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EXAMINING THE EFFECTIVENESS OF USING VIDEO MODELING
ON INCREASING POSITIVE SOCIAL INTERACTION IN ACADEMIC SETTINGS IN
STUDENTS WITH LEARNING DISABILITIES IN SAUDI ARABIA

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By

Ayman Alamri

May 2023

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2023

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ABSTRACT

EXAMINING THE EFFECTIVENESS OF USING VIDEO MODELING ON INCREASING POSITIVE SOCIAL INTERACTION IN ACADEMIC SETTINGS IN STUDENTS WITH LEARNING DISABILITIES IN SAUDI ARABIA

By

Ayman Alamri

May 2023

Dissertation supervised by Dr. Ann X. Huang

Video Modeling (VM) is a widely used intervention strategy to promote academic learning and positive social interactions in children with disabilities by watching a video clip modeled by a peer (peers) demonstrating the desired behavior. Limited research has been conducted on this topic to examine VM's effectiveness on promoting positive social interactions in academic settings involving children with learning disabilities (LD). This study employed a single subject research design, specifically, a multiple baseline across participant design, to fill the void in the literature. The researcher invited three elementary students between 4th to 6th grade who met the inclusion criteria to participate in this study. The results of the study showed that VM is effective in promoting positive social interaction in academic settings in individuals with LD, in the context of Saudi Arabia.

Keywords: *Special Education, Learning Disabilities (LD), Video Modeling (VM), positive social interaction, academic settings, education, intervention, cooperative participation, Saudi Arabia*

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Chapter I

Introduction

Video Modeling (VM) has gained increasing attention over the past decade as an evidence-based intervention that supports individuals with developmental disabilities in addressing challenges in social skills, communication, and behavioral functioning (Shukla-Mehta et al., 2010). Bellini et al. (2007) defined VM as “a technique that involves demonstration of desired behaviors through video representation of the behavior” (p. 266). Even though VM appears to be a novel intervention strategy for teaching appropriate skills to students with various educational needs, it first appeared in the educational literature back in the 1970s (Bellini, Akullian, & Hopf, 2007).

The origins of VM and its basic elements, as they are known today, can be traced back to the work of Bandura (1976). Modeling first appeared in educational literature in the 1950s when it was used to support different behavioral theories related to the field of psychology (Bandura, 1969, 1976). The social learning theory was developed by Albert Bandura (1976) and provided a theoretical foundation for VM. Bandura (1977) emphasized observing and modeling behaviors and emotional reactions of others. In general, the social learning theory supports the concept that learning can occur in social settings by observing behaviors and adapting or imitating them (Bandura, 1977). However, with support from the behavior modification framework, Bandura’s (1976) main target population was neurotypical individuals and individuals with psychological disorders. Researchers and educators have observed that participants exhibited desired behaviors when given the opportunity to see these behaviors correctly modeled.

Currently, VM in the field of special education is an intervention used by professionals to modify the behavior of students. Using this technique, a child is asked to view a video from a

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model engaging in the targeted behavior in an instructional video (Burton et al., 2013). The goal is that the child then performs the same skill or behavior that was modeled in the video (Cihak et al., 2010). In the field of special education, VM has successfully been used as an effective intervention since the 1980s. Research suggests that video-based interventions can help children of all ages gain key functional, emotional, behavioral, social, and academic skills (Biliias-lolis et al., 2012; Young-Pelton & Bushman, 2015).

Areas of Concern

Social skills are defined as techniques that allow individual children to relate and interact successfully (Behroz-Sarcheshmeh et al., 2017). Based on this definition, social skills are the currency for interacting with others. In addition, social interaction is defined as a behavior that alternates between two or more people, such as turn-taking while speaking in a conversation. it alternates between two or more parties (APA Dictionary of Psychology, 2020). Students with LD often face social skills challenges (Elksnin & Elksnin, 2004; Milligan et al., 2016; Swanson et al., 2013). Kavale and Forness, (1996) reported that approximately 75% of students with LD have poor social skills in self-esteem, education, vocation, socialization, and/or daily living activities. Between 2015 and 2016, according to the National Center for Statistics Education (2018), there were 6.7 million students ranging in age from 3 to 21 who were receiving special education services. Among those students 34% had specific LD, which equals approximately 1.7 million students in the United States.

