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**The Impact of Distance Learning On Students of
Determination's Educational and Social-Emotional Skills in
Dubai Private Schools from The Parents' and Teachers'
Perspectives**

في الإجتماعية و التعليمية الهمم أصحاب الطلاب مهارات على بعد عن التعلم تأثير
المعلمين و الأمور أولياء نظر وجهة من الخاصة دبي مدارس

by

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of the requirements for the degree of
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ABSTRACT

The emergence of the COVID-19 pandemic caused significant shifts in the United Arab Emirates' education sector. This study focuses on the country's transition towards distance learning and its implications on students of determination and their teachers and parents. On one hand, some groups contend that the pros of distance learning outweigh the cons; on the other hand, skeptics argue that the weaknesses of distance learning worsened the academic outcomes of students of determination. Thus, this study analyzes the opinions of 50 local teachers and parents who care for students with special education needs. The study begins by explaining the rationale for exploring the opportunities and challenges created by distance learning. Consequently, the literature review section elaborates the findings of recent qualitative and quantitative research articles about distance education and its effects on conventional learning paradigms. The methodology section explains the sampling criterion and the use of data collection methods such as interviews and questionnaires to acquire valuable findings. The discussion and conclusion sections clarify the root causes of the teachers' and parents' perceptions about distance learning. Although several studies have been conducted examining the social and emotional issues of distance learning, few evaluate the teachers' and parents' perspectives. Therefore, this study can offer significant insights into the strengths and weaknesses of distance learning measures for students of determination in the Arabian Peninsula and other areas of the world.

Keywords: Students of Determination, Special Education Needs, Distance Learning.

المخلص

إلى تحولات كبيرة في قطاع التعليم في الإمارات العربية المتحدة. تركز COVID-19 أدى ظهور جائحة فايروس كورونا هذه الدراسة على انتقال الدولة نحو التعلم عن بعد وآثاره على الطلاب أصحاب الهمم من وجهة نظر معلمهم وأولياء أمورهم. من ناحية أخرى، تؤكد بعض المجموعات أن مزايا التعلم عن بعد تفوق السلبيات؛ من ناحية أخرى، يجادل البعض بأن نقاط الضعف في التعلم عن بعد أدت إلى تفاقم النتائج الأكاديمية للطلاب أصحاب الهمم. وهكذا، تحلل هذه الدراسة آراء بعض المدرسين المحليين وأولياء الأمور الذين يهتمون بالطلاب ذوي الاحتياجات التعليمية الخاصة. تبدأ الدراسة بشرح الأساس المنطقي لاستكشاف الفرص والتحديات التي يخلقها التعلم عن بعد. وبالتالي، خضنا في البحث خلال المقالات الحديثة حول التعليم عن بعد وتأثيراته على نماذج التعلم التقليدية. حيث تم جمع العينات من خلال المقابلات والاستبيانات للحصول على نتائج قيمة. توضح نهاية المناقشة والخاتمة الأسباب الجذرية لتصورات المعلمين وأولياء الأمور حول التعلم عن بعد. على الرغم من إجراء العديد من الدراسات لتقييم تأثير التعلم عن بعد على الوضع التعليمي الاجتماعي للطلاب أصحاب الهمم، إلا أن القليل منها يقيم وجهات نظر المعلمين وأولياء الأمور. لذلك، يمكن أن تقدم هذه الدراسة رؤى مهمة حول نقاط القوة والضعف في مقاييس التعلم عن بعد للطلاب أصحاب الهمم في شبه الجزيرة العربية ومناطق أخرى من العالم.

DEDICATION

I dedicate this work to all my students who inspired me and taught me how to guide the new generations to face all the challenges in this world.

To my family who supported me and never let me down, and to my beloved daughter Maya who I will stand up strong for, whatever comes.

Prof. Eman Gaad. words are certainly not enough to thank you.

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CHAPTER 1: INTRODUCTION

The rapid advancement of modern technology has created new opportunities and challenges for special education students. These students have complex educational, mental, social, and emotional needs that need to be addressed to demonstrate similar outcomes as general education students. In this case, the emergence of the COVID-19 pandemic in early 2020 triggered massive shifts in global education patterns. Although the majority of learning institutions in the United Arab Emirates (UAE) shifted towards distance learning and distance learning platforms, many parents and teachers remained dissatisfied by the overall outcomes. This subject has become a major source of controversy in the education sector. Therefore, it is essential to analyze the positive and negative perceptions of distance learning for teachers and parents handling special education students. While some education groups have embraced distance learning, other stakeholders have rejected it due to its inability to address the critical educational, social, and emotional needs of students of determination.

Scope of the research

Distance learning appears to be more important with positive effects on the distance learning effectiveness and curriculum instructions. Distance learning will present a notable positive effect among students through the advanced technological media. The research focuses on the common learning environment which includes the online analysis of distance learning. In addition, the research will help focus on the students' determination and special education in UAE and other private schools. The research also investigates the transition of UAE to distance learning. The study will also investigate the importance that is connected to distance learning and the teachers, students, parents, and other learning institution. The literature review will analyze

how much the COVID-19 pandemic have caused major changes in the special education and distance learning. Educators and parents are happier with the different developments that are attributed to the understanding of distance learning.

1.1 Background

Before explaining the characteristics of special education structures in the UAE, it is integral to define several key terms. According to the UAE Ministry of Education, the term special education refers to the services and education programs implemented for students with special needs (students of determination) to drive them to attain their full academic potential (Education for People of Determination, n.d.). Subsequently, the term “special education needs” describes the educational wants for any student with a disability, impairment, disorder, or unique feature that affects access to learning or educational outcomes (Education for People of Determination, n.d.). The government of the UAE has invested significant funds to provide essential tools and social amenities for students of determination. However, the COVID-19 pandemic triggered major shifts in education practices for students of determination.

Even before the emergence of the COVID-19 virus, the UAE had begun to acknowledge the benefits of enforcing efficient special education initiatives. Since 1979, the country’s special education programs have been quickly evolving in accordance with the growing complexity of learning systems and students’ education needs (UAE Special Education Department, 2006). For instance, while traditional ideologies about special education focus on children with physical, mental, cognitive, and behavioral issues, the current guidelines include gifted and talented students. With the introduction of Federal Law No. 29 in 2006, the UAE government demonstrated that it prioritizes the rights of students of determination by promoting inclusive education in both public

and private learning institutions (UAE Special Education Department, 2006). This change caused a positive shift in the number of students willing to enroll in special education programs. Therefore, the UAE government has played a critical role in supporting the country's evolution of special education paradigms.

When the world recognized the debilitating impacts of the COVID-19 pandemic on health, economic, social, and emotional dimensions of life, many countries adopted severe methods to mitigate its detrimental effects. For example, approximately 191 countries closed all learning institutions to reduce the unprecedented spread of the virus between teachers, students, and parents (Erfurth & Ridge, 2020). Research also shows that the students were unequally affected by the COVID-19 measures, especially students in developing and emerging nations. These drastic measures forced education stakeholders to scramble for innovative solutions to ensure the continuity of learning systems without adversely affecting COVID-19 prevention measures (Erfurth & Ridge, 2020). As a result, distance learning emerged as a ground-breaking solution for meeting the main educational needs of primary, secondary, and higher learning students. Nonetheless, distance learning also posed unexpected challenges to children with special education needs. This rationale explains the necessity for conducting in-depth studies on the positive and negative perceptions among teachers and parents caring for children of determination.

In essence, Arab culture is relatively conservative, so the shift towards distance education caused a lot of uncertainty in the education sector. The main change involved the removal of face-to-face education and the transition towards digital and online education paradigms. Although many researchers have highlighted the quick and cross-cultural benefits of distance education, the reality is that conventional distance education greatly differs from 'crisis distance education' (Al Lily et al., 2020). These differences stem from the fact that education stakeholders were suddenly

forced to accept distance education despite its inherent weaknesses. Since distance learning emerged as a pandemic-driven response, it has caused a lot of uncertainty in the UAE's conservative education sector.

Several social, emotional, psychological, and pedagogical issues emerged due to the growing popularity of distance learning. The social and cultural ramifications focus on the students', teachers', and parents' willingness to shift to distance learning, whereas the psychological and pedagogical impacts highlight the effects of unreadiness and incompetence on compromising students' education (Al Lily et al., 2020). Additionally, 'stay-at-home' measures resulted in pandemic-related stress, depression, and anxiety. Based on these impacts, one realizes that distance learning causes many issues that prevent students, teachers, and parents from enjoying the full potential of education. A high likelihood exists that these impacts were more severe for students of education due to their complex learning needs. Therefore, this study aims to analyze the controversies that have emerged regarding the effectiveness of distance education in the coronavirus era from the perspective of parents and teachers handling special education needs.

1.2 Problem Definition

Although the impacts of the COVID-19 pandemic on students of determination are relatively broad, this study focuses on three dimensions: education needs, social needs, and emotional needs. Regarding special education needs, a majority of studies have been divided between those who support the positive impacts and those backing the negative implications. The supporters argue that distance learning is the most useful tool for imparting knowledge and improving skill acquisition for students affected by COVID-19 measures (Ayda et al., 2020). The primary argument is that distance learning ensures the continuity of education, thereby stressing its

growing importance in schools. In contrast, reliable studies highlight the inadequacy of special education methods for students of determination. In other words, many education stakeholders lack sufficient competencies for addressing special education needs (Ayda et al., 2020). Likewise, researchers also complain about the lack of resources, materials, and social amenities for supporting special education. Despite the rapid advancement of modern technology, these advances are fundamentally designed for average students instead of special education students. Therefore, this study analyzes whether distance learning can resolve the critical educational needs of students of determination.

Special education has been customized to address diverse learning needs in the modern education sector. In the UAE, these paradigms have been tailored for students with specific learning disabilities, physical or health-related disabilities, visual impairment, hearing impairment, language and speech disorders, autism spectrum disorders (ASD), emotional disorders, behavioral disorders, intellectual disorders, and gifted and talented students (UAE Special Education Department, 2006). Hence, this study uses these categories to identify parents and teachers who handle diverse special education activities in the UAE.

Concerning the social and emotional challenges, the impacts are more severe for students of determination than typical students. Although the pandemic improved innovation and engagement for most students, many children with learning disabilities have failed to adapt to new technology (Rizvi, 2021). When comparing traditional learning paradigms where students of determination have various opportunities to interact with their colleagues, distance learning isolates them. As a result, the lack of inclusion and social support is a serious problem for special education students. In addition, the lack of social interactions can cause a severe decline in literacy and verbal skills. For students with special educational needs, digital learning and video conferencing fail to

address the social and emotional wants that promote positive academic outcomes. These problems worsen if parents and teachers consider the decline in children's concentration due to increased screen time (Rizvi, 2021). In brief, it is essential to analyze the social and emotional impacts of distance learning on special education students.

1.3 Research Questions and Objectives

Most recent studies conducted on the correlation between distance learning and special education have focused on the performance outcomes. However, this study takes a unique approach by highlighting the teachers' and parents' perceptions about distance learning. This strategy can offer significant insights into the attitudes of key educational stakeholders towards the outcomes of internet-based and digital learning paradigms. In this context, the study is aligned with the following research questions:

1. What are the academic, social, and emotional implications of distance learning on special education students?
2. What are the teachers' perceptions towards the opportunities and challenges of distance learning on special education outcomes and student-teacher interactions?
3. What are the parents' perceptions of the impacts of distance learning on students' academic performance and well-being?
4. What are the impacts of distance learning on parents' wellbeing?
5. What measures have been introduced to improve the efficacy of distance learning for students with special learning needs?

In addition, this study underscores three research objectives:

1. To diagnose the key challenges and obstacles teachers and parents face due to the use of distance learning methods.
2. To evaluate the academic, social, and emotional impacts of distance learning on students of determination.
3. To develop effective solutions and improvements that can optimize the learning outcomes of students of determination in the COVID-19 era.

1.4 The Rationale for the Study

In current times, the rapid population growth and growing complexity of learning disorders have increased the need for special education. According to reliable statistics, at least 15% of the global population has a disability (Mohajeri et al., 2021). However, despite learning institutions emphasizing unity, inclusion, and equality, these organizations have failed to address the high frequency of discrimination and social stigma against students of determination. As a result, more than 190 million students of determination worldwide lack access to appropriate special education (Mohajeri et al., 2021). Furthermore, research shows that the COVID-19 pandemic has exposed the inherent vulnerabilities of special education practices in the world. This problem has also been perceived in the UAE even though its government constantly enforces special education programs such as the Dubai Inclusive Education Policy Framework (Mohajeri et al., 2021). In this study, the principal hypothesis revolves around the notion that distance learning worsened the intrinsic flaws of UAE's special education practices. Modern education researchers have not adequately investigated this research gap.

Many countries in the Arabian Peninsula rejected distance learning paradigms and insisted on maintaining in-person practices. According to Mohajeri et al. (2021), approximately 82.86% of

schools in the UAE deployed distance learning systems, whereas 17.14% retained in-person structures. The student's decision to participate in distance learning, in-person education or blended learning strongly depends on the parent's willingness. In the UAE, families have the autonomy to decide which system matches their children's academic, social, and emotional needs. However, it is essential to note that regions such as Dubai have imposed strict restrictions on students returning to in-person classrooms, especially students of determination. These students showed different responses owing to physical disabilities, immuno-compromization, higher risk of virus exposure, and high dependency on caretakers (Mohajeri et al., 2021). Therefore, many students of determination have struggled to transition towards distance learning and in-person classrooms in the UAE.

