

**The Impact of Distance Learning on Identifying Primary  
Students with Specific Learning Disorder (SLD) during  
COVID-19 in Two Schools in Ajman City in the UAE**

أثر التعلم عن بعد في الكشف عن طلاب المرحلة الابتدائية من ذوي اضطراب  
التعلم المحدد خلال جائحة كورونا في مدرستين في عجمان في دولة الإمارات

by  
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**Dissertation submitted in partial fulfillment  
of the requirements for the degree of  
MASTER OF EDUCATION  
at  
The British University in Dubai**

**January 2022**

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## **ABSTRACT**

The purpose of this study is to highlight the impact of distance learning on identifying primary students with specific learning disorders (SLD) during the COVID-19 pandemic in two private schools in Ajman city in the UAE. The present paper is a small-scale study that employed the qualitative design method to gather responses to the research question, depending on semi-structured interviews. A thematic analysis was used to analyze data collected from 101 teachers, parents, special education teachers, and coordinators.

In light of the results, the study revealed that schools faced obstacles, which hindered the effective identification during distance learning. Findings referred these barriers to lack of knowledge and awareness about students with SLD, lack of instructions, resources, and data, as well as lack of assessment reliability and validity and poor student evaluation. In addition, there was lack of communication and coordination among teachers, special education teachers, coordinators, and parents. Lastly, the absence of a team of experts and trained teachers in the field played an important role.

The study wrapped up with a list of recommendations for effective identification in an online environment such as training teachers on inclusive education, establishing a well-articulated and efficient policy for identification methods in the schools, and raising awareness within the school community. Also, stakeholders and policymakers are urged to examine the problem from different perspectives to overcome all the barriers hindering effective identification. Finally, various factors posed limitations to the study, including restricted access to schools, restrictive rules of social interaction during the pandemic, and having to rely solely on semi-structured interviews.

The significance of this study arises from the scarcity of research, at least locally, and the increasing numbers of cases of learning difficulties, as well as the lack of awareness among all stakeholders on dealing with such cases.

**Keywords:** distance learning, identification, COVID-19, students with a specific learning disorder.

## نبذة مختصرة

الغرض من الدراسة هو تسليط الضوء على تأثير التعلم عن بعد في الكشف عن طلاب المرحلة الابتدائية من ذوي اضطراب التعلم المحدد خلال جائحة كوفيد 19 في مدرستين خاصتين في مدينة عجمان في دولة الإمارات العربية المتحدة. هذه الورقة عبارة عن دراسة صغيرة الحجم استخدمت الطريقة النوعية لجمع الردود على سؤال البحث اعتماداً على المقابلات شبه المنظمة. تم استخدام التحليل الموضوعي لتحليل البيانات التي تم جمعها من 101 من المعلمين وأولياء الأمور ومعلمي التربية الخاصة والمنسقين.

في ضوء النتائج كشفت الدراسة أن المدارس واجهت تحديات أعاقَت الكشف عن الطلاب من ذوي اضطراب التعلم المحدد أثناء التعلم عن بعد. أشارت النتائج أن هذه التحديات تمثلت في نقص المعرفة والوعي حول الطلاب من ذوي اضطراب التعلم المحدد، عدم فاعلية بعض أساليب التعلم ونقص الموارد والبيانات بالإضافة إلى عدم مصداقية الامتحانات وصعوبة تقييم أداء الطلاب. بالإضافة إلى عدم التعاون الكافي بين المعلمين ومعلمي ومنسقي التربية الخاصة وأولياء الأمور. علاوة على ذلك، أدى نقص المعلمين المدربين والمتخصصين في مجال التربية الخاصة إلى العديد من التحديات.

اختتمت الدراسة بقائمة من التوصيات للكشف عن طلاب ذوي اضطراب التعلم المحدد بشكل فعال في بيئة التعلم عن بعد تضمنت تدريب المعلمين على التعليم الشامل، وإنشاء سياسة واضحة المعالم لطرق الكشف عن الطلاب من ذوي الاضطراب التعلم المحدد في المدارس، والعمل على زيادة الوعي داخل المجتمع المدرسي. أخيراً، حثت الدراسة أصحاب المصلحة وصانعي السياسات على دراسة المشكلة من وجهات نظر مختلفة للتغلب على جميع الحواجز التي تعيق الكشف عن الطلاب من ذوي اضطراب التعلم المحدد.

فرضت عوامل عدة قيوداً على الدراسة، تمثلت في الاعتماد فقط على المقابلات شبه المنظمة و تقييد التواصل المباشر مع المشاركين في الدراسة بسبب إرشادات السلامة والقواعد المقيدة للتفاعل الاجتماعي أثناء الجائحة، حيث تم التواصل وإجراء المقابلات من خلال تطبيقات إلكترونية مثل زووم والمكالمات الهاتفية فقط.

وأخيراً تكتسب هذه الدراسة أهميتها نظراً لقلة طرح موضوع البحث، محلياً على الأقل، وتزايد حالات صعوبات التعلم في المدارس مع غياب الوعي حول كيفية التعامل مع هذه الفئة من الطلاب.

**الكلمات المفتاحية:** التعلم عن بعد، كوفيد -19، اضطرابات التعلم المحدد الكشف الفعال.

## **DEDICATION**

I dedicate my dissertation to my parents, who inspire me always, and to Abdallah Abuhattab, my supportive husband who has stood by my side throughout my research and academic journey. Also, I dedicate it to my children Layan, Toleen, and Majid as a symbol of hard work, dedication, and inspiration and to Dr. Sobhi Abuhattab, who has provided excellent advice and encouragement to me throughout my studies.

## **ACKNOWLEDGMENT**

First and foremost, I thank Allah the Almighty for giving me this great opportunity and the strength to complete it and the Prophet Muhammad (peace be upon him) for encouraging Muslims to learn and acquire knowledge.

My sincerest appreciation goes out to everyone at the British University in Dubai (administration and faculty), in particular, Professor Eman Gaad for providing me with guidance and support during my academic journey.

I would like to express my sincere gratitude to all my friends who encouraged me throughout this journey. Finally, I am grateful to all those who participated in the study and made the collection of data possible.

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## **LIST OF ACRONYMS**

**SLD** ..... Specific Learning Disorder

**SEND** ..... Special Educational Needs and Disabilities

**SENCO** ..... Special Educational Needs Coordinator

**SEN Teacher** ..... Special Educational Needs teacher

**UAE** .....United Arab Emirates

**COVID-19** ..... Coronavirus Disease 2019

**IDEA** .....Individuals with Disabilities Education Act

**UN** ..... The United Nations

**GDP** ..... Gross Domestic Product

**MOE** ..... Ministry of Education

**Co-ed** ..... the education of both male and female students at the same institution.

**m-learning** ..... Mobile Learning

**e-Learning** ..... Electronic Learning

## **CHAPTER ONE: INTRODUCTION**

This chapter identifies the significant issues within the research area. In addition, it sets the fundamental stage for the entire study, by introducing the research background, problem statement, aims and objectives, rationale of the study, and the research question.

### **1.1. Overview**

Since the 1990s, and due to the influence of technology, the education system, globally, has witnessed significant changes (Sivin-Kachala et al., 1994). Worldwide, many educational institutions have utilized multiple models of online education such as hybrid, blended, and distance learning. (Palvia et al., 2018). More recently, because of unprecedented health crises, schools over the globe migrated to fully online learning (Tavares et al, 2021).

The story originated in December 2019 when schools throughout the world shut down due to the outbreak of the contagious COVID-19 pandemic—a health crisis that began in Wuhan Province, People’s Republic of China, and has grown into a pandemic that resulted in lockdowns in most parts of the world. The impact of the pandemic has extended to all fields of life, affecting not only human health, but also education and the economy (Tirivayi et al., 2020).

The outbreak of the COVID-19 pandemic has negatively disrupted the education systems in the most extensive way in human history. Nearly 1.6 billion learners in more than 200 countries were affected, making up 94% of the student population of the world (López-Vargas et al, 2021).

Consequently, the COVID-19 pandemic has forced schools to turn to distance learning and deliver classes online, on an untested and unprecedented scale (Tartavulea et al., 2020). This

caused obstacles for students, teachers, and parents who were not qualified initially to move online. However, it was the most appropriate solution to carry on education during the lockdown (Pokhrel, S. and Chhetri, R., 2021).

During the COVID-19 outbreak, the UAE was one of the first countries to apply distance learning. It successfully shifted thousands of students online almost overnight (The United Arab Emirates government portal, 2020). The UAE government adopted several education policies to effectively meet the challenges that may face schools during distance education (The United Arab Emirates government portal, 2020). Nevertheless, schools had limited time to plan and less clarity about what may happen next, leading to a flow of learning full of complexities and limitations (Gül Özüdoğru, 2021).

For example, special education field was hugely impacted throughout this transformation. The schools experienced several obstacles related to the consistency of providing services for the students who experience special educational needs and disabilities (SEND) (Ayda et al., 2020), particularly, students with undiagnosed learning disabilities who may be missing out on services and supports during distance learning. Also, there was an unprecedented challenge on how to continue or begin a special education identification assessment during school's closure (Tremmel P, Myers R).

## **1.2 Background**

*“No child left behind requires states and school districts to ensure that all students are learning and are reaching their highest potential. Special education students should not be left out of this accountability.”* Dianne Feinstein (American politician)



Throughout history, thousands of children were left behind, denied access to general education schools, and did not receive basic rights such as the right to employment and social integration because they experience SEND. Moreover, often parents of these children were stigmatized by society, which saw these disabilities as a curse or a punishment by God (Yell et al., 1998). Further, in some cases, they were excluded from general education schools and lived in isolation or were placed in special schools. They faced stigma, exclusion, discrimination, bullying, violence, negative attitudes from society, and poor health care systems (Scior, K. and Werner, S., 2015). In addition, they were given a variety of labels, including dull, hard to teach, backward, stupid, lazy, and careless. Children with a specific learning disorder (SLD) who exhibited inadequate performance in schools compared to their peers were left to struggle without support or services because schools were not able to address their needs and abilities. (Bateman, D.F. and Bateman, C.F., 2014).

After so many years of struggle and neglect, between 1965 and 2008, these children received increased attention and support at different levels. The United Nations (UN), for example, has sought to provide clear policies and guidance to bring down all barriers and strengthen global efforts toward effective inclusion. It put forward the Convention on the Rights of Persons with Disabilities, which provides a legal framework for all issues related to people with disabilities and their right to receiving education in an inclusive setting (Rieser, R., 2012). Hence, the issue of promoting the rights of people with SEND was raised internationally. Many countries acknowledged the importance of inclusion within society and passed legislation to promote their right to access education and gain other basic services like their peers (Peters, S.J., 2004).

According to recent research, supporting, people with SEND can significantly affect national economies. Countries lose an estimated 3-7% of their GDP by excluding disabled individuals from the labor market (Dewi et al., 2021), since they make up a large percentage of any population based on relevant literature. This change of attitude brought changes to special education programs in public and private schools (Beisser, S.R., 2008) to ensure that each individual with SEND receives an equal, fair, and significant opportunity in education to empower them to join the community (Handler, B.R., 2006).

The UAE is among the countries that aim to serve people with SEND, by signing the Optional Protocol of the United Nations Convention on the Rights of Persons with Disabilities. Furthermore, in 2006 the UAE issued Federal Law 29/2006 which protects the rights of people of determination (The Federal Law no.29/2006: Article 2) and (Alhammadi, M., 2016). More recently, the UAE passed legislations such as Federal Law No. (2) of 2014 concerning the Protection of the Rights of Persons with Disabilities in the Emirate of Dubai and Resolution No. 43 of 2018 to support the people of determination. These developments have reflected positively on the special education field in the schools across the UAE.

### **1.3. Aims and Objectives**

The main objective of the research was to investigate the impact of distance learning on identifying primary students who experience SLD during COVID-19 in two private schools in Ajman city in the UAE, to answer the research question transparently and identify gaps in relevant literature to present the need for further development in the area of study.

Moreover, the study aims to provide a view on the current situation in the UAE during distance learning with regard to barriers to effective and early identification in schools. The significance of the study is derived from the necessity to establish the foundation for the development of educational policies regarding identification methods in schools, especially in an online setting, also, it focuses on the awareness of including students with SLD in schools under any circumstances.

#### **1.4. Problem Statement**

The complex COVID-19 pandemic reshaped the education system and brought to light a lot of perplexities (Kang, B., 2021) Countries across the globe selected distance learning to ensure that teaching and learning do not stop due to the lockdowns that affected millions of people worldwide (Jena, P. K. 2020). The issue caught the attention of researchers who outlined the pros and cons of distance learning for students with SEND and analyzed the impacts in depth (Juma, M. S. 2020) and (Danchikov et al., 2021). Nevertheless, the review of related literature showed that studies analyzing the impact of distance learning on identifying primary students with SEND particularly SLD during distance learning were quite limited. To gain insight into the issue, further research is needed in the area of the study. Moreover, the current state of the impact of distance learning on identifying primary students with SLD during COVID-19 in the UAE is unclear and is yet to be investigated in the Gulf area, according to relevant literature.

#### **1.5. Rationale for the Choice of Topic**

During the ongoing COVID-19 pandemic, educators have found themselves presented with many challenges related to the process of learning. One particular challenge was the school's

ability to effectively identify students with SLD and to complete assessments, carry out observations, and gather sufficient data to decide whether students are eligible for special education services under the new conditions and during distance learning.

Overall, identification at the level of the school has been always a real challenge (Kranzler et al, 2016). It became more complicated with students receiving their education from home. Furthermore, research relevant to the area of study is limited, which made it crucial to investigate this topic.

### **1.6. Research Question**

This study investigates the impact of distance learning on identifying primary students with SLD in two primary schools in Ajman city, in the UAE. The research aims to address the problem statement, which is the following: *What is the impact of distance learning on identifying primary students with SLD during COVID-19 in two private schools in Ajman city in the UAE?*

As part of this, the study intends to look at a range of issues associated with the challenges schools faced during distance learning to identify primary students with SLD.

