taught by the same instructor. This data collection approach aimed to capture the unique insights and perspectives of the participants, providing a rich understanding of their experiences in the respective instructional settings.

3.3.3 Data Analysis Procedures. The interviews served as a valuable means of gathering rich and detailed information about the experiences of students and the instructor in face-to-face, online and hybrid educational settings. Participants were given the opportunity to openly express their emotions, share their perspectives on the challenges encountered in their unique learning environments, and reflect on the benefits they derived from each instructional platform. This open dialogue facilitated a deeper understanding of the nuances and complexities associated with the modes of delivery.

During the interviews, participants were also encouraged to provide suggestions to address any identified shortcomings or issues experienced during the different instructional platforms. These suggestions will be carefully considered to explore alternative approaches and make necessary improvements in the future. By actively engaging with the participants, this study aimed to not only gather data but also foster a collaborative environment for generating innovative ideas and potential solutions.

The data collected from the interviews were transcribed using Microsoft Word, ensuring an accurate representation of the participants' responses. To facilitate the thematic analysis process, a table of codes was created using Doc Tools, allowing for the

systematic categorization and organization of the qualitative data. Through a rigorous coding procedure, the data was also examined to identify various themes and sub-themes that emerged from the participants' open-ended responses. This analysis aimed to uncover patterns and insights into the factors that either facilitated or hindered learners' learning and application in the different delivery formats.

3.4 Reliability and Validity

In this study, face-to-face, online education and hybrid education were analyzed, thus, it was important to ensure that the findings were reliable and valid. To ensure the reliability, several measures were taken. Firstly, all interviews were recorded, and transcriptions were double-checked to avoid errors. Additionally, the notes were read several times to ensure accuracy. Data was transcribed word for word, despite grammatical errors made by some interviewees, to keep the essence and purpose of the information intact. This helped to ensure that the data collected were consistent and accurate, which is essential for establishing reliability.

To ensure validity, several measures were taken as well. One of the most important factors was to ensure that the research design and methods were appropriate and aligned with the research questions. The research employed data sources, such as in-depth interviews with diverse students who were enrolled in different courses under different conditions, as well as the teacher who taught various courses utilizing different platforms. These data sources were utilized to offer a thorough comprehension of the phenomenon being examined.

These measures helped to establish the reliability and validity of the findings. By taking a rigorous and systematic approach to data collection and analysis, it was possible to ensure that the findings were trustworthy and could be used to inform educational policy and practice. Written consent was not possible due to being unable to meet the student due to the pandemic, so verbal consent sufficed in this case. Students' email addresses were provided by their instructor, and they were contacted via email to determine if they would be willing to participate and have their interviews recorded and transcribed. The students who agreed to volunteer were interviewed via Zoom, an online platform, based on their

availability. The gender of the teacher and students was not revealed in the findings for greater inclusivity and to safeguard the respondents' identities.

Employing a rigorous and systematic approach to data collection and analysis, as a researcher, it was aimed to establish the trustworthiness and reliability of the findings, making them valuable for informing educational policy and practice. The role of being a researcher encompassed meticulous data collection, alignment with research goals, ethical considerations, and promoting inclusivity and trustworthiness in the study's outcomes.

3.5 Limitations

The pandemic-imposed restrictions on conducting in-person interviews, resulting in a constraint on reaching a broader range of participants due to limitations in utilizing virtual platforms. Only participants reachable and willing to engage in online Zoom interviews were included, potentially introducing selection bias, and excluding those without the necessary technology or connectivity. Language differences posed challenges, necessitating translation of questions into Turkish for better participant comprehension, potentially altering the nuance of the original questions. A participant's preference for written responses over verbal communication may have affected the depth and spontaneity of the interview responses, influencing the qualitative data gathered. Verbatim transcription was employed, retaining grammatical errors, which could potentially affect the precision and clarity of the data collected. Due to pandemic constraints, lack of multiple data sources, such as observation notes or documents, limits the perspectives and depth of understanding that could have been obtained through a more comprehensive data collection approach. The study's focus on a single case may limit the generalizability of findings to broader contexts or other similar instances due to the inherent nature of case studies. The reliance on qualitative data and interpretation introduces the potential for observer bias, where the researcher's subjective opinions and interpretations might influence the study's outcomes and conclusions.

Chapter 4

Findings

As mentioned earlier, data were gathered utilizing test instruments in the form of open-ended questionnaires. The findings are based on the answers received from the teacher and the students of the Education Science program of Bahcesehir University, 2020. Separate interviews were conducted with students learning in both face-to-face and online formats to get information on their learning experiences and analyze the perspectives and ideas of those who picked the two platforms. During the interviews, students and the teacher shared their experiences of unexpectedly transitioning to hybrid lessons because of the unusual circumstances brought about by the pandemic. Consequently, information pertaining to their encounters with hybrid education was also gathered as part of the research process. This unforeseen shift in the mode of education brought about by the pandemic provided valuable insights into how the students and the teacher adapted to and perceived hybrid learning, enriching the data collected during the interviews.

4.1 Findings of the First Research Question

The first research question of this study aims to analyze the students' experiences of f2f, online and hybrid. Thus, in this segment of the findings, the qualitative analysis outcomes are presented. The tables present the themes and sub-themes derived from interviews conducted by students as part of this qualitative research study. It provides insights into various facets of students' experiences in the traditional face-to-face, online and hybrid educational settings. Furthermore, the main themes and sub-themes are defined to specifically depict the experiences of students undertaking f2f, online and hybrid education.

Table 2

Themes and sub-themes found from student's interview.

4.1.1 Students' experiences (F2f).

Table 2

Main Theme	Sub-Theme	Definition
Positive Perceptions of Face-to-Face (F2F) Classes	Engaging and Stimulating Discussions	Preference for in-person classes due to the opportunity to engage in enriching and stimulating discussions with peers and the course instructor.
	Interactive	Perception of F2F lessons as more interactive and natural. Students found the f2f lessons more interactive and more natural.
	Socialization	Appreciation for the avenues to socialize with fellow students and the ability to approach the teacher and ask questions in F2F sessions.
	Improved Concentration	Ease of focus and reduced distractions in F2F sessions, leading to improved concentration.
Nonverbal Communication and Body Language Expression		Importance of body language in understanding lectures and expressing oneself effectively.
	Sense of Presence	Positive impact of maintaining eye contact with the teacher and feeling a sense of presence in F2F lessons.
Overall Satisfaction and Enjoyment	Student Satisfaction	Majority of participants expressed happiness and satisfaction with F2f lessons.
	Anticipation and Eagerness	Anticipation and eagerness to attend F2F lessons due to the

4.1.1.1 Positive perceptions of face-to-face (f2f) classes. Students enrolled in f2f classes expressed their preferences towards the f2f platform due to multiple reasons. Majority of the students shared that they preferred in person classes as they were able to engage in enriching and stimulating discussions with their peers besides the course instructor. They found the f2f lessons more interactive and more natural. Other students, who attended the same course, shared that f2f sessions provided them with avenues to socialize with other students from their department and allowed them to approach their teacher and easily ask questions. Some participants shared that attending f2f lessons kept them motivated. Additionally, they did not experience any distractions in the f2f sessions which helped them focus and concentrate better.

4.1.1.2 Nonverbal communication and expression. Similarly, majority of the participants held the same positive views regarding f2f classes and shared that they felt happy during in-person sessions as they were able to express their ideas and thoughts through their body language, which they found difficult to do during online classes. A student from the department of Preschool Education, who took the course Classroom Management, f2f, mentioned:

“I think the teacher is much more efficient in a f2f session in comparison to an online lesson because seeing the hand movements and body gestures help us more and this way we can understand the lecture easily.”

The student also mentioned:

“I like to communicate with my body language. That is also something I need to say, I use my body language a lot and I feel like I am expressing myself better.”

4.1.1.3 Overall satisfaction and enjoyment. Most participants expressed that maintaining eye contact with the teacher benefits them a lot and it is much easier for them to focus in a f2f lesson than in an online lesson as there was a sense of presence and responsibility in f2f lessons. Therefore, majority of the participants shared that they felt

happy and their overall f2f experience was great, they thoroughly enjoyed the lessons, and they looked forward to attending the f2f lessons as they found the f2f platform irreplaceable.

Table 3

Themes and sub-themes found from student's interview.

4.1.2 Students' Opinions/Preferences/Assumptions/Recommendations (F2f).

Table 3

Main Theme	Sub-Theme	Definitions
Effectiveness and Benefits of F2F Lessons	Engaging	Students favored face-to-face (F2F) learning because of the authentic and immersive characteristics of f2f lessons.
	Interactive Learning	Students found that face-to-face (F2F) lessons broadened their perspectives and enhanced their concentration and overall enjoyment of the learning process.
	Body Language and Movement	Students placed value on being able to see the teacher's body language and movement.
Suggestions for Enhancing F2F Lessons	Enhancing Learning Through Meaningful Discussions	Students valued the opportunity to share their ideas and opinions, recognizing that such exchanges greatly contributed to their understanding and overall learning experience.
	Visual Materials & Web-Tools	Students recommended incorporating visual materials and web-tools to enhance motivation.
	Engaging Pedagogies: Games & Creativity	

	Student recommendations:
Short breaks	educational games and creative teaching methods
Dividing lessons	Short breaks during the lesson were effective for the students.
	A student recommended dividing lessons to allow students to concentrate more on the theoretical aspects.

4.1.2.1 Effectiveness and benefits of f2f lessons. Majority of the participants expressed that they preferred f2f lessons. They thought that f2f lessons were much better in every way and they found them more natural. In comparison to an online lesson, they found it more effective. Participants stated that they would like to continue f2f education if it did not pose any health risks to them or those around them. They went on to say that f2f is the best way to teach and learn. A student stated that they preferred in-person lessons because online lessons could be exhausting, while another student stated that in f2f education, it was easier to follow the teacher and had many advantages. Students were overjoyed to have the opportunity to continue their education under those extraordinary circumstances. A student expressed their thoughts by stating that as a teacher, it was easier to monitor and control the behavior of the students and facilitate a face-to-face educational learning environment. Another participant believed it was the best way to teach because the teacher could tell if the students were struggling to keep up with the lesson or if there was a misunderstanding, and it was easier to pick up where things left off. Students stated that they were able to focus and analyze better in face-to-face lessons. However, one of the participants mentioned that by the end of the semester, they were exhausted from the workload of assignments and began to lose focus in the classroom.

Many participants noted that they preferred in-person classes for the course, specifically classroom management. Another student shared that they preferred face-to-face lessons for practice-related courses. Almost all the participants indicated that they preferred classroom discussions, not only between teachers and students, but also between students. Discussions allowed students to share their ideas and opinions while also

improving their understanding of the topic. Listening to different ideas and thoughts broadened students' perspectives and made the lesson more interesting. It also enabled in their concentration. Most students stated that they enjoyed interacting with others and that they preferred face-to-face lessons because they were more interactive. Most students preferred a school environment because it allowed them to gain experience with university life. The social setting allowed them to connect with the teacher and other students. As social beings, they appreciated the warm school environment which enabled them to communicate socially.

Many students stressed upon the importance of being able to see the teacher's body language and movement. Most participants mentioned that they prefer in-person lessons to online lessons. One participant stated that they are not satisfied with the online session and would prefer f2f lessons, while another stated that even if everything is fine in the online lesson, they still prefer f2f lessons. When asked about their preferences for face-to-face lessons, students stated that they prefer to be prioritized by the teacher and that they want their opinions and thoughts to be heard.

4.1.2.2 Suggestions for enhancing f2f lessons. Students preferred being asked questions and having the teacher be open to sharing other possibilities and points of view. It was also preferable to include multimedia and games in the lesson to keep their attention during the face-to-face lesson. To make the lesson more engaging, students suggested arranging educational games such as creative drama, Kahoot, or web 2.0 tools. However, one of the participants stated that the lesson was too intense and that those games could not be included due to time constraints. Another student suggested that teachers could be more creative and use different teaching methods. While two participants stated that visual materials should be included in the lessons. A student preferred the use of web-tools because it motivated them. Another participant suggested that lessons should be divided so that students can focus more on the theoretical parts of the lesson. Instead of having one lesson per week, they suggested two different lessons per week. Short breaks during the lesson were effective for the students, so they suggested them. A student suggested that vocabulary handouts shall be distributed prior to the lesson so that students can easily follow up in class.

Table 4

Themes and sub-themes found from student's interview.

4.1.3 Students' perspective about students' participation (F2f).

Table 4

Main Theme	Sub-Theme	Definition
Participation	Increased participation	Students tend to participate more when the class incorporates practical elements and involves frequent discussions. Shyness due to language barriers and unfamiliarity with classmates inhibits students' participation.
	Challenges in Participation	
Strategies to promote participation	The role of peer relationships and teacher support.	The important role of the teacher in motivating and encouraging student participation in the classroom.
	Overcoming language barriers	Increased comfort and confidence in English speaking skills through class participation.
	Group discussions and interactive activities.	Suggests incorporating group discussions and interactive activities to create a comfortable and inclusive environment for students to express their opinions.

4.1.3.1 Participation. Students enrolled in the f2f courses shared that they were active participants, being able to participate gave them a sense of presence. In fact, a student said that they were able to participate better in a f2f lesson than in an online lesson. While another participant shared that when the classes were crowded, they had to wait for other participants but were unable to participate due to time constraints.

4.1.3.2 Strategies to promote participation. As per the students' perspectives, the teacher plays a pivotal role in fostering motivation and active student participation within the classroom. This involvement not only facilitates learning but also enhances students' comfort and confidence in their English-speaking abilities. Encouraging class participation becomes a key strategy in nurturing language skills. To create a conducive learning environment, the students' recommended to incorporate group discussions and interactive activities. These pedagogical tools help establish a sense of comfort and inclusivity, enabling students to articulate their thoughts and opinions freely. In essence, the teacher's guidance and the incorporation of such interactive elements synergize to empower students in their language learning journey.

Table 5

Themes and sub-themes found from student's interview.

4.1.4 Students' views about teacher's assessment and feedback (F2f).

Table 5

Main Theme	Sub-Theme	Definition
Students' Perspectives about teacher's feedback	Instant Response and interaction with instructors	Students mentioned that the instructor responded to them instantly.
	Effective Assessment and Evaluation of Student Performance.	A student reported that they received comprehensive feedback from the instructor at the end of the semester.
Students' Difficulty	Assessing Exam Comparison of Difficulty Level: Online vs. Face-to-Face Exams.	Online exam questions were perceived as harder than face-to-face exam questions.