Parents and teachers are vital stakeholders in students of determination's education outcomes. As a result, these individuals have criticized the inefficacy of proposed distance learning systems during the COVID-19 pandemic. With regards to teachers, these individuals have cited integration as the main impediment of distance learning. Integration describes the placement of students with learning disabilities in the special education program and their interactions with students in adjusted and general education programs (Bedaiwy et al., 2021). The sudden shift of education practices towards distance learning caused detrimental changes to student integration, especially for students of determination who were forced to accept distance learning systems. Some teachers discovered that students of determination showed similar education outcomes as their peers from the general education program (Bedaiwy et al., 2021). Thus, these findings have demonstrated that distance learning can improve special education outcomes. On the contrary, other teachers argued that distance learning reduced student awareness. Furthermore, studies also stress the impact of technical challenges on the disruption of special education learning (Bedaiwy

et al., 2021). Therefore, teachers have expressed mixed responses towards distance learning systems.

Most COVID-19 countermeasures compelled parents and students to remain in isolated enclosures. Parents with children with special needs faced more significant challenges than those with able-bodied children. As a result, parents who worked from home adopted strenuous routines since they had to ensure their children's education and handle their professional responsibilities (Bhamani et al., 2020). The main issues identified among the parents involve the impact on the daily routine, difficulty shifting towards online modes of learning, and the adverse impacts on social development. Regarding the effect on daily routines, the COVID-19 pandemic gave parents the opportunity to increase interactions and engagement with their children; nonetheless, the sudden closure of schools caused parents to cause severe changes to family routines (Bhamani et al., 2020). Consequently, parents also felt that children with learning disabilities faced significant difficulties shifting to online learning. These parents discovered that online technology could not properly replace in-person learning. Lastly, parents also revealed that they were worried about the effects of distance learning on social development. As a result, many parents experienced difficulties keeping their children engaged (Bhamani et al., 2020). Similar to teachers, parents supporting special education showed mixed responses about the effectiveness of distance learning paradigms.

1.5 Research Methodology

This study utilizes mixed methods research to evaluate the parents' and teachers' perceptions towards the use of distance learning paradigms by students of determination. The mixed methods research design combines qualitative and quantitative research methodologies. The

main feature of qualitative research in the education discipline lies in its subjective and interpretive characteristics (Atkins & Wallace, 2012). Qualitative research allows one to interpret people's views, values, and interactions from their perspective. Concerning the quantitative approach, this method relies on the collection and analysis of measurable, numerical, or statistical data to make valid conclusions (Hoy, 2015). One of the most important dimensions of mixed methods research is that the qualitative and quantitative findings are 'mutually illuminating'. According to Cohen et al. (2010), this dimension allows the mixed methods approach to reduce bias and errors that may arise from the researcher's mistaken allegiance to either qualitative or quantitative approaches. Overall, the mixed methods approach is a hybrid that merges the strengths of the qualitative and quantitative research approaches.

1.6 Research Philosophy

The research philosophy guides the beliefs and assumptions for data collection, analysis, and applications. For that reason, the term is usually used to clarify the ontological and epistemological dimensions of the research process. Foremost, this investigation follows the subjectivist ontology. This ontology supports the idea that the orders and structures supporting social phenomena and institutions are shaped by human beings and social actors through language and perceptions (Bryman, 2016). Accordingly, the subjectivist ontology was inherently tailored to evaluate the views, opinions, and actions of social constructs. Regarding the research epistemology, this term answers the question of "what is (or should be) regarded as acceptable knowledge in a discipline" (Bryman, 2016, p. 15). This investigation utilizes the interpretivism ideology, which argues that the study of the social world requires research methodologies that reflect the distinctiveness of human beings, their perceptions, and actions (Bryman, 2016). Therefore, the

subjectivist ontology and interpretivism epistemology can offer significant insights into the teachers' and parents' sentiments regarding distance learning.

1.7 Research Design

This study utilizes the mixed methods approach to study the varying perceptions towards distance learning and its effects on students of determination. The mixed-method paradigm rests on the ontology that acknowledges that social phenomena are too complex to be comprehensively investigated using single methods (Cohen et al., 2018). The use of single methods often results in the partial and selective understanding of an existing construct. Accordingly, mixed methods allow researchers to utilize a sequence of reliable research approaches sequentially or parallel in order to comprehend phenomena. For instance, parallel mixed designs rely on the simultaneous use of qualitative and quantitative approaches to answer independent research questions (Cohen et al. 2018). Similarly, this investigation utilizes the concurrent mixed methods approach to investigate the teachers' and parents' perceptions. On one hand, the qualitative approach was utilized to understand the teachers' attitudes towards distance learning; on the other hand, the quantitative design was oriented towards the parents' approaches. The concurrent analysis can offer comprehensive findings regarding the pros and cons of distance learning to students of determination.

The mixed-method design combines the strengths and weaknesses of the qualitative and quantitative techniques. The qualitative research approach was selected on teachers because it can be used to acquire in-depth findings of the respondents' attitudes, beliefs, and viewpoints towards distance learning. This type of information cannot be easily acquired without understanding the respondents' thought processes. Subsequently, the quantitative method was utilized on parents

because it allows one to quantify the education and social-emotional impacts of distance learning on students of determination in Dubai. This concurrent design offers considerable advantages, especially when the goal is to evaluate a broad range of perspectives and participants (Almeida, 2018). Teachers and parents are the most important stakeholders in a child's special education; thus, it is integral to systematically analyze their overall perceptions towards distance learning.

Mixed research methods offer several pros and cons. Regarding the advantages, this approach allows one to create a study that properly balances the qualitative and quantitative findings. This benefit prevents the overreliance on either qualitative or quantitative designs (Cohen et al., 2018). In addition, the combination can also support inductive and deductive reasoning, thereby allowing the development comprehensive theories and hypotheses. However, the main challenge facing the mixed methods approach is it requires substantial time and resources to collect and analyze data and correlation variables. Moreover, discrepancies can emerge between the qualitative and quantitative findings (Almeida, 2018). In some cases, mixed-methods may require an in-depth understanding of qualitative and quantitative research methods in order to merge the acquired findings (Hesse-Biber, 2010). In brief, the benefits of utilizing mixed methods approach outweigh the drawbacks.

The investigation adopts purposive sampling to identify research participants eligible for the study. The main eligibility criterion is parental or educational ties to students of determination within a Dubai private school. Thus, the study targeted 50 parents and 10 teachers within a suitable private school. On one hand, the parents' responses were analyzed using quantitative methods, such as semi-structured questionnaires to ascertain their views towards distance education. On the other hand, the teachers' responses were assessed using qualitative methods, such as interviews. Furthermore, these interviews were conducted using video conferencing platforms due to the

existence of strict social distance restrictions in the Arabian Peninsula, and other parts of Asia. The research participants represent teachers and parents in Dubai private schools who take care of students with special educational needs.

This study is guided by the interpretive philosophy because this approach can offer significant insights into the actions and behaviors of the research participants. Many scholars have argued against the use of positive and quantitative approaches because these methods contend that research phenomena are objective in nature (Atkins & Wallace, 2012). However, the education discipline differs from the scientific disciplines or the social sciences because research constructs vary depending on study's viewpoint. Many education researchers have argued that individual's behavior can only be discerned if the researcher shares the person's frame of reference (Curtis et al., 2013). This understanding may require one to conduct his or her study by perceiving subjective phenomenon instead of objective aspects. Therefore, the mixed methods approach is the best framework for this investigation because it can justify the quantitative and qualitative findings.

This study is aligned with the action research approach. Action research has extensive roots in the education discipline because it supports participatory and collaborative research methods. In other words, action research allows one to investigate research phenomena while also supporting social action in the learning environment. Although action research shares some similarities with case studies, the main difference lies in the researcher's ability to improve their practice based on the study's findings (Atkins & Wallace, 2012). When conducting action research, the principal investigator focuses on the following question: 'how do I improve my practice?' From there onwards, it is possible to achieve a clear focus on the study's goals and strategic orientation. Other questions that can also guide action researchers are 'why should I improve?', and 'what does

improvement mean?’ (McAteer, 2013). These questions can be used to guide the findings and contemporary applications of this study’s conclusions.

This study utilizes two strategies to collect data: interviews and mixed questionnaires. The interviews were conducted with the teachers via in-person approaches and telephone interviews. These two approaches ensure comprehensive information is collected about the teachers’ and parents’ attitudes towards distance learning. In action research, interviews are widely used to acquire qualitative insights about a specific research phenomenon (McAteer, 2013). Although they can be time-consuming to conduct on large population sizes, they allow the researcher to narrow down important insights from the research participants’ perspectives. Additionally, one can utilize semi-structured interviews or follow-up questions to improve the flexibility of the research findings (McAteer, 2013). Another major benefit is the interviews can be recorded using audio or video recorders for future analysis. With regards to mixed questionnaires, this method allows the acquisition of pre-coded findings, demographic information, and generalized data about the research participants (McAteer, 2013). In this approach, no wrong answer exists due to multiple perspectives. Therefore, interviews and questionnaire methods complement each other to improve the accuracy and relevance of the research findings

After data collection, thematic analysis can be utilized to break down the study’s constructs. Thematic analysis was selected for this investigation because it matches the study’s research questions and objective. Thematic analysis is one of the most analytical methods because it can be applied to identify, analyze, describe, and report important research themes (Nowell et al., 2017). In most cases, thematic analysis is conducted in six key steps: familiarization with the research topic, coding the crucial concepts, generating themes, reviewing identified themes, defining the bounds of the themes, and final write-up (Guest et al., 2011). In this case, thematic analysis requires

one to extract essential information from the interviews and questions and then redefine them according to the research themes and sub-themes. Therefore, the most evident themes were derived from the research questions to ensure that study's findings do not deviate from the research objectives.

1.8 Ethical Concerns

This action research relies on the mixed methods approach to analyze teachers' and parents' perceptions towards distance learning for students of determination. Accordingly, the main ethical considerations are informed consent and privacy. Foremost, it is vital to acknowledge that the study does not pose any adverse effects on students of determination's wellbeing or their interactions with parents and educators. This fact is highlighted in the consent form. After signing the consent form, the research participant's data were safeguarded using encrypted computer software, and their identities were protected by removing personal identifiers and replacing them with specific acronyms. However, even after acquiring informed consent, sensitive information should remain private to avoid breaching the research' participants' rights and ethical concerns (Drew et al., 2007). This issue is more severe in action research, where revelations about the study's findings can be used in real-time to affect students' education outcomes. Therefore, the individuals who participated in the study confirmed that they voluntarily participated in the study.

1.9 Section Summary

The introduction section explains that the global transition towards distance learning offers different pros and cons students of determination, teachers, and parents. These impacts can be perceived by analyzing the academic, social, and emotional impacts of distance learning from the

perspectives of key education stakeholders. Therefore, the study clarifies the outcomes of distance learning and suitable recommendations for optimizing distance learning in private schools.

CHAPTER 2: LITERATURE REVIEW

The literature review section aims to elucidate the contextual background for this research undertaking by incorporating primary and secondary findings. The section begins by explaining the theoretical definitions for several key terms: distance education, common learning environment, students of determination, special education, and the key dimensions of special education (inclusion and equity). These terms form the main research variables that were utilized to investigate teachers' and parents' perceptions towards distance learning. Moreover, the section explains the main principles of special education within Dubai and other areas of the UAE. In order to understand how distance learning paradigms affected students of determination, it is also essential to explain the main principles of traditional special education practices in the country. The literature review then narrows down the focus towards the use of distance learning paradigms by private schools and other learning institutions offering special education services. Lastly, the chapter summarizes the positive and negative implications of distance learning to parents and teachers based on recent research articles. Overall, the literature review section explains the necessity for investigating the academic, social, and emotional impacts of distance learning on disabled students.

2.1 Definition of Key Terms

2.1.1 Common Learning Environment

In essence, the provision of a common learning space is an essential requirement for the provision of inclusive special education. A common learning environment refers to "an educational setting where students from different backgrounds and with different abilities learn together in an inclusive environment" (KHDA, 2017). Therefore, common learning environments are the

traditional in-person paradigms where students interact with teachers and peers in the classroom, gym, library, playground, cafeteria, playground, and the surrounding community. In this case, the term ‘common learning environment’ highlights the notion that disabled students should learn with their peers instead of being placed in isolated learning environments (Muñoz Martínez & Porter, 2020). The provision of such an environment promotes participation and shared learning outcomes in different settings (Mangione & Cannella, 2021). Additionally, it also creates a positive atmosphere that enhances the students’ sense of belonging and overall growth (KHDA, 2017). Overall, the emergence of the COVID-19 pandemic removes students of determination from the common learning environment and moves them to the virtual world.

2.1.2 Distance Education

Distance education can be defined as “any educational or learning procedure in which the guide and the student are separated geographically” (“Distance Education – United Arab Emirates”, n.d.). In other words, distance education eliminates the need for face-to-face interactions between students and educators. Over the years, different definitions have emerged that have raised controversies among education managers, policy-makers, students, educators, and other stakeholders in the world (Traxler, 2018). In the modern learning environment, rapid technological advancement has increased the variety of distance learning and online teaching paradigms. As a result, the lines separating virtual learning from e-learning and other forms of online education have become relatively blurry. Despite the diversity of definitions, the principal deduction is distance learning is aligned with the following trends: the use of spaced learning to improve students’ retention and understanding, the movement towards open textbooks, and the growing

popularity of student-led analytics (Traxler, 2018). Therefore, distance education has greatly contributed to the evolution of existing teaching paradigms.