#### **The issues investigated are:**

- The awareness and perspectives of teachers, and parents and their knowledge in relation to SLD.
- Collaboration between teachers, parents, and special education specialists during distance learning.
- Tools and assessments used to identify students with SLD in schools during distance learning.

- Difficulties experienced by teachers and special education specialists when identifying students with SLD during distance learning.

## **1.7. Organization of Chapters**

A total of five chapters comprise the study; the first chapter establishes the foundation of the study by introducing the research background, problem statement, goals and objectives, rationale for the study, and the research question.

The second chapter reviews the history, definition, common types, and characteristics of SLD and their causes. A historical perspective is also given to the development of education in the UAE, as well as the position of the present study in regard to the concept of special educational needs.

Chapter three summarizes the methodological framework for the study, which includes the research approach and design, methods for collecting and analyzing data, and the ethical considerations.

Chapter four includes analysis and presentation of the data gathered from the participants, focusing on the emerging themes. It also discusses the findings and the results of the research.

Finally, chapter five presents the conclusions derived from the findings, followed by relevant recommendations, as well as research limitations, implications and suggestions for further study.

## **CHAPTER TWO: LITERATURE REVIEW**

A review of the relevant literature is presented in chapter two, including the history, definition, common types, and characteristics of SLD, as well as their causes. This chapter also provides background information about the context in which this study was conducted; hence, it provides a brief review of the education system and the historical background of SEND students within the UAE.

### **2.1. The History of Specific Learning Disorder (SLD)**

When reviewing the relevant literature, it became clear that SLD is a recent term. It was used for the first time in 2012, to define a mental disorder used for diagnosis in the updated DSM5 (Regier et al., 2013).

SLD were examined for decades in medical (Riddick, B., 2012) and psychological research (Papanastasiou, F., 2017), but not in the education field. However, lately, educators have investigated this issue closely as it is associated with students who experience learning difficulties at school. Both educators and researchers contributed to the literature, and different terms were proposed before the term SLD was used to refer to individuals who experience learning difficulties and are not progressing adequately within the educational curriculum, particularly in acquiring basic skills in literacy and numeracy (Vellutino et al., D.M., 2004).

As a concept, it could be said SLD is not really new, with its historical roots being traced back to the early 1800s. It began in medical studies, (Beckett, J. 2014) namely, in the neuroscience field. Franz Josef Gall (Standage, D. and Trappenberg, T., 2012) a German-French anatomist

and physiologist, explained how specific areas of the brain that control certain cognitive mental activities may be affected by brain injury, leading to learning disorders. Furthermore, Carl Wernicke identified a region in the left temporal lobe of the brain that is responsible for understanding sounds, words, and written language (DeWitt, I. and Rauschecker, J.P., 2013).

Throughout nineteenth century, more studies were carried out to explore why children suffer from learning disorders. In 1877, the German physician Adolph Kassmaul used the phrase “word blindness” to describe complex reading difficulties despite the power of sight and intelligence (Scammacca et al., 2016). In 1887, a German ophthalmologist named Rudolf Berlin initiated the use of the word dyslexia to define a “very great difficulty in interpreting written or printed symbols” (Shaywitz, S.E. and Shaywitz, J., 2020).

Similarly, in 1896, James Hinshelwood examined the case of many students who were suffering from reading and writing difficulties. These students were referred to him by their teachers who thought they had visual impairment. Nevertheless, he perceived that symptoms of learning problems in adults with brain injuries were similar to students with learning difficulties. Reading Dr. Hinshelwood’s report, Dr. W. Pringle Morgan wrote, in the British Medical Journal, of a 14-year-old who exhibited learning difficulties from birth (Shaywitz, S., 2017). According to the published article, the boy was facing difficulties when attempting to read and spell although he was intelligent and his teachers worked hard with him.

In the first half of the twentieth century, American psychologists and researchers began to examine the brain-behavior connection. In 1937, the American Samuel Orton attributed reading difficulty among students to a defect in the coordination of two hemispheres of the brain (M.

and Möbs, I., 1995). In 1943, Alfred Strauss published his research titled “Diagnosis and Education of the Cripple-Brained, Deficient Child.” He proposed that “children with learning difficulties who were not mentally retarded, hearing impaired, or emotionally disturbed, had minimal brain damage” (Carlson, S., 2005).

In early 1963, at a conference in Chicago, Samuel Kirk used the learning disability term for the first time as a new educational concept to describe individuals with average or above-average intelligence who face learning problems due to a large number of labels applied at the time (Sleeter, C. 2010) and (Li, A.K., 1977).

Since then, the special education field has received increasing attention at the level of research and official efforts. In 1969, The Children with Specific Learning Disabilities Act was passed by US Congress, aiming to provide support and services for the special education programs (Kirk, S.A., 2014).

In 1975, Congress passed the Education for All Handicapped Children Act to protect the rights of the individual with specific needs (Hallahan, D.P. and Mercer, C.D., 2001), stipulating that all public schools are to ensure equal access to education for children with mental and physical disabilities (Martin et al., 1996). In 2004, Individuals with Disabilities Education Act (IDEA) was reauthorized and better aligned with the No Child Left Behind Act that seeks to support all children, regardless of their needs and abilities, to have the opportunity to succeed in schools (Kaufman, A.K. and Blewett, E., 2012) and (Beth R. Handler 2006).



## **2.2. Definition of Specific Learning Disorders (SLD)**

Around the end of the twentieth century, studies increasingly paid attention to primary school students who, although did not suffer from mental, auditory, or visual disabilities, still experienced difficulties in learning specific skills related to reading, writing, and math. (Woodcock, S. and Vialle, W., 2016). Despite the constant attempt of studies to define these difficulties, they did not produce definitive or widely accepted term to describe them. Researchers used several terms such as learning disability, learning difficulty, and learning disorder, interchangeably (Wikipedia, 2022).

When examining the relevant literature, it is evident that these terms vary in many different ways. In some research, the term learning disabilities generally refers to an intellectual disability that affects learning and intelligence across all areas. It usually highlights general and long-lasting learning difficulties (Patel et al., 2018). However, the term learning difficulties refers to a group of disorders involving significant difficulties in both the acquisition and use of a number of skills, namely, listening, speaking, reading, writing, reasoning, or mathematical abilities.

Some scholars argued that learning difficulties and learning disabilities are two terms that are difficult to distinguish (MyLife Home Care2022). However, some research debated that learning difficulties are a generic term that encompasses learning problems, including disability and learning disorders.

On the other hand, the term learning disorder refers to a discrepancy between potential levels of academic performance and those a learner actually exhibits. They include cognitive, educational, speech and language, medical, and psychological problems. While the term

‘specific learning disorder’ was updated from the more generic ‘learning disorder’ to highlight various sub-skill impairments individuals may exhibit in various academic domains such as reading, mathematics, and writing (Fortes et al., 2016).

It could be stated that SLD is a more recent term, first used in 2012 at DSM-5, which is the recent version of the Diagnostic and Statistical Manual of Mental Disorders. It considers SLD to be a form of Neurodevelopmental Disorder that results in impeding the ability to acquire and use specific academic skills such as reading, writing, or mathematics (Tannock, R., 2014).

Furthermore, the DSM-5 illustrated that, for several reasons, learning difficulties are considered ‘specific’. For example, they are not attributed to intellectual disabilities; hearing or vision disorders; neurological or motor disorders; or general external factors, such as economic or environmental disadvantage, or lack of education provided in the individual’s community. SLD affect the learning process in learners “who otherwise demonstrate normal levels of intellectual functioning generally estimated by an IQ score of greater than about 70” (Fortes et al., 2016).

Consequently, the field of special education is still growing and more research is expected to generate new information that may change the existing terminology. Moreover, all definitions remain to be viewed as merely presumptions as the theory describing learning disorder as a result of a dysfunction in the central nervous system has yet to be empirically tested (Ajoku-Christopher, O.A., 2012.).

### **2.3. Characteristics of Students with Specific Learning Disorder (SLD)**

Historically, students who experience SLD have been the largest group receiving special education services under the Individuals with Disabilities Education Act (IDEA) (Itkonen et al., 2010).

Often, a student who has specific learning disorder obtains an average IQ score and is sometimes above average. Nevertheless, the achievement is lower than expected in one or more skills such as writing, reading, or mathematics. These difficulties are noticed in low academic performance, which is not due to any sensory impairment visual, auditory, or environmental damage. Furthermore, SLD look very different from one student to another. One student may struggle with reading and spelling, while another likes books, but cannot understand mathematics.

Accordingly, students who experience SLD are a puzzle to educators because of the great discrepancy between their achievement level and intellectual ability (Landrum et al., 2003). Moreover, it is not always easy to identify SLD because there is no single symptom or profile to measure the difficulty against. Still, some initial signs are more common than others at different ages. Lastly, SLD cannot be cured or fixed; they represent lifelong challenges (Hudson, D., 2015). Nevertheless, early intervention and identification may assist individuals with SLD to achieve success at school, at work, in relationships, and in their communities (Clark, M. and Parette, P., 2002).

## **2.4. Factors Causing Specific Learning Disorders (SLD)**

Several researchers have attempted to examine SLD and their causes. Unfortunately, the results concluded that no main reasons cause them. However, recent research connected SLD to a defect in the central nervous system that creates a disturbance in cognitive processes. This may impede acquiring basic skills, including reading, writing, or math as well as skills of a higher level such as organization, time planning, abstract reasoning, long or short-term memory, and attention (Hammill et al., 1987).

According to Altay, M.A. and Görker, I., (2018), the SLD may happen due to many factors, including (a) family history and genetics, (b) neurobiological factors, (c) prenatal and neonatal risks linked to poor growth or exposure to alcohol or drugs before being born, (d) premature birth or very low birth weight, (e) psychological and physical trauma, (f) head injuries and nervous system infections, and (g) environmental exposure to high levels of toxins such as lead. Overall, the aforementioned factors have been linked to an increased risk of learning disorders.

## **2.5. Types of Specific Learning Disorder (SLD)**

Empirical research has been directed toward identifying different types of SLD. The broad categories proposed in the research identified the most common SLD centered around the inability of an individual to learn a specific skill in numeracy and literacy. The resulting manifestations include difficulties in reading (dyslexia), math (dyscalculia), and writing (dysgraphia). However, it is important not to mix SLD with learning disabilities as the latter are predominantly a result of emotional disturbance, intellectual disability, or motor, hearing or visual impairments (Mercer et al., 1976).

### **2.5.1. Dyslexia or Reading Difficulty**

Dyslexia, also known as word blindness, is difficulty in reading (Hinshelwood, J., 1896). Considered the most common type of SLD, dyslexia are often linked with a language-based disorder characterized by difficulties in acquiring reading, writing, and spelling. Collette, M.A. (1979) identified signs of reading difficulty as follows: (a) difficulty with phonemic awareness, (b) inability to break up words into their component sounds, (c) slow, and often painful, reading, (d) experiencing decoding errors, and (e) showing the wide disparity between listening and reading, and the actual understanding of any texts.

### **2.5.2. Dysgraphia or Writing Difficulty**

Dysgraphia is a difficulty in written language; it may include impairment in handwriting, spelling, organization of ideas, and composition. Signs of dysgraphia identified by Biotteau et al. (2019 ) include: (a) poor, distorted and difficult to read handwriting, (b) inappropriately sized and spaced letters, (c) irregular shape or slant letters, (d) poor cursive writing, (e) slow copying or writing, with frequent strain, (e) difficulty in simultaneous thinking and writing, (f) inconsistency spacing between words or letters, (g) poor drawing capabilities, (h) unfinished, omitted words, and (i) wrong or odd spelling despite instruction (Dimauro, G., Bevilacqua et al 2020).

### **2.5.3. Dyscalculia or Math Difficulty**

Dyscalculia describes difficulty in understanding mathematics. Some signs of dyscalculia, according to Wilson et al. (2015) include (a) poor number sense; the inability to remember or retrieve math facts; and difficulties getting basic mathematical skills such as addition, subtraction, division, multiplication, quantity, and placing a value, (b) difficulties in memorizing mathematical facts and organizing numbers, (c) difficulties in understanding abstract concepts

of direction, sequence of events, and (d) difficulties in understanding concepts related to time such as days, weeks, months, and years.

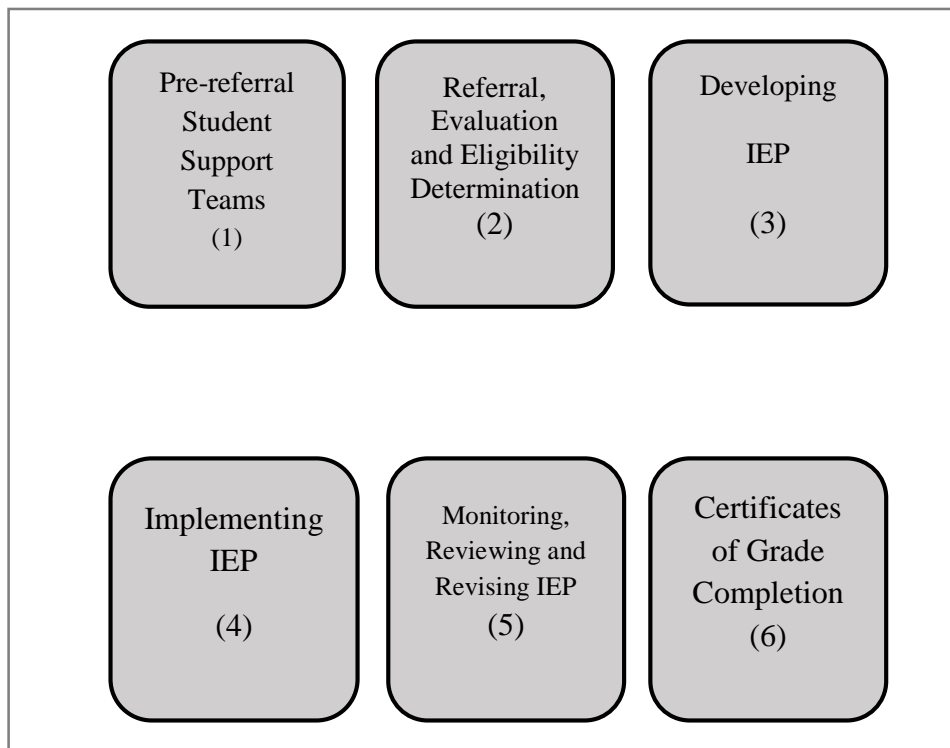
## **2.6. Identification of Specific Learning Disorder (SLD) at School Level**

In general, the concept of identification, whose roots can be traced to Freud's ideas, refers to the process of associating the self with other individuals and their characteristics or views. In the education field, it is a systematic process the school carries out to determine whether or not a student possesses a disability. It then plans appropriate services and actions to address the student's individual needs. Also, it refers to formal and informal methods of assessment that education providers and other professionals use to identify the type of learning disability experienced by a student (Ahmad, F.K., 2015). Gresham, F.M., 2002 stated that, identification is related to collecting, reviewing, and using information to make educational decisions about students' eligibility for special education. SLD identification is considered to be the most important process. It is mostly due to the responsibility of identifying the students' needs and developing educational programs that match their needs and abilities.