Lack of social skills may cause difficulties in establishing connections with others, which might cause challenges in academic learning and result in lower self-esteem (Fisher & Haufe, 2009). Approximately half of the students diagnosed with LD performed more than three grade levels below their actual grade in fundamental academic skills including reading and math

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(Edwards, 2015). Also, Edwards (2015) reported that 20% of students with LD withdrew from high school in 2014. It is crucial for those involved in the education of children, such as teachers, parents, and society as a whole, to make sure that children with LD receive effective instruction and have the necessary support to achieve their academic goals. This is especially important due to the high number of children with LD and the negative effects it can have on their educational progress. These challenges may persist for life and may leave the person subject to social rejection and serious issues in the future (Fisher & Haufe, 2009). Good social skills are important for the overall quality of life for all students, including those with LDs.

VM has been proven effective in teaching various academic skills, such as mathematics, reading, and writing, to students with LD (Hord et al., 2016; O'Brien & Wood, 2011). However, there have not been many studies that were specifically conducted to investigate the use of VM to improve social interactions of students with LD (O'Brien & Wood, 2011). This study aims to address the lack of research in the field by investigating the effectiveness of using a specific intervention called VM for children with LD in Saudi Arabia, thereby contributing to the existing literature on the subject. Therefore, this study enriched current research on the use of VM as a potentially promising intervention to improve academic related social interactions in Saudi students with LD.

There are serious implications caused by social-emotional deficits, especially in public schools, where limited socio-emotional interventions are being offered to the students (Bryan et al., 2004; Womack et al., 2011). The use of different interventions such as peer tutoring (Kavale et al., 2004), and other individualized interventions can help teach students in an inclusive environment. These interventions link to providing an opportunity for students with LD to gain social skill competencies that are essential for inclusion in the general education settings (Bryan

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et al., 2004; Womack et al., 2011). Other interventions to help increase social skill competencies have been suggested by researchers, which are comprised of a comprehensive assortment of techniques. These techniques include direct instructions, modeling, reinforcement-based strategies, and inclusion in the general education curriculum (Kavale & Mostert, 2004).

Significance of the Problem

To effectively address the social skill needs of students with LD, it is important to be aware of which educational interventions have already been demonstrated to be effective in teaching those skills (Swanson et al., 2013). While interventions for students with LD are often used to develop academic skills, there are also some interventions that are currently used to teach social skills to individuals with LD, including social stories, and visual supports (Swanson et al., 2013). Unfortunately, these interventions have not achieved the desirable outcomes. However, researchers and educators see great potential in VM. Using VM with students with LD might be a promising intervention since technology has been widely used in educational settings, and it is easy to use in schools. VM intervention has the advantage of reducing instruction preparation time and provides the ease of re-introducing the lesson with the same structured preparation in a school, home, or other instructional settings (O'Brien & Wood, 2011).

Theoretical Basis of the Study

The Social Learning Theory

In interest of improving education for these students, this dissertation study will be based on Bandura's social learning theory as shown applicable through previous research on this topic. Bandura's (1977) social learning theory posits that human behavior is primarily acquired through observing and imitating the actions of others; this is known as modeling. It provides a platform in which one may generalize to a new experience. The four crucial processes that facilitate

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observational learning are: retention, attention, production, and motivation (Corbett & Abdullah, 2005). In addition, there are four conditions necessary for learning by observation to occur: the observer consideration of example behavior, memory retention, the ability to reproduce the behavior from memory when there is a similar social condition, and the self-motivation to display the observed behavior (Bandura, 1977; Dorwick, 2012). Bandura (1977) also supports the use of film as an intervention to facilitate teaching children, particularly in social behaviors. Bandura (1977) noted that children are most likely to repeat the same social behavior of their peers of the same gender or age, or adults.

Video Modeling (VM)

Definition and Types

According to Obiakor et al. (2018), four types of VM have been identified to teach different skills: basic VM, video prompting (VP), video self-modeling (VSM), and point-of-view modeling (PVM). The efficacy of these VM types depend on the student's individual needs. When the teacher or researcher chooses the appropriate type of VM to use for students, the skills taught in addition to the student's characteristics are considered, such as the working memories and attention span, including complexities and duration of the skill (Buggey & Ogle, 2013; Clinton, 2016; Dowrick, 2012). The requirements for determining the appropriate type of VM is based on the uniquely individual needs of each learner. Educators must determine that their students are sufficiently capable in deciding to utilize the VM. Additionally, how the instructions are provided for the specific video-based intervention (VM, VP, VSM, or PVM) is another important factor because each student may obtain more benefits from one VM type compared to another (Edwards, 2015). The research supports the use of VM as potentially more efficient than traditional teaching strategies for teaching social skills (Smith et al., 2014). Furthermore,

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teachers must assess the complexity of the target skills. For example, the use of VP is more effective than VSM if the target ability has many parts, and the teacher will break down the task into more manageable steps for the students (Gardner & Wolfe, 2015).