In addition to defining distance learning, it is essential to provide descriptions for the similar distance learning strategies: electronic learning (e-learning), mobile learning (m-learning), and digital learning (d-learning). According to Kumar et al. (2018), e-learning is the type of learning supported by digital electronic tools and media to deliver information and instructions to specific individuals. Consequently, m-learning is a form of e-learning which occurs through mobile computational devices and wireless transmission. M-learning is usually considered an extension of e-learning, but it targets individuals who are constantly on the move. Finally, d-learning describes the use of information and communication technology (ICT) to support open and distance learning (Kumar et al., 2018). For instance, d-learning entails online and blended learning paradigms. Therefore, distance learning is a multifaced approach that allows teachers to combine multiple teaching technologies to impart knowledge to students.

2.1.3 Students of Determination

The UAE uses the term ‘persons with determination’ to refer to individuals who possess unique attributes. While most organizations view disability as an obstacle, the UAE government recognizes it as a reflection of a disabled person's strength of character, perseverance, and courage (KHDA, 2017). However, despite these unique strengths, students of determination continue to face significant barriers that impede access to education, health, and other essential social amenities. Other than using students of determination, another popular reference is SEND (an acronym for special educational needs and disabilities): “a need which occurs when a student identified with an impairment requires the school to make specific modifications or provide

specific supports to prevent, remove or reduce any potential disability and ensure that the student can access education on an equitable basis and within a common learning environment with same-aged peers” (KHDA, 2017). Therefore, the UAE promotes equality for all citizens regardless of their intrinsic or extrinsic differences.

Students of determination are learners with unique disabilities or learning needs that prevent them from gaining similar opportunities as the general population. The Government of Dubai (2018) defines people of determination as individuals with one of the following disability types: vision, hearing, cognition (difficulty concentrating, making decisions, or remembering), mobility (difficulty walking), self-care (difficulty bathing or dressing), and independent living (difficulty handling errands alone). However, it is essential to recognize that different nations use varying criteria to define people of determination. The UAE Ministry of Education ascribes the term people of determination to categories of disorders and disabilities as described in section 2.1.4 below.

2.1.4 Categorization of Learning Disabilities

Students of determination face significant barriers that impede their learning competencies and outcomes. As mentioned earlier, the UAE utilizes a thorough framework to determine special educational needs. The framework was established by the Government of Dubai's Knowledge and Human Development Authority (KHDA) – a special government entity that handles educational quality assurance in the United Arab Emirates (JESS Dubai, 2021). The educational barriers aligned with their respective learning abilities are outlined in Table 1 below.

Table 1: Categorization Framework for Students of Determination in UAE (JESS Dubai, 2021)

Educational Barrier	Category of Disability
Cognition and learning	<ol style="list-style-type: none"> 1. Intellectual disabilities 2. Developmental delays 3. Specific learning disorders 4. Multiple disabilities
Social, emotional, and mental health	<ol style="list-style-type: none"> 5. Attention Deficit Hyper-Activity Disorder (ADHD) 6. Psycho-emotional disorders
Communication and interaction	<ol style="list-style-type: none"> 7. Communication disorders 8. Autism spectrum disorders
Physical, sensory, and medical	<ol style="list-style-type: none"> 9. Deaf-blind disability 10. Physical disabilities 11. Sensory impairments 12. Chronic or acute medical conditions

1. Specific Learning Disability

This type of disability refers to disorders affecting one or more psychological processes involved the comprehension of spoken or written language. Usually, these disorders manifest through the imperfect ability to think, read, write, speak, spell, perform arithmetic calculations, or mathematical reasoning (UAE Special Education Department, 2006). Therefore, students with this disorder often fail to show the same academic outcomes as students in the general population.

2. Physical or Health-Related Disability

This classification refers to chronic or severe disorders that lead to poor or limited cognitive functionality; for instance, asthma, ADHD, Heart disease, cerebral palsy, HIV, epilepsy, or head injuries (UAE Special Education Department, 2006). As a result, the disorder tends to adversely affect students' performance.

3. Visual Impairment

This condition is usually assigned to people with defects that impede vision; for example, partial-sightedness and blindness (UAE Special Education Department, 2006). Even with eye correction measures, the student's educational performance is still adversely affected.

4. Hearing Impairment

This classification is used for people with permanent or temporary auditory difficulties. For instance, deafness (UAE Special Education Department, 2006). In such cases, the disability may be so severe that the student requires amplification devices to hear.

5. Speech and Language Disorders

These disorders imply that a person has challenges communicating clearly with others. The conditions may manifest as stuttering, language impairment, or voice impairment (UAE Special Education Department, 2006). Speech and language disorders hamper interpersonal interactions and educational performance.

6. Autism Spectrum Disorders (ASD)

ASD is a pervasive developmental disorder that causes severe impairment due to differences in the brain. ASD is usually characterized by difficulties thinking, feeling, communicating, and relating to others (UAE Special Education Department, 2006). ASD often emerges as early as childhood.

7. Emotional and Behavioral Disorders

This condition exhibits itself through difficulties in emotional and behavioral functions. The main indicators are the inability to learn what cannot be explained using sensory, intellectual, or health factors. Additionally, these individuals cannot build or maintain solid interpersonal relationships with teachers and peers (UAE Special Education Department, 2006). They also show inappropriate behaviors or feelings and a pervasive mood of depression or unhappiness. In some cases, they may develop fears towards personal or school problems.

8. Intellectual Disabilities

Intellectual disabilities are usually associated with mental retardation. These disorders mean that a person has below-average intellectual functioning and defects in cognitive development (UAE Special Education Department, 2006). Intellectual disability is strongly tied to poor educational performance.

9. Gifted and Talented Students

Contrary to the disabilities mentioned above, gifted and talented students have outstanding abilities or show a great deal of intelligence, academic achievement, or creativity. In some cases, these students portray unique talents that separate them from general class students (UAE Special Education Department, 2006). Gifted and talented students are also classified as students with special educational needs.

2.1.5 Key Dimensions of Special Education

Inclusion

Inclusion is considered a major component of special education that ensures advantaged and disadvantaged students achieve their full academic potential. Accordingly, inclusive education

is defined as: “ensuring access to quality education for all students by effectively meeting their diverse needs in a way that is responsive, accepting, respectful and supportive” (KHDA, 2017). Inclusive education involves the provision of targeted support that can eliminate the main barriers contributing to exclusion. On this note, it is also essential to explain the definition of the term exclusive education. The KHDA (2017) defines exclusive education as “the act of marginalising and discriminating against students with the effect of preventing them from accessing quality educational opportunities in common learning environments with their peers.” Fundamentally, exclusive education requires an inherent change in everyday attitudes, behaviors, and beliefs. Overall, the provision of inclusive education and the reduction of exclusive education is a major goal of the UAE.

Equity

Equity is a term that ensures all students reach a common educational goal. According to the KHDA (2017), equity is defined as “the extent to which individuals can take advantage of education and training in terms of opportunities, access, treatment, and outcomes.” However, it is essential to mention that equity differs from ‘equality.’ Equity underscores the idea that learners have unique disparities, so they require special support to achieve their full academic potential. In this context, the term equity supports differential treatment as long as it considers students' diversity and lessens the gaps in educational outcomes between advantaged and disadvantaged students (KHDA, 2017). Understanding equity has become a major challenge in modern society. Although many policies have been developed to address disproportionality for marginalized groups, the positive and negative impacts of discrimination remain relatively hidden (Voulgarides et al., 2017). This problem can worsen when educators rely on technology to ‘fix’ inequity and

disproportionality. Hence, equity has become a major topic of discussion among special education providers.

2.1.6 Special Education

The term ‘Special education’ emerged in the 18th Century and caused major transformations in the fields of education and psychology. According to the UAE Special Education Department (2006), special education refers to “educational programs and practices designed for students with disabilities or Gifted and Talented students, whose mental ability, physical ability, emotional functioning, etc. requires special teaching approaches, equipment, or instruction within or outside of a regular classroom.” This aspect of education is oriented toward both educating and meeting the unique needs of children with disabilities. While conducting an investigation, French and American academicians made significant educational breakthroughs that clarified that children with mental disabilities gain considerable benefits from special education (Alkahtani, 2016). Although certain controversies have arisen concerning the history of the field and its moral implications, special education is beneficial as it delivers quality education to children with unique needs. The services delivered to these children also aim to protect them from the outside community, thereby curbing their daily difficulties in life (Alkahtani, 2016). The emergence of associations in the 19th Century that focused on special educational needs led to the implementation of programs and the expansion of more special needs schools and institutions.

Several teachers argue that learners who require extra assistance should not be ‘pulled out’ from conventional classrooms and shifted to separate settings, such as special education classrooms. They emphasize that pull-out services are defaming and also cause division in learning (Anati & Ain, 2012). However, some educators believe that it is possible to provide nearly all the

essential assistance for learners with disabilities in general classrooms. Once educators and school experts are well-trained and well-prepared to work with such learners, they can connect with students of determination and confront their learning challenges. Thus, inclusion involves social integration, development of student relationships with peers and adults; instructional integration, educating students based on their needs and not on a prearranged set of ethics, and physical integration (Anati & Ain, 2012). The structure of UAE's special educational needs curriculum stresses the importance of inclusion.

Many special needs teachers reject inclusion because it increases causes inequality within the classroom. The teacher's time should be equally distributed among all learners in the inclusive classroom. Educators need to take additional time organizing classroom sessions to assist learners with special needs (Anati & Ain, 2012). The rivals of inclusion also noted that classroom supervision is more difficult because of the addition of more learners, learners with disabilities were dominating an excessive amount of learning supplies, and in certain situations creating hostile classroom environments (Anati & Ain, 2012). Another concern is that learners with disabilities may feel uneasy because they believe they are not like the other learners (Anati & Ain, 2012). Therefore, students of determination require special learning environments to meet their academic objectives.

The UAE Ministry of Education has dedicated significant funds to improve the effectiveness of special education initiatives. In 1962, the UAE barely had 20 schools which supported less than 4,000 students (Anati & Ain, 2012). However, the exploration of oil in gave UAE the economic resources to optimize education structures for students of determination. From there onwards, the UAE government formulated a plan to ensure equal education for minority demographics: women, young youths, adults, and students with special needs. The UAE

government emphasized that inclusive educations “means that all students in a school, regardless of their strengths and weaknesses in any area, become part of the school community” (Anati & Ain, 2012). This rationale explains the high effectiveness of special education institutions with the nation.

2.2 Special Education Principles in UAE

The most evident trend in UAE’s special education paradigms revolve around inclusion. The Government of Dubai's Knowledge and Human Development Authority (KHDA) emphasizes the need for the enforcement of effective and inclusive special education programs within private and public schools (KHDA, 2017). Accordingly, the Dubai Inclusive Education Policy Framework has been an essential instrument for ensuring disabled students receive special education. The main goal of this policy is to empower all education providers, regulatory bodies, and governing entities across the country to provide special education for students of determination (KHDA, 2017). By establishing an emirate-wide system that standardizes special education, the government will ensure the provision of a wide variety of learning services for early childhood, primary, secondary, and higher education learners. The education policy promotes a culture of collaboration and inclusion through quality instruction, support, and interventions, in order to improve the learning outcomes of special education students.

In the UAE, the Inclusive Education Framework has been crucial for guiding special education delivery in the country. The policy promotes inclusion, good governance, and accountability among education stakeholders through the following standards: 1) identification and early interventions, 2) admissions, participation, and equity, 3) systems of support for inclusive education, 4) leadership and accountability, 5) cooperation, partnerships, and coordination, 6)

special centers acting as a resource for inclusive education, 7) monitoring, evaluation, and reporting, 8) technical, vocational education and training (TVET), and 9) resourcing for inclusive education (KHDA, 2017). Therefore, the conventional special education policy covers education for disabled students: from identification up to academic evaluations. Accordingly, the emergence of the COVID-19 virus and the global shift to distance education has caused major interruptions in the provision of special education using conventional paradigms.

Among the standards mentioned above, the transition to distance learning primarily affected two special education principles: 1) admissions, participation, and equity, and 2) systems of support. Foremost, admissions, participation, and equity support the idea that students with special educational needs and disabilities have the same rights as general students. Therefore, this dimension aims to ensure that students of determination in the UAE are not rejected from mainstream learning paradigms. Additionally, peer support is highlighted because the students with SEND often receive 'sibling priority' when admitted (Dur et al., 2018). In other words, the siblings of students with disabilities will be given opportunities to enroll in order to provide mental and emotional support. Another major component is the stipulation that students of determination will gain equal opportunities for meaningful participation with peers in a 'common learning environment'. Finally, educators should rely on accurate mechanisms for monitoring special education and ensuring compliance (KHDA, 2017). Due to the shift to distance learning, the mentioned components of inclusive special education were adversely affected.