Pierangelo, R. and Giuliani, G.A., (2002) noted that students may be referred for SLD identification in three ways: (a) when a teacher asks the parents to look closely at the student's performance because of an injury or particular treatment, (b) when the teacher notes the student is not performing at the level expected for their age or grade, or exhibits disruptive behavior that hinders their learning, or (c) when the parents request that the school evaluate their child to determine if a child qualifies for special education.

Moreover, Lerner (2000) stated that the process of identifying students with SLD involves several stages: (a) informal referral and pre-referral intervention, (b) formal referral, (c) nondiscriminatory and multidisciplinary assessment, (d) eligibility decisions, (e) case discussions, and (f) the development of an Individualized Education Plan (IEP).

Also, according to the General Rules for the Provision of Special Education Programs published by MOE in the UAE, procedures for identification and eligibility determination consists of six steps as follows: (1) pre-referral, student support teams; (2) referral, evaluation and eligibility determination; (3) developing IEP; (4) implementing IEP; (5) monitoring, reviewing and revising IEP; and (6) certificates of grade completion. (The Ministry of Education of the United Arab Emirates Portal 2010).



**Figure 1. Procedures for Identification and Eligibility Determination**

Some schools use the information from assessment upon entry to identify students who may be at risk of having SLD or use universal screening for all students. For example, a student with an extremely low test score on a primary diagnostic test may become the focus of further inquiry and will be under direct observation within the classroom setting, which, if carried out carefully, is the most reliable method.

Generally, the signs of learning disorder will be visible inside the classroom. However, before referring the student to the specialist, the teacher, trained to respond to a student's learning needs, immediately attempts an early intervention. The interventions are structured to enable teachers, who may experience difficulties instructing students with SLD, to provide appropriate support since the student would be closely observed and receive differentiated instructions within the class. This is called pre-referral intervention; it is normally used to reduce the number of students identified as students in need of special education.

The pre-referral goal must be met within the pre-referral timeline, otherwise a formal referral will take place, and the student will be referred to a specialist to determine their eligibility for special education. At this stage, students will be assessed to determine whether they have disabilities and, if so, what kind of services they will require. The evaluation may also be accompanied by formal intelligence tests, standardized achievement tests, interviews with parents and students, a history of academic performance with interviews or reports from past teachers, a classroom observation checklist, a physical examination, a hearing and vision test, and, if necessary, a speech and language evaluation. In the final stage of the identification process, an Individualized Education Program is developed.



In order to successfully identify SLD, parents ought to be involved at all stages of the process. Overall, based on published research, the identification process has proven to be perplexing due to the absence of shared criteria that distinguish individuals with SLD from others with special needs and slow learners; hence, it is diverse and recognized by a long and arduous diagnostic effort. As per the relevant literature, there seems to be no prior study that has carefully defined or measured identification, especially with the significant differences in the identification steps that schools worldwide follow. This can make the world of SLD diagnosis and support complex and overwhelming for teacher, learners and their families.

## **2.7. The UAE Context**

### **2.7.1. Background Information**

This study was carried out in Ajman city in the UAE; two primary schools located in the same region were selected in this study. Ajman is located in the United Arab Emirates (UAE), on the Arabian Gulf. The smallest of the seven emirates in the UAE, Ajman's area is about 259 sq km, which is about 0.3 percent of the UAE's total area. Ajman is located in the middle of the Emirates (The Official Portal of the UAE Government, 2020). It borders Sharjah and is only 10 km away from Dubai in the south and Umm Al Quwain in the north. A modern city that provides up-to-date services and facilities, Ajman has many distinguished schools, offering top class education. Ajman public and private schools are divided into different categories; some of them are for boys and some for girls, in addition to co-ed schools. Further, these schools follow different curricula, including the UAE national curriculum, American, British and Indian curricula. However, all education policies are controlled through the UAE Ministry of Education (MOE) as it oversees the implementation of the education policies in the country.

### **2.7.2. Overview of the Education System in the UAE**

Since its establishment, the UAE has viewed education as a top priority, focusing on educating both men and women. It has taken huge strides in that regard; while in 1975, the adult literacy rate was 54 percent among men and 31 percent among women, today, literacy rates stand at approximately 95 percent, for both genders (Embassy of the United Arab Emirates, 2020).

The UAE education systems ensure students are equipped with the necessary skills to pursue their university education overseas and to compete in the global job market. Additionally, some of the world's best universities have established programs in the UAE in order to attract students from the Arab world and elsewhere (The Ministry of Foreign Affairs and International Cooperation, 2020).

Realizing the significant role an education system plays when it comes to economic progress, the UAE has worked relentlessly to advance its own education system. Such commitment to education has been fruitful, contributing to diversifying the UAE's economy and producing fully-prepared youth that are ready to compete in global job markets. Aside from public schools, there are plenty of other educational institutions in the UAE that offer high-quality education. Approximately 40% of students in the UAE attend private schools, which offer foreign language education tailored to specific communities, preserving the culture and utilizing the curriculum of students' countries of origin (Quality Education in the UAE, 2019).

### **2.8. Students with Special Educational Needs and Disabilities (SEND) in the UAE**

In the UAE, people with SEND are treated with enormous respect; tradition and culture provide a foundation for social responsibility among all members of society. Therefore, the duty of

catering for the needs of these individuals does not fall solely on the shoulders of their families; it is a priority the entire Emirati society is committed to.

The UAE is among the first countries to pay great attention to the special education field (Quality Education in the UAE, 2019). As part of the UAE's commitment to inclusive education in school, the federal law 29/2006 was outlined with the purpose of supporting the rights of people with special educational needs.

The UAE laws specify that individuals with SEND shall not be obstructed from being admitted into or attending an educational institution, regardless it being a public or private institution. In addition, MOE supports national and international educational principles of inclusion, thus, SEND students are taught in regular classrooms with their peers, with necessary assistance, and in an environment designed to suit their individual educational needs (Quality Education in the UAE, 2019).

Additionally, the UAE has encouraged the opening of many training and rehabilitation centers throughout the country and has made numerous efforts to integrate students with special needs into mainstream educational settings. Also, the UAE Disability Law stipulates that all schools, both public and private, are to offer and ensure equal access to all children. All these changes and laws facilitate the enrolling of SEND students in mainstream schools. Today, there are many schools in the UAE that welcome students with special needs, providing them opportunities to learn side by side with other students.

## **2.9. Distance Learning**

By definition, distance learning refers to the education offered to students who may not always be physically present at a school (Sethi, P., 2018). Distance learning entails a physical separation between teachers and students during the actual lesson and instructions, and communication is facilitated by means of a variety of technologies. In addition, the term distance learning can refer to a learning process that is carried out entirely with students and teachers separated, or a combination of distance learning and traditional classroom instruction, called hybrid or blended. Finally, several other terms have been frequently being used interchangeably with distance learning; these include e-learning, m-learning, online learning, and virtual classrooms (Gunawardena, C.N. and McIsaac, M.S., 2013).

## **2.10. COVID-19 Pandemic**

COVID-19 is a disease caused by a new strain of coronavirus. ‘CO’ stands for corona, ‘VI’ for the virus, and ‘D’ for disease. Formerly, this disease was referred to as the ‘2019 novel coronavirus’.

Caused by a respiratory virus, a COVID-19 infection can be marked by fever, cough, and shortness of breath—symptoms that are frequently present in the common cold or flu. The virus is transmitted through direct contact with the respiratory droplets of an infected person, which are generated through coughing and sneezing (United Nations Development Programme, 2020.).

In March 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic. China was identified as the origin of the virus, and cases multiplied at a quick pace globally, prompting countries and governments around the world to attempt to isolate cases and control the transmission of the disease. To that end, they adopted and implemented a range of strict measures and policies. (United Nations Development Programme, 2020).

### **2.11. Education during COVID-19**

Worldwide education systems have experienced an interruption as a direct impact of the COVID-19 pandemic, which, due to its length, has also directly affected all aspects of daily life. Nevertheless, that has presented educational institutions with the opportunity to transform education as students were referred to online learning. The pedagogical methods that were developed during that period have contributed to advancing the learning process to become more efficient and reliable as well as less stressful to teachers and students alike.

Some studies have suggested that in terms of learning outcomes, online education can be deemed comparable to traditional education. However, in terms of interactivity, online learning has been perceived as lacking (Quality Education in the UAE, 2019).

During the COVID-19 pandemic, students had to reorganize their daily schedules in order to cope with isolation. They were affected by the changes. Concerns were raised regarding the potential effects on children's education and well-being. As an example, lack of socialization affects students' well-being and emotional balance. In addition, students identified depression and anxiety as among the main the effects resulting from isolation (United Nations Development Programme, 2020). Moreover, during this period, schools were forced to deal with significant

operational challenges such as time management, interpersonal communication, lack of high-speed internet and stable technology, lack of trainer and student skills, and weak technical skills. Overall, as any new technology poses tremendous difficulties when it is first implemented, this experience was a huge challenge for education systems all around the world.

## **CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY**

### **3.1. Introduction**

The chapter describes in detail the methodological design of the study. A qualitative approach was used to collect data to answer the research question based on the responses. To prevent physical contact due to the ongoing COVID-19 pandemic and to facilitate accessibility for all participants, telephone and video interviews were conducted.

### **3.2. Description of the Study Area**

This study was carried out in Ajman city in the UAE; two primary schools located in the same region were selected in this study. A total of 58 teachers, 7 SEN teachers, 2 SENCOs, and 34 parents from the selected schools were interviewed. Primary students were chosen because SLD are more obvious in this stage, and the signs are more common than others at different grades.

### **3.3. Mode of Research Design**

The main purpose of the paper was to examine the impact of distance learning on identifying primary students with SLD during COVID-19 in two primary schools in Ajman city, UAE. To establish this, a qualitative research design was used to answer the questions of what, when, where, who and how that are of relevance to the research problem. Comprehensively, the qualitative research approach enables examining peoples' experiences in detail by using a set of research methods such as in-depth interviews and content analysis (Moser, A. and Korstjens, I., 2018). Within this approach, information is obtained from participants who are directly involved

in the issue. Considerations of factors that shape a certain population group are also kept in check, including their values, behaviors, attitudes, and shared social context.

Using this method provides the opportunity to collect diverse opinions and perspectives from people with varied experiences (Skovdal, M. and Cornish, F., 2015). Due to the need to comprehend the problem from multiple angles and the fact that different people tend to perceive the same issue differently, the research design was well-suited for this study. It was necessary to get different points of view on how students with SLD have been identified during distance learning.

Furthermore, this research design is often used to offer answers to the questions associated with a specific research problem (Maxwell, J.A., 2008). It facilitates the collection of essential input on the status of the problem and functions as a valuable resource of a wealth of information to draw relevant recommendations for stakeholders.

### **3.4. Research Paradigm**

By definition, a research paradigm is “the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed” (Durach, C.F., Kembro, J. and Wieland, A., 2017). The paradigm used in this research is a constructivist paradigm, which suggests that cognition is a construct of the participants’ minds. This is especially useful when the researcher needs to gain insight into the participants’ knowledge and opinions.

A constructivist paradigm implies that people’s comprehension of the world and their repertoire of knowledge are actually constructed through a process of reflection on their own experiences



(Andrews, T., 2012). Through the process of reflection, people would sometimes alter their views and conceptions of the main subject; at other times, they would find themselves learning something new. In this type of research, the researcher collaborates with the participants to draw on their experiences, by asking open-ended questions and elaborating on the questions to assist participants' experiences. Furthermore, as this paradigm proposes that there are multiple truths and realities to examine and reflect on, this would be more successfully achieved through qualitative methods.

### **3.5. The Target Group**

The target group is normally described as a group of individuals who share characteristics that are important or significant to the researcher. Targeted groups in this study are primary school teachers, parents, special education teachers, and SENCOs from two schools in Ajman city. To gather wealth of information in relation to the research questions, 58 teachers, 7 SEN teachers, 2 SENCO, and 34 parents were selected.

<b>Participates</b>	<b>School 1</b>	<b>School 2</b>
Teachers	30	28
SEN Teachers	3	4
SENCOs	1	1
Parents	16	18
Total	50	51

**Table 1: Population per School**

### **3.6. Criteria for Choosing the Schools**

The chosen schools are well-known schools in Ajman city, following the American curriculum and have a unit for students with special educational needs. Each school has more than 1,000 students. Moreover, these schools have diverse classrooms and teachers.

### **3.7. Criteria for Choosing the Informants**

This study's primary goal was to find out how distance learning impacts the identification of students with SLD. Accordingly, the informants were selected based on their experience of dealing and working with students with SLD to answer the research question.

### **3.8. Sampling Process**

By definition, sampling refers to the process carried out when selecting a representative small group from the research population (Martínez-Mesa et al., 2016). To facilitate gathering qualitative responses, this study relied on purposive sampling. Informants were selected to best serve the purpose of the study. In addition, taking the limited scope of resources for data collection, the study relied on purposeful sampling, which, according to Patton, M.Q., (1990), means that a researcher would select informants based on the researcher's own judgment on who would provide the most useful, informative responses. In this regard, teachers, SEN teachers and SENCO, as well as parents were the best suited informants for this study.