Additional studies point to a link between individuals with ASD being visual learners and using visual stimuli to process information (Terciano & Grandin, 2011; Biederman & Freedman, 2007). For example, Terciano and Grandin (2011) encouraged the utilization of visual support through spatial words, while Biederman and Freedman (2007) stressed the significance of offering essential visual support to help students with ASD to process entire messages. Professionals continue to improve their understanding of the importance of visual stimuli, as well as increased visual support for students with ASD in educational settings.

As VM has shown great success in students with ASD, the same principles can also be applied to students with other disabilities. Other research has also found that visual learning aids help students with LD increase academic performance and social skills, too (Edwards, 2015; Hord et al., 2016; O'Brien & Wood, 2011). Also, the Center for Autism and Related Disabilities states:

Many children with disabilities have strong visual skills, and these skills can be capitalized on with visual supports. Visual communication tools such as objects, photographs, picture symbols, daily schedules, and choice boards can provide the supports necessary to greatly improve a child's understanding and ability to communicate, helping children be more active, independent, and successful participants in their lives (p.1).

This suggests that individuals with LD might be able to benefit from visual support just as their peers with ASD and intellectual disabilities. A key to effective learning through VM for

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individuals with LD is the extent of their abilities to learn through visual ways. In general, Bradford (2004) indicated that 65% of humans are visual learners. Relatedly, according to the LD Association of America (2013), most individuals with LD are visual learners. The Center for Autism and Related Disabilities additionally explained that students with disabilities have strong visual skills. This notion has been further supported by Xin and Rieth (2001). They found in their comparative study when teaching words to students with LD using the traditional (non-visual) versus the modernized visual methods, that 85% of participants who were in a visual instruction group prefer to learn visually. The results of their study clearly show that students with LD prefer learning visually. Because of the similarly strong relationship in visual skills found between individuals with LD and individuals with ASD, it is hypothesized that students with LD would learn well with the VM intervention.

Moreover, when applying Bandura's (1977) social learning theory to teach students with LD, it is assumed that their social skills can be obtained through observation. Certainly, these individuals were able to learn, for example, self-care, dancing, communication, and writing by observing other individuals who do these behaviors. The fact is that this observational learning often occurs by looking to a model and imitating what is seen in the model. These modeling behaviors can also be presented in several ways, such as direct observation of a person or by video. Bandura (1986) asserts that learning by modeling requires attention, reflection, production, and motivation. If these requirements are fulfilled, the learner's behavior is maintained and manifested in behavior-like situations. For example, when an individual with LD observes a model of peers who start building friendships when meeting others, it is expected that they would replicate the same behavior when meeting other people. This is an example of how social skills are and can be further learned by students with LD through using VM intervention

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as a method to present model social behavior. VM has been an evidence-based intervention for students with ASD specifically (Wong et al., 2015) and for students with disabilities in general (Edwards, 2015). Also, LD is similar to other disabilities in that students benefit from educational interventions to teach them social and academic skills.

Review of Very Relevant Literature

The most relevant literature that has been used in this dissertation is titled "Video Modeling of Cooperative Discussion Group Behaviors with Students with LD in a Secondary Content-area Classroom" by O'Brien and Wood (2011). To date, O'Brien and Wood (2011) combined the three main elements studied in this dissertation, LD, VM, and academic related social interaction (i.e., how to learn and participate in group mediated discussion. This study aimed at promoting positive social interactions in individuals with LD in academic settings. The researcher concluded that the use of VM was effective in promoting social interaction for this group of students. More studies still need to be conducted to examine the effectiveness of VM on positive social interaction for students with LD.

In addition, there are many studies in which VM was used with individuals with LD to improve their academic performance (e.g., Avcioglu, 2013; Murry, 2018) and have proven that VM intervention is especially useful in improving academics in individuals with LD. Most literature also used the single-subject method to examine the effectiveness of using VM with students with LD. All these studies have proven that VM is highly effective toward helping students with LD learn academic skills. Also, there are relevant studies that aim to improve social skills with students with LD (e.g, Milligan et al., 2016; Mishna & Muskat, 2004). These studies help to understand some of the social skill challenges that students with LD experience.