With regards to systems of support, the shift towards distance learning affected how education providers offer support. For instance, in the common learning environment, teachers usually have various options when formulating curricula, modifying them, and personalizing them according to their student's learning needs (KHDA, 2017). In the UAE, teachers are advised not to

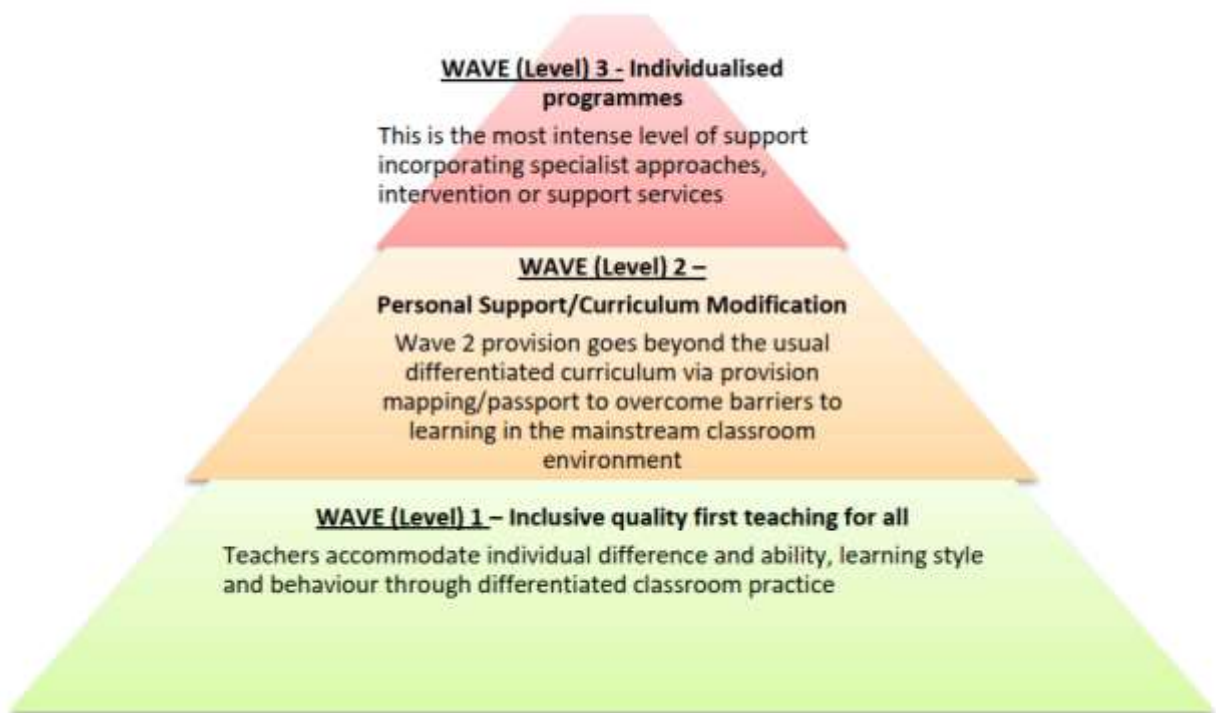
allocate more than 25 percent of teaching time working with individual students or clusters with special educational needs or disabilities (KHDA, 2017). Additionally, systems of support encourage teachers to collaborate with parents, caregivers, and specialized professionals through multidisciplinary teams in lesson planning and classroom groupings. Furthermore, teachers also require professional mechanisms of support that promote interdisciplinary exchange. For instance, interaction with support teachers can improve classroom performance by identifying the specific needs of individual students and modeling co-teaching or team-teaching approaches (KHDA, 2017). With the shift to distance learning, teachers and students were forced to abandon the conventional systems of special education support.

2.3 Special Education Dimensions in Private Schools

In Dubai, special education and support are provided based on different levels. The UAE government stipulates that private schools should establish clear, transparent, and sustainable frameworks for special education. According to JESS Dubai (2021), typical private schools rely on three levels of support, as shown in Figure 1 below: Level 1 (General Support), Level 2 (Targeted Support), and Level 3 (Individualized Support). Furthermore, another category can be included Level 3+ support which describes supplementary support tailored to specific learning requirements (JESS Dubai 2021). The model outlines those educators should begin by providing general support through differentiated support, curriculum content, and learning methods. In some cases, students receive access to cohort-level interventions and specific assistive technologies. At Level 2, students receive targeted support through direct and regular counseling with counselors and support teams outside the classroom (JESS Dubai, 2021). Students also receive time-specific and group-level interventions to ‘keep up’ with their peers. Finally, at Level 3, students receive

individualized support through increased direct counseling, highly personalized interventions, exemptions, or modified curriculum (JESS Dubai, 2021). If the students' learning outcomes do not improve between Level 1 and Level 3, Level 3+ support can be introduced. These interventions are tailored to match the students' mental, emotional, and cognitive needs.

Figure 1: Standard special education support for students of determination in Dubai private schools (GEMS Wellington International School, 2021)



2.3.1 Teaching Support

In the standard special education paradigm, teachers provide support through direct and indirect means. The main forms of direct intervention include differentiated classroom lessons and practice sessions in shared classrooms. For instance, students can be assigned to classrooms based on year groups or specific ratios in order to stimulate creativity and improve productivity (JESS

Dubai, 2021). Furthermore, teachers can utilize evidence-based intervention programs that address learning challenges at school and home. These interventions include online education applications or assistive technologies. Another form of direct intervention includes counseling or multidisciplinary interventions in groups or one-on-one basis (Level 3 interventions primarily involve group-level interactions, whereas Level 3 programs highlight the importance of one-on-one interventions) (JESS Dubai, 2021). In addition, supplementary support services can be proposed if the teacher feels that the student can benefit from tailored interventions, as long as it does not adversely affect the time allocated to other students. Overall, the change from conventional education to distance learning can cause the breakdown of vital special education support services.

2.3.2 Parental Support

Similar to teachers, parents play a significant role in providing support to students of determination. According to JESS Dubai (2021), parents are essential stakeholders of their children's education, so they need to contribute to the establishment of transparent and collaborative learning structures. Foremost, parents should possess comprehensive knowledge of their children's medical, developmental, and educational history in order to make optimal decisions about the student's academic needs. For instance, if a child is assigned to Level 2 or Level 3 support, the teacher should maintain open communication with the learning institution to respond quickly to their children's changes. Another example is the implementation of Individual Educational Plans (IEP), where parents participate in goal-setting processes together with teachers and external specialists (JESS Dubai, 2021). In summary, open and ongoing communication with teachers and

other education stakeholders can play an integral role in maximizing the academic outcomes of students of determination.

2.4 UAE's Transition to Distance Learning

The UAE offers considerable freedom for public and private schools in terms of shifting between conventional learning paradigms and distance learning. Students are encouraged to utilize distance education: 1) if he/she tests positive for the COVID-19 virus, 2) if he/ she maintains close contact with a person who has tested positive for COVID-19, or 3) if the student shows symptoms aligned with the coronavirus (Husain, 2022). Although distance learning was proposed for a majority of schools, several of them returned to in-person learning shortly after schools were closed. In addition, some institutions have secured approval from the KHDA to abandon or extend distance learning. Despite the differences in attitudes, the UAE government stipulates that all schools must offer e-learning alternatives to students ("Covid in UAE", 2022). Overall, distance learning has emerged as a novel way for imparting knowledge to students while also minimizing the spread of the coronavirus among the Emirati population.

2.5 Impact of Distance Learning Paradigms

2.5.1 Impact of Distance Learning on UAE's Learning Institutions

Distance learning presents several notable opportunities for learning institutions in the UAE. The onset of the COVID-19 pandemic brought about considerable uncertainty in learning institutions. Temporary school closures were reported in over 200 nations, including the UAE (Heba & Sultan, 2020). Sustaining learning activities despite social distancing mandates became a priority for learning institutions worldwide. Rapid implementation of distance learning in the UAE allowed learning institutions to mitigate the pandemic's disruptive impacts on learner outcomes,

offsetting a potential education sector crisis (Amir Rad et al., 2021). Learning institutions in the UAE should expect several favorable outcomes from this abrupt shift. Distance learning abrogates geographical obstacles to education by allowing learners to participate in learning activities from any location (Ashour et al., 2021). Therefore, the implementation of robust distance learning programs can augment student enrollment in learning institutions in the UAE. Furthermore, distance learning can augment student diversity by allowing learning institutions in the UAE to tap into novel learner markets (Ashour et al., 2021). Additionally, distance learning renders some campus equipment and infrastructure, such as brick and mortar classrooms and offices, obsolete (Ashour et al., 2021). Thus, academic institutions that deliver learning exclusively via online platforms can expect considerable resource savings.

Despite its numerous favorable impacts, distance learning has been linked to some unique challenges. According to Amir Rad and their colleagues (2021), the design and implementation of a robust distance learning program can take several months or years. Unfortunately, learning institutions in the UAE were forced to undertake and complete this arduous transition within weeks. It should be noted that UAE's educational sector was well-prepared for the overwhelming financial investment required to make this radical shift (Ashour et al., 2021), offsetting one of the most formidable barriers to the successful implementation of distance learning programs. Furthermore, some institutions were utilizing blended learning models (combining traditional and distance delivery modes) prior to the pandemic (Ashour et al., 2021). These institutions experienced minimal challenges with the abrupt mandate to transition to online learning.

Nonetheless, the rapid transition from traditional face-to-face teaching to distance learning has been incredibly strenuous for learning institutions. For instance, academic institutions that relied exclusively on traditional delivery modes struggled with installing the infrastructure required

for distance learning (Amir Rad et al., 2021). Academic institutions have also reported facing persistent issues with adapting certain course content to the online format (Otaki et al., 2021). In addition, transitioning to distance learning may have brought about challenges with student retention (Martin et al., 2020). This phenomenon may have arisen due to the widespread controversies surrounding the efficacy of distance learning. Furthermore, learning institutions faced challenges with minimizing faculty and student resistance to the dramatic institutional changes brought about by this abrupt transition. In addition, institutions had to grapple with equipping their faculty members with the competencies required to deliver course content effectively via online platforms. Finally, academic institutions' capacity to sustain distance learning programs was severely impaired by the numerous, sporadic changes and restrictions precipitated by the pandemic (Amir Rad et al., 2021). Despite these initial struggles, learning institutions have demonstrated remarkable resilience and adaptive capacity.

2.5.2 Impact of Distance Learning on Students

Distance learning dramatically impacts learner outcomes and engagement in learning activities. The rapid implementation of distance learning programs during the COVID-19 pandemic mitigated the risks of COVID-19 transmission in educational settings, offsetting adverse learner health outcomes (Chaudhry et al., 2021). Furthermore, distance learning may have improved student achievement by creating opportunities for self-directed learning, improving accessibility of learning resources, and easing communication between faculty members and students in varying geographical locations (Heba & Sultan, 2020). In addition, distance learning can mitigate extraneous learning costs, such as transportation fees and purchasing educational materials (Gerasimova et al., 2018). Besides, it can cultivate several valuable learner competencies.

Per Amir Rad and their colleagues (2021), the abrupt transition to distance learning due to the COVID-19 pandemic encouraged learner autonomy, self-discipline, and effective time management. Additionally, distance learning mandates the integration of information technology into learning experiences, enhancing learners' computer literacy and self-efficacy (Zalat et al., 2021). Current research also indicates that the integration of technology into the learning environment can bolster student engagement in learning activities, particularly in language, technology, mathematics, and science (Epps et al., 2021). Therefore, the transition to distance learning may have a positive, albeit diminutive, impact on learning effectiveness and student engagement in the UAE.

However, distance learning may elicit some undesirable consequences for learners. Typically, learners are required to invest in the equipment required to participate in distance learning programs. Therefore, the abrupt transition from conventional to distance learning may have created some precarious financial situations for students in the UAE. According to Nguyen et al. (2020), a lack of technological infrastructure poses a formidable barrier to the successful implementation of distance learning programs. Furthermore, the need for considerable financial investment on the part of the student may disenfranchise students from socioeconomically marginalized neighborhoods, precipitating considerable inequities in students' academic achievement (Martin et al., 2020). Moreover, the rapid implementation of online learning in UAE learning institutions deprived students of face-to-face learning experiences and traditional classroom group dynamics. Students who had grown accustomed to this learning environment may have found it difficult to adapt to distance learning (Otaki et al., 2021). This situation was further aggravated by the overwhelming psychosocial stressors accompanying the pandemic, such as social isolation, loneliness, and anxiety over personal wellbeing. Finally, students reported

challenges with exercising self-discipline, time management, coping with course workloads, and participating in learning activities amidst intrusive home environments (Otaki et al., 2021). Evidently, there is a need to install additional supports to enhance student engagement and motivation to learn in distance learning programs.

2.5.3 Impact of Distance Learning on Teachers

Distance learning also presents some unique opportunities for educators. According to Amir Rad et al. (2021), instructors found it incredibly efficient to deliver course content via distance learning platforms. Per the authors, existing educational resources became more accessible under the new framework, allowing instructors to focus their energy on teaching. Furthermore, the transition to distance learning forced instructors to familiarize themselves with online teaching tools, enhancing their computer literacy (Khan et al., 2021). Instructors in the UAE also reported dramatic improvements in work-life balance. Distance learning permits instructors to work from home, generating considerable flexibility and convenience. As a result, it becomes easier for instructors to balance familial and professional responsibilities, enhancing work-life balance (Amir Rad et al., 2021). Furthermore, distance learning exposes instructors to a vast array of potential learning resources and tools, enhancing their capacity to deliver course content effectively. It also creates opportunities for teaching innovation i.e., by necessitating transition from teacher-centric instruction strategies to student activity-centered models (Rapanta et al., 2020). Thus, the transition to distance learning may have generated considerable improvements in teaching experiences for instructors in the UAE.

Instructors can encounter a myriad of challenges while navigating distance learning platforms. After the mandate to transition to distance learning, instructors in the UAE were expected to acquire a broad range of competencies in a remarkably constricted timeframe.