### **3.9. Sample of Interview**

The importance of a study's sampling strategy lies in the fact that it is the way a researcher can get responses to answer the research question. Interviews are often used for data collection; however, the approaches when conducting interviews vary; hence, requirements for response selection differ. In qualitative research, the study can rely on as many respondents as it deems necessary, as the number of interviewees is not of significance. The researcher's choice can be a smaller representative sample, where answers can be on behalf of a category. Alternatively, a theoretical sample can be chosen, where the importance lies on how much a respondent adds to the research data rather than the number of interviewees. For the purposes of this study, the interview sample was based on a small, representative sample.

### **3.10. Methods of Data Collection**

Data refers to the raw materials of research collected through the use of data collection methods that are considered the most effective and appropriate for the study (Nicholas, 2006). Therefore, the main method for data collection for this study was the semi-structured interview. Below is a description of each method.

#### **3.10.1. Semi-structured Interview**

For the purposes of this study, an interview refers to the verbal conversation between two people used in the study to collect detailed information about the impact of distance learning on identifying students with SLD during COVID-19. It enables respondents to speak out their opinions, feelings, beliefs, and experiences related to the research problem. In light of this, it

can be considered appropriate for gathering detailed information about people's perspectives, experiences, feelings, and attitudes on a certain topic (Barriball, K.L. and While, A., 1994).

The interviewer perspective is often considered the best option for exploratory and descriptive studies in qualitative research. Therefore, the role of the interviewer is to organize the conversation and ask questions during the research interview to ensure informative responses. Interviews can be divided into three types: structured, semi-structured, and unstructured. A structured interview is most appropriate when dealing with a large number of respondents or surveys, since it uses closed-ended and standard questions, making it easier to code responses for analysis. Open-ended questions are the norm in unstructured interviews. They can be changed depending on the participant's response and there are no guidelines for the questions.

Using semi-structured interviews is quite effective for the researcher to get more information, since they aid in establishing trust and connection with the informants compared to other methods of data collection (Dearnley, C., 2005).

In this study, participant responses are based on both closed-end and open-ended questions, hence, a semi-structured interview method is used. An interviewer may ask follow-up questions or request clarifications, when necessary, during semi-structured interviews, allowing the interviewer to explore certain topics in depth. Due to the researcher's desire to collect information from different viewpoints, this study will rely on individual interviews rather than group interviews. To conduct a successful interview, a person will need to utilize different forms of questions, whether they are direct, ending in a question mark, or indirect, included in a statement. Likewise, there are structured questions that have specific answers, such as true or

false, yes or no, good or bad. In addition, there are other types of questions, such as follow-up questions, which help the interviewer to get more information from the interviewee; probing questions, which are open-ended, and are designed to draw out information, which may have been overlooked in the interview process. In cases where multiple answers are possible, the interviewer needs to ensure each answer is supported with evidence when asking interviewees for their assumptions.

In this study, the researcher relies a lot on probing questions to obtain insight on how distance learning impacts the identification of primary students with SLD. Additionally, it was possible to ask follow-up questions to obtain more informative data. Informants were available to immediately clarify concerns and ambiguous statements.

The interviews were carried out with every teacher, SEN teacher, SENCO, and parent who participated in the study. The time allocated for an interview was approximately 30 minutes for everyone. The interview questions were formulated based on the main research question.

The timing of the interview sessions was scheduled according to the group being interviewed. While teachers were interviewed in the morning before classes began, SEN teachers and SENCOs were interviewed during school hours. On the other hand, parents' interviews were conducted at the time they chose. Naturally, permissions were obtained from school prior to conducting the interviews as a consent form was sent via email and signed by each participant before the recording began.

### **3.10.2. Telephone and Video Link Interview**

There are many ways to interview a candidate, including face-to-face interviews, telephone/video interviews, and web interviews. Different interviewing techniques have different advantages and disadvantages. Face-to-face interviews are the most common. According to Hancock, B., (2000), it provides the best data quality. Another method is to use video links and telephone interviews; these are widely used when face-to-face interviews are impossible or sensitive subjects need to be protected. These methods are also quite effective for collecting data while using available tools. This type of interview can be challenging since facial expressions and body language can be difficult to read. Due to the ongoing COVID-19 epidemic, this study relied on telephones and video apps, such as Zoom, because it was impossible to interact with participants in person. The researcher ensured the platform used is accessible, and it was tested well before the time of the interview. In addition, when using telephone or video interviews, a call should be recorded using appropriate technology, as well as the quality of the call should be maintained. Participants should agree on the time of the interview, and if any charges are incurred by the interview, the researcher needs to cover those charges.

### **3.11. Pilot Study**

In research, a pilot study is usually planned and carried out before data collection started. This allows the researcher to review and to restructure data collection tools to ensure they get the data they need to answer the research questions. It also aids in developing a more comprehensive understanding of the situation to be studied. Before carrying out the actual research, researchers should acquaint themselves well with the data collection tools they intend to use (Drew, C.J., Hardman, M.L. and Hosp, J.L., 2008). In the current research, a pilot study was conducted by

interviewing 3 teachers 2 SEN teachers and 1 SENCO in Dubai, after which corrections were made to the interview guide questions.

### **3.12. Ensuring Reliability and Validity of Data**

#### **3.12.1. Validity and Reliability**

Riege, A.M., (2003) argued that validity and reliability are research concepts that demonstrate the quality of the study. A researcher's trustworthiness is determined by the validity of the research. In other words, validity takes in account what it wants to look into, consequently explaining whether the results are meaningful, relevant, and applicable to the research questions.

Reliability, on the other hand, is defined as the consistency of a data collection tool that leads to the same results each time (Gall, et al., 2007). Others believe that the purpose of reliability is to minimize errors and biases in research Yin, R.K., (2011). Neuman (2003) focuses on reliability issues related to data collection from field interviews. Reliability in field research is linked to the insight, awareness, suspicion, and questions of the research.

#### **3.12.2. Securing Validity and Reliability**

This study considered all aspects of validity and reliability. The questions were discussed during the development of the interview guide used in the process. A pilot study was conducted to determine whether the questions were appropriate, useful, and easy for respondents to understand in order to collect accurate information. The fact that the researcher is familiar with the setting (field and culture) in which the study was carried out also contributed to the validity and reliability.

### **3.13. Ethical Considerations**

Ethical consideration is an integral and inevitable part of research (Theofanidis, D. and Fountouki, A., 2018). Informants need to be ensured their protection from harm, exposure, as well as guaranteed their anonymity. The following ethical guidelines and legal rules have been considered by the researcher: (a) participants of the study must receive informed consent forms to sign, (b) participants should be provided with sufficient information about the research, in a format they understand, in order to make an informed decision about participating in the research, (c) participants have the right to determine whether they are willing to participate in the research, including the right to refuse and withdraw at any time, (d) participants should not be harmed or put at risk by researchers, (e) the researcher should protect the identity of research participants at all times, and (f) researcher should ensure that all data records are kept confidential at all times. Following the above considerations, the schools granted permission to proceed.

### **3.14. Getting Agreement to Undertake Interviews**

Whenever people are involved in research (Markkula et al., 2020) stated permission is necessary from the appropriate authority. Thus, a consent form was used in the study as a mean that indicates someone gives his/her consent knowingly, voluntarily, intelligently, clearly, and manifestly (Fouka, G. and Mantzorou, M., 2011). To conduct the interviews, this study followed a procedure that involved first to contact the intended schools to gain access to teachers, specialists and parents. Second, a signed consent form from the schools' administrations was required. The next step was for the researcher to contact parents, teachers, SEN teachers, and



SENCOs. The consent forms were sent via email, requesting their virtual/ digital signature. Due to the ongoing COVID-19 pandemic and the fact that the schools were closed, the researcher found emails to be the ideal way to send and receive documents. The purpose and mode of conducting the research were explained to potential participants, and they were given a choice of a suitable time for the interview. Permission to record the session was also obtained from participants.

<b>Research Ethics</b>	Informed consent
	Voluntary participation
	Anonymity of participants
	Anonymity of school
	Confidentiality

**Table 2: List of Ethical Issues Addressed in the Study**

### **3.15. Data Analysis**

Data analysis refers to the process of categorizing the collected data in a study. It is of great importance in interpreting the data to understand the meaning and identify the patterns of the data (Alhojailan, M.I., 2012).

Due to the fact that this study relies solely on semi-structured interviews as the method of data collection, the analysis of the data is more complex than for studies that use quantitative data. In the first phase of this study, the researcher conducted interviews with 101 research participants and collected their responses. Then, combined each category separately in order to determine the different viewpoints. This study used thematic analysis to organize the data, Clarke, V. and Braun, V., (2013) stated that this type of analysis can help identify specific data and concepts that can be used to explain the meanings and assumptions of the data and content.

In this study, five steps were used to analyze the data. A thematic analysis is used to discern patterns and present them as themes in relation to the data. Thematic analysis is best suited for studies that aspire to discover information through interpretation.

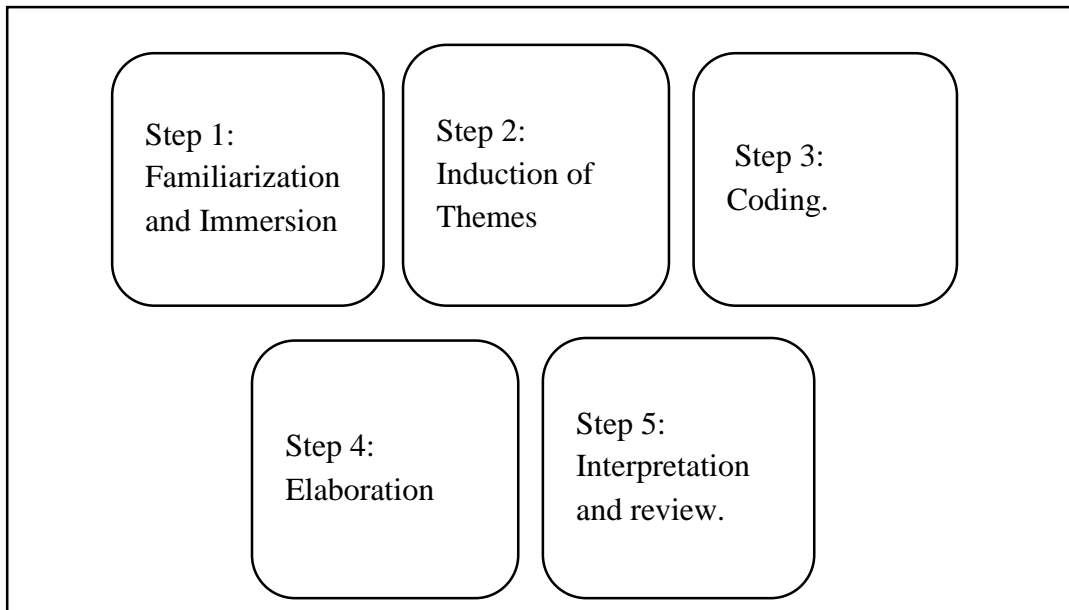
**Step 1: Familiarization and Immersion:** In each step of the process, ideas were developed, notes were taken, and diagrams were drawn to demonstrate understanding of the data. The process allowed for the determination of which interpretations were supported by the data and which were not. After the interviews were recorded, transcriptions were completed. The results of each interview were analyzed by comparing the responses to the questions. During data analysis, important text and notes were underlined, categorized, and organized.

**Step 2: Induction of Themes:** Content was summarized to find tensions and contradictions among major themes and subthemes. To identify emerging themes, responses to questions from all participants were compared. The content was relatively easy to summarize. Again, contradictions and tensions were noted, analyzed, and grouped by category and emerging themes.

**Step 3: Coding:** The interviews were transcribed in electronic form, which was the first step in coding the data. In order to identify and classify the data, important information was underlined, placed in parentheses, and given specific letters and numbers. After creating a spreadsheet in Microsoft Word, data was coded into categorized. The categories were grouped into themes on a separate page of the Microsoft Word document. Finally, these documents were printed on paper for easy access

**Step 4: Elaboration:** In the elaboration step, the identified themes are elaborated upon, which captures the whole meaning of the text, which is not captured by the coded system. Once the data were re-examined, new patterns emerged as the texts were read a third time, subsequently coded a second time, and then compared yet again. As the data were continually re-examined, themes emerged more clearly.

**Step 5: Interpretation and Review:** In interpreting the data, the themes and categories that emerged were combined into a unified whole. The headings were divided into themes and categories as subheadings. Throughout the process, this information was reviewed for contradictions, misinterpretations, and biases. The results were then interpreted. Once the analysis was complete, the results were compiled and written up.



**Figure 2: Five Steps to Analyze the Data**

## CHAPTER FOUR: FINDINGS

### 4.1. Introduction

This chapter presents data to address the problem statement: the impact of distance learning on identifying primary students with SLD during the COVID-19 pandemic in two schools in the city of Ajman in the UAE. Additionally, this chapter summarizes the findings from the telephone and video interviews conducted with teachers, parents, SEN teachers, and SENCOs. A total of 101 participants were interviewed from each school.

Below is a table showing the codes assigned to the participants' responses.