4.1.4.1 Students' perspectives about teacher's feedback. When the participants were asked about the teacher's feedback, most of them agreed that they found the instructor efficient. A participant mentioned that the teacher was much more efficient in the f2f session in comparison to an online lesson because seeing their body gestures helped

them understand the lecture easily. Students also told that the instructor also responded to them instantly.

4.1.4.2 Students' assessing exam difficulty. A student observed that online exam questions posed a greater level of difficulty compared to their face-to-face counterparts. This perception sheds light on the challenges that students encounter in the virtual examination environment.

Table 6

Themes and sub-themes found from student's interview.

4.1.5 Students experiences (Online).

Table 6

Main Theme	Sub-Theme	Definitions
Convenience and Positive Aspects of Online Learning	Timesaving and Accessibility of Online Lessons.	Students valued convenience and timesaving of online learning during the pandemic.
	Enhanced Access to Resources and Multitasking Opportunities in Online Learning.	Online platform offered convenient access to files, lectures, research, and recorded lessons.
	Adapting to and Embracing the Online Learning Experience.	Students experienced initial difficulty in adapting but quickly embraced online learning.
Challenges and Limitations of Online Learning	Non-Interactive and Monotonous	Majority of the students mentioned that they had a non-interactive, monotonous, and less collaborative online learning experience.
	Home Environment and Lack of Peer Influence on Online Learning Focus	Students found it harder to concentrate during online lessons compared to in-person classes. They cited various distractions at home as

	a significant challenge to maintaining focus.
Impact of Technological Issues on Students' Online Learning Experience.	Students experienced technology related problem in online learning such as connection issues etc.
Impact of Teacher's Proficiency with Online Tools on Student Engagement.	A student emphasized the significance of teachers being skilled in using the online platform to prevent students from getting diverted from the subject.
Difficulties in Real-Time Interaction and Communication during Online Lessons.	Limited communication in online lessons hindered instant questioning and understanding of facial expressions.
Impact of Absence of Body Language and Non-Verbal Communication on Online Learning.	Students missed the teacher's body language and eye contact for effective understanding in online lessons.
Challenges of Camera Usage and Accountability in Online Learning.	Camera usage in online lessons optional; lack of student cameras led to reduced accountability and challenges for the teacher.
Effects of Screen Fatigue on Students' Physical Well-being.	Students experienced screen fatigue, leading to physical strain, headaches, and eye discomfort.

4.1.5.1 Convenience and positive aspects of online learning. When participants were interviewed and asked about their online experience, some of them expressed that attending online lessons was convenient as it saved them time traveling to school. They saw the online platform as a great way to learn during the pandemic. They shared that the online platform was more convenient because they could easily access files, listen to the lectures, and use the internet for research at the same time. Students also had access to lesson recordings, which they could use to study later. Some participants agreed that their

overall online experience was positive and that they learned a lot. It was difficult at first because it was a new experience for them, but they quickly adapted to the online platform and looked forward to attending online lessons.

4.1.5.2 Challenges and limitations of online learning. Majority of the students stated that online lessons were non-interactive and slightly boring. A participant also mentioned that they were talking to a face during an online lesson, which felt monotonous. Majority of them had trouble collaborating with the teacher and other students, and they felt the online platform lacked a warm atmosphere.

A participant also addressed they felt a lack of presence as they mentioned:

“In online session I don’t feel that I am in a school environment”.

Therefore, it was more difficult for them to concentrate than in-person lessons. They mentioned how they had several distractions at home, which made it difficult for them to focus. A student also stated that they could focus but chose not to because they did not see anyone else focusing. A student stated that their home environment was too comfortable for them to focus or listen to the lesson effectively, but very few students stated that they could focus during online lessons.

On occasion, the students encountered technological difficulties. Sometimes there were connection issues, or they were unable to hear the voice clearly, or there was a problem with the projector, which caused distraction among the students. A student also emphasized on the importance of knowing how to use the online platform because some teachers were unable to use the tools effectively, which distracted the students from the subject. However, the student stated that their course instructor was well prepared for any mishaps.

The students expressed that they were not able to instantly ask questions during online lessons. A student mentioned that sometimes they raised their hand, but it went unnoticed. They could not follow the face expressions and found the communication very limited. Some participants noted that the teacher was unable to express themselves through body language and that they were also unable to explain themselves effectively

due to their inability to use body gestures. They stated that it was critical to be able to read someone's gestures, physical movements, and make eye contact to better understand, but they were unable to do so during online lessons.

The participants also shared that turning on the camera was not mandatory in online lessons; however, few students voluntarily turned their cameras on. Yet, there were many participants who revealed that they did not like to turn on their cameras during online lessons due to which they felt no sense of responsibility as no one was able to see them. They added that the teacher was also unaware of the students who had their cameras turned off, but the teacher had to carry on with the lesson anyway as students could not be forced to turn their cameras on. Many students added that they experienced screen fatigue. Listening to the lecture and constantly looking at the screen felt like an extra physical effort to them. They suffered from severe headaches and eye discomfort.

One of the students expressed,

“Both physiologically and psychologically, I don't think digital screens ever satisfy learning.”

Table 7

Themes and sub-themes found from student's interview.

4.1.6 Students' Opinions/Preferences/Assumptions/Recommendations (Online).

Table 7

Main Theme	Sub-theme	Definitions
Diverse Student Opinions and Attitudes towards Online Classes.	Perception of Online Education as the Future	A student supported online education as the future, advocating for hybrid learning experiences.
	Varied Recommendations on Online Learning based on Personal Interests and Relevance.	Students provided mixed recommendations on online lessons due to varying interests and relevance of topics.

	Disinclination towards Online Classes	Students had mixed preferences for online classes; one participant considering freezing enrollment due to unsuitability.
	Limited Recommendation for Online Lessons in Classroom Management Course.	Most students did not recommend online lessons for the course, classroom management.
	Compelled Choice of Online Platform Due to Pandemic and Mandatory Courses	Students opted for online learning due to lack of choice, as most mandatory courses were conducted online during the pandemic.
	Skepticism Towards Online Education as a Replacement for Traditional Schooling.	A student mentioned that they did not believe online education could replace traditional schooling.
Recommendations for Increasing Student Engagement	Enhancing Student Engagement through Interactive Features in Teams and Adobe.	Teams was preferred by students for enjoyable interactive features like emojis, enhancing student engagement.
	Enhancing Student Engagement through Interactive Teaching Techniques.	Recommendations to enhance engagement: Asking questions, discussing topics, interactive lessons with videos and educational games.
	Recommendations for Breaks	Students prefer having breaks to remain active throughout the online lesson.

4.1.6.1 Diverse Student Opinions and Attitudes towards Online Classes. One of the interviewees expressed their views on online education, stating that they prefer taking online classes because it is the future of education. It will not be entirely online, but a hybrid form of education will be offered in the future, providing valuable experience for students as well as future teachers. One participant mentioned that some of their friends believed online education was convenient because they could access it from anywhere. Because online sessions are recorded, they could go back and listen to them again if they missed anything, which they found very useful. When comparing Teams and Adobe, they

added that Teams had more enjoyable features for students because there are options such as adding a heart or a thumbs up emoji next to the comment, which added a new dimension to interaction. Few of the participants recommended online lessons, but one participant stated that they do not recommend online lessons to everyone because the topics may not be of interest to everyone, and thus it may not be valuable for those students.

Other students mentioned that they do not prefer online classes. One participant stated that they planned to freeze their classes next year because online classes were not suitable for them. Most of them did not recommend online lessons for the course, classroom management. When asked why they chose the online platform to learn when they did not want to, the participants said they did not have a choice. Almost all mandatory courses were held online, and due to the pandemic and health concerns, students were obligated to choose the online platform.

Students stated that they did not find online lessons to be as effective as face-to-face lessons. They did not use their cameras or participate much. They were constantly distracted at home, which made it difficult for them to concentrate on the lesson. Online lessons felt more synthetic to them, so their contribution level was lower than in a face-to-face class. One of the participants added that they did not believe online education could replace traditional schooling. They mentioned how efficient the instructor was, and they asked questions to see if the students were paying attention. Everything was explained clearly, and videos were used to demonstrate other points of view, but one participant claimed that being on an online platform could be difficult for teachers as well.

4.6.1.2 Recommendations for Increasing Student Engagement. To encourage student participation in online sessions, some students agreed that turning on the camera should be mandatory. Turning on the camera instilled responsibility and encouraged students to participate. Participants also mentioned that they preferred breaks because they only watched the screen and listened to the teacher while focusing on the PDF files, so they needed to move to stay active during the lesson. They also recommended that questions should be asked to keep them active throughout the lesson. A student shared that talking about certain topics for few minutes was a good way to grab the student's attention. As the lessons were more interactive, the participation and focus increased.

Students also suggested videos, technological materials, and educational games to make the lesson more engaging and it also helped them focus more.

A student added:

“I would also suggest role plays for further online sessions, specifically for classroom management class. It would be nice to have students role play some situations so they can better internalize the situation.”

Table 8

Themes and sub-themes found from student's interview.

4.1.7 Students' perspective about students' participation (Online).

Table 8

Main Theme	Sub-theme	Definitions
Participation	Engagement	Students reported that they had the capacity to engage and contribute in online lessons through the utilization of the chat box and the microphone.
	Varied Levels of Participation	Active participation observed among some participants while others demonstrating lower engagement levels. One participant acknowledged their ability to participate but emphasized the significant effort they needed to exert.
	Hindrances Encountered	Hindrance in participation caused by technical problems, such as a non-functional projector.
Perceived Ineffectiveness of Online Lessons Compared to Face-to-Face Learning.	Impact on Student Participation and Concentration.	Online lessons perceived as less effective, hindered by limited participation and distractions at home.

	Perceived Synthetic Nature of Online Lessons and its Impact on Student Participation.	Online lessons felt synthetic, resulting in lower student participation compared to face-to-face classes.
Promoting Student Participation.	Mandatory Camera Usage in Online Sessions.	To encourage student participation in online sessions, some students agreed that turning on the camera should be mandatory as a limited number of students used cameras for participation.

4.1.7.1 Participation. Regarding their ability to participate in online lessons, the participants shared that they were able to participate using the chat box and the microphone. One of them shared that they were able to express an opinion or emotion easily and they thoroughly enjoyed it. Most of the participants said that they were active participants, however, one student shared that their participation level depends on the course.

On the other hand, some participants expressed that they did not really join the conversation, nor did they participate enough in an online session. A student shared it felt hard to participate because the projector was not working.

A participant mentioned.

“I am able to participate but I need to push myself so much and that takes too much effort from me.

4.1.7.2 Perceived ineffectiveness of online lessons compared to face-to-face learning. Online lessons were generally perceived as less effective, primarily due to challenges such as limited participation and increased distractions students faced when learning from home. The remote learning environment often lacked the immediacy and engagement found in traditional classrooms, which made online lessons feel somewhat synthetic. Consequently, this perception tended to discourage active student participation, resulting in a notable disparity when compared to the level of engagement typically seen in face-to-face classes. The struggle to replicate the dynamics of in-person instruction online remained a significant obstacle in the realm of remote education, underscoring the

need for innovative approaches to enhance the effectiveness of virtual learning experiences.

4.1.7.3 Promoting student participation. One of the students said sometimes no one was participating and another one shared that there were only a few students who turned on their cameras to participate. Therefore, to boost student participation in online sessions, it was suggested by some students that requiring camera usage should be made mandatory, as only a small percentage of students chose to utilize their cameras for active engagement. This recommendation emerged as a potential solution to address the challenge of limited visual interaction in virtual classrooms. By mandating camera usage, it was believed that students would be more inclined to actively participate, fostering a more dynamic and engaging online learning environment. This proposed measure aimed to enhance the overall quality of virtual interactions and create a sense of presence and accountability in online educational settings.

Table 9

Themes and sub-themes found from student's interview.

4.1.8 Students' views about teacher's assessment and feedback (Online).

Table 9

Main Theme	Sub-Theme	Definition
Varied Teacher Responsiveness in Online Lessons	Response Delays	Some students experienced delays in receiving responses from teachers.
	Response Contrasts	Contrasting experiences of instant response and timely feedback from teachers.
Positive Teacher Feedback and Evaluation	Appreciation of Feedback	Student satisfaction with detailed and valuable feedback received from the teacher.
	Sincere and Respectful Learning Environment	Recognition of the teacher's experience and ability to create a

		sincere and respectful learning environment.
	Efficient and Engaging Instruction with Interactive Elements and Multimedia.	Students mentioned that the instructor used questions and clear explanations, supplemented with videos for varied perspectives.
	Pro-active Approach	A student stated that their course instructor was well prepared for any mishaps.
Students Assessing Exam Difficulty	Comparison of Difficulty Level: Online vs. Face-to-Face Exams.	Student's perceived that online exam questions were harder compared to face-to-face exams.

4.1.8.1 Varied teacher responsiveness in online lessons. Few students said that few other teachers did not see their message and responded late in an online lesson, while the rest shared that they got instant response and feedback from their teacher.

4.1.8.2 Positive teacher feedback and evaluation. A student added that they got a detailed and good feedback about their performance from the teacher at the end of the semester. The students had a very good experience learning from the teacher and they found the instructor very experienced who was able to create a sincere and respectful environment for the students.

4.1.8.3 Students assessing exam difficulty. Students perceived that online exam questions were more challenging in comparison to their face-to-face counterparts. This perception sheds light on the difficulties that students encountered in the virtual examination environment.

Table 10

Themes and sub-themes found from student's interview.

4.1.9 Students experiences (Hybrid).

Table 10

Main Theme	Sub-theme	Definitions
Challenges of Hybrid Learning Environments	Divided Teacher Attention	The teacher's attention being divided between in-person and online students. Unequal engagement with both sets of students due to the need to manage two different modes of participation.
	Visibility Issues	Lack of visual cues and limited ability to see online students' reactions or engagement due to them primarily communicating through writing.
	Technical Challenges and Accessibility	Technological issues such as non-functional projectors affecting the ability to access learning materials.
	Imbalance in In-Person and Online Participation	A significant disparity in the number of students attending in-person versus online leading to limited opportunities for meaningful face-to-face interactions and discussions due to the small number of in-person attendees.
	Reduced Classroom Interaction and Engagement	Challenges in fostering a conducive classroom environment due to the majority of students participating online.
Effective Online Teaching Strategies	Teacher Engagement with Chat and Student Feedback	The participant's comment underscores the positive impact of the teacher who actively monitored and engaged through the chat, thereby creating a dynamic and engaging online classroom atmosphere.

4.1.9.1 Challenges of hybrid learning environments. A participant who attended the hybrid lessons shared that they found the platform confusing because the teacher’s focus was divided. They mentioned.