Furthermore, they were expected to adapt their course content and activities for online delivery and develop effective strategies to engage learners via distance learning platforms (Amir Rad et al., 2021). These demands may have proven overwhelming, to the detriment of some instructors' well-being (Mheidly et al., 2020). In addition, according to Khan et al. (2021), deprivation of face-to-face learning experiences can elicit considerable challenges for instructors. Teachers in distance learning platforms faced difficulties building meaningful relationships with their students.

Additionally, the absence of visual cues in virtual classrooms may slow the pace of learning as instructors frequently have to solicit verbal confirmation of comprehension. Distance learning also diminishes the quality and quantity of classroom interactions, impairing instructors' motivation to teach and enthusiasm about the subject matter (Mheidly et al., 2020). Moreover, teachers often struggle with maintaining optimum learner engagement levels in virtual classrooms as most students are often hesitant to utilize chat boxes and microphones. In addition, distance learning platforms rely extensively on technology (Khan et al., 2021). Thus, technological malfunctions during distance learning sessions were extremely stressful for faculty.

2.5.4 Impact of Distance Learning on Parents

Parents have been instrumental in supporting the UAE's educational sector's transition to distance learning. Distance learning created an invaluable opportunity for parents to participate in their children's learning. Parents provided invaluable support to learners, particularly younger students and those with development, physical, and intellectual disabilities (Epps et al., 2021). According to Efstratopoulou et al. (2021), parents frequently monitored their children to ensure adequate participation in learning activities. Moreover, they provided the requisite equipment and technological infrastructure to ensure a seamless transition from conventional to distance learning

(Efstratopoulou et al., 2021). Furthermore, distance learning enhanced collaboration between learners, teachers, and parents to achieve common academic objectives. Since learning was occurring in the home environment, parents attained a deeper understanding of their children's academic strengths and weaknesses (Epps et al., 2021). As a result, they were better equipped to converse with instructors about their child's learning outcomes and develop viable solutions to persisting challenges. Finally, the transition to distance learning mitigated student exposure to COVID-19 (Efstratopoulou et al., 2021), easing parental concerns about the safety and wellbeing of their children. Distance learning was an effective instrument for monitoring and analyzing children's academic practices.

However, parents also reported experiencing considerable difficulties after the abrupt shift to distance learning. According to Dong et al. (2020), parents often struggled with gauging the right amount of support to provide to learners. Interestingly, some parents were unaware that being overly involved in their child's learning diminishes their capacity for independent learning (Bubb & Jones, 2020). The transition to distance learning was accompanied by considerable parental distress. Parents were required to purchase internet packages and gadgets to facilitate learners' access to online learning platforms (Epps et al., 2020). These demands created overwhelming cost concerns. Furthermore, the need to supervise and monitor their children during distance learning sessions created an unprecedented demand on parents' time, creating further psychosocial distress (Garbe et al., 2020). Finally, most parents lacked awareness of appropriate tactics to motivate learning in the home environment (Epps et al., 2020). Consequently, diminished learner engagement in learning was often met with anger and punitive punishment. Therefore, parents experienced significant challenges due to the use of distance learning paradigms.

2.6 Section Summary

The literature review explains that the COVID-19 pandemic caused major changes in the provision of special education. While some groups claimed that the introduction of special education improved the outcomes of special education, other researchers argued that its implications were mostly negative. The main special education dimensions affected by the movement to distance learning were inclusion and equity. Considering the repetitive emergence of the COVID-19 pandemic in continuous waves, educators have discerned that distance learning paradigms are gradually replacing conventional education approaches. In brief, recent studies reveal that new recommendations should be implemented to mitigate the weaknesses of distance education among students of determination.

CHAPTER 3: METHODOLOGY

The methodology section explains the systematic process that was utilized to analyze teachers' and parents' perceptions towards distance learning. This section begins by explaining the fundamental research philosophy by focusing on interpretivist epistemology and subjective ontology. Consequently, a comprehensive description of the mixed methods research design is explained, followed by its respective strengths and weaknesses. Furthermore, considering the study follows the action research approach, it is essential to explain the principles and outcomes of this investigative method. In the data collection segment, the focus is placed on the pros and cons of utilizing interviews and questionnaires to gather qualitative and quantitative findings. The methodology section also elaborates on the process and eligibility criteria for sampling and selecting research participants. Afterward, the data collection procedures are clarified in accordance with the thematic analysis approach. Finally, the methodology section describes the main ethical considerations that may impede the research undertaking, and also explains strategies for mitigating these concerns. In brief, this section offers significant insights into the main research variables and the mechanisms for identifying correlations between specific themes.

Triangulation to support validity

Triangulation is a better technique that is used in the validation process of data and information through more than two sources. This tool is used to test the consistency of the findings that may be received from different structures while increasing the chance of control and the assessment procedures, the multiple causes or treats that affect the outcomes. Triangulation is also important in depending on the understanding of the researchers about the conceptual findings. Triangulation is important as it is used to enrich, confirm, refute, and explain the

different options derived from the hypothesis. Triangulation is one of the methods that will be used to identify and test the competitive hypothesis in the findings through the theory (Wilson, 2014). The competing hypothesis in the research is that most people prefer online learning as the best method for distance learning. Also, triangulation is mainly used to cross-check the available evidence by gathering quality data from the other rigorous sources (Oliver-Hoyo & Allen, 2006). Credibility in research mainly focuses on the findings and how they reflect on the reality the more the data agree with each other, or converge, the more credible the results are termed. In addition, triangulation also is important in creating a full picture thus provides a complete understanding of the research problem. When a researcher relies on one investigator, data source, or methodology, they may risk bias into the research. When one researcher is collecting data, there might be an observer bias; therefore, triangulation provides the best method that will be used to analyses and capture the surveys and the qualitative analysis through thematic analysis (Wilson, 2014). Since the research relied on non-probabilistic sampling methods, there may be bias on the analysis depending on the methods that the researcher used in data collecting and analysis processes. In addition, web survey might not be reliable and credible since there is no easy method to determine the actual and real parents in the study.

3.1 Location of the Study

The target population of the study is parents and teachers in Dubai who care for and educate children with special education needs. Dubai has one of the most comprehensive private education systems in the world. In 2011, the UAE had hit a major milestone by recording 79 public schools, and 148 private institutions offer 13 different learning curricula to students (KHDA, 2011). Furthermore, approximately 87% of the country's student population has been enrolled in private

schools, thereby highlighting the high privatization of UAE's education sector (KHDA, 2011). Although significant variations in the terms and quality of education provided by public and private institutions, the country have established a strong reputation for the best general and special education services in the world. Thus, the high privatization of Dubai's education sector was the reason why the investigation revolves around private schools. A private school in Dubai (Private School ABC) was selected because it offers comprehensive Level 1, 2, 3, and 3+ education to primary school students with disabilities. In addition, the school has a history of utilizing distance learning to deliver special education to students with disabilities. Therefore, the institution is an appropriate location for undertaking the study.

3.2 Sampling

This investigation relies on non-probabilistic sampling methods, such as convenience sampling, to determine the sample size and research participants. Although probabilistic methods often derive findings that can be generalized for the target population, it can be extremely challenging to determine a sample group that completely represents all the population's attributes (Cohen et al., 2018). Correspondingly, non-probabilistic approaches are more useful when the one wants to narrow down research elements that are evident in one or more population groups. In addition, these methods are less expensive than probabilistic methods. The investigation utilized convenience sampling to determine the teachers and parents who would participate in the investigation. Convenience sampling involves the selection of the closest participants, or those who happen to be available at a specific time and place (Cohen et al., 2018). In other words, the study prioritizes participants who can be 'conveniently selected'. Although this method is usually not suitable when one wants to acquire generalizable findings, it allows the selection of optimal sample

groups (Johnston & Christensen, 2010). Hence, convenience sampling can improve the quality of data collected during the investigation.

The parents who were selected for the web surveys were selected using convenience sampling. After gaining consent from the respective institution, more than 100 surveys were distributed to parents in School ABC who have children with special education needs. Although a vast majority of the questionnaires were ignored, 50 fully completed survey forms were successfully acquired. Concerning the teachers, convenience sampling was utilized to identify participants. An announcement was made to School ABC that it sought teachers with special education experience to participate in the investigation. Afterward, various professionals enrolled for the investigation, but only participants who specialized in special education services were selected. Overall, the parents and teachers in this investigation were primarily chosen based on their convenience.

Convenience sampling offers significant benefits compared to other sampling approaches. Other than being more affordable, the sample size can be easily selected with minimal wastage in terms of traveling, establishing connections, and collecting data (MacGregor & Coombs, 2021). Still, despite the effectiveness of convenience sampling, it has significant drawbacks. Foremost, bias and research errors are common problems that emerge during the selection of participants or the actual research undertaking. For instance, studies show that participants who have long experience with surveys and survey questions respond differently than first-time participants (Fricker, 2016). In other cases, the employees who respond to the surveys may be the ones who hold grudges against distance learning, thereby adversely affecting the results. After the sample groups were acquired, the participating parents and teachers were probed using semi-structured questionnaires and interviews.

3.3 Online Survey Questionnaire

The parents' perceptions towards distance learning were analyzed using online survey questionnaires. Web surveys operate by inviting prospective participants to visit a website where they can fill out the questionnaire. The most common types of online questionnaires are email surveys and web surveys. Email surveys are usually distributed to the prospective respondents, whereas web surveys require the respondent to visit the website. However, although most researchers would consider sending email surveys, web surveys are more advantageous because they offer a wide variety of applications and embellishments (Bryman, 2016). In this context, it is essential to mention that web surveys were selected over paper-based surveys because they can be easily distributed and collected from the respondents. In addition, web surveys protect the researcher and the participants from the adverse impacts of the COVID-19 virus.

In this case, 50 survey responses were sent to parents who care for students with disabilities. The parents filled out semi-structured questionnaires consisting of a series of open-ended and close-ended questions. The questionnaire is depicted in the Appendix section. The basic web survey process begins by formulating a series of questions that is oriented towards the target population and sample group. Afterward, the parents were invited to the websites through text messages, social media, and email. The final sample size depends on the number of participants who complete the surveys and offer reliable information about the students of determination's educational and social-emotional needs. The target sample size for the web surveys was 50 parents with students receiving Level 1, Level 2, or Level 3 special needs education. With the right software, the findings can be efficiently tabulated and visualized in order to identify patterns and correlations in the patterns' feedback.

Table 2: Classification of parents based on their children’s special education needs

Child’s Level of Special Education	Respondents
Level 1	23
Level 2	16
Level 3 (and Level 3+)	11

Web surveys are often designed in a manner that improves user efficiency. Surveys are advantageous because they can be disseminated and collected to a wide target population and at a quicker rate than traditional paper-based questionnaires. For instance, the platform can skip specific questions based on the respondents’ prior responses (Bryman, 2016). Another popular feature is the display of a single question on the screen instead of the entire list of questions. In addition, online surveys are more affordable than other research methods because they do not require significant movement or material purchases. Concerning the integrity of responses, web surveys offer accurate responses because the users are free to provide honest answers to the questions. However, the main challenge facing web surveys is that it requires the use of sophisticated skills and competencies. Unless one has a strong background in coding, it can be difficult to acquire and analyze data (Bryman, 2016). Despite these challenges, various platforms can be utilized to support the web surveys.

3.4 Interviews

Interviews are widely used instruments of research in the modern education setting. Fundamentally, interviews are scenarios where two or more people discuss a topic of mutual interest and exchange knowledge and ideas (Cohen et al., 2018). Interviews can offer better performance than surveys because they enable the researcher to explore issues in-depth and understand how different people frame their ideas. However, unlike typical conversations, interviews focus on an explicit research goal. In addition to being used to gather information, interviews can also be utilized to test hypotheses and acquire new ones. In other cases, they are used to follow up on preceding research methods (Cohen et al., 2018). Overall, interviews allow the researcher to control the outcomes of the interview process by posing questions that are strongly aligned with the research topic. The interview guide that dictates the interactions between the researcher and the teacher is outlined in the Appendix.

In this investigation, in-person and telephone interviews were used to communicate with teachers. The target sample size was ten teachers who handle the delivery of special education services to students of determination: special education teachers, physical education instructors, teaching assistants (aides), speech-language instructors, and inclusion support instructors. A major goal of the interview process is to encourage the teachers to open up about their opinions towards distance learning. For that reason, the interview guide alternates between close-ended and open-ended questions to create a conducive atmosphere for interpersonal exchange. In-person interviews were conducted with seven teachers, but three of them were temporarily unavailable. As a result, these three teachers received interviews through telephone. In brief, the teachers represent the main categories of special education instructors in a majority of private schools in Dubai.

Table 3: Classification of the teachers based on their areas of specialization

Teaching profession	Participants
Special education teacher	5
Physical education instructor	2
Teaching assistant (aide)	1
Inclusion support instructor	1
Speech-language instructor	1

Interviews have several strengths and weaknesses compared to other data collection approaches. Regarding the advantages, the most vital one is that the teachers can be interviewed using different formats. For instance, formal interviews may be formulated where the interviewer is restricted from altering the sequence and structure of the interview questions. Otherwise, informal or semi-structured interviews can be utilized. In this context, the study utilizes a standardized interview guide in order to compare the parents' findings to the teachers' findings. A significant advantage of open-ended interviews is the researcher can improve the responses and data of each respondent throughout the interview process (Cohen et al., 2018). However, research shows that interviews are relatively more expensive than web surveys and questionnaire methods (Cohen et al., 2018). In addition, they are incredibly susceptible to bias due to interviewer bias or interviewee fatigue. Thus, the teachers' responses can be altered by a wide variety of personal and environmental influences.