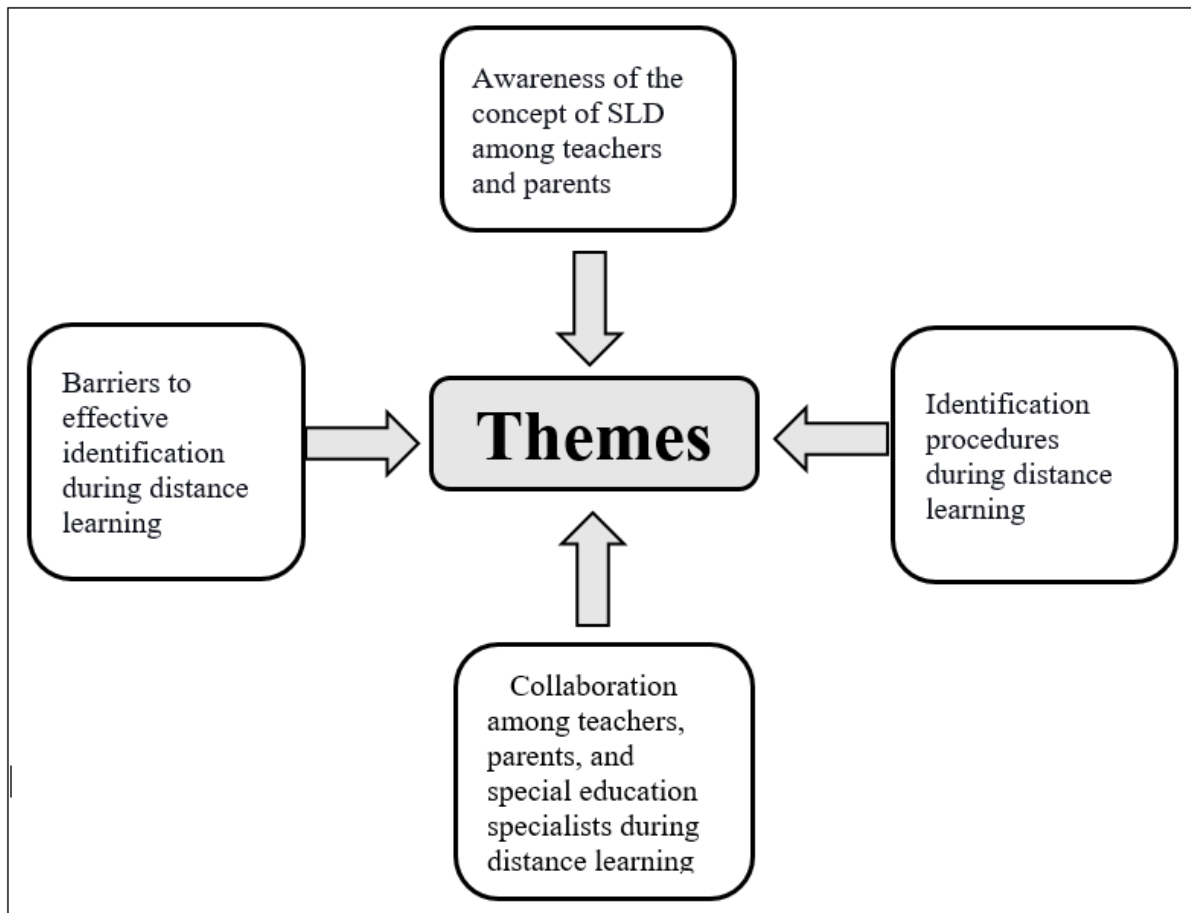
Participant	Code for School 1	Code for School 2
Teachers	TR S1	TR S2
SENCOS	SEN S1	SEN S2
SEN Teachers	SENT S1	SENT S2
Parents	PR S1	PR S2

**Table 3: The Participants' Codes Used in the Study**

In the interview guide, 16 questions were for teachers, 16 questions were for SEN teachers and SENCOs, and another 16 questions were for parents. The questions focused particularly on attitudes, knowledge, and perspectives concerning students with SLD and the barriers to their identification. From the outset, it has been important to reconsider the ongoing controversy about how identification should proceed and the ambiguity of definitions. Therefore, terms such as learning difficulties, learning disorders, and learning disabilities were used if participants were unfamiliar with the term SLD.

## 4.2. Data Presentation

Data from multiple sources were subjected to content analysis and coded into themes. Four major themes were identified after content analysis: (1) Awareness of the concept of SLD among teachers and parents, (2) Identification procedures, (3) barriers to effective identification, and (4) collaboration among teachers, parents, and special education specialists during distance learning.



**Figure 3: Major Themes Identified After Content Analysis**

### 4.3. Awareness of the Concept of SLD

This section presented data related to teacher and parent knowledge, attitudes and awareness of SLD to determine if primary students with SLD were effectively identified during distance learning.

#### 4.3.1. Awareness in School 1

##### 4.31.1. Teachers' Responses

Teacher awareness of SLD was investigated by asking them several questions including 'What does the term Specific Learning Disorder (SLD) mean?' and 'what are the causes of SLD?'

<b>TR 3</b>	<i>"The term learning disorders means that a student has difficulties learning all subjects."</i>
<b>TR 5</b>	<i>"Specifically, I am not sure what specific learning disorders are, but they could be problems related to the student's ability to learn. It might be a lack of interest or parents not following up on children."</i>
<b>TR 18</b>	<i>"These difficulties may happen because of poor nutrition, or diseases that lead to inadequate academic performance."</i>
<b>TR 30</b>	<i>"It is neither a handicap nor a disease. Students learn at a very slow pace."</i>

**Table 4: An Example of the Data from School 1**

Teachers in School 1 did not demonstrate in-depth knowledge of SLD. This was evident from their answers. TR 3 mentioned that *"The term SLD means that a student has difficulty mastering all subjects."* TR 5 added *"Although I am not sure about the term specific learning disorders, I suspect it is a mental difficulty that affects a student's ability to learn."* The participants were

also asked about the causes of SLD. Teachers' responses revealed a lack of knowledge as they talked about various causes unrelated to SLD. Teachers reported that these difficulties are likely caused by poor nutrition or illnesses that negatively impact learning. In addition, teachers said it could be due to lack of interest or because parents are not following up with their children. TR 27 stated *"The cause may be lack of interest or the fact that parents do not care about their children."* TR 28 reported that *"students with SLD lack motivation to participate in class, and this is one of the challenges in including them in the classroom."*

However, two participants presented adequate knowledge and positive attitude toward SLD students and talked about dyslexia and how they used to support SLD students before the schools transition to online classes, but they stated it is very challenging to support these students during online class. TR 7 added *"As always, SLD students struggle to cope with the requirements of the curriculum even before distance learning."* Also, TR 9 reported *"Students with dyslexia work at a slower pace than their peers without SLD, and this negatively impacting their academic performance."* School teachers expressed their concerns regarding workload, which they perceived to be very high during distance learning. They complained about the time it took to prepare their plans, in particular intervention plans for SEND students.

The researcher found that teachers did not attend workshops on SLD or any awareness sessions to update their knowledge of SLD or to learn how to identify students with SLD during distance learning. TR 12 said *"I have been at the school since 2018 and I think I have attended only 3 or 4 workshops on special education, and I do not think that's enough for teachers who want to understand exactly how to identify and work with these students."*

The data collected from School 1 revealed that many teachers understood what the term SLD referred to. However, they lacked information on the causes of SLD. They all cited different causes, with some attributing them to genetic conditions or poor nutrition.

They were also opposed to the inclusion of students with SLD in the regular classroom, arguing that they lacked the necessary knowledge and training to identify and support students with SLD in online settings. Teachers stated that they were too busy due to distance learning and did not have time to support students with SLD. As a result, it is quite possible that these students were treated the same as others because teachers lacked sufficient knowledge on this field.

#### **4.3.2. Awareness in School 2**

##### **4.3.2.1 Teachers' Responses**

As was the case in School 1, to find out teachers' understanding of the SLD concept in School 2, the same questions were asked, 'What does the term Specific Learning Disorder SLD mean?' And 'what are the causes of SLD?'

<b>TR 8</b>	<i>"These difficulties may happen because of poor nutrition, or diseases that lead to inadequate academic performance."</i>
<b>TR 12</b>	<i>"Overuse of computers or other devices such as tablets may lead to SLD."</i>
<b>TR 19</b>	<i>"SLD may also be caused by junk food affecting children's brain development."</i>
<b>TR 22</b>	<i>"I think it is a problem with vision and hearing in addition to poor nutrition, which would cause learning difficulties and affect students' performance in school."</i>
<b>TR 28</b>	<i>"It is an inability to learn, but I am not sure why it happens."</i>



**Table 5: An Example of the Data from School 2**

School 2 responses suggested that there is a lack of awareness of SLD among teachers. There is evidence that some of them do not view SLD as disabilities; rather, they see them as problems caused by negligence or ineffective pedagogical practices. Teachers explained that SLD means that a student faces challenges in all areas of learning. Some said students who have difficulty in learning are slow learners. TR 8 stated that *“These difficulties may arise because of poor nutrition or illnesses that negatively impacts academic performance.”* Others thought overuse of computers or other devices such as tablets may lead to SLD.

TR 12 added, *“A student's excessive use of a computer or tablet could contribute to SLD.”* TR 19 also stated that *“Junk food could affect children's brain development, which could also be a cause of SLD.”* TR 22 stated that *“SLD problems with vision and hearing lead to learning difficulties and affect students' performance in school.”*

On the other side, five participants talked about reading difficulties and mentioned the term dyslexia, they acknowledged that they lack training on how to deal with these students during online classes. They reported prior to distance learning, SLD students were supported by SEN teachers who guided us on how to support them in class. However, TR7 mentioned *“The guidance from SEN teachers is not enough I can teach these students, I have one dyslexic students in my class and I cannot give him one to one support during distance learning.”* And TR 20 believed the inclusion of SEND students is a must in the school. TR 20 mentioned *“To support SEND students, teachers need the support of all stakeholders. That's the wish of every teacher.”*

Few participants showed knowledge about common type of SLD, TR 24 stated *“There are SEND students in my class who can't read, but math is more challenging for them as there is a lot of calculating. I won't pretend to know what to do with that student because I am untrained to do that. However, the SEN teacher told me about math difficulties called dyscalculia and it related to SLD.”* TR 2 raised the same concerns adding *“I have SLD students in my class but my schedule is very jam-packed and I need to finish a lot of content within a set period of time. So you can imagine the pressure on students with SLD, I need help from SEN teachers but we have few in our school.”*

With such a perception of SLD, there is a possibility that teachers did not make extra efforts to identify students with SLD during distance learning. However, there were attempts to raise teachers' awareness through workshops to develop positive attitudes toward students with SLD. Teachers mentioned that the school's SENCO organized two workshops on SEND students during distance learning.

#### **4.3.3. Parents' Responses from Schools 1 and 2**

I asked parents if they thought their children had learning disorder to find out if they knew about SLD. Based on their responses, they do not view their children as having disabilities or learning disorder. PR 11 of S1 reported *“My daughter does not have learning disorders, but she has trouble reading and writing.”* PR 11 S1 explained that *“my daughter is smart, so I could not call her lazy or stupid. SEN teacher explained to us what learning disorders are; despite her high IQ, she said that students have difficulty reading and writing and need extra support.”*

In School 1, PR 13 described her daughter as a “spoiled” girl who looked for excuses to skip school. She said *“Someone from the school called me to tell me that my daughter needed an evaluation. I was shocked because my daughter is just spoiled.”*

I also asked parents why they thought their children were having trouble learning. Some parents in School 1 considered SLD to be diseases or serious brain damage problems. For example, PR 15 from S1 reported that *“My daughter had difficulties due to an intellectual disability.”*

The responses of parents in School 2 were very similar to those in School 1. Both parents stated that their children had no learning difficulties. PR 6 of S2 stated that *“the school asked me for a meeting to discuss my daughter’s performance because she is often absent-minded, but I responded that my daughter sometimes gets easily distracted during distance learning.”* According to PR 6, her daughter was neither disabled, lazy, nor stupid, although she had problems with reading and writing.

SLD were considered a disability by PR 13 S2, but her son showed no obvious impairment. PR 13 S2 attributed the problem to difficulty adapting to the online environment. PR 17 S2 also agreed with PR 13; she believed that *“the online environment causes students’ disabilities because students cannot concentrate during online classes.”*

Data collected from schools 1 and 2 showed that parents lacked both the conceptual knowledge on the symptoms of SLD and the appropriate guidelines for dealing with their child’s problem. Parents also presented negative attitudes and reactions to their child’s diagnosis of SLD.

Apparently, parents from both schools do not associate their children’s school problems with learning disorders. In order to avoid this stigma, such families often deny their children have SLD by associating it with being naughty or spoiled. In addition, parents often lack sufficient knowledge and information on SLD, resulting in a lack of or delay in identifying the need for action. As a result, parents refuse to acknowledge that their children have learning problems when teachers or others point them out. Also, when a child is diagnosed with a disability, parents generally exhibit negative attitudes toward the problem; these could range from denying the problem, rejecting the diagnosis, or blaming themselves for the situation.

#### **4.4. Identification Procedures of Students with SLD during Online Learning**

This section presents data on the ability of teachers, SEN teachers, and SENCOs to identify primary students with SLD during distance learning and the tools they use to determine students’ eligibility for a special education program.

##### **4.4.1. Identification Procedures in School 1**

##### **4.4.1.2. Teachers’ Responses**

When School 1 participants were asked about their approach to identifying students with SLD during distance learning, they indicated that they use direct observation and checklists. In addition, they said we bring to the attention of school specialists any student who shows poor performance in academic subjects as well as in behavior.

<b>TR 7</b>	<i>“Some signs are easy to spot, such as a student who is always the last one left working on a timed assignment. Or a student who exhibits messy handwriting and has difficulty reading. Or a student who fails numerous tests even though he has studied. Such students are under scrutiny.”</i>
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<b>TR 9</b>	<i>“One of my students tried to do his best and he is intelligent, but unable to remember things over a long period of time. I also informed the SENCO and received a useful recommendation as I gave him direct and one-step instructions”.</i>
<b>TR 17</b>	<i>“Unfortunately, most of these signs are not recognized in the online class. It is difficult for teachers to provide direct feedback on students’ work and to observe them as they complete class assignments.”</i>

**Table 6: An Example of the Data from School 1**

Based on results from School 1, poor performance was identified as a major indicator that a student experiences SLD. TR 3 stated that *“Students with poor performance should be monitored and given follow-up assignments to ensure that the material is mastered.”*

In addition, teachers mentioned using various forms of checklists to identify students with learning difficulties. TR 28 *“Reported that if a student fails reading multiple times, I use my checklist and send it to the school specialists.”* However, teachers agreed that it is difficult to identify signs of learning difficulties, especially during distance learning. TR 10 added *“Some signs are easy to spot and some are not, but as teachers I can spot some signs of SLD students such as a student who is always the last to complete a timed assignment, or who has messy handwriting and has difficulty reading, or a student who fails in tests even though he has studied.”*

Teachers talked about the students with extreme behavioral or socio-emotional problems and how that could indicate those students have learning disorders. They agreed that a student with a learning disorder often struggles with feelings of shame, embarrassment, and low self-esteem. They also brought attention to very hesitant students who always avoid answering questions in

class or students with extreme behavior. Similarly, a student with excessive absences on days of tests or other important assignments and refuses to participate in challenging activities will be observed.