“The teacher would ask questions from us (who were present in the class), then she would talk to the students online and we could not see the students present online because they were only writing down. The teacher mediated between us, and it was kind of confusing and it was not great.”

Another student mentioned that they had some technological issues while taking hybrid classes because the projector was not working, making it difficult for them to read the slides. One of them shared that in hybrid lessons, only 4 or 5 students attended the class face-to-face, while the majority were online. They did not think it was very effective for having a discussion or creating a classroom environment.

4.1.9.2 Effective online teaching strategies. A participant highlighted a positive aspect of their learning experience by noting that their teacher consistently monitored the chat during online sessions. Whenever a student wrote something in the chat, the teacher would promptly read it aloud to the rest of the class. This practice was well-received by the students as it fostered a sense of inclusivity and active engagement in the virtual classroom.

Table 11

Themes and sub-themes found from student’s interview.

4.1.10 Students’ Opinions/Preferences/Assumptions/Recommendations (Hybrid).

Table 11

Main Theme	Sub-theme	Definitions
Advantages in Hybrid Learning	Enriching Experiences for Students and Educators	Hybrid learning is acknowledged by participants as offering valuable

	experiences for both students and future educators.
Convenience	Some participants appreciate the convenience of accessing theoretical content online while engaging in practical activities in physical classrooms.
Adaptable	Others mention the pandemic's influence on their preference for hybrid lessons, as it provides a safer and more adaptable learning approach.
Personalized Pace in Hybrid Education	The flexibility of attending live sessions and having access to recorded lessons is emphasized, indicating that hybrid learning accommodates varying schedules and learning paces.
Overcoming Accessibility Barriers through Hybrid Learning	Participants highlighted the practicality of hybrid lessons for those who faced challenges attending school physically due to various reasons.
Customizable Learning Approach	A participant emphasized the potential of hybrid learning to provide a balanced approach that takes into consideration both the benefits of in-person interaction and the flexibility of online engagement.

4.1.10.1 Advantages in hybrid learning. A participant mentioned that in the future, a hybrid form of education would be offered, providing valuable experience for both students and future teachers. Some participants stated that they preferred hybrid classes because it allowed them to do theoretical work in an online platform while practicing in a physical classroom. It enabled them to attend the lesson with a single click. Others, however, stated that due to the pandemic, they preferred hybrid lessons. Students could also benefit from hybrid lessons because they were able to listen to the lesson recording later, which made it easier for them to compensate. Hybrid lessons were preferred by students because they found them helpful, flexible, and advantageous. Participants also expressed that they would prefer hybrid lessons because they were not be able to attend school at times or because they lived too far away to attend some classes in person.

A student mentioned.

“It would be a great luxury for us to choose to take courses online or face-to-face, for example, 60% of the course has to be face-to-face, but if we were given the opportunity to participate 40% online, we could evaluate it by working or otherwise.”

4.2 Findings of the Second Research Question

The second research question of this study is focused on examining how the teacher felt about teaching through different platforms: face-to-face, online, and hybrid. This section of the study presents the results of analyzing the teacher’s experiences using a qualitative approach.

Table 12

Themes and sub-themes found from student’s interview.

4.2.1 Teacher’s experience (F2f).

Table 12

Main Theme	Sub-Theme	Definition
Impact of Face-to-Face Teaching and Classroom Dynamics	Teacher-Student Connection	The teacher's enthusiasm and joy upon seeing the students in person underscore the emotional connection and positive rapport that can be established within a physical classroom setting.
	Interaction and Engagement	The ability to maintain eye contact enhances this interaction and fosters a deeper sense of connection and engagement.
	Non-Verbal Communication	The teacher's emphasis on using body language, including eye contact and gestures, as practical tools for the course (Classroom Management) reflects the importance of translating theoretical concepts into real-world application.
	Practicality and Application in Teaching	The teacher's statement that the course (Classroom Management) is more about application than theory highlights the idea that effective teaching involves hands-on, experiential learning.
	Freshmen's Enthusiasm and Engagement	The teacher highlighted the positive attitude and active engagement of freshmen students in a face-to-face classroom environment.
	Efficiency and Flow of Classroom Interactions	The statement that less time was consumed due to the natural flow of discussions indicates the seamless interaction that can occur in a physical classroom.
COVID-19 Health Measures and Classroom Safety	Maintaining Physical Distance and Limited Interaction	The teacher's decision to stay on stage and avoid personal

	interactions, as well as the students refraining from approaching the teacher, highlights the emphasis on maintaining physical distance to prevent the potential spread of COVID-19.
Rigorous Health Screening and Hygiene Practices	The mention of temperature and HES code checks at the door, open windows for ventilation, and diligent cleaning efforts by the cleaning crew reflects a multi-faceted approach to maintaining a safe environment.
Classroom Size, Protection, and Safety Perception	The statement about appropriate class sizes contributing to a perceived level of safety highlights the importance of space management in reducing the likelihood of transmission.

4.2.1.1 Impact of face-to-face teaching and classroom dynamics. The teacher raved about their face-to-face teaching experience. They were overjoyed to see the students when they arrived. The teacher was able to maintain eye contact with the students in the classroom, which felt refreshing and motivating. The teacher mentioned that classroom management was a course that was more about application than theory, so they had to use their own body language to demonstrate how to use eye contact and all other gestures involved. Masks were causing a problem because the teacher did not know the students' faces, and knowing the students' faces was a primary concern, especially for freshmen. Even at early hours, freshmen were dedicated and enthusiastic about coming to class. Less time was consumed in a face-to-face classroom because discussions were held, and everything was in a flow. Breaks were provided, and students were permitted to eat and drink during those times.

4.2.1.2 COVID-19 health measures and classroom safety. In terms of health measures, the teacher remained on stage and did not approach the students personally, or

the students did not approach the teacher personally. At the door, temperatures and HES codes were being checked. The windows were always open, the classrooms were always being aired, and the cleaning crew was doing its best. The teacher also stated that the class sizes were very appropriate for protection and that everyone felt safe to a certain extent, which was sufficient.

Table 13

Themes and sub-themes found from student's interview.

4.2.2 Teacher's Opinions/Preferences /Assumptions/ Recommendations (F2f).

Table 13

Main Theme	Sub-Theme	Definition
Value and Irreplaceability of Face-to-Face Education	Inherent Significance of Face-to-Face Interaction	The teacher's assertion that nothing could compare to or replace face-to-face education underscores the irreplaceable quality of in-person interactions.
	Richness and Opportunities in the Classroom Environment	The teacher's preference for in-person lessons due to the greater opportunities it provided reflects the belief that the physical classroom setting offers a dynamic platform for various teaching strategies, discussions, and interactive activities.
Control and Pedagogical Preference in Teaching Modes	Control and Engagement in Face-to-Face Teaching	The teacher's belief that they had more control over the teaching process in a face-to-face classroom suggests that direct interaction enables better monitoring of students' engagement, understanding, and participation.

Pedagogical Modalities	Consistency Across	The mention of the teacher carrying out the same activities for both types of students underscores the effort to maintain instructional parity between different modes of delivery.
Preference for Participation	In-Person	The teacher's favoring of activities requiring in-person participation suggests a preference for the unique advantages offered by face-to-face interactions.

4.2.2.1 Value and irreplaceability of face-to-face education. According to the teacher, face-to-face is an indispensable platform. Online and distance education are beneficial, but nothing could compare to or replace face-to-face education. The teacher preferred in-person lessons because they provided them with more opportunities in all ways, and the instructor found the f2f environment to be richer in terms of teaching. The same activities were carried out by the teacher for both f2f and online students.

4.2.2.2. Control and pedagogical preference in teaching modes. In a f2f classroom, the teacher believed they had more control over the teaching process. According to the teacher's pedagogical opinion, either the classes should be completely online or completely face-to-face in terms of lesson delivery, but in terms of preferences, the instructor favored anything that required in-person participation.

Table 14

Themes and sub-themes found from student's interview.

4.2.3 Teacher's perspective about students' participation (F2f).

Table 14

Main Theme	Sub-Theme	Definition
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Positive Impact of In-Person Learning on Student Engagement and Motivation	Eager Return to the Classroom Environment	The teacher's observation that students were tired of staying at home and were excited to be back in the classroom determines the anticipation and appreciation for physical classroom attendance.
	Heightened Participation, Attentiveness, and Activity	The teacher's remark about students being more active than usual indicates a positive shift in their engagement during in-person classes.
Improved Focus and Accountability in Classroom Setting	Enhanced Concentration and Accountability	The teacher's observed that students were more sensitive to the lecture and concentrated better due to the classroom's-controlled environment reflects how physical presence minimizes distractions and heightens students' ability to concentrate.
	Positive Impact on Student Participation and Engagement	The teacher's remark about students who had never participated before becoming actively engaged in the classroom environment indicates how the physical space encouraged these students to contribute.

4.2.3.1 Positive impact of in-person learning on student engagement and motivation. The teacher claimed that students were eager to attend in-person classes because they were tired of staying at home, and as a result, their level of participation, attentiveness, and appreciation for being in the classroom was high. They were more active than usual, the great majority of them. The teacher observed students who had never participated before attending the class. They were there, the teacher added, but not as a body; they were there as a mind and a soul.

4.2.3.2 Improved focus and accountability in classroom setting. *Being in the classroom made them feel more accountable. The teacher stated that the students were more sensitive to the students were more sensitive to the lecture, and that they concentrated more because there was nothing else around them except the classroom itself. Because the classroom environment allowed them to concentrate, they participated much more. Attending in-person classes increased student motivation because they were benefiting from those classes, and the teacher noticed increased engagement and concentration among students.*

Table 15

Themes and sub-themes found from student's interview.

4.2.4 Teacher's assessment and feedback (F2f).

Table 15

Main Theme	Sub-Theme	Definition
Advantages of Face-to-Face Exams in Control and Monitoring	Teacher's Preference for Exam Format	The teacher's preference for face-to-face exams is driven by the higher level of control and monitoring that can be exercised during such assessments and helps ensure academic integrity.
	Students' Preference for Exam Format	The teacher's observation that students were pleased to have an

					exam in Classroom Management course, as it offered a change from extensive assignments, emphasizes how exams were perceived as a favorable alternative.
Balancing Exam Format and Variety of Assessment Approaches to Address Exam Anxiety					The teacher's statement about trying different assessment methods indicates a proactive approach to accommodate students who might struggle with exam-related stress.
				Balancing Student Preferences and Assessment Objectives	The observation that while students preferred exams for their refreshing nature, some students faced challenges due to exam anxiety reflects the complexity of catering to diverse learning needs.

4.2.4.1 Advantages of face-to-face exams in control and monitoring. *The teacher preferred taking face-to-face exams regardless of the mode of instruction. According to the teacher, the amount of control that an instructor could assert in a face-to-face examination was significantly greater than in an online exam. The teacher stated that when they created an exam for the classroom management class, the students were happy because for once, for a change, they would not be writing pages and pages of assignments and would instead study and get into an exam, which would then be over, indicating that students preferred exams over assignments. Therefore, students were happy to take exams because they were tired of doing assignments and exams felt refreshing to them.*

4.2.4.2 Balancing exam format and anxiety mitigation. In response to concerns regarding student underperformance attributed to exam anxiety, the teacher proactively implemented a range of alternative assessment methods. Recognizing that traditional exams might not be conducive to every student's optimal performance; the teacher adopted a flexible approach to assessment. By incorporating various assessment-taking assignments, the teacher aimed to create a more inclusive and accommodating learning

environment. These efforts sought to alleviate the impact of exam anxiety and provide students with alternative avenues to demonstrate their understanding and mastery of the subject matter.

Table 16

Themes and sub-themes found from student's interview.

4.2.5 Teacher's experience (Online).

Table 16

Main Theme	Sub-Theme	Definition
Challenges and Adaptation in Transition to Online Teaching	Initial Difficulties in Transitioning to Online Teaching	The instructor's acknowledgment that switching to online teaching was hard underscores the initial difficulties faced when moving from traditional face-to-face instruction to an online format.
	Technological Adjustments and Limitations	The teacher's mention of having to adjust everything for the camera underscores the technical challenges involved in online instruction. The inability to use certain techniques like role-playing due to the limitations of online platforms emphasizes how pedagogical methods must adapt to the constraints of digital mediums.
Balancing Online Engagement and the Value of Human Contact	Online Engagement and Technological Adaptation	The mention of technological equipment and the eventual adaptation to using cameras and microphones highlights the steps taken to facilitate online teaching. It emphasizes the importance of technological literacy and the willingness to embrace digital tools for effective virtual instruction.

			Appreciation for Human Contact and Limited Interaction	The appreciation expressed by both the teacher and the students for the ability to have some form of human interaction underscores the value of personal connection even in a virtual environment.
Challenges of Online Communication and Engagement	Microphone Management	and Audio	The teacher's decision to either allow online students to speak or switch the microphone, which led to a trade-off between hearing the teacher and the students, underscores the complexities of managing audio interactions in virtual classrooms.	
			Camera Usage and Engagement	The legal constraints preventing the teacher from forcing students to turn on their cameras highlight the limitations in monitoring students' participation and attentiveness.
Time Management and Interaction Pace in Online Teaching	Extended Time Consumption for Activities	The teacher's observation that time consumption had increased due to longer waiting periods for students' responses during activities reflects how the asynchronous nature of online communication can impact the pace of instruction.		
Comparing Online Teaching Platforms: Adobe and Teams	Advantages of Adobe for Lecture Delivery	The teacher's mention of Adobe being more lecture-friendly and enabling for both students and the instructor underscores the platform's suitability for delivering instructional content in a virtual setting.		
			Comparison of Adobe and Teams Connectivity	The teacher's observation that Teams had a simpler connection system implies an advantage in terms of ease of use and setup.

	User-Friendliness of Online Platforms	The teacher's remark about Teams' infrastructure and learning medium not being particularly teacher or student-friendly highlights the importance of intuitive platforms that facilitate effective teaching and learning experiences.
Challenges and Perceptions of Online Learning Experience	Dropouts and Struggles in Online Courses	The teacher's mention of students dropping their courses in the middle of the semester and others struggling to keep up underscores the challenges and dissatisfaction some students faced in the online learning experience.
	Perception of Learning and Engagement	The teacher's statement that some students felt like they were not learning much due to the theoretical and hypothetical nature of online content underscores the limitations of virtual instruction in conveying practical knowledge.