3.5 Data Collection

The data collection process revolves around two key instruments: web-based surveys and interviews. After the internet surveys were distributed to the prospective respondents, the parents filled them and submitted them to the researchers. To reduce the cumbersome process of sending data, web surveys can be stored on the server where the researcher has the option to select, preview, or edit the records (Check & Schutt, 2011). Furthermore, modern research platforms can convert the survey response to different formats that can be easily extracted and analyzed. In relation to interviews, transcripts, audio and video folders were used to store data for future reference. The transcripts can be utilized to analyze the teachers' perceptions or compare the teachers' and parents' opinions towards distance learning. Overall, web-surveyed and interviews were extremely useful when analyzing qualitative and quantitative variables.

3.6 Data Analysis

The data analysis process occurred concurrently using two approaches. The qualitative findings were evaluated using thematic analysis. Thematic analysis is a widely used qualitative data analysis approach that involves the identification of common themes in the findings (Bryman, 2016). The best approach for conducting thematic analysis is to analyze the frequency and occurrence of specific words, terms, and phrases within the data. For that reason, a theme has a high likelihood of being identified if it is mentioned by one or more respondents. Thematic analysis was selected because it matches the research design and objectives of this investigation. Thematic analysis was conducted in a systematic manner based on a six-step process: familiarization with the topic, coding, generating the themes, reviewing the themes, defining and naming the themes, and writing up the identified themes. The results of the web surveys were analyzed using these processes to determine the common patterns within the open and close-ended questions.

Quantitative data analysis relied on the use of descriptive methods to identify correlations between the dependent and independent variables. In this context, univariate and bivariate analysis was conducted to acquire accurate information regarding the parents' perceptions. The univariate analysis involves the quantitative analysis of a single metric or non-metric variable, whereas bivariate analysis was utilized to compare the frequency and other descriptive variables identified in the investigation (Singh, 2007). Accordingly, cross-tabulation can be incorporated in the data analysis in order to compare the values of correlated variables using mean, median, and measures of central tendency. Additionally, the information can be quickly illustrated in charts and graphical visual aids such as bar charts, pie charts, and histograms. Therefore, these data analysis techniques can offer unique insights into the parents' opinions regarding distance learning. The findings of the descriptive methods can be utilized to complement the qualitative findings, thereby improving the integrity of the study's conclusions.

3.7 Ethical Considerations

This investigation was conducted in compliance with the standard ethical guidelines stipulated in education research. The main concerns are informed consent, privacy, confidentiality, and deception. Foremost, informed consent arises from the participant's right to volunteer or reject participating in a study (Cohen et al., 2018). Informed consent protects the participant's right to self-determination by giving them the opportunity to weigh the risks and rewards of participating in a study. The main guideline for reasonably informed consent revolves around a fair explanation of the research goals, procedures, purpose, risks, and benefits (Cohen et al., 2018). Furthermore, it was vital to underscore that all inquiries that may be raised by either the teachers or parents would be answered throughout the study. Lastly, the study clearly mentioned that participants could freely

withdraw their consent and discontinue participation in the undertaking. These guidelines ensure that the study safeguards informed consent.

The second ethical consideration relates to privacy. Privacy touches several numerous aspects of research from: choice of topic, research design, selection of participants, instrumentation, collection, analysis, and dissemination of information (Cohen et al., 2018). In this case, privacy requires the researcher to understand that certain types of information are more personal than others. The greater the sensitivity of the information, the stronger the safeguards that should be enforced to protect the participants' and researcher's privacy. If the investigation pursues sensitive information relating to the participant's name, ethnicity, religion, income, or personal attributes, the researcher should explain the situation to the participants before they enroll (Cohen et al., 2018). In this study, the research utilized computer-encrypted methods to store digital information and secure cabinets to store physical documents. These methods will prevent the leakage and pilferage of information by unauthorized personnel.

Confidentiality is an ethical concern that is usually aligned with privacy. This element is often safeguarded by promising sensitive information would not be disclosed in any way that might compromise the participant's information or attributes (Cohen et al., 2018). Other approaches for protecting confidentiality include deleting identifiers (such as names and specific dates), and the calculation of averages to represent data rather than using data about specific individuals. Web surveys are often popular subjects of controversy due to confidentiality issues. A suitable recommendation is to attach additional links that connect the parents to websites about data protection, privacy policy, cookie policy, and other confidential information (Gupta, 2017). Lastly, the research participants should receive all information about any potential breaches that may have

occurred during the study. These guidelines protect the researcher and participants from any legal and ethical issues involving the unauthorized distribution and access of sensitive data.

The final ethical consideration is deception. Deception has become a major focus of research due to the large number of cases reported where investigators conceal information or perform covert research (Cohen et al., 2018). In order to deal with deceptive research practices, researchers emphasize the need for increased awareness about the issue. This recommendation requires one to ask whether deception is necessary or justified. Secondly, consistent feedback should be provided to the research participants throughout the study. In this case, the study followed up on the teachers and parents to determine whether the study influenced their social, psychological, or emotional wellbeing. Therefore, deception was addressed by publishing honest findings regarding the teachers' and parents' perceptions.

3.8 Section Summary

Overall, the goal of the investigation was to analyze the impacts of distance learning on students of determination's academic, social, and emotional wellbeing from the teachers' and parents' viewpoints. Dubai has more than 100 private schools that offer special education to students of determination. Therefore, selecting School ABC for investigation can allow the researcher to reveal the overall perceptions about distance learning. Convenience sampling is incredibly useful because the researcher acquired an appropriate sample size that is tailored to match the undertaking. Additionally, the combination of quantitative and qualitative methods through web surveys and interviews is essential for mitigating research errors and bias. In summary, the study followed a systematic methodology to acquire accurate results while also adhering to the most important ethical guidelines.

CHAPTER 4: RESULTS

The data was analyzed using the mixed methods approach. Accordingly, the parent's questionnaires were tabulated and depicted using bar graphs to highlight the difference in opinions between parents of students of determination. Consequently, qualitative data was assessed using thematic analysis in accordance with specific codes and key phrases. The two approaches complement each other, thereby allowing the researcher to understand teachers' and parents' perceptions towards distance learning in Dubai private schools.

4.1 Parent's Perceptions about Distance Learning

4.1.1 Parents' Satisfaction with Distance Learning Platforms

The parents' contentment with distance learning was measured by analyzing their satisfaction levels and user ratings. When questioned about their satisfaction levels, the findings were relatively balanced, with the largest majority highlighting their dissatisfaction with distance education in private schools. Similarly, most parents assigned low ratings to distance learning, with 25 parents claiming they were dissatisfied and 14 showing high satisfaction with distance education. Overall, the findings reveal that a larger majority of parents were dissatisfied with distance learning during the COVID-19 outbreak.

Figure 2: Parents' satisfaction with distance learning

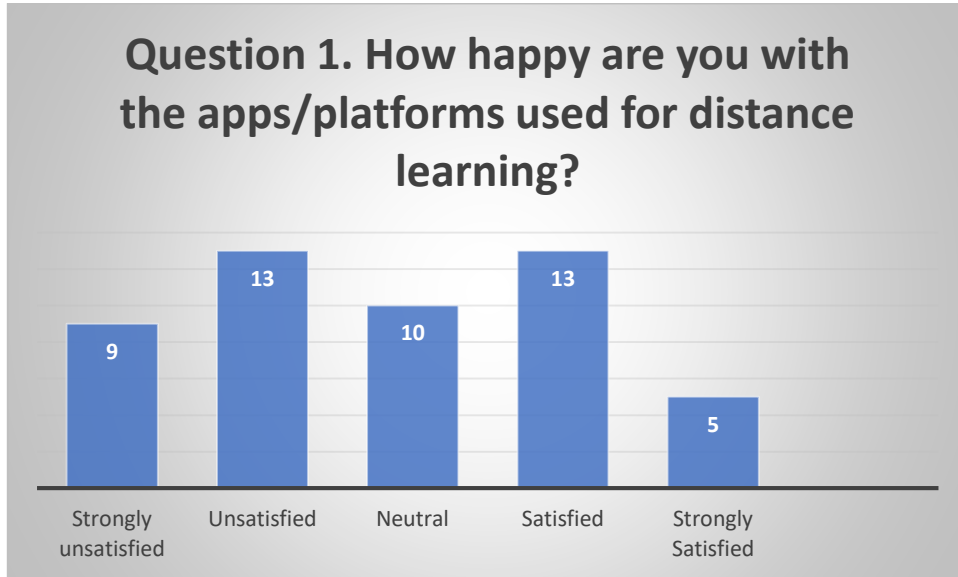
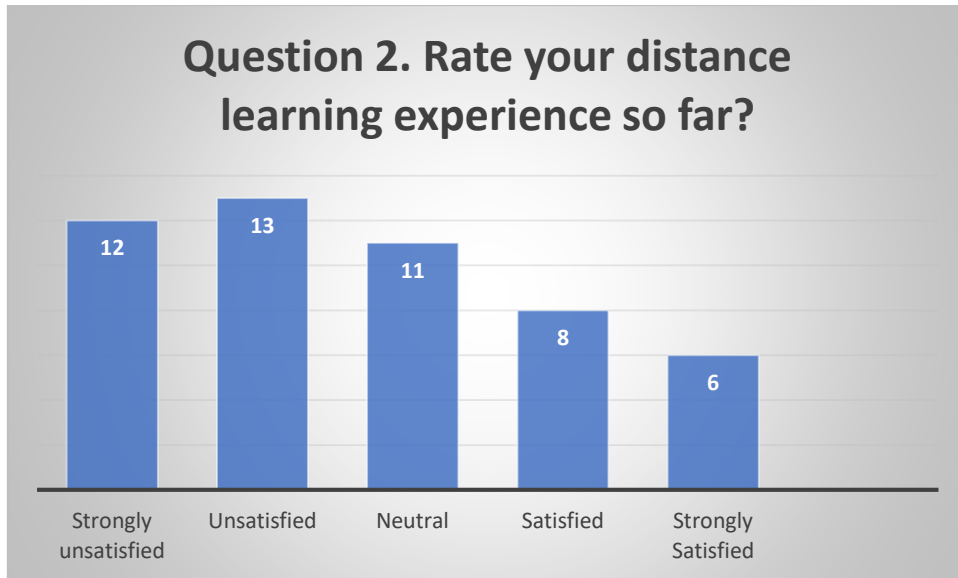


Figure 3: Parents' rating of distance learning



4.1.2 Impact of Distance Learning on Students' Social and Emotional Health

With regards to the wellbeing of students of determinations, the study focused on social and emotional health. Based on the study, the highest distribution of parents responded that they are not worried about their children's social and emotional health. Perhaps this finding can be attributed to the availability of parental support throughout the distance learning process. However, although the parents were confident about their children's social and emotional health, most were concerned about the lack of peer relationships. Approximately 30 parents revealed that distance learning poses negative effects to the social wellbeing of students of determination. Therefore, parents were uncertain about the impacts of distance learning on their children's social-emotional health.

Figure 4: Parents' perceptions about their children's social-emotional health

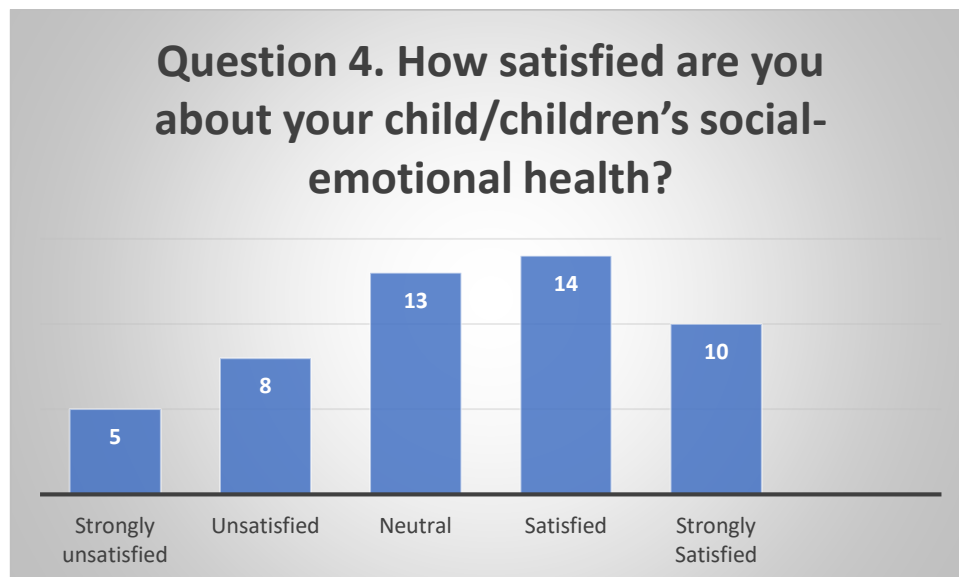
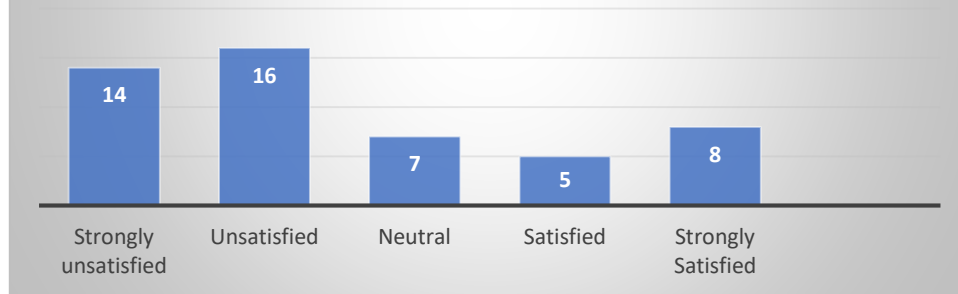


Figure 5: Parents' perceptions about their children's peer relationships

Question 9. How satisfied are you about your child/children's peer relationships due to physical and social distancing?