A reasonable number of teachers indicated they find that students with learning disorders are not stupid. They make an effort to remember the important things. Unfortunately, their minds did not function normally compared to others. Teachers indicated that these students were not able to remember things for a long period of time. TR 9 reflected on her experience dealing with a student with SLD during distance learning. She said that *“One of my students was trying to do his part, but he was not able to memorize things over a long period of time. To help him, I gave him direct one-step instructions. I also notified the SENCO, who gave me a useful recommendation.”*

Teachers reported that they usually try to help these students before referring them to specialists. They use interventions and several strategies within the classroom, such as direct and individual support. Teachers said that some interventions may work better than others, and they agreed that a single intervention or approach is not sufficient to address the complexity of learning disorders. However, some teachers added that it is not their job to identify these students because they are not able to address their needs and are not equipped to help them. Therefore, they had difficulty identifying these signs before and during distance learning. TR 17 mentioned, *“Unfortunately, most of these signs were not recognized during online instruction. It is difficult for teachers to give direct feedback on students’ work and observe them working in class.”*

#### 4.4.2. Identification Procedures in School 2

##### 4.4.2.1 Teachers' Responses

Just as in School 1, teachers in School 2 relied on direct observation to identify students with SLD. However, in collaboration with SEN teachers, they developed pretests to assist them in identifying students suspected of having SLD during distance learning. The teacher used a simple administered test to determine the student's level of performance. If the results indicate that a student may have SLD, further assessment will be conducted by the school's SENCOs or SEN teachers.

<b>TR 5</b>	<i>"Assessments should be designed to prevent cheating and fraud, but with online testing this is difficult to achieve."</i>
<b>TR 8</b>	<i>"Students have unmonitored access to the test, so I am not sure if they are cheating."</i>
<b>TR 17</b>	<i>"It is not easy to detect student behavior because some students do not use their cameras. They also feel unmotivated and unfocused when they participate in class online."</i>

**Table 7: An Example of the Data from School 2**

Teachers explained that before referring students with suspected SLD to school specialists, a pretest is conducted. The test included various tasks such as writing, reading, and spelling tasks. Teachers explained that they followed this process due to lack of time, effective instruction, and resources during distance learning, which made any intervention difficult and time-consuming. Teachers added that assessment grades are also considered, and students who receive a poor grade are observed. However, teachers pointed out that they cannot rely on the assessments under the new circumstances.

Teachers stated that the distance learning assessments are not valid to evaluate the level of the students. The data collected from teachers show that it is difficult to ensure certain quality criteria in distance learning since academic integrity must be ensured, TR 24 stated *“Reliability of the test is an important issue during distance learning that unfortunately we often cannot achieve.”* TR 5 added *“Assessments should be designed to prevent cheating and fraud, but this is difficult to achieve in online testing.”* According to TR 11, *“Students have unmonitored access to the test, so I am not sure if they are cheating.”* TR 9 explained that *“Since many online courses do not require face-to-face instruction, students can easily get the idea that cheating is acceptable.”*

Teachers said that they also take student behavior into consideration, but not as a standard to be followed specifically in distance learning. TR 17 reported that *“It is not easy to identify student behavior because some students do not use their cameras. They also feel unmotivated and unfocused when they attend classes online.”*

#### **4.4.3. SEN Teachers’ and SENCOs’ Responses in School 1 and School 2**

In both schools, SENCOs confirmed that they have effective educational programs designed according to the guidelines of MOE. The program presents services to students with SEND to ensure they reach their full potential. These include counseling and guidance sessions for parents and workshops for staff, teachers and parents. Schools also have special education resource rooms, as well as special education teachers, psychologists and social workers.

They also stated that before distance learning, teachers were able to implement the school education programs. However, because of distance learning, they encountered several barriers



related to consistently providing services to students with SEND, included students with undiagnosed learning difficulties, who may not receive services and supports during distance learning.

SENCOs at both school indicated that they follow a systematic process prior to and during distance learning that includes: informal referral and intervention prior to referral, formal referral, multidisciplinary assessment, eligibility decisions, case discussions, and development of an Individual Education Plan (IEP). Responses of these questions agreed with SENTs in both schools who generally described the process of identification as follows: Identification of students with SLD begins with school specialists receiving input from teachers about students at risk followed by discussing possible changes or accommodations the teachers can implement to improve students' academic performance. They added that decisions are based not only on test scores and subjective observations, but also on actual classroom performance therefore collecting data about the student from multiple resources is critical. Thus, they added each school personnel needs to be proficient in analyzing, interpreting, and responding to data on student learning.

SENTs at S1 noted that teachers are trained on the process of identification. Any teacher who has concerns about a student's academic progress or behavior can report it directly to a special education teacher and an intervention will be recommended based on the student's needs. SENT 2 S1 reported that *"Teachers are often the first to notice when a student may have a learning difficulty. They are trained to recognize less obvious signs of learning difficulties in the classroom, but because of distance learning, teachers have a hard time identifying these symptoms."* SENT 3 S1 believed that *"evidence-based interventions should be delivered in the*

*classroom or in small groups, with teachers closely monitoring them.”* SENTs in School 1 focus more on the importance of teacher interventions, as they intervene as soon as a student’s difficulties are identified. Before referring a student for special education assessment, targeted instruction and support is provided, they added.

While SENTs in School 2 developed a pre-administered test as an extra tool to help them identify SLD students during distance learning. SENT 3 S2 stated that pretesting is an excellent way to identify students with special needs, SENT 4 S2 added *“We chose to do so because during distance learning, there was lack of time, effective instruction, and resources that prevented effective intervention.”* Also, SENT 1 S2 reported, *“Before COVID-19 we could identify problems as early as possible and make a difference in students’ learning. However, after COVID-19, we do not identify students with learning disorders early enough.”*

SENTs in School 2 indicated that before recommending an intervention to support the student, they ask the teacher to conduct assessments in advance. SENT 3 S2 commented *“During distance learning, I recommend that teachers put students in small homogeneous groups and give them specific instructions, but I think that will be difficult to do.”* Also SENT 1 S2 reported, *“Teachers should not view the pre-referral process simply as a hurdle they must clear before referring a student to special education. Rather, teachers should use the pre-test to develop effective strategies to improve their students’ academic outcomes to help them succeed.”*

In addition, SENT 2 S2 reported that school closure reduces instruction and learning time. This is known to negatively impact student achievement, to varying degrees for different groups of

students, especially students with SEND. Therefore, they developed pre-administered tests to help teachers identify students with SEND.

Last but not least, SENCOs reported that when intervention is not appropriate, we may suggest a referral for a special education assessment as parents are then presented with a consent to be informed that their child/ren will undergo a series of assessments conducted by a team of professionals, including a psychologist, special education teacher, social worker, or nurse. They also added that the determination of SLD and the need for services is based on the results of tests, teacher feedback, parent input, and a review of academic performance. However, SENTs and SENCOs at both schools emphasized the difficulty of implementing these steps during distance learning.

#### **4.5. Barriers to Effective Identification during Distance Learning in School 1 and School**

##### **2**

This section presents data on the barriers to effective identification, which is crucial to the research question. It focuses on the challenges faced by teachers, SEN teachers and SENCOs during distance learning.

##### **4.5.1. Teachers' Responses**

Teachers indicated that even before distance learning, it was difficult for them to identify students with SLD. TR 8 S1 explained that *“some students write excellent essays and have serious difficulty with basic math problems. They can answer questions well in class but are unable to express their thoughts clearly on paper. Therefore, the signs are not always obvious.”*

In addition, TR11 S2 stated *“Teachers may find it more difficult to recognize students with*

*SEND because they are embarrassed when they cannot do what other students can do. Therefore, they hide their difficulties from their teachers.*” Teachers in the selected schools agreed that distance learning makes it difficult to identify students with SLD for several reasons:

(a) Lack of interest and engagement. Teachers said that students do not take distance learning classes seriously. They are convinced that they can only rest and play at home and that school is the only place to learn. This leads to uncertainty in identifying the level of students, and it becomes difficult for teachers to identify those who are struggling. Teachers also indicated that it was difficult to keep students engaged during distance learning. TR 9 S1 said *“If you cannot do something subtle like walking around the classroom and standing next to them, gently putting your hand on their shoulder, or noticing when they feel lost, it’s difficult.”* Teachers do all these subtle things to keep students on track. It is difficult to handle these situations without a parent sitting with the child. Some parents work, and some of them do a poor job of helping their children. Dealing with this makes many teachers stressful and confused. TR 19 S2 said, *“Before distance learning, I taught children on an individual basis. So I can say things like ‘Are you with me?’ or ‘I am on page x in the middle of a paragraph’ and they can see it. It’s a whole different ball game when students are online.”*

(b) Lack of effective instruction. Several teachers reported that it was challenging to recreate effective instruction for every student in a virtual or hybrid environment. Teachers discussed the importance of providing high-quality, differentiated instruction that addresses the needs of all students and assesses those who need special education. However, after the closure of the schools, there have been changes in the delivery of instruction due to distance learning. This

results in a lack of appropriate instruction and makes it difficult to determine whether a student is eligible for special education services.

(c) Lack of data. Using multiple sources of information, data, and interpreting assessments in light of the student's present situation was stressed by teachers. However, it remains a challenge to implement this during virtual teaching, as TR 17 S2 pointed out *“Collecting data is challenging under normal circumstances, but collecting data during virtual teaching brings with it a whole set of problems.”* In School 2, TR 4 suggested conducting a parent survey to collect information about students. TR 4 S2 added *“The survey can help parents make decisions regarding interventions or school support programs.”* In addition, TR 5 S1 recommended that students can complete an instructional survey after each lesson. The survey can be administered via email to parents and students. TR 9 S2 also reported *“that data is an important tool I collected from the standardized test scores and daily classwork to differentiate my instruction and create small groups of students. Although I am still learning how to collect data during virtual learning, I have made some progress.”*

(d) Lack of validity and reliability of assessments and poor student's evaluation. Teachers stated that the assessments were not valid in distance learning to evaluate the students' level. During distance learning, teachers found it difficult to ensure certain quality criteria such as: (1) validity, as it should be appropriate for measuring learning outcomes; (2) reliability is the most difficult aspect of distance assessment, as it must be designed to prevent fraud and cheating; (3) clarity, since there is no face-to-face interaction and students cannot ask questions, the assessment should be clear to students; and (4) vulnerability to technical difficulties, as teachers are not always able to solve the student's problem during assessments. TR 7 in S1 reported that *“most*

*of my students scored full marks on the last math test, including some who had shown low academic performance during class. This suggests that assessments were particularly difficult and not entirely reliable under these unusual circumstances.” TR 2 in S2 said “the biggest challenges identified in distance assessment were academic dishonesty. We should especially think about how to prevent cheating.”*

(e) Lack of parent collaboration and follow-up. Some teachers blame the parents for not create a conducive learning environment at home. TR 9 S2 stated, *“A lack of parental follow up may explain why students with special learning needs continued to perform poorly, since they easily forgot what they had learned and thus needed additional support, including at home.”*

Parents were blamed by teachers for not supporting students at home; students were generally dependent on teachers. According to TR 1 from S2, *“some parents only cared about their children’s grades. Parents did not involve teachers in solving such problems.”* Teacher interviews revealed that some students were occasionally absent during reading and writing classes. They said this was an act to avoid attending literacy classes, but parents do nothing. In addition, some teachers stated even when the parents are informed that their children have a learning problem. They will refuse to help because they will not accept the fact that their children had a learning difficulty. TR 30 S1 stated *“I could tell that my student had hearing problems, but I did not have the right to tell the parents because they might be embarrassed if I advised their children to undergo a check-up. Therefore, the parents’ acceptance must be considered. In this situation, I have to be more patient as a teacher to deal with this kind of situation.”*

(f) Lack of resources and knowledge. Most teachers who teach students with learning difficulties stated that they do not receive special education training at their schools. They believed that they are not qualified to teach children with SEND. In addition, teachers lack strategies for dealing with such students. One of the problems teachers face is the need for updated guides and curricula, as well as seminars for teachers. Teachers report that the demands of the curriculum make it difficult for them to support their students. Teacher responses indicate that teachers the curriculum they used do not address the needs of these students TR 5 S1 stated, *"When you are dealing with normal classes, it is very easy to introduce teaching strategies, but when you are teaching students with SEND, you have limited choices of teaching strategies. Also, motivating learners with SEND is very problematic."* TR 28 S2 stated that *"it is very difficult for me to prepare lessons because I lack knowledge and sometimes we have too much to do. I prepare different activities according to the needs of my students. It is indeed difficult to teach students with different learning needs."*

(g) Lack of expertise in this field and lack of collaboration with school specialists. Teachers do not know what actions to take when confronted with a student with SLD in their class. They are often unable to identify the appropriate intervention that will help them overcome their difficulties. They emphasized the importance of guidance and support from specialists. They also stated that they need continuous training, education, and workshops to increase their knowledge about students with SLD. Teachers said they needed more guidance and support in dealing with SLD students, but there was a lack of sufficient numbers of well-trained special education teachers. TR 11 S1 stated that *"as teachers we should not stop trying to develop our students. We need to help them grow and improve their skills, not only for our daily work in school, but also to show students how to deal with their learning disabilities."*

#### **4.5.2. SEN Teachers' and SENCOs' Responses**

In both schools, SENCOs stated that teachers are well trained in using specific tools to identify students with SLD. SEN S1 reported that students about whom teachers are concerned are observed in class, using a rating scale for indicators. Aspects such as whether a child is inattentive in class, has trouble remembering things, cannot read fluently, does math poorly, or writes slowly are rated. SEN S1 added *“Before referring students to specialists for comprehensive assessments, teachers support students within the classroom by using a variety of instructional strategies and directions.”*

SENTs in S2 noted that teachers administer pre-tests to gain an impression of students' abilities based on general information and comprehension. If the test shows that students have learning gaps, they are observed and teachers are given recommendations on how to help them. After these steps are completed, both SENCOs agree, they will then contact the student's parents and request a comprehensive report.