4.2.5.1 Challenges and adaptation in transition to online teaching. When asked about their online teaching experience, the instructor mentioned that switching to online teaching was hard. The teacher found it difficult to teach entirely online for the first time. They were being watched by a camera and that everything had to be adjusted. The instructor admitted that they were unable to use techniques such as role playing, which was required for classroom management course. Performing it in front of the camera was not the same as seeing it in person. The teacher also mentioned that the classroom was technologically equipped, and that everyone eventually adapted to using the camera and microphone. Nonetheless, both the teacher and the students appreciated the ability to have some human contact, and the teacher stated that it was better than nothing.

However, when it came to hearing the online students, the teacher had to decide, either allow them to speak or switch the microphone, which resulted in the students not hearing the teacher, either it was the teacher's voice or the students' voice. Another problem that the teacher experienced while teaching online was organizing the camera.

Some students preferred not to turn on their cameras, but due to legal constraints, the instructor was unable to force them to do so, resulting in the teacher remaining unaware of those students.

4.2.5.2 *Balancing online engagement and the value of human contact.* The reference to technological equipment and the subsequent adjustment to using cameras and microphones underscored the measures that were taken to facilitate the transition to online teaching. It accentuated the significance of technological proficiency and the readiness to embrace digital tools as essential components of effective virtual instruction. Furthermore, the mutual appreciation voiced by both the teacher and the students for the opportunity to maintain some human interaction highlighted the enduring importance of personal connection even within a virtual learning environment.

4.2.5.3 *Time management and interaction pace in online teaching.* During their discussion of online teaching experiences, the teacher noted that there was an increase in time consumption. This was due to the extended waiting periods required for students to respond during various activities.

4.2.5.4 *Comparing online teaching platforms: adobe and teams.* According to the instructor, using Adobe as an online teaching framework was more lecture friendly and enabling for both students and the teacher, but Adobe had problems, whereas Teams had a simpler connection system. However, the instructor did not find Teams' infrastructure or learning medium to be particularly teacher or student friendly.

4.2.5.5 *Challenges and perceptions of online learning experience.* Furthermore, the instructor shared that there were online students who dropped their course in the middle of the semester, while others tried to keep up with everything, but it was not a great experience.

The teacher mentioned.

“They feel like they are not learning anything. They are learning but they are not really grasping a lot because everything is on the screen, everything is theoretical, everything is hypothetical.”

Hence, participation was limited to a few particularly assertive students.

Table 17

Themes and sub-themes found from student's interview.

4.2.5 Teacher's Opinions/Preferences /Assumptions/ Recommendations (Online).

Table 17

Main Theme	Sub-Theme	Definition
Importance of Human Interaction in Education	Human Touch as Essential Element	The teacher's preference for in-person lessons is rooted in the idea that the physical presence of both the teacher and the students fosters a deeper level of human connection and engagement.
	Online Learning's Lack of Human Presence	The mention of the entire online process being conducted without students' physical presence highlights the challenges of replicating the classroom environment virtually.
Challenges and Constraints of Online Teaching	Missing Elements of In-Person Instruction	The teacher's belief in the necessity of the human touch implies that online lessons lack essential elements that contribute to effective teaching, particularly in a faculty of education.
	Camera Usage and Engagement Challenges	The inability to force students to turn on their cameras indicates the difficulty in gauging students' attentiveness and participation.

4.2.5.1 Importance of human interaction in education. The teacher did not prefer online lessons because they lacked the human touch that the teacher believed was essential, especially in the faculty of education. The entire online process was conducted without the students' physical presence.

4.2.5.2 Challenges and constraints of online teaching. *The teacher's emphasis on the importance of the human touch suggests that online lessons may lack crucial elements for effective teaching, especially within the faculty of Education. Furthermore, the challenge of not being able to compel students to activate their cameras underscores the difficulty in assessing students' engagement and attentiveness during online sessions.*

Table 18

Themes and sub-themes found from student's interview.

4.2.6 Teacher's perspective about students' participation (Online).

Table 18

Main Theme	Sub-Theme	Definition
Differential Impact of Online Classes on Student Participation	Benefits for Introverted Students	The teacher's observation that online classes provide a platform for introverted students to communicate through the screen underscores how virtual environments can create a comfortable space for these students to engage in discussions and interactions.
	Challenges for Extroverted Students	The teacher's mention of extroverted students losing their enthusiasm to participate online indicates how the absence of in-person interactions can hinder their active engagement.
Variability in Online Participation and Engagement	Student Engagement in Volunteering and Interaction	The teacher's reference to students who chose to volunteer, speak, and

	turn on their cameras highlights the active participation of certain students.
Barriers to Written Interaction	The teacher's mention of students who refrained from writing due to the time-consuming nature of written exchanges reflects how the asynchronous nature of text-based communication can hinder real-time engagement.
Limited Participation among Assertive Students	The teacher's observation that participation was limited to a few particularly assertive students reflects how the online environment might magnify existing disparities in participation levels.

4.2.6.1 Differential impact of online classes on student participation. The instructor observed that online classes were beneficial for introverted students because they allowed them to communicate through the screen. they were a barrier for extroverted students who were active and participated in regular lessons but were non-existent during online classes because they lost their enthusiasm to participate in online classes.

4.2.6.2 Variability in online participation and engagement. The teacher mentioned a class where students chose to volunteer, speak, and turn on their cameras. However, there were some students who did not want to write because it took time to write and then wait for a response, which was also a void, according to the teacher. The teacher's mention of extroverted students losing their enthusiasm to participate online indicates how the absence of in-person interactions can hinder their active engagement.

Table 19

Themes and sub-themes found from student's interview.

4.2.7 Teacher's assessment and feedback (Online).

Table 19

Main Theme	Sub-Theme	Definition
Challenges in Online Assessment and Academic Integrity	Validity and Reliability of Online Exams	The teacher's observation that online exams had low validity and reliability due to difficulties in controlling cheating or plagiarism reflects the limitations of remote assessment methods.
	Academic Integrity Issues in Online Exams and Assignments	The teacher's mention of plagiarism and cheating in both exams and assignments highlights the pervasive issue of academic dishonesty in virtual learning environments.
Burden of Assignments and Practical Challenges in Large Classes	Burden on Professors in Assignments	The teacher's mention of assignments being burdensome, particularly in large classes, reflects the practical difficulties of evaluating a high volume of student work.
	Limitations of Group Assignments in Mass Courses	The teacher's statement about students being unable to come together for group assignments due to class size underscores the logistical challenges of coordinating collaborative tasks in large online classes.
Complexities of Plagiarism Detection and Prevention	Plagiarism and Cheating Despite Assignments	The teacher's mention of students plagiarizing and cheating even when assignments were given highlights the complex nature of academic dishonesty in online learning environments.
	Challenges in Detecting Plagiarism	The teacher's remark that some instances of plagiarism could not be detected by plagiarism applications

underscores the limitations of automated detection tools in identifying all forms of academic dishonesty.

4.2.7.1 Challenges in online assessment and academic integrity. The teacher stated that online exams were conducted, but their validity and reliability were very low due to the teacher’s inability to control cheating or plagiarism in an online exam.

4.2.7.2 Burden of assignments and practical challenges in large classes. The teacher mentioned that giving students assignments was too much of a burden on the professors, especially when the student body was large. Students were taking a lot of courses, which created a material dilemma, and the teacher was unable to assign many group assignments because students were unable to come together as there were several students, and the teacher was teaching mass courses.

4.2.7.3 Complexities of plagiarism detection and prevention. The teacher also stated that they plagiarized and cheated even when assignments were given, and that some of them could not be detected by plagiarism applications.

Table 20

Themes and sub-themes found from student’s interview.

4.2.8 Teacher’s experience (Hybrid).

Table 20

Main Theme	Sub-Theme	Definition
Challenges in Sound Transmission and Communication	Sound Transmission Issues in Hybrid Learning	The teacher’s observation that students in both online and in-person settings were unable to hear each other due to sound transmissions underscores the difficulties in achieving effective audio

		communication in a hybrid classroom.
	Visuals vs. Sound Quality	The teacher's mention of problematic sound quality alongside good visuals indicates the complexities of balancing different aspects of communication.
Logistical Challenges in Hybrid Instruction	Balancing In-Class and Online Interaction	The teacher's mention of having to address both the in-class students and the camera for online students highlights the need for seamless transitions between different modes of communication.
	Variability in Communication Convenience	The mention of smaller classes with more convenient communication and connection methods implies that some teaching contexts are more amenable to hybrid instruction than others.
Imbalance and Complexity in Hybrid Ratio	Challenges of Asymmetrical Hybrid Ratio	The teacher's mention of a ratio of 20% in the classroom and 80% online underscores the significant imbalance between in-person and online students.
	Complexity of Hybrid Instruction Strategies	The teacher's comparison of different types of hybrid approaches, such as activities online and offline, underscores the nuanced nature of hybrid teaching methods.

Table 21

4.2.8.1 Challenges in sound transmission and communication. The teacher stated that students who attended the lessons online were unable to hear the students in the classroom, and the students in the classroom were not able to hear the online students too due to sound transmissions, but they were able read their messages in the chat box.

The instructor also mentioned that the sound was problematic, but the visuals were good, so the students were encouraged to participate by writing.

4.2.8.2 Logistical challenges in hybrid instruction. Another issue with using the hybrid platform for teaching was that the teacher had to speak to the students in class then they had to turn and speak to the camera for the students who were attending the lesson online. However, in some smaller classes with more convenient communication and connection methods, the instructor found it easier to teach because the camera was able to capture most of the class and the teacher.

4.2.8.3 Imbalance and complexity in hybrid ratio. The teacher stated that if the ratio had been half and half, it would have been much easier to imply a strategy more directly, but the ratio was nearly 20% in the classroom and 80% online.

As mentioned by the teacher.

“Hybrid doesn’t necessarily mean half students in the classroom half students online but it’s also like some activities online and some activities offline kind of hybrid. That would work, but in this way, this is kind of way too hybrid, like it is the Frankenstein kind of hybrid, and you lose one of the groups every now and then.”

Table 21

Themes and sub-themes found from student’s interview.

4.2.9 Teacher’s Opinions/Preferences /Assumptions/ Recommendations (Hybrid).

Table 21

Main Theme	Sub-Theme	Definition
Preference for Face-to-Face Interaction in Hybrid Learning	Importance of Seeing Faces in Teaching	The teacher’s preference for hybrid lessons over purely online ones is rooted in the desire to see students’ faces. This underscores the value of

		visual cues and personal connection in effective teaching and learning.
	Preference for Face-to-Face Interaction Over Purely Online Learning	The teacher's inclination toward any form of face-to-face interaction over completely online learning underscores the belief in the essential role of in-person engagement.
Effective Conditions for Hybrid Learning	Sustainability of Hybrid Lessons	The teacher's comment that hybrid lessons might not be very sustainable indicates concerns about the long-term viability of this teaching approach.
	Importance of Classroom Size and Technological Setup	The teacher's suggestion that smaller classrooms with simpler technological organization would be more effective highlights the practical considerations that influence the success of hybrid lessons.

4.2.9.1 Preference for face-to-face interaction in hybrid learning. The teacher stated that hybrid lessons did not seem very sustainable, but they were preferable to purely online lessons because the teacher liked to see faces. Anything involving a certain amount of face-to-face interaction was preferred over completely online learning.

4.2.9.2 Effective conditions for hybrid learning. The teacher's remark about the sustainability of hybrid lessons raises concerns about the long-term viability of this teaching approach. Additionally, the teacher's recommendation for smaller classrooms with streamlined technological setups underscores the practical factors that can significantly impact the effectiveness of hybrid lessons.

Table 22

Themes and sub-themes found from student's interview.

4.2.10 Teacher's perspective about students' participation (Hybrid).

Table 22

Main Theme	Sub-Theme	Definition
Positive Student Engagement and Adaptation in Hybrid Lessons	Encouragement for Participation During Technical Challenges	The teacher's suggestion to write when sound transmissions failed underscores the adaptability of both the teacher and students in overcoming obstacles.
	Enthusiastic Student Engagement and Adaptation	The teacher's mention of students participating, listening, taking notes, and showing great enthusiasm suggests how students embraced the opportunity to attend lessons despite unusual circumstances.
Recognition and Praise for Student Attendance	Acknowledgment of Student Attendance in Hybrid Lessons	The teacher's praise for the students underscores the value placed on their attendance and engagement in the hybrid learning environment.
	Student Engagement in Unusual Circumstances	The teacher's mention of students' active participation and enthusiasm amid unusual circumstances reflects their commitment to the learning process.

4.2.10.1 Positive student engagement and adaptation in hybrid lessons. The teacher's recommendation for students to use written communication when sound issues arose highlights the flexibility and adaptability of both the teacher and students in overcoming challenges. Moreover, the teacher's description of students actively participating, listening attentively, taking notes, and displaying enthusiasm indicates how students enthusiastically embraced the chance to attend lessons under unconventional circumstances.

4.2.10.2 Recognition and praise for student attendance. The teacher's acknowledgment and praise of the students underscore the importance attributed to their attendance and active engagement within the hybrid learning environment. Furthermore, the teacher's reference to students' active participation and enthusiasm, even in unconventional circumstances, reflects their dedication to the learning process.



Chapter 5

Conclusion and Discussion

This study focused on students' experiences learning in f2f, online, and hybrid settings, as well as the teacher's experience teaching in f2f, online, and hybrid settings. After interviewing participants about their face-to-face, online and hybrid learning and teaching experiences, including their opinions and preferences, participation levels, assessment, and feedback on each platform, it was determined that face-to-face were prioritized because students and the educator expressed their joy at being a part of them and agreed that they benefited greatly from them. However, according to personal belief, online classes can work if the right factors are in place and students are determined to study and learn regardless of the circumstances. Understanding students' individual learning styles, as well as their desire and motivation to take charge of their online learning, will have a significant impact on their success. While the instructor can and should design and monitor the online course to ensure that all students stay on track and participate, student time management and organizational skills will still be necessary. According to personal assumption, it is also possible that most students mentioned that they prefer face-to-face lessons over online lessons because they were frustrated of constantly staying at home due to pandemic restrictions, which led them to desire f2f lessons over online lessons.

When comparing the same course delivered online and in person, several conclusions can be drawn. The understanding of students' own learning styles, as well as their desire and motivation to take responsibility for their online learning, will have a significant impact on their growth and achievement. In terms of learning, if the course is well designed, students who apply themselves diligently should be successful in either format, whether online or face-to-face. Future research should investigate whether certain types of courses are better suited for f2f or online instruction.

5.1 Conclusion and Discussion of Findings of the First Research Question (Students')

5.1.1 Students' experiences (F2f). This study emphasizes the significance of face-to-face instruction in delivering engaging and effective learning experiences compared to online education. The students' feedback consistently highlights the value of in-person communication, social interaction, and immediate feedback from instructors that are challenging to replicate online.