4.1.3 Impact of Distance Learning on Academic Performance

The findings of academic achievement can allow one to determine the impact of distance learning on students of determinations' learning outcomes. As shown in Figure 6, a vast majority of parents were concerned that their children would not reach the same academic targets as those who receive special education in traditional classrooms. Regarding academic assessments, the results were relatively balanced because most of the parents were neutral about their children's attitudes towards exams. Figure 7 shows the level of uncertainty about whether distance learning will affect the academic assessment of students of determination.

Figure 6: Parents' perceptions about their children's academic progress

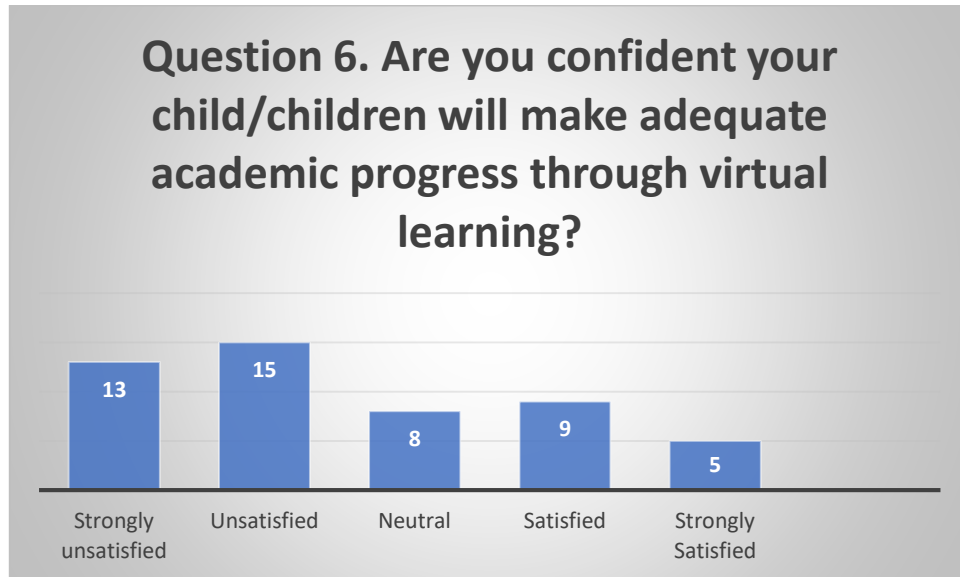
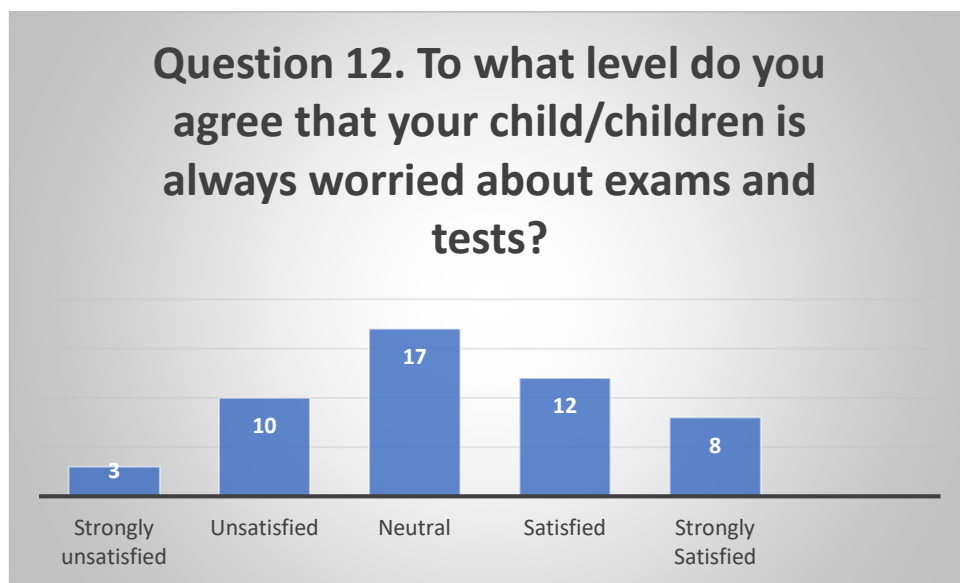


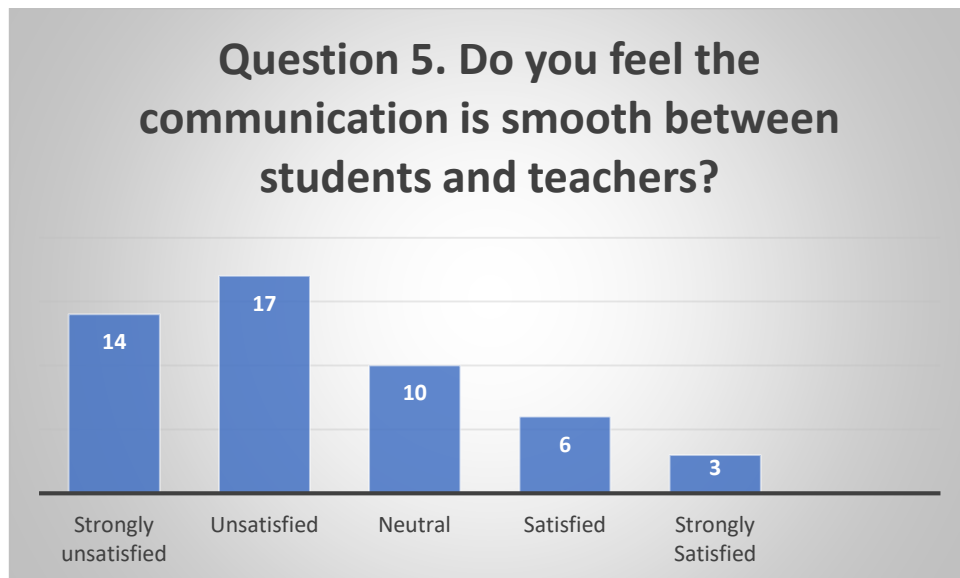
Figure 7: Parents' concerns about their children's attitudes towards exams and tests



4.1.4 Impact of Distance Learning on Communication with Teachers and Support Staff

With regards to communication, most parents revealed that teaching support was reduced significantly due to inadequate communication with special education teachers and support staff. Approximately 31 parents claimed that distance learning adversely affected the amount of communication parents could have with students with special educational needs and disabilities. In comparison, only three parents responded that distance learning gave them the opportunity to improve communication with their children’s teachers. Thus, the findings highlight that distance learning caused severe disruptions in parent-teacher interactions throughout the coronavirus lockdown period.

Figure 8: Parents’ perceptions about communication between students



4.2 Teachers' Perceptions about Distance Learning

4.2.1 Satisfaction with Distance Learning Platforms

The interviews conducted with teaching staff from different specialties can offer significant insights into the teachers' satisfaction with distance learning. When questioned about the country's transition towards distance learning, most of the teachers responded that they were unsatisfied with the rapid transition. One of the teachers offered this feedback: *"Implementing distance learning is a step-by-step process. But with the emergence of the COVID-19 pandemic, most of us were forced to utilize it regardless of whether we support or reject it for special education students"*. Therefore, although most of the teachers were willing to test distance learning paradigms in inclusive classrooms, some of them were unsure whether they could meet the academic and socioemotional needs of students of determination. Furthermore, some lacked knowledge for implementing distance learning approaches in the special education setting. In brief, the main finding was that distance learning interventions are surrounded by a lot of uncertainty.

4.2.2 Impact of Distance Learning on Student Engagement

The study also analyzed the teachers' perceptions about the impact of distance learning on student engagement. Most of the teachers who utilized distance learning claimed that they often made special education curricula that were engaging and adaptable to the students' needs. However, distance learning also impeded student engagement. The teaching assistant who was interviewed responded with the following words: *"It can be difficult to maintain the student's attention when he or she can't resist testing different features of the distance learning platform."* Furthermore, the teachers responded that distance learning prevents teachers from utilizing the

same engagement strategies as traditional classrooms. In inclusive classrooms, teachers can use collaboration to improve student engagement, but this activity cannot be achieved using distance learning platforms. Overall, the interviews revealed that distance learning adversely affected student engagement during the COVID-19 period.

4.2.3 Impact of Distance Learning on Teaching Support

Students with special educational needs often require more time and effort from educators. Correspondingly, the interviews revealed that distance learning prevented most private school teachers from interacting with their students, tracking their progress, and offering advice. Nonetheless, the coronavirus outbreak caused disruptions in special education paradigms that prevented teachers from offering the same levels of support as before the outbreak. For example, the speech-language instructor complained that distance learning often impedes him from offering support after formal school hours. When questioned about teaching support, he responded with: *“The school encourages teachers to schedule extra sessions with students of determination. However, distance learning forced me to stop offering extra speech-language.”* In brief, most teachers were worried that distance learning limits their ability to provide academic, social, and emotional aid to their students.

4.2.4 Teachers’ Suggestions for Improving Distance Learning

Based on the transcribed interviews, several recommendations were proposed to optimize distance learning. Foremost, the teachers recommended the introduction of comprehensive orientation programs for both teachers and students. These programs are essential for explaining how distance learning occurs and resolving the potential challenges faced during the process. In

addition, some teachers, such as the special education teacher and inclusion support instructor, recommended the introduction of flexible learning curricula for students of determination. These methods should be flexible, so that they promote both academic achievement and social-emotional growth. Furthermore, student engagement can be improved by formulating creative learning plans for students. These were the most popular recommendations offered by the private school staff.

CHAPTER 5: DISCUSSION

5.1 Academic, Social, and Emotional Impacts of Distance Learning

According to teachers' and parents' responses, distance learning poses several academic, social, and emotional impacts on students of determination. With regards to the academic impacts, the findings highlight the adverse effect of distance technologies on student engagement. Students with special educational needs often require extra assistance from a variety of professionals (Petretto et al., 2020). As a result, distance learning prevents students of determination from gaining equal education opportunities as non-disabled students. In addition, although many teachers claim that distance learning is an innovative instrument for delivering special education, studies show that it can cause distractions. For instance, Khan et al. (2021) outline that many students are reluctant to utilize chat boxes and microphones because they are unsure about their effects. For that reason, the virtual classroom forces teachers to adopt new approaches for interacting with students and maintaining optimal levels of engagement. From the teachers' perspective, distance learning reduces the quantity and quality of classroom interactions, thereby impairing the teachers' motivation to teach (Mheidly et al., 2020). Despite this finding, scholars such as Heba and Sultan (2020) and Gerasimova et al. (2018) support the growing popularity of distance learning. Hence, these researchers did not take into account the difficulty of using distance technologies to impart knowledge to students with special education needs and disabilities.

Concerning the social impacts, the main point of emphasis is inclusion. The closure of schools and the nation's shift towards distance learning was particularly challenging for SENDs because they often rely on regular routines and require individualized instructions (Hurwitz et al., 2021). As a result, distance learning forces these students to adopt new routines where they are isolated from their teachers and peers. Researchers such as Petretto et al. (2021) claim that distance

learning offers significant benefits to students with learning disabilities by altering students' attitudes, motivation, and interest. However, these researchers fail to take into consideration the adverse correlations that exist between distance learning and inclusion. Over the years, various researchers have conducted in-depth studies to analyze the social considerations surrounding distance learning. Petretto et al. (2021) highlighted that a key factor in providing inclusive distance education is the promotion of internal and external social support (from peers, family, classmates, and other sources). Thus, distance learning separates students of determination from their usual sources of social support, so it tends to negatively affect their social wellbeing.

The transition to distance learning has caused significant behavioral and emotional changes to students of determination. The rapid transition from face-to-face to distance learning has caused profound changes to students of determinations' emotional wellbeing. For example, students can experience considerable levels of stress adapting to new distance learning technologies. Furthermore, these challenges can worsen due to the large number of psychosocial stressors accompanying the COVID-19 pandemic: loneliness, anxiety, and social isolation (Scheer & Laubenstein, 2021). Loneliness can emerge due to the removal of the student from the natural learning setting. Consequently, anxiety is associated with the difficulty of acquiring and utilizing new technologies. Lastly, social isolation depends on one's willingness to restrict interactions with surrounding education stakeholders. Studies show that constant and frequent contact with external parties often has a significant positive effect on a student's mental and emotional health (Scheer & Laubenstein, 2021; Zalat et al., 2021). The study reveals that coronavirus lockdowns caused significant fluctuations in the emotions and learning outcomes of students of determination.