The SENTs in School 1 and 2 agreed that their job was to follow up with the teachers after the teachers brought the students to their attention. So they would get indications from the teachers that the student was struggling and having learning difficulties. Then observations and assessments are done after SENTs were made aware of the student. However, they explained that assessments are challenging in new circumstances. According to SENT S1, assessment means “sitting down next to the student” to gather valuable information. They need to sit next to them, observe them, and talk to them as well as visit the class and assess their knowledge and skills in reading, writing, and math.



They also try to monitor student boredom and frustration. If the indications are too high, they contact the parents. However, it is very difficult to observe students in an online environment. In addition, tests that have been developed, validated, and standardized for personal use should ideally not be administered online. As a result of limited access to reliable and valid assessments virtually as well as safety concerns, it is difficult to assess learning disabilities with standardized assessment measures.

SENT 2 S2 reported *“Those assessments will be most reliable if they have been tested and validated in an observed environment. Because of this, it is important to consider the possible applications and limitations of different assessment tools. Disability cannot be determined based on a single outcome or procedure.”*

SENT 3 S2 2 stated *“Our school typically relies on standardized measures to identify students with SLD. Standardized assessment instruments should follow standardized procedures in order to ensure reliability, validity, and applicability. Yet many of these tests are intended to be taken in person by sitting with the student.”*

Therefore, any decisions taken by an individual or team must be based on sufficient evidence and data. The SENT 2 S2 stated, *“It is important to emphasize the importance of using more than just one indicator (or test score) and to take into account aspects of students' backgrounds (language background, school attendance, developmental milestones, etc.) as well as circumstances (illnesses, absences, switching to distance learning, etc.) for interpreting results.”*

Thus, the SENCOs agreed that during the pandemic, traditional assessments are of limited value, even in normal contexts. They are much less useful in capturing what students know and have learned. SENT 1 S2 explained, *“It is mandatory that specific data is reported regarding students who are identified as having a disability, such as how many students repeat a grade, are excluded from school, or graduate on time.*

As a result, they emphasized the importance of using multiple sources of information in addition to data from assessments in the context of the student’s current circumstances to determine whether the student is eligible for special education services. Further, in some cases teachers possess the sufficient knowledge and ability to distinguish between a low score that is likely due to the student’s lack of understanding of the material and one that is due to the student’s frequent absences, emotional problems, or other factors. However, it is difficult for teachers working remotely to respond to a test score with an appropriate strategy to identify the student because students have very inconsistent access and are being supervised by their parents, who most of the time help them pass the tests and complete their assignments.

<b>Barriers to identification during distance learning</b>	Lack of students` interest and engagement.
	Lack of effective instruction
	Lack of data.
	Lack of resources and knowledge.
	Lack of collaboration with school specialists. Teachers
	Lack of validity and reliability of assessments
	Poor student’s evaluation
	Lack of knowledge about SLD

	Lack of awareness among teachers and parents
	Lack of collaboration among stakeholders
	Difficulty in to monitoring and observing the students online during class
	Lack of expertise in this field

**Table 8: Summary of Barriers to Effective Identification during Distance Learning in School 1 and School 2**

#### **4.6. Collaboration among Teachers, Specialists, and Parents during Distance Learning in School 1 and School 2**

This section presents the data related to collaboration between teachers, parents, SEN teachers and SENCO that could impact the identification process and improve it.

##### **4.6.1. Teachers' Responses**

Almost all teachers indicated that they would inform the school psychologist if they suspected that a student had learning difficulties. School psychologists are considered by teachers to be an invaluable resource in identifying students with SLD. TR 5 S1 said, *"If a student has learning problems, I will ask the psychologist to come to my classroom. But I think it is not effective to observe the student online."* In contrast, some teachers reported that the SENCO is informed first, the student is observed in a regular classroom and receives special education support. The SENCO recommends a specific intervention plan and intensive instruction to improve the student's academic performance. Intervention uses a variety of strategies and resources. However, teachers indicated that it is exceptionally challenging to apply the specified intervention plan during distance learning. Few teachers indicated that they would first seek

help from the social worker. They felt that the student may be struggling due to social issues such as bullying or divorce, which may be more likely to lead to negative feelings, lower self-esteem, behavior problems, and depression.

A limited number of teachers said they did not know what would happen if the intervention did not work. In School 2, TR 11 reported that *“I participated in an online session with my student’ parents and the SENCO. The SENCO did not inform me that my student has a formal report and has been diagnosed with dyslexia.”*

In addition, the teachers stated that students with SLD were doing poorly in school because their parents did not follow up with them, so they easily forgot what they learned and also needed extra support at home. Teachers blamed parents for not supporting students at home and that students were generally dependent on teachers. Moreover, some parents were only interested in their children’s grades. Yet, they made little effort to work with teachers to overcome these issues. Teachers confirmed parents often do not accept the fact that their children have disabilities. This would hinder the identification process.

In both schools, there were some teachers who did not know what to do when they encountered a student with a learning disorder. When asked, they were confused and replied that they did not know how to help these students overcome their difficulties. TR 3 from S2 said *“I am not sure what to do, but I think I will ask a psychologist for help.”*

#### 4.6.2. SEN teachers' and SENCOs' Response

The interview with SENTs from S1 and S2 indicated that teachers are not collaborating with them. Also, they stated students' transition to online learning minimizes the number of students identified as SEND, as teachers stopped referring students.

SENT 1 S1 stated *"teachers must work closely with us to be able to identify students with SEND."* SENTs in both schools stated that teachers are not interested in receiving further training or attending workshops to increase their knowledge of how to support students with SLD except few of them as they are having extra load because of distance learning despite of the lack of awareness is the biggest problem for students with SLD. For example, SENT 2 in S1 complained that the teachers were not willing to participate in workshops she organized in the school. SENT 2 S1 stated *"When I prepare workshops and invite class teachers, some of them do not come; they do not care. They just blame the education system, the students or the families."*

SENT 3 from S2 stated *"Teachers are not well equipped to identify SLD students during distance learning; however, we cannot force them to participate in online special education sessions because teachers in online environments face a number of issues, including additional workload, school requirements and insufficient time and resources."*

In regard to parents' collaboration, the SENCOs in both schools indicated that they have a clear policy on parental involvement in their children's education, and that it is implemented according to the guidelines of the MOE. This includes helping parents understand the system by sharing information about early intervention procedures, referrals, transitions, etc. They

agreed that one of the biggest problems for students is that their parents are not very involved in their education.

They also make sure that parents know who to contact when they need to discuss important issues about their children and ensure they understand the role of the SENCO and support staff. Parents' ability to understand their children's learning issues is critical to their success. However, schools often struggle to get them involved. SEN S1 stated *"Parent involvement is a major challenge in identifying students with SLD. Most parents need time to deal with potential issues (denial, anger, bargaining, depression, and acceptance). Therefore, we strive to create a welcoming environment by avoiding complicated legal/policy terms and promoting an open door policy."*

Responses from SENTs in both schools indicated that parents are not paying enough attention to their children, or they are helping them in inappropriate ways. Therefore, parents need to know when and how to support their children. In addition, some parents leave their children alone while they are being taught remotely without providing them with adequate supervision. Some parents have difficulty understanding what is required. Some of them do not have enough time to supervise their children and are totally dependent on the teacher. SENT 4 S2 stated, *"Parents are the most important partner of the school. Therefore, it is important that parents have a clear understanding of their child's distance learning plan and accommodations, as well as the tools and resources needed to implement that plan."*

#### **4.6.3. Parents' Response**

In contrast, many parents spoke about a lack of direction and coordination during the transition to distance learning. This easily leads to misaligned instruction and loss of learning. PR 4 in S2

stated *“Distance learning is problematic if the teachers themselves are not trained for it.”* PR 3 in S1 explained *“Teaching is moving online to an unprecedented and untested extent. Student assessments are also being done online, which involves a lot of trial and error and uncertainty for everyone involved.”*

The parents who participated indicated that, in many cases, their children did not receive any support or assistance from the school for example, PR 8 S1 stated that *“mentioned that no educational support was available. The teachers did not call. There was no discussion of what to do.”* Several participants suggested that the problem could be due to distance learning.

According to PR 5 S1, *“we contacted the class teacher, but no action was taken, since we could not meet with the teachers during distance learning. The Math teacher only called me a few times, but they could not assist my son.”* PR 9 S2 stated, *Special education teachers contacted me to give my son one to one support after school hour.* The other participants stated they did not receive special education services. One parent responded *“we did not receive any support from there either,”* while other parents said *“we did not receive a call either. It’s all because of Corona.”*

PR 12 S1 said *“Students who do not perform as expected in school may appear to be lazy or not working hard enough. However, they suffer from learning disorders that affect their performance.”*

Parents of students receiving special education support through distance education also expressed that they are overwhelmed with the number of different online instructional platforms they are asked to manage for their children. At the same time, they are unimpressed with the

content and actual instruction their children receive on these platforms. PR 1 from S2 stated *“The school contacted me about my daughter’s difficulty with reading and writing. My first reaction was to reject the idea because it is difficult to support her during distance learning. Also, I do not want my daughter to spend extra time in front of electronic devices.”*

The responses indicate that parents recognized the importance of their children receiving additional support and intervention to alleviate the problem. For example, PR 5 in S2 stated that she accepted that her daughter should participate in the program for students with SLD. *“At first, I was skeptical, but the SEN teacher explained to me that my daughter was having difficulty with reading and writing, and that additional support would make a significant difference.”* Although this parent did not deny that her daughter was having difficulty, she objected to her daughter being labeled lazy or stupid. This was to avoid stigmatization at school.

Some parents stated that appropriate encouragement leads to significant social, emotional, and behavioral development in their children, and they have no problem if there is additional support for their children. However, they did not relate the problem to a disability and assumed that it was difficult for their children to receive additional support during distance learning. They expressed concern about various issues such as time management and discipline of their children during distance learning.

#### **4.7. Discussion of Findings**

After a comprehensive data analysis, this part addresses the main research question by examining the impact of distance learning on the identification of primary students with SLD in two schools in Ajman City, UAE, during the ongoing COVID -19 pandemic. Several issues that



emerged from the data were examined and discussed. The following concepts were identified as frequently raised and discussed: (1) teachers and parent's awareness of the concept of SLD, (2) the identification procedures and methods, (3) barriers to effective identification, and (4) collaboration among teachers, parents, and special education teachers during distance education.

Firstly, it was imperative to get a picture of how SLD students were identified during distance education by examining teacher and parent awareness of the concept of SLD. Based on the data collected from teachers, it was found that the majority of teachers at both schools identified SLD as challenges or problems students face in learning. However, they were not able to explain why students were facing these problems. This could be due to the fact that the definition of SLD is a critical issue and it is a new term, as noted by Sofologi et al. (2022). The results suggested that teachers have difficulty classifying the causes of SLD or naming the problem that students face. For example, when participants were asked what they thought the causes of SLD might be, teachers cited several reasons that had nothing to do with the actual causes of SLD. These included: lack of parental supervision, poor academic performance, lack of interest and effort, vision and hearing problems, overuse of electronic devices, and poor nutrition. However, fewer teachers identified these disorders as genetic, which is related to the factors mentioned in Chapter 2 that cause SLD. (Adebisi et al., 2014)

Also, responses showed a lack of knowledge about the field of special education because teachers were not trained on how to identify students with SLD, particularly during distance learning. Participants indicated that most workshops were about distance education and technologies because teachers were not equipped to teach online. This is consistent with the literature that states that most teachers need the training to deliver online instruction in distance

education (Joshi, A., Vinay, M., and Bhaskar, P., 2020). It could be argued that teachers' knowledge of learning disorders is superficial and somehow biased; these results were similar to Lopes, R.C.F., and Crenitte, P.A.P (2013).

The data collected from parents showed that they also lacked awareness and were more concerned with the social stigma associated with people with disabilities than anything else; instead, they generally viewed their children as stubborn and unwilling to learn. Thus, to avoid this stigma, parents often reject SLD support programs and, in some cases, refuse to have their children fully screened. These findings are consistent with literature suggesting that parents lack conceptual knowledge related to SLD and appropriate guidelines for dealing with their children's problems (Sahu et al., 2018) and ( Gaad, E. and Khan, L., 2007)

Based on the results and according to the relevant literature, lack of knowledge in the field of special education is a barrier for many teachers (Lopes, R.C.F. and Crenitte, P.A.P., 2013). Also, in terms of teachers' lack of awareness of students with SLD, the findings of this study were similar to the findings of Shani, M. and Hebel, O. (2016) and Shin et al. (2016).

Overall, the data collected from both schools were almost identical when it came to identifying barriers, which included the following: (a) teachers' lack of knowledge and skills regarding SLD students, (b) lack of adequate training or experience, and (c) lack of awareness and acceptance of students with SLD among teachers and parents.

Secondly, in terms of identification procedures during distance learning, teachers from both schools gave almost the same answers. They mentioned various tools and indicators that can assist them to identify students with SLD, including observation, checklists, grades, and student performance. The vast majority of teachers identify learning disorders through direct classroom

observation. They often identify students with learning disorders through their poor performance in academic subjects, behavior, and social and emotional aspects.

Teachers, SEN teachers, and SENCOs mentioned several steps they follow to identify students with learning difficulties emphasizing the importance of the intervention that should be set before the students are referred to the school specialist. Specifically, students' performance specifies the type of intervention they require, and their progress following the intervention determines when they need a comprehensive assessment to determine their eligibility for SEND programs. The teachers' responses are also consistent with the literature (Richards et al., 2007).

A pre-test also was used besides observation as a method for identification. It was used by teachers at school 2 due to lack of time, effective instruction, and available resources during distance education, which prevented effective intervention during distance education. However, few teachers do not know how to proceed when confronted with a student with SLD in their classroom. They do not know how to set the appropriate intervention method.