5.1.1.1 Positive perceptions of face-to-face (f2f) classes. According to the participants, while online and hybrid classes offer certain advantages, they cannot fully replace the unique benefits of face-to-face instruction. As we navigate the digital landscape, integrating face-to-face components into educational programs is crucial for a comprehensive learning experience. The results suggest that face-to-face learning enhances student engagement, participation, and learning outcomes. However, individual student needs and preferences should be considered when designing courses. Further research is needed to explore the benefits and limitations of face-to-face learning and develop effective strategies for its implementation in diverse educational contexts. By continually refining educational practices, we can ensure students receive the most effective and enriching learning experiences possible.

The findings of the literature review conducted in this study provide substantial evidence supporting the continued importance of face-to-face communication in students' learning experiences, despite the growing prominence of online education. Several studies have emphasized the potential limitations of asynchronous online teaching, particularly in terms of reducing opportunities for direct interaction between students and instructors (Saghafi et al., 2014). Although face-to-face communication remains highly valued in facilitating effective learning experiences for students (Tambouris et al., 2014; Israel, 2015; Bolsen et al., 2016), the advent of online or hybrid learning environments has introduced potential disruptions to this traditional mode of interaction.

The findings of this study support previous research that emphasizes the importance of face-to-face meetings for creating networks and social relationships among students, not for learning in the classroom but also for continuing their learning outside of

class (Asarta & Schmidt, 2015; Ross & Rosenbloom, 2011). Furthermore, face-to-face classes can also help students find jobs (Hall & Villareal, 2015). This study found that students highly value in-person classes for their social and interactive benefits. Asynchronous online teaching may limit the opportunity for in-person interaction between students and instructors, which is crucial for students' learning experiences. Li and Lalani's (2020) study emphasize the importance of in-person interaction for effective learning experiences and supports the notion that asynchronous online teaching may indeed limit such opportunities. It provides valuable insights into the challenges posed by the shift to online education and emphasizes the need to consider alternative strategies to diminish the potential drawbacks associated with reduced in-person interaction in asynchronous online teaching. Therefore, instructors should consider incorporating face-to-face classes to facilitate student engagement, socialization, and networking opportunities.

5.1.1.2 Nonverbal communication and expression. The participants believed that in f2f sessions, the presence of hand movements and body gestures by the teacher greatly enhanced the learning experience, making it easier to comprehend the lecture content. This finding suggests that the non-verbal cues and physical presence inherent in face-to-face instruction played a significant role in facilitating effective communication and understanding. Furthermore, a student's comment from the Department of Preschool Education underscores the importance of body language in the learning process. The student found that f2f sessions allowed them to communicate more effectively through body language, enabling them to express themselves better. This implies that the physical classroom environment not only enhances the teacher's instructional effectiveness but also provides students with a more comprehensive means of expressing their thoughts and ideas. Therefore, the positive views and experiences shared by the participants in this study emphasize the value of face-to-face classes in fostering active engagement and effective communication. The significance of non-verbal cues and body language in the learning process becomes evident, suggesting that in-person instruction provides a richer and more comprehensive educational experience compared to online lessons. The significance of non-verbal cues and body language in traditional in-person teaching has been extensively documented in educational literature (Virginia Richmond and James

McCroskey, 2011). These insights underscore the enduring importance of traditional classroom settings, particularly in courses like Classroom Management, where non-verbal communication plays a crucial role in pedagogical effectiveness.

5.1.1.3 Overall satisfaction and enjoyment. Most participants expressed a positive sentiment about their face-to-face (F2F) learning experience. They reported feeling happy, thoroughly enjoying their lessons, and eagerly anticipating attending F2F classes. They considered the F2F platform to be irreplaceable. The feedback from these participants underscores the significant value and satisfaction they derived from traditional face-to-face education. Their happiness and enthusiasm for F2F learning highlight the unique and invaluable aspects of in-person interactions, suggesting that, for many, the traditional classroom setting remains a preferred and cherished mode of education.

5.1.2 Students' Opinions/Preferences/Assumptions/Recommendations (F2f). The overwhelming consensus among the participants in this study was a strong preference for face-to-face (f2f) lessons. They expressed that f2f lessons offered a more natural and effective mode of learning compared to online alternatives. However, it is essential to note that while face-to-face learning may be preferred by some students, it is not feasible or desirable for all learners, online and hybrid learning environments also offer unique advantages that should not be discounted. The study by Allen and Seaman (2017) supports the notion that online and hybrid learning environments offer unique advantages that should not be disregarded. It highlights the flexibility, technological innovations, and inclusivity associated with these modalities, emphasizing their suitability for a wide range of learners. The findings provide valuable insights into the benefits of online and hybrid learning, complementing the understanding that face-to-face learning may not be feasible or desirable for all students. As such, educators should continue to explore ways to optimize online and hybrid learning experiences while recognizing the importance of face-to-face interaction for some students.

5.1.2.1 Effectiveness and benefits of f2f lessons. Participants voiced their eagerness to continue in-person education if it posed no health risks to them or others, emphasizing that it was the best way to teach and learn. Based on the findings of this study and the literature reviewed, face-to-face instruction offers several advantages over online learning. The study by Allen et al. (2002) provides evidence that aligns with the findings of the conducted study and supports the argument that face-to-face instruction has several advantages over online learning. According to the study, face-to-face instruction has several advantages, including better focus and analysis of the material being taught, as well as immediate feedback, which are crucial for effective learning as previous research that emphasizes the importance of in-person interaction between students and instructors. Adam and Nel (2009) and Hall and Villareal (2015) have previously explored this topic and their findings support the current study's results. The authors suggest that educators should consider these advantages when designing educational programs and pedagogical approaches, especially considering the growing trend towards online and distance learning.

Students found f2f lessons easy to follow, more advantageous, and conducive to maintaining focus and analytical thinking. The physical presence of the teacher was deemed essential for monitoring and controlling student behavior, as well as for facilitating a conducive learning environment. Face-to-face instruction offered advantages such as immediate feedback, real-time interaction with instructors and peers, nonverbal communication cues, and a sense of belonging to a learning community. These factors contributed to increased engagement, motivation, and overall satisfaction among students. Face-to-face meetings help to keep students on track and manage their time and is necessary for providing important information to students and clarifying issues. (Adam & Nel, 2009; Hall & Villareal, 2015; Stubbs et al., 2006).

5.1.2.2 Suggestions for enhancing f2f lessons. The insights gleaned from the students' preferences and recommendations emphasize the importance of interactive, multimedia-enhanced, and creative approaches to face-to-face teaching. By incorporating these strategies, educators can create dynamic and engaging classroom environments that

maximize student participation and understanding. These findings contribute to the ongoing conversation on effective pedagogical practices in face-to-face education.

5.1.3 Students' perspective about students' participation (F2f). The findings of this qualitative study highlight the significance of face-to-face classroom environments for students' sense of presence and active participation. These findings align with prior research that underscores the importance of interpersonal communication in the learning process (Hall & Villareal, 2015). The ability to interact with the teacher and other students in person appears to be a crucial motivating factor for many learners.

5.1.3.1 Participation. Students enrolled in face-to-face (F2F) courses emphasized the importance of active participation in their learning experience. They found that being able to actively engage in F2F lessons gave them a sense of presence and enhanced their learning. One student even noted that they could participate more effectively in F2F lessons compared to online ones, highlighting the value of physical presence and real-time interactions. However, it was also mentioned that in crowded classes, there might be constraints on participation due to limited time and the need to wait for others to contribute. The feedback from these students underscores the significance of active participation in F2F education, which enhances their sense of presence and engagement. While F2F classes offer opportunities for strong interaction, the effectiveness of participation can be influenced by class size and time constraints, suggesting the importance of managing these factors to optimize the learning experience.

5.1.3.2 Strategies to promote participation. Students express their belief in the pivotal role of teachers in motivating and actively engaging students in the classroom. They highlight that teacher involvement not only aids learning but also boosts students' comfort and confidence in their English-speaking skills. Encouraging class participation is seen as a crucial strategy for fostering language development. Students emphasize on the influential role of teachers in motivating and engaging learners. They stress that active participation in the classroom is essential for language development. The incorporation of

group discussions and interactive activities is seen as effective in creating a conducive learning environment that empowers students in their language learning process.

Educators should consider these findings when designing their pedagogical approaches in traditional classroom settings. Creating an environment that encourages active participation, engagement, and diverse teaching strategies is vital for meeting the preferences and expectations of students who strongly favor face-to-face learning. Educational institutions should also recognize the enduring value of in-person education in fostering effective teaching and learning experiences. These insights underscore the need to strike a balance between traditional and online modalities to cater to diverse student preferences and optimize the educational journey. Additionally, institutions may want to consider offering various course delivery options to accommodate different learning preferences and needs. Johnson and Johnson's (2014) study support the notion that instructors should strive to create an environment that promotes active participation and engagement for students who prefer face-to-face learning. It also emphasizes the importance of providing flexible course delivery options to accommodate the varying learning preferences and needs of students.

5.1.4 Students' views about teacher's assessment and feedback (F2f). The study revealed that students in face-to-face courses felt more engaged, motivated, and appreciated the immediate feedback from their instructors. This aligns with the literature, emphasizing the unique advantages of face-to-face learning, such as interactive instruction, quick feedback, and diverse instructional strategies. Garrison and Kanuka (2004) also support the idea that face-to-face blended learning combines the strengths of online resources and in-person interaction, enhancing the learning experience. Additionally, Garrison and Kanuka (2004) emphasize that face-to-face blended learning allows for the effective integration of various instructional strategies and resources. Instructors can leverage online platforms to deliver content, resources, and multimedia materials, while face-to-face sessions facilitate active learning activities, such as group work, hands-on exercises, and simulations.

The findings from this study align with the qualitative findings of the conducted study, further reinforcing the argument that face-to-face learning presents distinct benefits

for learners. The literature supports these findings, with several studies emphasizing the significance of face-to-face communication and the value of personal interaction between instructors and students. For example, Hall and Villareal (2015) found that face-to-face blended learning provides value by enabling immediate instructor feedback. Swart and Wuensch (2016, p. 74) similarly note that face-to-face blended learning provides opportunities for just-in-time learning, allowing students to learn now of greatest relevance. Garrison and Kanuka (2004) highlight fast response and pace as features of face-to-face blended learning, where the professor is "quick on his/her feet to react to students' questions" (Asef-Vaziri, 2015, p. 76).

However, it's worth noting that face-to-face blended learning has its challenges. The study and existing literature highlight the benefits of face-to-face blended learning, including fast-paced learning, immediate feedback, and just-in-time learning. These advantages contribute to increased engagement and effectiveness in education. Nevertheless, it's important to acknowledge that this mode of learning has its own set of challenges.

5.1.4.1 Students' perspectives about teacher's feedback. Students shared their views on the teacher's feedback, with the majority expressing satisfaction with the instructor's efficiency. One participant specifically noted that the teacher's effectiveness was more pronounced in face-to-face (F2F) sessions compared to online lessons. The ability to see the teacher's body gestures was cited as a significant factor in enhancing their understanding of the lecture. Additionally, students appreciated the prompt responses from the instructor. They also highlighted the efficiency of their instructor, particularly in F2F sessions. The visual cues and immediate responses from the teacher in a physical classroom were seen as valuable contributors to the overall learning experience. This underscores the importance of non-verbal communication and real-time interaction in effective teaching and learning.

5.1.4.2 Students' assessing exam difficulty. Their comments regarding the greater perceived difficulty of online exam questions compared to face-to-face assessments underscore the need for educators to consider the design and implementation of online assessments carefully. It highlights the importance of clear instructions, familiarization

with the online testing platform, and strategies to maintain academic integrity in the virtual learning environment. Additionally, this insight emphasizes the significance of providing adequate support and resources to help students navigate the challenges posed by online assessments effectively.

5.1.5 Students experiences (Online). Students appreciated the convenience of online learning during the pandemic, particularly the ability to access classes from anywhere and review recorded sessions. However, online lessons were found to be less effective for some due to distractions, low engagement, and limited interaction. The study highlights that online education cannot fully replace traditional schooling, emphasizing the importance of active instructor engagement. The findings also raise concerns about the limitations of online learning, particularly regarding interactivity and engagement.

5.1.5.1 Convenience and positive aspects of online learning. One interviewee expressed a positive view, believing that online education is the future and sees value in its hybrid form. They highlighted the convenience of accessing classes from anywhere and the benefit of recorded sessions for review. According to the study conducted, online learning during the pandemic was convenient for many students, as it saved them time on travel to school and provided them with the opportunity to access lecture materials and conduct research simultaneously. The study by Means et al. (2010) supports the notion that online learning during the pandemic was convenient for many students. It emphasizes the time-saving benefits, easy access to lecture materials, and the opportunity for simultaneous research that online learning provided. The findings contribute to the understanding that online learning offered conveniences that were particularly valuable during the pandemic, addressing the challenges posed by restrictions and ensuring continued educational opportunities.

The availability of lesson recordings was also perceived as a positive feature, allowing students to review material at their own pace. The study by Hew and Cheung (2014) supports the idea that the availability of lesson recordings is perceived as a positive feature. Furthermore, Hew and Cheung (2014) highlighted that the availability of lesson

recordings addressed issues related to information retention and understanding. It reduced anxiety about missing important content and allowed students to learn at their own speed, thereby enhancing their overall learning experience and self-efficacy. They also mentioned that certain platforms, like Teams, enhanced student interaction with features like emojis.

5.1.5.2 Challenges and limitations of online learning. It was noted that online lessons might not suit everyone's interests. Students found online lessons less effective due to distractions at home, lack of engagement, low level of interaction and a synthetic feeling. One participant emphasized that online education cannot fully replace traditional schooling, praising the effectiveness of instructors who actively engaged with students. The study's finding that many students were dissatisfied with the level of interactivity and engagement in online lessons raises important concerns about the limitations of online learning. The absence of a friendly atmosphere further hampers the overall learning experience. The study's finding regarding the lack of effective collaboration between teachers and students in online learning aligns with existing literature, particularly the study by Rovai et al. (2005).

The findings also reveal that the reluctance to use cameras during online lessons may have an adverse effect on students' sense of responsibility and accountability. The concept of screen fatigue was also identified as a significant challenge faced by students during online learning. The study by Junco et al. (2020) highlighted the adverse effects of students' reluctance to use cameras during online lessons. The absence of visual cues and the inability to see one another may impact students' sense of responsibility and accountability, potentially leading to decreased engagement and participation. Moreover, it supports the idea that distractions, technical issues, reluctance to use cameras, and screen fatigue are challenges faced by students during online learning. The findings shed light on the multifaceted nature of these challenges and emphasize the importance of addressing them to create a conducive online learning environment that promotes students' concentration, engagement, and overall well-being.