5.2 Impact of Distance Learning from the Teachers' and Parents' Perspectives

Based on the study's findings, distance learning offers several positive and negative impacts to teachers and parents in private schools. Most parents who were interviewed during the study emphasized that the challenges of distance learning outweigh the prospective benefits. The majority of the parents were concerned that distance learning hampers their children's academic achievement and their social-emotional growth. In addition, the parents experienced challenges providing support to their children during the distance learning process. This finding was supported by Dong et al. (2020), who published a study that described why parents often struggle to gauge how much support is required to improve their children's performance and wellbeing. In this case, it is essential to recognize that providing too little support can reduce the outcomes of special education practices, whereas offering too much support can be detrimental. Due to these challenges, many parents were unprepared for the sudden shift towards, so it can be perceived that the global shift caused a lot of distress for parents (Garbe et al., 2020). However, although this study did not focus on the economic issues surrounding distance learning, scholars such as the high costs of distance learning technology. Overall, distance learning during the COVID-19 pandemic did not achieve the expected positive outcomes because most parents were unprepared for the sudden adoption of distance education paradigms in Dubai.

Despite the mentioned barriers, parents are crucial stakeholders in modern special education paradigms. Distance learning also offered parents a means for evaluating their children's academic achievement for an extensive duration of time. Furthermore, even though the study showed that parent-teacher communication decreased during the coronavirus lockdown period, researchers such as Epps et al. (2021) outline that the technology encourages teachers to interact with parents in order to develop suitable learning plans. Perhaps this rationale explains why most parents were

confident in their children's academic performance despite lacking confidence in distance learning. They were comforted by the level of parental support that could be offered during the distance learning process. Parental support was a major component in UAE's distance education paradigms.

The teachers also revealed unique findings of distance learning. Similar to the parents, the study reveals that most teachers were unprepared for the country's rapid transition to distance learning. Distance learning has been a popular innovation in modern private schools, but little research has been conducted about its applications in special education settings. As a result, the teachers could not acquire comprehensive, evidence-based findings regarding the impacts and applications of distance learning. Amir Rad et al. (2021) described this phenomenon by highlighting the challenges experienced by teachers as they alter course content for online delivery. Furthermore, the interviews underscore the low impact of distance learning on student engagement. In many studies, distance learning is portrayed as an innovative technology that can improve students' awareness. However, this technology prevents teachers from using the same visual and verbal teaching practices. For instance, Mheidly et al. (2020) stress that distance learning reduces the quality and quantity of classroom interactions, thereby reducing the teachers' and students' motivation during distance learning sessions. These challenges can worsen, considering the high frequency of malfunctions in the distance learning paradigms (Khan et al., 2021). These issues elucidate why most private school teachers in Dubai were not confident that distance learning could achieve the same pedagogical outcomes as conventional face-to-face paradigms.

Although most teachers encountered challenges adopting distance learning, it is crucial to acknowledge that the strategy also offers several benefits. Distance learning can improve the teachers' work-life balance because they can decide to work at home or classroom because the learning environment is the virtual world (Amir Rad et al., 2021). For that reason, Khan et al.

(2021) highlights that the teachers who utilized distance learning during the coronavirus outbreak recorded a significant improvement in computer literacy. Similarly, distance learning can support innovation by allowing teachers to shift between teacher-centric and student-centric learning models in the classroom (Rapanta et al., 2020). Thus, although most private school teachers in the UAE were ill-equipped to handle distance learning, most gradually developed mechanisms for achieving similar learning outcomes as face-to-face education paradigms in Dubai private schools.

5.3 Recommendations for Improving the Efficacy of Distance Learning

1. Distance Learning Preparedness Training

According to the findings, one of the most effective strategies for optimizing distance learning in Dubai private schools is to train teachers and students how to utilize remote education technologies. In essence, students with special educational needs often possess disabilities that prevent them from generating similar outcomes as non-disabled children. Thus, schools are encouraged to carry out distance learning preparedness training to determine which deficits act as barriers to distance learning. By identifying these deficits, teachers can alter remote learning paradigms in order to target weak skills and promote positive educational outcomes (Fredrick et al., 2020). These training workshops can also be implemented with parents to offer insights into the strengths and weaknesses of remote learning technologies (Alnefaie & Bagadood, 2021). Fundamentally, most teachers and paraprofessionals receive distance learning training, but parents are often not trained in behavioral and learning support (Schuck & Lambert, 2020). Hence, training can be provided at all levels to parents, teachers, and students to improve their preparedness for distance learning.

2. Balancing Synchronous and Asynchronous Learning

The use of synchronous and asynchronous learning can improve distance learning for students of determination. Synchronous learning occurs whereby the teachers and students meet on the online platform and communicate during the lesson (Amiti, 2020). Contrarily, asynchronous learning provides students with readily available learning materials through videos, lecture notes, articles, and PowerPoint presentations (Amiti, 2020). As a result, synchronous learning allows teachers, parents, and students to share knowledge in real-time, whereas asynchronous learning is more flexible since it can be scheduled depending on the students' time and special educational needs. Studies show that the balance between synchronous and asynchronous learning can allow teachers and parents to improve SEND engagement, comprehension, and overall academic achievement (Dahlstrom-Hakki et al., 2020). This recommendation can play a significant role in improving the effectiveness of remote learning paradigms during the COVID-19 era.

3. Providing Non-Academic Support

The research findings also highlighted the importance of providing non-academic support to students of determination. For instance, physical education is categorized as an important component of non-academic learning. Due to the COVID-19 pandemic, it was relatively difficult for teachers to continue addressing their students' extracurricular skills (Hoffman & Miller, 2020). The prolonged closure of face-to-face schools has a high likelihood of adversely affecting children's social and emotional wellbeing. Therefore, a suitable recommendation is to ensure that teachers who handle non-academic maintain contact with students of determination using remote learning technologies. This approach will ensure that students continue to receive adequate levels of support for resolving special educational needs that do not revolve around academic

achievement. In brief, the teachers and parents highlighted the importance of continuous support for students of determination.

5.4 Implications of the Study's Findings

The findings of the study can be used to elucidate the changing trends in distance learning practices. In the UAE, the shift towards distance education paradigms caused a lot of uncertainty among students of determination, teachers, and parents. Thus, it is integral to understand the root causes of these changes and their academic, social, and emotional impacts. This finding encourages teachers and parents to dedicate more time and effort to improving the students' achievement levels instead of removing teaching practices that are not aligned with the students; skills, behaviors, and psychological conditions (Frederick et al., 2020). Considering the growing complexity of modern education in the UAE, schools should acknowledge that distance learning comes with significant challenges and opportunities. Therefore, the insights derived from the study not only reflect private schools in Dubai, but also in the entire UAE and other areas of the Arabian Peninsula. The study strengthens the delivery of special education in the modern education sector, particularly due to social isolation and lockdowns.

CHAPTER 6: CONCLUSION

In the UAE, special education is delivered in such a way that students with severe physical and intellectual disabilities receive more advanced special education. However, the study reveals that there is no fixed manual or specific guidelines for delivering distance learning to students of determination. Therefore, most teachers utilize learning paradigms that are tailored for the student's educational needs. The questionnaires and interviews conducted on parents and teachers reveal that most stakeholders were dissatisfied with the sudden shift towards remote learning. These stakeholders were primarily concerned with the adverse impacts on student achievement, and social and emotional wellbeing. The main focus was placed on reduced student engagement and the inadequacy of inclusion, collaboration, and parent-teacher interactions in the virtual environment. Due to these challenges, parents and teachers recommended several measures to promote remote learning: providing distance learning preparedness training, balancing synchronous and asynchronous distance learning paradigms, and supporting non-academic support. These recommendations can optimize the delivery and outcomes of distance learning in Dubai private schools.

Although the mixed-method study offered significant results about teachers' and parents' perceptions towards distance learning, the study was impeded by several limitations. For instance, the low sample size impedes the generalizability of the findings. The study's findings are based on a relatively small sample size, so the questionnaires and interviews cannot represent all parents and teachers in the UAE. This challenge can be resolved by improving the sampling strategies to ensure that the research participants accurately represent the main stakeholders of special education. Another limitation revolved around the inadequacy of information regarding distance learning in the special education setting. Over the years, very few researchers have investigated distance

learning practices in the special education environment. This limitation can be resolved by conducting comprehensive research on existing articles to determine the general impacts of distance learning. These recommendations can be incorporated to improve future investigations about distance learning for students with special educational needs and disabilities.

Future of the research

This research has paved way for other people who would want to investigate the perception of parents and teachers towards online education. Technological advancement has paved way for the education system which is important in supporting distance learning students. The research was based in Dubai, but it is important to understand that it will help support the students and teachers towards creating a relevant supporting system. The research has opened up for other researchers who are willing to use the qualitative analysis for their studies. The details and methodologies provide a vivid and accurate approximation of the changing trends in the distance learning practices. In the future, people should focus their research from a whole continent perception and also determine the impact of online learning through the student's perception. This research mainly focused on the parents and educators' perception.

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Appendix 1: Parent's Online Survey

Participant: _____

Date: _____

1. How happy are you with the apps/platforms used for distance learning?

- | | |
|--------------------------|----------------------|
| <input type="checkbox"/> | Strongly Unsatisfied |
| <input type="checkbox"/> | Unsatisfied |
| <input type="checkbox"/> | Neutral |
| <input type="checkbox"/> | Satisfied |
| <input type="checkbox"/> | Strongly Satisfied |

2. Rate your distance learning experience so far?

- | | |
|--------------------------|----------------------|
| <input type="checkbox"/> | Strongly Unsatisfied |
| <input type="checkbox"/> | Unsatisfied |
| <input type="checkbox"/> | Neutral |
| <input type="checkbox"/> | Satisfied |
| <input type="checkbox"/> | Strongly Satisfied |

3. What more can we do to improve our distance learning initiatives?

4. How satisfied are you about your child/children's social-emotional health?

- | | |
|--------------------------|----------------------|
| <input type="checkbox"/> | Strongly Unsatisfied |
| <input type="checkbox"/> | Unsatisfied |
| <input type="checkbox"/> | Neutral |
| <input type="checkbox"/> | Satisfied |
| <input type="checkbox"/> | Strongly Satisfied |

5. Do you feel the communication is smooth between students and teachers?

- | | |
|--------------------------|----------------------|
| <input type="checkbox"/> | Strongly Unsatisfied |
| <input type="checkbox"/> | Unsatisfied |
| <input type="checkbox"/> | Neutral |
| <input type="checkbox"/> | Satisfied |

Strongly Satisfied

6. Are you confident your child/children will make adequate academic progress through virtual learning?

- Strongly Unsatisfied
- Unsatisfied
- Neutral
- Satisfied
- Strongly Satisfied

7. How frequently do you assist your child/children with their schoolwork?

8. How can the administration staffs support you in making distance learning a success?

9. How satisfied are you about your child/children's peer relationships due to physical and social distancing?

- Strongly Unsatisfied
- Unsatisfied
- Neutral
- Satisfied
- Strongly Satisfied

10. What advice would you give the teachers to improve student engagement?

11. Do you help your child/children with their homework, to reduce academic stress?

12. To what level do you agree that your child/children is always worried about exams and tests?

<input type="checkbox"/>	Completely Agree
<input type="checkbox"/>	Somewhat Agree
<input type="checkbox"/>	Neutral
<input type="checkbox"/>	Somewhat Disagree
<input type="checkbox"/>	Completely Disagree

13. How capable do you think you are to support your child/children's learning at home?

14. If you are participating in distance learning, how often do you hear from your teachers individually?

Appendix 2: Teacher's Interview Guide

Participant: _____

Date: _____

1. How happy are you with the apps/platforms used for distance learning?

<input type="checkbox"/>	Strongly Unsatisfied
<input type="checkbox"/>	Unsatisfied
<input type="checkbox"/>	Neutral
<input type="checkbox"/>	Satisfied
<input type="checkbox"/>	Strongly Satisfied

2. Rate your distance learning experience so far?

<input type="checkbox"/>	Strongly Unsatisfied
<input type="checkbox"/>	Unsatisfied
<input type="checkbox"/>	Neutral
<input type="checkbox"/>	Satisfied
<input type="checkbox"/>	Strongly Satisfied

3. What more can we do to improve our distance learning initiatives?

4. How satisfied are you about your students' social-emotional health?

<input type="checkbox"/>	Strongly Unsatisfied
<input type="checkbox"/>	Unsatisfied
<input type="checkbox"/>	Neutral
<input type="checkbox"/>	Satisfied
<input type="checkbox"/>	Strongly Satisfied

5. Do you feel the communication is smooth between students and parents?

<input type="checkbox"/>	Strongly Unsatisfied
<input type="checkbox"/>	Unsatisfied
<input type="checkbox"/>	Neutral
<input type="checkbox"/>	Satisfied

Strongly Satisfied

6. Are you confident your student will make adequate academic progress through virtual learning?

- Strongly Unsatisfied
- Unsatisfied
- Neutral
- Satisfied
- Strongly Satisfied

7. How frequently do you assist your students with their schoolwork outside learning hours?

8. How can the administration staffs support you in making distance learning a success?

9. How satisfied are you about your students' peer relationships due to physical and social distancing?

- Strongly Unsatisfied
- Unsatisfied
- Neutral
- Satisfied
- Strongly Satisfied

10. What advice would you give the parents to improve student engagement?

11. Do your students need help with their homework, to reduce academic stress?

12. To what level do you agree that your students worry about exams and tests?

<input type="checkbox"/>	Completely Agree
<input type="checkbox"/>	Somewhat Agree
<input type="checkbox"/>	Neutral
<input type="checkbox"/>	Somewhat Disagree
<input type="checkbox"/>	Completely Disagree

13. How capable do you think you are to support your students' learning at home?

14. If you are participating in distance learning, how often do you hear from your students' parents individually?