The study found that SENCOs in both schools tapped multiple sources of information and data by using multiple indicators in conjunction with considering students' parents in data collection. They also coupled regular assessments with direct observations during distance learning, which provided teachers with valuable information about the student. To conclude, data analysis revealed several discrepancies among participants, depending on their roles and qualifications. For example, SENCOs and SEN teachers seemed to know more about identification methods than teachers.

Thirdly, regarding the barriers to effective identification during distance learning, the study found that teachers are not able to deal with students with SLD and in most cases do not have

sufficient knowledge to identify them. The results of Lingeswaran's (2013) study showed that the knowledge level of elementary school teachers about SLD in his study sample was only 29%, indicating a low level of knowledge.

The data from the current study and the literature review (Kuzniak, A. and Rauscher, J.C., 2011) suggested that teachers are not well prepared to identify students with SLD. Findings indicated that teachers who teach students with SLD in online environments face a number of issues, including challenging behaviors, additional workload, daily demands, and insufficient time and resources.

Teachers, SEN teachers, and SENCOs at both schools agreed that distance education hinders the identification of students with SLD for several reasons. One reason cited was lack of student interest and engagement, indicating that a school environment is a crucial learning environment for students, as compared to being at home. Also, it was for difficult to redesign instruction for each student in a virtual or hybrid environment which led to difficulty in determining if a student is eligible for special education services. Another reason that hinder the identification was the lack of data. Collecting data is already a challenge under normal circumstances, but collecting data during virtual learning is an even greater challenge for teachers who need this data to assess and evaluate student performance. Closely related to this was the lack of validity and reliability of the assessments, as the assessments in distance learning were not meaningful enough to assess student performance. It was a major challenge to ensure the integrity of the test and prevent cheating.

Another challenge for teachers was the lack of collaboration with parents and follow-up. During distance learning, teachers accused parents of not creating a learning environment at home that was conducive to their children's learning.

Lack of resources and knowledge was another barrier, as most teachers who teach students with learning difficulties did not receive special education training in school or during their academic education. They believe that they are not qualified to teach students with SEND and lack appropriate strategies for dealing with them.

Fourthly, the lack of collaboration between teachers, parents, and special educators during distance education was another important issue that participants frequently talked about. For example, according to Martin, C. (2021), teachers always need consultation and support from specialists when it comes to learning difficulties. Teachers stated lack of collaboration and expertise in this area has negatively affected teachers, as they need more guidance and support in dealing with students with SLD, but there is a lack of sufficient numbers of well-trained special education teachers. On the other hand, SEN tried to support teachers by organizing several workshops for teachers to raise awareness of SLD, but teachers were overwhelmed with the demands of distance education. Nevertheless, the results showed that SEN teachers and SENCOs did not provide adequate guidance and support to teachers in most cases.

According to Al-Dababneh, K.A. (2018), among the most frequently cited challenges faced by the two schools was the lack of collaboration from parents due to the misconceptions of SLD.

The results show that the lack of awareness of SLD and collaboration is one of the underlying factors that affect students' identification. Negative attitudes toward people with disabilities are seen as the greatest barrier to effective identification and service delivery in schools, whether

online or on-site. In summary, while there are clear special education guidelines on inclusive education in the UAE that regulate the programs for SEND students in private and public schools, the process of identifying students with SLD, assessing them, and raising awareness of SLD remains problematic.

## **CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS**

### **5.1. Introduction**

This chapter will present the researcher's conclusions based on the findings in relation to the research question and objectives. The chapter also discusses the implications and limitations of the study and suggestions for future studies as well as relevant recommendations.

### **5.2. Implications of the Study**

Drawing on a variety of perspectives and experiences, this study contains a number of considerations, so it depends on different experiences or perspectives. Also, it was challenging to find an interviewer with the right amount of information in the field the study.

Furthermore, since the outbreak of COVID-19 in December 2019, there has been very little research on identifying SLD students in distance learning. As a result, at the beginning of this study, the relevant literature and information were limited. The study captured findings and drew conclusions based on current experiences and new ideas. In addition, the fact that no single method of identification is ideal highlights the importance of conducting further research on the role of identification; something that this study attempted to contribute to.

### **5.3. Recommendations**

Based on the results, stakeholders should make proposals to overcome barriers to effective identification during distance learning. This will enable them to develop a sufficient special education system that uses multiple assessments, tools, and data sources.

The study points to the need to invest in in-service training for teachers to equip them with the knowledge they need to identify students with SLD in online environments. Therefore, in-service training for teachers should be the goal from now on so that they are prepared and up-to-date in the event of an incident. Teachers' willingness to learn more about SLD should be reflected in the delivery of training. For example, a systematic pre-post assessment of teachers' knowledge and attitudes about SLD can help evaluate the effectiveness of teacher training in this area.

More training is also needed for SEN teachers. They should receive more training to help them understand students' difficulties and identify their weaknesses. They should also know how to assist teachers in dealing with SLD students in distance learning. Also, hiring more teachers, including SEN teachers, will help in reducing the workload. For example, hiring more learning support teachers could help students with SLD in the classroom while the teacher supervises other students.

An effective system of data collection and observation should be established to fit distance learning, and it should begin with clear communication procedures with parents of students being observed. This will help gather as much information as possible from parents, teachers, and previous interventions or assessments.

Collaboration among teachers, parents, and other professionals is necessary to identify and support students with SLD. For example, educational leaders would develop a protocol for proactively communicating with parents about their child's intervention and identification, taking into account the parent's preferred method of communication. This communication



should continue throughout the implementation of the plan so that educators providing and/or supervising services can adjust the plan as needed.

Creating awareness among parents is another a critical issue, so they understand how to support their children with SLD, rather than assuming they are ‘lazy’ or spoiled. In fact, researchers have found that greater awareness of SLD, especially among parents, leads to greater understanding and support for children with SLD. This can be done through workshops organized by schools. It is also important to involve parents as their involvement has a positive impact on academic achievement. For example, schools can set up a system to support parental involvement.

Moreover, using learning technologies in an effective way, may lead to higher levels of motivation for students with SLD. A study conducted by Bjekic et al., (2012), focused primarily on inclusive education for children with disabilities in the classroom, although not distance education, demonstrated the importance of using an e-environment.

Finally, there are no clear research findings or national recommendations on how to identify and assess students with SLD during distance education. Therefore, the MOE can prepare standardized assessment tools for SLD to ensure consistency in identifying and assessing students with SLD during distance education.

#### **5.4. Limitations of the Study**

The major limitation of this study is that it was conducted in only two schools that experienced the same procedure and were located in the same area although there were 101 participants in

total, who provided a meaningful assessment of the situation. Additional participants would have certainly added more situations and arguments to the study's findings to allow for them to be generalized to all educational institutions in the UAE. Also, the study investigated the impacts on primary students only. In addition, owing to the ongoing pandemic, stringent health and safety protocols were in place; therefore, only telephone calls and video conferencing were possible as methods for conducting interviews, limiting alternative methods.

### **5.5. Suggestions for Future Research**

This study has drawn attention to the impact of distance learning on the identification of primary school students with SLD in two schools in Ajman City in the UAE. However, several questions remain to be answered. For example, how can educators effectively identify students with SLD in elementary school during distance learning? Also, because there is not yet clear evidence on how technology can be used to support the identification of students with SLD, it is imperative to explore how technology can serve as a tool to identify students with SLD.

More evidence needs to be provided and a set of commonly accepted methods agreed upon. Therefore, more research is needed on the process of identification, as no single method is ideal for identifying SLD. According to Kohli, A., Sharma, S., and Padhy, S.K. (2018), when identification, assessment, and intervention are addressed properly, misconceptions resulting from overlapping issues can be eliminated so that students with SLD can gain the benefits of the process.

In addition, further studies could help explore how to effectively identify students with SLD in schools during distance learning. Systematic and long-term evaluation is needed. Therefore, it

would be critical to analyze how teaching and learning take place in the real world to identify students with SLD in a variety of setting such as an online environment.

In light of the findings and limitations of this study, further research needs to be conducted with a larger and more representative sample across the country, including both public and private elementary and secondary schools. Data from such a study could provide more useful information for implementing policies to promote inclusive education in the UAE for students with SLD.

## **5.6. Conclusion**

As a result of the study, it was observed that schools face more obstacles when it comes to identifying students with SLD during distance learning, depending on a variety of factors.

The study found that developing effective methods for identifying students with SLD requires awareness of SLD and collaboration between stakeholders. More efforts need to be made to strengthen identification methods over time. An effective system should be developed, either during or after distance learning, with special attention to teachers, as they are at the forefront of identifying SLD students. Teachers should be trained for this process by not only acquiring knowledge about SLD students but also by putting it into practice. Consequently, policymakers need to reflect on the importance of training teachers in inclusive education when planning strategies for addressing specific needs in order to improve teachers' attitudes toward inclusive education. Finally, it would be helpful to conduct more research on school-level identification and how to improve teachers' ability to identify SLD students.

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## Appendix 1. Consent form

### Consent Form

**Research Topic:** The Impact of Distance Learning on Identifying Primary Students with Specific Learning Disorders SLDs during COVID 19 in Two Schools in Ajman City in the UAE

**Invitation to participate:** I am Mona Abuhattab, a student at British University in Dubai and I am conducting a study about the Impact of Distance Learning on Identifying Primary Students with Specific Learning Disorders SLDs during COVID 19 and you are invited to participate

**Research purpose:** the main objective of the research is to investigate the impact of distance learning on identifying primary students who experience SLDs during COVID 19. The study aims to provide a view on the current situation in the UAE during distance learning concerning barriers to effective identification in schools. The significance of this study lies in the purpose of developing educational policies related to identification methods for schools, especially in an online environment. In addition, it focuses on awareness surrounding the inclusion of students with SLDs in school under any circumstances.

**Research Method:** Participation consists of one interview enduring approximately 30 minutes. Interviews will be recorded, but the option to disagree will be available to the interviewee. There may be additional follow-up/clarification through email, by taking care of participants' choices and requests regarding adding information.

**Confidentiality:** is guaranteed throughout the entire process. Participation is established on volunteering and the interviewee has the right to terminate the interview at any time. Participants can say no at any time.

A summary of the results will be available to participants upon request. Please contact the interviewer with any questions or concerns.

By signing this consent form, you acknowledge that you have understood and agreed to participate in this research project to the best of your ability.

Your time and effort are integral aspects of my study and we appreciate your

Signature of interviewee

Date

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Signature of the interviewer

Date

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### Contact information

Mona Abuhattab

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## Appendix 2. Interview Guide for Teachers

1. What is your role in the school?
2. How long have you been in this profession?
3. What does the term Specific Learning Disorder mean? (Learning difficulties/Learning disorders)
4. What do you think are the causes of SLDs?
5. Are there students with SLDs in your class? (If yes: how many?)
6. How do you determine that a student could be having SLDs?
7. Did the distance learning effect the identification of the students with SLDs?
8. How does the special education specialist in your school help you to identify student with learning disorders during distance learning?
9. Can you please describe the assessment procedure that used to identify student with SLDs? (Probe about the assessment tools and the team)
10. What is your opinion about the assessment done to students with SLDs? (Do you consider it adequate?)
11. From your point of view, what challenges do you think students with SLDs face during distance learning?
12. What kind of support do you get from: (1) the SEN teacher (2) SENCO, parents? (Do you consider the support adequate?)
13. What is your opinion about including students with SLDs in the regular school/classrooms?
14. How are parents/guardians involved in the education and the identification of children with SLDs in the school? (How effective is their involvement?)
15. What proposals would you make for improving the identification process of students with SLDs?
16. Is there any other information that I may have left out which you possibly feel may be useful to my study?

### **Appendix 3. Interview Guide for SENCOs and SEND Teachers**

1. What is your role in the school?
2. How long have you been in this position?
3. Can you please tell me about the educational programs for students with SLDs in your school?
4. Is there a policy on SLDs programs?
5. On average how many SEN teachers are there in the school? Do you consider that number adequate?
6. How do you determine that a student could be having SLDs?
7. Did the distance learning effect the identification of the students with SLDs?
8. What is your role in identifying students with specific learning disorders during distance learning?  
What is the role of teachers in the identification process/? Do they know their role?
9. Can you please describe the identification and assessment procedure for students with SLDs during distance learning? (Probe about the methods and staff involved)
10. What is your opinion about the assessment done to students with SLDs during distance learning?
11. What tool do you use to identify students with specific learning disorders during distance learning? (Do you consider it adequate?)
12. From your point of view, what challenges do you think teachers face to identify students with SLDs during distance learning?
13. Do you involve the parents in the identification process and the education of their children?  
Do you consider their involvement adequate? (Probe for more information)
14. How does your collaborate with teachers ensure that student with SLDs receive adequate support?
15. What proposals would you make for improving the identification procedures for students with SLDs at the level of the school?
16. Is there any other information that I may have left out which you possibly feel may be useful to my study?

## **Appendix 4. Interview Guide for Parents**

1. Tell me about your children? (Number of children, their grade in school)
2. What is an ordinary day like for the children during distance learning?
3. From your point of view, what challenges do you think your child faces at school during distance learning?
4. Tell me about your children's general performance during distance learning?
5. Has any of your children found not to be performing as expected? If yes – please tell me more about it?
6. Has the school ever contacted you about your child's performance? (If yes – tell me more about it)
7. What efforts have you made to help the child during distance learning?
8. Do you consider your child as having a disability or learning difficulty? (If Yes- which one. If No what do you think is the problem with her?)
9. What do you see as the causes of your child's learning difficulties?
10. Is there any assessment that has been done to determine why your child does not perform as expected?
11. Were you involved or any family member involved in the assessment of your child? (If yes – tell me more about the assessment procedure)
12. Do you consider the assessment done to your child adequate? (Probe for reasons)
13. Are you involved by the school in helping the child? (If yes – how?)
14. How does the school support the education of your child? (Do you consider the support adequate?) (Probe for reasons)
15. What suggestions would you make for improving the education of children experiencing difficulties during distance learning?
16. Is there any other information that I may have left out which you possibly feel may be useful to my study?