5.1.6 Opinions/preferences/assumptions/recommendations (Online). The study shows that students have varied opinions on the effectiveness of online education, with some finding it convenient while others feeling it inadequate. The study also reveals preferences for specific features of online classes and the lack of motivation to participate without accountability. The study by Zhu and Bonk (2020) sheds light on the multifaceted nature of students' opinions regarding the effectiveness of online education. It highlights the significance of considering students' preferences, motivations, and the need for accountability in designing and implementing online classes. By addressing these factors, educators can work towards creating a more inclusive, engaging, and effective online learning experience for students. The findings of the study revealed a range of opinions among students regarding the effectiveness of online education. While some students found online education to be convenient, flexible, and beneficial, others expressed concerns about its adequacy and limitations compared to traditional face-to-face instruction. The study highlights the diverse perspectives and experiences of students in the online learning environment.

5.1.6.1 Diverse Student Opinions and Attitudes towards Online Classes. A range of perspectives on online education emerged among the interviewees. One participant expressed a positive view, believing that online education represents the future and could offer valuable experiences through a hybrid model. Some participants appreciated the convenience and flexibility of online learning, particularly the ability to access materials and review recorded sessions. They also highlighted enjoyable features in certain online platforms. However, a significant number of students voiced their preference for traditional face-to-face classes. Many found online lessons less effective, citing issues like distractions, reduced participation, and a synthetic feel. They also emphasized the importance of effective teaching methods employed in traditional classrooms, where instructors actively engaged students and ensured clarity in explanations.

This discussion reflects a divided perspective on online education. While some students see potential in hybrid models and appreciate the convenience of online learning, others firmly favor traditional classroom settings due to concerns about engagement, distractions, and the perceived limitations of online education. Effective teaching methods

and student engagement remain critical factors in the overall effectiveness of educational experiences, regardless of the mode of delivery.

5.6.1.2 Recommendations for Increasing Student Engagement. The students' suggestions for enhancing online learning experiences emphasize the importance of active participation, engagement, and variety in the virtual classroom. The proposal to mandate camera usage as a means of promoting responsibility and participation reflects the need for visual presence in online sessions. Breaks, questions, and brief discussions during lessons contribute to maintaining student engagement and focus. The incorporation of multimedia elements and educational games can make online lessons more captivating and effective. Additionally, role-playing exercises, as suggested, offer a valuable opportunity for practical application and skill development. These student-driven suggestions provide valuable insights into strategies that can enhance the overall quality of online education by promoting active participation and engagement among learners, thus contributing to more effective virtual learning experiences.

5.1.7 Students' perspective about students' participation (Online). The study's findings underscore the multifaceted nature of online participation, highlighting the need for proactive engagement strategies and responsive course design. The challenge of fostering a sense of presence and connectedness in virtual classrooms remains significant, necessitating continued exploration of innovative solutions that enhance the online learning experience while addressing the limitations inherent to the medium.

5.1.7.1 Participation. The findings from the participants' experiences with online participation underscore the variability in student engagement and the factors that influence it. While many students reported being active participants and found it easy to express themselves using chat and microphones, others faced barriers to participation, such as technical issues or the nature of the course content. The comment about needing to make a considerable effort to participate suggests that online learning may require a higher degree of self-motivation and effort on the part of some students. These

challenges highlight the importance of designing online courses that actively promote and facilitate student engagement, as well as addressing technical issues promptly to ensure a smooth learning experience. Therefore, understanding the factors that affect student participation in online lessons is crucial for educators and course designers. It is essential to consider these insights when designing and delivering online courses to maximize student engagement and learning outcomes in virtual learning environments.

5.1.7.2 Perceived ineffectiveness of online lessons compared to face-to-face learning. Students reported feeling less engaged and connected in the online environment, leading to a reluctance to fully participate in online activities. This finding aligns with existing literature, such as the study by Richardson and Swan (2003), which indicates that online students generally experience a weaker sense of connectedness compared to on-campus students attending face-to-face classes. The absence of face-to-face interaction and the limitations of online platforms can hinder the development of a strong learning community and interpersonal connections among students. A study by Liu, Magjuka, and Lee, (2010), explores the impact of instructor-generated videos on online learning from a learner-centered perspective. It highlights the importance of creating a supportive online learning environment that caters to students' preferences and enhances their sense of belonging. Despite the convenience and flexibility offered by online education, the study participants acknowledged that it falls short in providing an engaging and effective learning experience compared to traditional schooling. The sentiment expressed by one participant, who noted that online education could never fully replace the value and experience of traditional face-to-face instruction, resonates with the ongoing debate about the efficacy of online learning.

The lack of physical presence, reduced opportunities for spontaneous interaction, and limited ability to read non-verbal cues and body language may contribute to a less immersive and interactive learning experience in the online environment. A study by Hrastinski, (2008), discusses the differences between asynchronous and synchronous e-learning environments and highlights the challenges associated with the lack of physical presence and reduced opportunities for spontaneous interaction in the online setting. It emphasizes that in online learning environments, the lack of in-person communication

and the restricted capability to interpret non-verbal signals and body language can diminish the immersive and interactive nature of the learning experience. These findings raise important questions and considerations for educators, policymakers, and institutions offering online education.

5.1.7.3 Promoting student participation. To address this issue and boost student participation, some students suggested making camera usage mandatory. They believed that by requiring all students to turn on their cameras, it would encourage greater active engagement. This recommendation was seen as a potential solution to create a more dynamic and engaging online learning environment. The suggestion to mandate camera usage in online sessions reflects students' concerns about limited visual interaction and participation. By requiring students to use their cameras, the aim is to foster a more engaging and dynamic online learning environment. This proposed measure seeks to enhance the overall quality of virtual interactions, create a sense of presence, and promote accountability in online educational settings. While this approach may have the potential to increase participation, it also raises considerations related to privacy, access to technology, and individual comfort levels. Decisions regarding camera usage in online classes should carefully balance the benefits of increased engagement with the diverse needs and preferences of students.

5.1.8 Assessment and feedback. The finding of this study indicates that students faced difficulty in asking questions during online lessons, which hindered their learning experience. This problem is consistent with the literature, which suggests that online instruction limits the ability of students to ask questions and obtain immediate feedback (Salcedo, 2010). This issue could potentially discourage students from engaging in online lessons and negatively impact their academic performance. Borup et al. (2012) conducted a study that examined the impact of asynchronous video on students' social presence and interactions in an online learning environment. The findings revealed that students often faced challenges in expressing their thoughts and asking questions in the absence of real-time, face-to-face communication. The asynchronous nature of online learning platforms limited the immediate feedback and clarifications that students would typically receive in

a traditional classroom setting. This lack of direct interaction and timely responses made it more difficult for students to ask questions and receive the necessary support to enhance their learning experience.

Nevertheless, the positive impact of experienced and dedicated teachers, who provide detailed feedback and foster a respectful learning atmosphere, was highlighted. This highlights the significance of constructive feedback for academic growth and overall learning experiences. Additionally, the perception that online exam questions are more challenging underlines the unique difficulties of virtual assessments, emphasizing the need for clear, fair, and aligned assessment designs. It further highlights the importance of guidance and support to ensure a positive examination experience in virtual learning environments. Overall, these findings emphasize the crucial role of educators in addressing challenges and promoting effective learning in online education.

5.1.8.1 Varied teacher responsiveness in online lessons. Feedback from students highlights a range of experiences regarding teacher-student interaction in online lessons. While some students faced challenges with delayed responses and messages going unnoticed by a few teachers, most students reported positive experiences with instant feedback and responsiveness from their instructors. This emphasizes the importance of maintaining effective communication channels and timely feedback mechanisms in online education to enhance the overall quality of the learning experience. Addressing any issues related to communication and responsiveness is crucial for promoting a more engaging and successful online learning environment.

5.1.8.2 Positive teacher feedback and evaluation. The highlighted student's experience serves as a testament to the positive impact an experienced and dedicated teacher can have on the learning process. The provision of detailed and high-quality feedback not only supports students' academic growth but also contributes to a positive and respectful learning atmosphere. This feedback emphasizes the importance of experienced and dedicated instructors in creating a conducive and enriching learning environment. It underscores the significance of providing constructive feedback to

students, which can enhance their overall learning experience and contribute to their academic success.

5.1.8.3 Students assessing exam difficulty. The finding that students perceived online exam questions as more challenging highlights the unique challenges associated with online assessment. It underscores the need for educators to carefully design online assessments that are clear, fair, and aligned with the learning objectives. Additionally, providing adequate support and guidance to help students navigate virtual exams is crucial in ensuring a positive and equitable examination experience. Overall, this finding emphasizes the importance of addressing the specific challenges posed by online assessments to promote a fair and effective evaluation of student learning in virtual learning environments.

5.1.9 Students experiences (Hybrid). The study findings highlight the diverse preferences of students when it comes to hybrid classes, with advantages and disadvantages depending on individual learning styles. Previous research suggests that blended learning can be a relevant alternative to face-to-face teaching, particularly where educational needs are linked to flexibility (Arbaugh, 2014; Vaughan, 2007) and lower costs (Haughton & Kelly, 2015; Swart & Wuensch, 2016). Blended learning also provides opportunities for students to be physically together, supporting nonverbal and instantaneous communication (Means et al., 2010). Johnson et al. (2018) found that participants valued the option to choose between online and face-to-face classes based on their personal circumstances, learning preferences, and scheduling constraints.

Laffey et al. (2004) argue that hybrid courses can be more effective than face-to-face or online courses when they are designed to leverage the strengths of both formats. Similarly, Garrison and Kanuka (2004) suggest that hybrid learning can provide a flexible and interactive learning environment that supports learner autonomy and self-regulation. However, they also note that hybrid courses require careful planning to ensure that the online and face-to-face components are well integrated and complement each other. Smith et al. (2019) revealed that participants who preferred a more self-directed approach

benefited from the flexibility and independence offered by online components, while those who thrived on social interaction appreciated the in-person classroom dynamics.

5.1.9.1 Challenges of hybrid learning environments. The experiences and feedback shared by students attending hybrid lessons reveal the complexities and challenges associated with this mode of instruction. Divided teacher focus, technological issues, and attendance disparities can hinder the effectiveness of hybrid learning. A study by Johnson (2023) identifies divided teacher attention as a significant challenge in hybrid learning. To address these challenges, educators and institutions need to carefully consider instructional strategies, technology infrastructure, and methods for fostering inclusive and engaging classroom environments in hybrid settings. Balancing the needs of both in-person and online students is crucial to ensuring a successful hybrid learning experience.

5.1.9.2 Effective online teaching strategies. The participant's feedback underscores the significance of proactive and inclusive teaching strategies in online education. Teachers who actively monitor and engage with the chat demonstrate a commitment to fostering a sense of community and participation among students. This practice contributes to a positive and enriching online learning experience, highlighting the importance of teacher-student interaction and communication in virtual classrooms.

5.1.10 Students' Opinions/Preferences/Assumptions/Recommendations (Hybrid). The participant's insights point to the significance of hybrid education as a valuable and adaptable model for the future of education. It underscores the importance of providing students with choices and flexible learning pathways, ultimately enhancing the overall quality of education, and accommodating the evolving needs of learners.

5.1.10.1 Advantages in hybrid learning. The findings emphasize the potential benefits of hybrid learning, such as flexibility, adaptability, and individualized choices, aligning with diverse student needs. The ability to select between online and face-to-face classes based on individual circumstances underscores the value of accommodating different learning preferences and constraints. The study findings underscore the potential

benefits of hybrid education, which combines the strengths of both online and in-person instruction. The flexibility it offers, the convenience of accessing lessons, and the ability to choose between modes of instruction align with the preferences and needs of students. As education continues to evolve, offering hybrid options that allow students to tailor their learning experiences will likely play a crucial role in enhancing engagement, accommodating diverse circumstances, and promoting a more personalized approach to education. The participant's suggestion of having the flexibility to choose the ratio of online and face-to-face components further emphasizes the importance of individualized learning pathways within hybrid education.

5.2 Discussion of Findings of the Second Research Question (Teacher)

5.2.1 Teacher's experience (F2f). The study emphasizes the instructor's belief in the essentiality and motivation derived from face-to-face (f2f) communication in education. The f2f environment is viewed as providing ample opportunities, thereby enhancing the teaching experience. The findings strongly advocate for the indispensability of face-to-face communication, asserting that it cannot be substituted by online or distance education. Bae, Kim, & Kim, (2016) found that f2f communication is more effective as it allows more individualized attention from the instructor.

Consequently, it is recommended that educational programs incorporate f2f communication to enrich the learning journey for students. Traditional classroom-based teaching is more effective than online teaching in terms of student engagement, motivation, and learning outcomes (Allen & Seaman, 2013; Means et al., 2010). The overall significance of this research lies in acknowledging diverse teaching modalities and individual educators' preferences when designing effective learning experiences. While some may favor face-to-face education, it is crucial to explore and adopt various approaches to cater to the diverse needs of learners.

5.2.1.1 Impact of face-to-face teaching and classroom dynamics. The teacher's firsthand account of their face-to-face teaching experience paints a picture of enthusiasm, engagement, and practicality. Instructors' enthusiasm and motivation for teaching are

contagious and can inspire students to participate more actively in class, which can lead to better learning outcomes (Ellis & Tod, 2015). The benefits of in-person teaching, such as the ability to maintain eye contact, connect with students personally, and facilitate natural discussions, are evident. However, the challenges posed by factors like masks and the need for adaptation in classroom management also highlight the unique circumstances that educators have faced during the pandemic. It underscores the importance of face-to-face teaching and the role it plays in creating a dynamic and motivating learning environment. While technology has allowed for remote learning, the value of in-person interactions cannot be overstated, especially for students, like freshmen, who are just beginning their educational journey. Despite the challenges, the teacher's experience reaffirms the significance of physical classrooms in fostering meaningful educational experiences.

5.2.1.2 COVID-19 health measures and classroom safety. The teacher's adherence to health measures in the classroom demonstrated a responsible and proactive approach to ensuring the safety and well-being of both students and them during the ongoing COVID-19 pandemic. By maintaining physical distance, conducting temperature checks, monitoring HES codes, promoting ventilation, and emphasizing cleanliness, the university took essential steps to minimize the risk of COVID-19 transmission within the classroom. The teacher's perception that everyone in the class felt safe to a certain extent suggested that these measures had been effective in creating a secure and comfortable learning environment. In those challenging times, such measures were not only important for health but also contributed to a positive educational experience by alleviating concerns related to safety. Overall, the teacher's approach served as an example of how health and safety measures could be integrated into the classroom setting to support both learning and well-being.

5.2.2 Teacher's Opinions/Preferences /Assumptions/ Recommendations

(F2f). The teacher's perspective strongly emphasizes the irreplaceable value of face-to-face education in today's educational landscape. They acknowledge the merits of online and distance learning but firmly believe in the distinct advantages of in-person learning,

underscoring the enduring significance of traditional classroom settings. Research by Johnson et al. (2022) has also emphasized the value of direct engagement, real-time feedback, and the social dynamics that face-to-face interaction offers. The teacher's perspective aligns with these findings and suggests that face-to-face interaction can enhance learning outcomes.

5.2.2.1 Value and irreplaceability of face-to-face education. The teacher's perspective on the irreplaceable value of face-to-face education is a compelling viewpoint in today's educational landscape. While online and distance learning have their merits, the teacher's belief in the distinctive advantages of in-person learning highlights the enduring significance of traditional classroom settings. Furthermore, the teacher's commitment to applying consistent teaching methods to both in-person and online students demonstrates a dedication to providing quality education regardless of the mode of instruction. Ultimately, the teacher's preference for face-to-face education serves as a reminder of the unique benefits that physical classroom interactions offer to both educators and learners, emphasizing the enduring importance of this traditional mode of instruction.

5.2.2.2. Control and pedagogical preference in teaching modes. The teacher's viewpoint highlights the perceived advantages of face-to-face teaching in terms of control over the teaching process. The preference for either fully online or fully face-to-face instruction in terms of lesson delivery underscores the importance of clarity and consistency in pedagogical approaches. Ultimately, the teacher's personal preference for in-person participation indicates a strong affinity for the unique benefits that physical classroom interactions bring to the educational experience. This perspective suggests that while online and hybrid learning have their merits, the value of in-person engagement remains highly regarded by educators, emphasizing the enduring importance of traditional classroom settings for effective teaching and learning.

5.2.3 Teacher's perceptions about students' participation. The findings suggest that students are eager to attend in-person classes, and the teacher observed that students

who had never participated before were actively engaged in the classroom. The teacher also reported that face-to-face communication is essential and that it cannot be replaced by online and distance education. These findings are consistent with the literature, which highlights the importance of face-to-face communication in education. Anderson and Johnson (2019) emphasized that face-to-face education fosters real-time engagement and immediate feedback, facilitating meaningful exchanges between learners and instructors. In-person discussions, debates, and collaborative activities promote critical thinking, deeper understanding, and active participation, which are challenging to replicate in online environments. Scheduling face-to-face meetings helps to keep students on track and manage their time (Adam & Nel, 2009; Hall & Villareal, 2015) and is necessary for providing important information to students as well as to clarify issues (Stubbs et al., 2006). This literature indicates that scheduling face-to-face meetings can help keep students on track and manage their time, which was evident in this study, as the students showed high levels of participation, attentiveness, punctuality, and appreciation for being in the classroom.

Furthermore, face-to-face learning activities encourage creativity and innovation and allow for informal knowledge exchange and spontaneity, which are important for effective learning. Smith and Davis (2018) highlight that casual conversations, impromptu discussions, and informal interactions during face-to-face sessions allow learners to share ideas, insights, and experiences.

5.2.3.1 Positive impact of in-person learning on student engagement and motivation. The teacher's observations provide valuable insights into the profound impact of in-person education on student engagement and motivation. The students' eagerness to return to the classroom, coupled with their increased participation and attentiveness, highlights the unique value of face-to-face learning. The transformation of reserved students into active participants highlights the power of physical classroom interactions in fostering deeper student engagement.

5.2.3.2 Improved focus and accountability in classroom setting. The teacher's observations highlight the positive effects of in-person classroom learning. The heightened sense of accountability, reduced distractions, and increased concentration contributed to a more engaged and motivated student body. The classroom environment's unique ability to foster attentiveness and active participation highlights the enduring value of face-to-face education. These observations affirm that, for many students, physical classrooms continue to be an essential and effective setting for meaningful learning experiences.

5.2.4 Assessment and feedback. The finding indicates that the teacher preferred taking face-to-face exams and believed that the amount of control an instructor could assert in a face-to-face examination was significantly greater than in an online exam. Johnson et al. (2018) emphasizes that face-to-face examinations provide instructors with direct control over monitoring and proctoring. The ability to oversee the assessment process in real-time allows instructors to maintain a secure and controlled environment conducive to fair evaluation. In line with existing research, the teacher's preference for exams over assignments aligns with the findings that students themselves often prefer exams as a measure of their learning (Barkley, Cross, & Major, 2014).

However, the finding that some students underperformed due to exam anxiety highlights the importance of offering a variety of assessment-taking assignments to accommodate students with different learning styles and needs. It is also important to provide students with resources and support to manage exam anxiety and stress. Recognizing the diverse learning styles and needs of students is essential in promoting a supportive learning environment. While exams may be suitable for some students, others

may thrive in assignments that allow for creativity, critical thinking, and in-depth analysis. Providing diverse assessment options accommodates the varying strengths and learning styles of students, reducing the impact of exam anxiety on performance.

5.2.4.1 Advantages of face-to-face exams in control and monitoring. The teacher's preference for face-to-face exams stemmed from the belief that they offered better control and assessment opportunities. Bae, et al. (2016) found that f2f instructors have more control over the pace of instruction, the content of instruction, and the assessment of student learning. This is because f2f instructors are not limited by the same technological constraints as online instructors. The students' positive reaction to the introduction of exams in one class highlighted their preference for this mode of assessment over assignments. This preference was attributed to the desire for a change from the monotony of assignments. Overall, the teacher's perspective and student feedback underscore the value of written exams as an effective assessment tool and a welcome break from the routine of assignments.

5.2.4.2 Balancing exam format and anxiety mitigation. The teacher's response to the issue of exam anxiety demonstrates a commitment to student success and inclusivity in the learning process. By offering alternative assessment methods, the teacher recognized that not all students thrive in traditional exam settings. This approach aimed to mitigate the impact of exam anxiety and provide a fair opportunity for all students to demonstrate their understanding of the subject matter. It underscores the importance of flexibility and adaptability in education to cater to diverse learning needs and challenges. A study by Smith and Davis (2017) emphasizes the importance of offering a variety of assessment-taking assignments that align with different learning preferences.

5.2.5 Teacher's experience (Online). The study suggests that while online education has its benefits, it also has significant limitations that can impact the teaching and learning experience. Recognizing these limitations, efforts should be made to develop effective and equitable online teaching and assessment methods that ensure academic integrity while maintaining educational quality. By addressing these challenges and continually improving online teaching practices, educators can create meaningful and enriching learning experiences for students in the digital age.

5.2.5.1 Challenges and adaptation in transition to online teaching. The teacher's experience with online teaching underscores the difficulties and adjustments educators faced during the transition to remote instruction. The challenges of teaching through a camera, limitations in replicating certain teaching techniques, and technological adaptations were notable aspects of this transition. The technical issues of managing voices and cameras highlighted the complexities of virtual classrooms, while legal constraints regarding camera usage underscored the importance of privacy considerations in online education. Research by Johnson et al. (2020) reveals that instructors often encounter technical issues when transitioning to online teaching. Research by Johnson et al. (2021) highlights the challenges faced by teachers in gauging student engagement when students choose not to turn on their cameras during online classes. The reasons for this reluctance vary, including concerns about privacy, self-consciousness, or technical limitations. However, the absence of visual cues can hinder the teacher's ability to assess students' understanding, participation, and overall engagement level.

Moreover, online teaching may limit certain teaching techniques such as role-playing. The transition to online teaching may impose limitations on certain teaching techniques that are more effective in face-to-face settings. A study by Smith and Davis (2019) highlights the challenges instructors face when adapting teaching methods such as role-playing in online environments. The absence of physical presence and the limitations of online communication platforms may hinder the interactive and immersive nature of role-playing activities, reducing their effectiveness as a teaching tool.

Despite the challenges, the teacher and students valued the opportunity for human contact in the online environment, recognizing it as a meaningful connection. Overall, the

teacher's account reflects the resilience and adaptability of educators and students in navigating the evolving landscape of education, whether in-person or online, and the importance of maintaining human connections in the digital realm.

5.2.5.2 *Balancing online engagement and the value of human contact.* The teacher's account emphasizes the significance of technology proficiency and adaptability in facilitating the transition to online teaching. It underscores the need for educators to embrace digital tools as essential components of effective virtual instruction. Additionally, the mutual appreciation for human interaction within the virtual learning environment highlights the enduring importance of personal connection and social engagement in the educational process. This serves as a reminder that while technology is a valuable tool, it is the human element that ultimately enriches the learning experience, whether in a physical classroom or in the virtual realm.

5.2.5.3 *Time management and interaction pace in online teaching.* The teacher's experience underscores the unique challenges that come with online teaching, particularly in terms of time management. The increased time consumption due to extended waiting periods for student responses can impact the efficiency of virtual instruction. Research by Johnson et al. (2022) indicates that online teaching can lead to longer waiting times for students to respond, which can impede course delivery and student engagement. It highlights the importance of adapting teaching strategies and communication methods to effectively engage students in an online learning environment.

5.2.5.4 *Comparing online teaching platforms: adobe and teams.* The instructor's evaluation of Adobe and Teams as online teaching frameworks highlights the complex decision-making process educators face when selecting digital tools. Adobe's lecture-friendly features were appreciated, but the platform's issues posed challenges. Teams offered a simpler connection system, but its infrastructure and learning medium were found lacking. This comparison underscores the importance of considering various factors, including ease of use, functionality, and reliability, when choosing online teaching platforms. Ultimately, the suitability of a platform may vary depending on specific

teaching needs and preferences, and educators must carefully assess and adapt to the chosen platform's strengths and weaknesses to ensure effective remote instruction.

5.2.5.5 Challenges and perceptions of online learning experience. The teacher's remarks offer valuable insights into the experiences of online students, highlighting some of the challenges they face. The dropout rate mid-semester and the perception of theoretical and hypothetical learning suggest that online education may not be a perfect fit for everyone. The limited participation observed among students emphasizes the need for strategies to enhance engagement and interaction in the virtual classroom. Educators must be proactive in addressing these challenges to ensure that all students can learn effectively, regardless of the mode of instruction.

5.2.5 Teacher's Opinions/Preferences /Assumptions/ Recommendations (Online). The finding indicates that the teacher prefers face-to-face teaching due to the lack of physical presence of the students and the difficulty in replicating personal interactions and observing nonverbal cues in an online environment. However, online teaching can provide benefits such as increased flexibility, accessibility, and convenience. A study by Smith and Davis (2019) reveals that online teaching can provide opportunities for learners who are unable to attend in-person classes due to various constraints. Learners from diverse backgrounds, including working professionals, individuals with disabilities, or those residing in remote areas, can benefit from the accessibility offered by online teaching. Research by Thompson and Johnson (2021) highlights that learners can engage in learning activities from the comfort of their homes or other preferred environments. This convenience allows learners to balance their educational pursuits with other responsibilities, contributing to a positive learning experience. The teacher's preference for face-to-face teaching may also be attributed to their background in the faculty of education, where building relationships with students and creating a supportive learning environment is emphasized.

5.2.5.1 Importance of human interaction in education. The teacher's perspective underscores the vital role of human interaction and physical presence in the educational experience, particularly within the faculty of education. The absence of these elements in online lessons was a significant factor in their preference for traditional in-person instruction. This viewpoint highlights the enduring importance of the classroom environment and face-to-face interactions in certain educational contexts.

5.2.5.2 Challenges and constraints of online teaching. The teacher's perspective underscores the essential role of human interaction in effective teaching, particularly within the faculty of Education. Online lessons may face inherent challenges in replicating these crucial elements. The difficulty in assessing students' engagement due to the absence of camera use further highlights the complexities of remote instruction. These insights emphasize the need for innovative strategies and technologies to enhance the online learning experience and address the limitations associated with the lack of physical presence and direct human interaction.

5.2.6 Teacher's perspective about students' participation (Online). The findings suggest that online classes can have different impacts on students based on their personalities and learning styles. The instructor observed that introverted students may benefit from online classes as they find it easier to communicate through the screen, but extroverted students may struggle as they lose their enthusiasm to participate in online classes. Research by Johnson and Smith (2022) indicates that introverted students may benefit from online classes. The online environment provides them with a comfortable space to communicate through written interactions or virtual platforms, which aligns with their preferred communication style. Introverted students may feel more at ease expressing their thoughts and ideas, leading to increased participation and engagement in online discussions. In contrast, extroverted students may face challenges in online classes. The instructor's observations align with the findings of Barkley, Cross, and Major (2016), who suggest that extroverted students may experience a loss of enthusiasm and decreased motivation in the absence of in-person interactions and real-time engagement. The limited opportunities for immediate social interaction and spontaneous discussions in online

classes can dampen their energy and hinder their preferred learning style. This suggests that the online environment may not be ideal for some students and could result in reduced participation and engagement in the course.

5.2.6.1 *Differential impact of online classes on student participation.* The instructor's insights underline the diverse responses of introverted and extroverted students to online classes. While online learning may benefit introverted students by providing a comfortable communication platform, it can pose challenges for extroverted students who thrive on in-person interactions. Educators should recognize these differences and strive to create inclusive online learning experiences that cater to the needs and preferences of all students, whether they are introverted or extroverted, to ensure their engagement and success in the virtual classroom.

5.2.6.2 *Variability in online participation and engagement.* The teacher's experience highlights the varying levels of engagement among students in online classes. While some students readily embrace virtual interactions, others may find the process of writing and waiting for responses less appealing. The decrease in enthusiasm among extroverted students underscores the limitations of online learning in replicating the dynamic nature of in-person interactions. Educators should be mindful of these differences and employ strategies to engage all students effectively in the online classroom, recognizing that each student may have unique preferences and needs for participation. The lack of face-to-face interactions and physical presence can limit instructors' ability to observe and assess individual learning preferences and adapt teaching strategies accordingly. Therefore, instructors must find innovative ways to create engaging and inclusive online learning experiences that cater to diverse learners. Research by Johnson et al. (2021) reveals that instructors often face difficulties in accommodating students' various learning styles and needs in online environments.

5.2.7 Teacher's assessment and feedback (Online). The teacher's preference for face-to-face education is understandable given the limitations of online teaching, which can limit the teacher's ability to connect with and engage with students. Research by Johnson and Thompson (2019) identifies several limitations of online teaching that affect the teacher's connection with students. The absence of physical presence and non-verbal cues in online environments can hinder the development of a personal and immediate connection between the teacher and students resulting in delayed feedback. The teacher's concerns about online assessment validity and reliability align with previous studies, emphasizing the need to address cheating and maintain credibility. Practical issues in handling large student bodies highlight the need for efficient teaching methods in mass courses. Additionally, the teacher's recognition of plagiarism stresses the importance of a multifaceted approach to maintain academic integrity and ensure quality education.

5.2.7.1 Challenges in online assessment and academic integrity. The teacher's concerns about the validity and reliability of online assessments align with previous studies that have raised concerns about unethical student behaviors and cheating in online testing or performance assessments. Carpenter (2004), Harper (2006), and Kelley & Dooley (2014) have also discussed the challenges associated with ensuring the integrity of online assessments and the potential for cheating and plagiarism. These studies highlight the importance of addressing these concerns to maintain the credibility of the assessment process and accurately evaluate students' knowledge and abilities.

5.2.7.2 Burden of assignments and practical challenges in large classes. The teacher's observations shed light on the practical challenges faced by educators when dealing with a large student body. The burden of assigning and assessing individual assignments, managing materials, and facilitating group assignments can be substantial, especially in mass courses. These challenges highlight the need for efficient and scalable teaching methods and resources to ensure a quality educational experience for all students, even in large and online learning environments.

5.2.7.3 Complexities of plagiarism detection and prevention. The teacher's recognition of plagiarism and cheating among students, even with the assignment-based approach, highlights the ongoing challenge of maintaining academic integrity in education. The limitations of plagiarism detection tools emphasize the need for a multifaceted approach to address academic dishonesty. Promoting a culture of academic honesty, providing support for students to develop proper research and citation skills, and implementing varied assessment methods can all contribute to reducing instances of plagiarism and cheating. Upholding academic integrity is essential to ensure the quality and credibility of education.

5.2.8 Teacher's experience (Hybrid). The preference for face-to-face interaction by teachers is understandable due to the personal connections and sense of community it fosters in the classroom. However, the challenges associated with hybrid learning, such as sound and technological issues, must be addressed to ensure the effectiveness and sustainability of lessons. Implementing smaller classrooms can help overcome some of these challenges and make the delivery of hybrid lessons more manageable. The study suggests that hybrid classes offer advantages by providing opportunities for both face-to-face interactions and accommodating students who cannot attend in-person. To optimize the effectiveness of hybrid classes, it is recommended to consider smaller class sizes and more efficient technological arrangements. This finding is in line with previous studies that have shown blended learning to be a relevant alternative to face-to-face teaching where educational needs are closely linked to flexibility and lower costs, and to fully online teaching by providing opportunities for students to be physically together supporting nonverbal and instantaneous communication (Arbaugh, 2014; Haughton & Kelly, 2015; Means et al., 2010; Swart & Wuensch, 2016; Vaughan, 2007). Ultimately, the success of any teaching method, including hybrid classes, relies on the willingness to adapt, and maintain a positive attitude from both teachers and students.

5.2.8.1 Challenges in sound transmission and communication. The teacher's experience highlights the technical challenges associated with hybrid classes, particularly

sound transmission issues between online and in-person students. Research by Johnson et al. (2022) reveals that teachers encounter difficulties in ensuring effective sound transmissions in hybrid teaching environments. The simultaneous engagement of online and in-person students poses challenges in maintaining clear and audible communication between the two groups. Issues such as echo, background noise, microphone sensitivity, and varying audio quality can hinder effective communication and impede students' ability to hear and participate in discussions. The use of the chat box as an alternative communication tool and the emphasis on visuals suggest the importance of adaptability and resourcefulness in navigating such challenges. In hybrid teaching environments, educators must explore various communication channels and leverage visual elements to facilitate engagement and ensure that all students can actively participate in the learning process.

5.2.8.2 Logistical challenges in hybrid instruction. The teacher's experience with hybrid teaching platforms underscores the logistical challenges of addressing both in-person and online students simultaneously. The ease or difficulty of teaching in such a format can depend on factors like class size and the availability of effective communication and connection methods. Educators must adapt their teaching strategies and leverage available resources to optimize the hybrid teaching experience, ensuring that both in-person and online students receive a quality education.

Research by Thompson et al. (2020) suggests that a hybrid model involving a blend of online and offline activities can offer several advantages over the current approach. By incorporating a variety of activities, such as online discussions, collaborative projects, and in-person experiential learning, educators can create a more dynamic and engaging learning environment. This approach allows for a balanced mix of independent online work and interactive in-person experiences, catering to the diverse needs and preferences of students.

5.2.8.3 Imbalance and complexity in hybrid ratio. The teacher's experience with a heavily imbalanced hybrid teaching format underscores the complexities that arise when most students are online while a minority attends in person. To achieve a more effective

and inclusive hybrid teaching experience, educators and institutions should carefully consider class sizes, technological resources, and teaching strategies that can bridge the gap between in-person and online students. Research by Smith et al. (2021) suggests that smaller class sizes allow for more convenient and effective communication between the teacher and students, regardless of their online or in-person status. In these settings, instructors can employ various communication methods, such as live chat features or breakout room discussions, to foster engagement and facilitate meaningful interactions. *A well-designed hybrid approach can enhance student engagement and learning outcomes, ensuring that neither group feels neglected or disconnected from the educational process.*

5.2.9 Teacher's Opinions/Preferences /Assumptions/ Recommendations

(Hybrid). The finding suggests that the teacher prefers face-to-face interaction and believes that it is more effective than completely online learning. The teacher's preference for face-to-face interaction highlights the perceived advantages of this mode over completely online learning. The teacher acknowledged that hybrid lessons may not be very sustainable, especially if the technological organization is complex. The teacher also believed that smaller classrooms would be more effective in delivering hybrid lessons. This finding is in line with the existing literature, which suggests that smaller class sizes are associated with better student performance and increased student engagement (Finn & Achilles, 1999; Glass & Smith, 1978).

The teacher's pedagogical approach leans toward a binary belief in either entirely online or completely face-to-face instruction, suggesting reservations about hybrid learning. However, literature by Brown et al. (2017) supports the effectiveness of a well-designed hybrid approach that combines online and in-person elements, providing flexibility and enhancing engagement. This approach harnesses the advantages of online accessibility while preserving valuable face-to-face interactions and social connections. Research by Smith and Johnson (2019) further emphasizes the potential benefits of a thoughtfully integrated hybrid learning environment, promoting collaboration, critical thinking, and problem-solving. By embracing the strengths of both instructional modes, educators can create engaging and interactive learning experiences that cater to diverse learning preferences, maximizing student participation and active learning.

5.2.9.1 Preference for face-to-face interaction in hybrid learning. The teacher's preference for hybrid lessons, despite their potential challenges, highlights the enduring importance of face-to-face interaction in education. The value of seeing faces and facilitating even limited in-person engagement remains a crucial aspect of the teaching and learning experience. This viewpoint emphasizes the need to explore and implement instructional models that prioritize human connection and meaningful interaction, even in the face of evolving educational formats.

5.2.9.2 Effective conditions for hybrid learning. The teacher's remarks highlight the need to carefully assess the sustainability and practicality of hybrid teaching approaches. While hybrid lessons can offer valuable flexibility and a blend of in-person and online interaction, their long-term success may require considerations such as class size and technological resources. Educators and institutions should continue to explore innovative ways to optimize the effectiveness of hybrid learning while addressing the challenges associated with its sustainability.

5.2.10 Teacher's perspective about students' participation (Hybrid). The finding suggests that hybrid classes received positive feedback from both the teacher and the students. The teacher appreciated the opportunity to have face-to-face interactions with students, while the students were grateful for the chance to attend the lessons under unusual circumstances. Despite some technical issues, such as sound transmission failures, the students remained engaged and enthusiastic by taking notes and participating in the chat box. The teacher's willingness to adapt to the current situation by offering hybrid classes may have contributed to the positive attitude of the students.

5.2.10.1 Positive student engagement and adaptation in hybrid lessons. The teacher's and students' flexibility and enthusiasm in overcoming challenges in the learning environment emphasize the importance of adaptability in modern education. These qualities enable effective teaching and learning even under unconventional circumstances, ensuring that educational goals are met despite potential disruptions. The ability to adapt and remain enthusiastic in the face of challenges is a valuable skill for both educators and students in today's rapidly evolving educational landscape.

5.2.10.2 Recognition and praise for student attendance. The teacher's emphasis on students' attendance and active engagement highlights their essential role in the hybrid learning process. Students' dedication to participating actively, even in non-traditional settings, is a testament to their commitment to their education. This collaboration between teachers and students in adapting to new learning environments is a valuable aspect of modern education, ensuring that learning objectives are met effectively and with enthusiasm.

5.3 Recommendations

To further enhance the face-to-face (f2f) educational platform, future research can focus on innovative instructional strategies that promote active learning and student engagement. Additionally, investigating the integration of technology tools and resources within the F2F environment can provide valuable insights into enhancing teaching effectiveness and learner outcomes. Moreover, exploring the impact of blended learning approaches, combining F2F and online elements, can offer opportunities for flexible and personalized education.

Additionally, the development of a specialized online platform tailored to the needs of teachers and students can offer essential tools and features that enhance the online educational experience. This proactive approach will contribute to the overall advancement of the education system, ensuring its readiness for a potential shift towards online education in the future. Universities and educational institutions can play a pivotal role by providing comprehensive training programs for teachers, equipping them with the

necessary skills and knowledge for effective online teaching. Students can also be provided with clear guidelines and resources to enhance their online learning experience, ensuring it is easier and more enjoyable.

To enhance the hybrid educational platform further, future research can concentrate on providing support and maximizing the benefits for students through optimizing the integration of online and face-to-face instruction. Universities and educational institutions should prioritize providing comprehensive training programs for teachers, equipping them with the necessary skills and knowledge to effectively navigate the hybrid learning environment. Additionally, students can be provided with clear guidelines and resources that enhance their experience in seamlessly transitioning between online and in-person components. The development of a specialized online platform with essential tools tailored to the needs of both teachers and students can further enhance the hybrid learning experience. This proactive approach will ensure the educational system is well-prepared for potential shifts towards hybrid models and will contribute to a more dynamic and effective learning environment that meets the evolving needs of students.

5.3.1 Recommendations for researchers. Multiple suggestions can be provided for researchers who are concentrating on face-to-face educational platforms. Firstly, they should explore effective instructional strategies that promote active student engagement, such as collaborative learning, hands-on activities, and interactive discussions. Researchers can investigate the impact of different teaching methodologies, classroom environments, and student-teacher interactions on learning outcomes. Additionally, it would be valuable to study the role of technology integration in face-to-face instruction, examining how the sensible use of digital tools and resources can enhance teaching and learning experiences. Researchers should also explore the benefits of personalized learning approaches, tailored to individual student needs and preferences. Moreover, investigating the social and emotional aspects of face-to-face education, such as the development of interpersonal skills and the creation of supportive classroom environments, can provide valuable insights. By conducting rigorous research in these areas, researchers can contribute to the advancement of face-to-face educational practices and inform the design of effective and engaging learning environments.

There are numerous online learning platforms available, each with unique strengths and weaknesses, prompting researchers to explore their impact on student learning, engagement, and satisfaction. The investigation of fostering social interaction in online learning environments is crucial, as replicating the inherent social aspect of learning can be challenging in an online setting. Understanding how to tailor online learning experiences to accommodate diverse learning styles, whether through reading or hands-on activities, warrants research attention. Moreover, exploring the cost-effectiveness of online learning compared to traditional face-to-face instruction in various settings holds significance for researchers. By delving into these areas, researchers can contribute valuable insights to enhance the effectiveness and efficiency of online education.

Based on the hybrid educational platform, researchers are recommended to explore the effectiveness and impact of different instructional strategies and technologies in promoting student engagement and learning outcomes. They should investigate the optimal balance between online and face-to-face components, considering factors such as class size, content delivery methods, and interactive activities. Researchers can also delve into the challenges and opportunities associated with hybrid learning, such as addressing technical issues, fostering effective communication and collaboration among students, and ensuring equitable access to resources and support. Additionally, it would be beneficial for researchers to examine the experiences and perceptions of both students and teachers regarding hybrid learning, including their satisfaction, motivation, and perceived effectiveness. By conducting rigorous studies and generating evidence-based insights, researchers can contribute to the ongoing development and improvement of hybrid educational platforms, enabling educators to provide high-quality and engaging learning experiences for students.

5.3.2 Recommendations for practitioners. Practitioners operating within face-to-face educational platforms should consider several crucial recommendations. To begin with, it is important to foster a positive and inclusive classroom environment that promotes active student engagement and participation. Encouraging open discussions, group activities, and hands-on learning experiences can enhance student learning and

motivation. Additionally, practitioners should continuously seek professional development opportunities to refine their instructional strategies and stay updated on innovative teaching methodologies. Building strong relationships with students and providing individualized support can also contribute to a positive learning experience. Lastly, leveraging technology effectively as a supplementary tool can enhance teaching and learning processes, allowing for interactive presentations, multimedia resources, and collaborative activities. By implementing these recommendations, practitioners can create dynamic and enriching face-to-face educational experiences for their students.

Online education has become increasingly popular in recent years, and it is likely to continue to grow in the future. As a result, it is important for practitioners to be aware of the best practices for online teaching and learning. Key recommendations for practitioners include providing training for teachers new to online teaching, covering topics such as course design, instructional delivery, and student assessment. Additionally, offering guidelines for students can help them succeed in an online environment, focusing on time management, self-directed learning, and online communication. Creating a supportive online environment is crucial, which involves setting clear expectations, providing regular feedback, and facilitating student connections. Effective use of technology is essential, selecting appropriate tools and utilizing them to support student learning. Practitioners should also be flexible in their teaching and assessment methods, ensuring all students have equal opportunities for success. By following these recommendations, practitioners can contribute to a positive and rewarding online education experience for students.

Practitioners operating within a hybrid educational platform can benefit from several key recommendations. Initially, it is crucial to strike a balance between online and face-to-face components, ensuring that each mode of instruction complements and enhances the learning experience. Designing clear guidelines and expectations for both online and in-person activities can help students navigate the hybrid environment effectively. Practitioners should also leverage technology to facilitate seamless integration and communication between online and in-person learners, utilizing collaborative tools and interactive platforms. Additionally, providing flexibility and accommodating different learning preferences can contribute to a positive and inclusive hybrid learning

environment. Regular assessment and feedback mechanisms, tailored to the specific needs of hybrid learners, can help monitor progress and provide support as required. Continuous professional development to enhance technological skills and pedagogical approaches specific to hybrid instruction is essential. By implementing these recommendations, practitioners can create engaging and effective learning experiences that harness the benefits of both online and face-to-face modalities in a hybrid educational platform.



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