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There are also many studies in which VM was used with individuals with other special needs, specifically ASD, to develop social skills (e.g., Haring et al., 1987; Charlop & Milstein, 1989; Taylor et al., 1999; Scattone, 2008; Avcioglu, 2013; Murry, 2018). As a result of the lack of studies in the specific area of VM used as an intervention to enhance academic related social interactions in students with LD, this current study examined if VM is also effective in promoting positive social interaction in academic settings in students with LD.

Problem Statement

The Ministry of Education in Saudi Arabia places great importance on individuals with special needs in all aspects. At the same time, studies on the social skills of individuals with LD are few, necessitating research and investigation on this issue. A strong rationale for selecting VM as an effective intervention to teach targeted social skills to students with LD is that it has been found to be an effective intervention to teach social skills to students with ASD. This positive result is attributed to the relationship between the visual nature of VM and the strong ability of students with ASD to learn from visual stimuli (Rayner et al., 2009). Similar results showed students with LD perform better using visual representation (Hord et al., 2016). Based on the effective use of visual representation as a learning intervention by students with LD, VM is a promising intervention that can be used to teach appropriate behavior to students with LD. Another rationale explaining why VM is an important intervention is that improving the social interactions of young children or students with disabilities, including LDs in learning environments, is essential to the futures of those students. Lastly, there is presently a lack of research exploring the use of VM as a learning intervention with children with LD. Further evidence-based research related to VM is needed to effectively influence how teaching

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appropriate social skills to children with LD can be better implemented and conducted in learning environments.

Research Questions

RQ1: Will the VM intervention promote positive social interactions in participants with LD in Saudi Arabia?

Hypothesis: Yes, VM intervention will promote positive social interactions in students with LD in Saudi Arabia.

RQ2: Will the participants with LD maintain the positive social interactions 2 to 4 weeks after the VM intervention?

Hypothesis: Yes, participants with LD will be able to maintain the positive social interactions 2 to 4 weeks after the VM intervention.

RQ3: Is the VM intervention socially valid for participants with LD in Saudi Arabia.

Hypothesis: Yes, VM intervention is socially valid for participants with LD in Saudi Arabia.

Chapter II

Literature Review

Overview

Before presenting the literature review of this chapter, it is important to become familiar with the setting in order to allow an appropriate understanding of previous research concerning this topic to be within the context of its application for the purposes of this study. The setting for this study is in the educational system of Saudi Arabia, a historic nation undergoing current growth and reform, which has influenced social, political, and cultural discussions in the global news headlines. Then a review of the literature pertaining to LD and VM and its use as an intervention to improve social interaction in school-age children is presented, including an introduction to the key concepts of social skills and characteristics of LD, as well as literature related to VM as an effective educational intervention and its possible impact on the children with LD in educational settings will be analyzed.

Saudi Arabia

Overview

Saudi Arabia is a country located in the Western Asia region (Middle East), with many contributions to the Arabian Peninsula. The country is also identified as the Kingdom of Saudi Arabia or through the acronym KSA. The country owes its origin to its ancient strategic location as a trade route and center for Muslim pilgrimage. The first Saudi Arabian state had its background in 1744, courtesy of its strategic location. Saudi Arabia is the second-largest country in the Arab region after Algeria. The country occupies a total area of 2,150,000 square kilometers (830,000 sq. mi) (Albassam, 2012), making it the 12th largest country in the world by area. Out of the over 30 million inhabitants of the country, nearly 10 million people are

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expatriates (Saudi Arabian Cultural Mission, n.d.). In 2018, the country's total population was 33,413,660, with a population growth rate of 1.49%. The country borders Kuwait, Jordan, and Iraq to the north, the Gulf of Arabia, Qatar, and the United Arab Emirates (UAE) to the east, Yemen and Oman to the south, and the Red Sea to the west. The political system of Saudi Arabia is classified as a monarchical rule. Furthermore, politics strictly adhere to Islamist rules. The King is the leader of both the government as well as the state. Frequently, the most important decisions are made through consultation by the royal family, senior princes as well as religious leaders. Furthermore, the people of Saudi Arabia subscribe to the Quran as the constitution of the country. Therefore, the country is entirely governed based on Islamist Sharia laws. The new King of the country is determined by the Allegiance Council, which also has the responsibility of deciding the next Crown Prince. The country's government predominantly constitutes Al Saudi, the vast royal family (Albassam, 2012).

Religion

In Saudi Arabia, Islam is the official state religion, and the legal system is based on Islamic law, specifically the Quran and the Sunnah, also known as Sharia. The only non-Muslims in the country are foreign workers. While there is no outright ban on the public practice of other religions by non-Muslims, there are restrictions in place that require them to practice in a way that is consistent with the government's interpretation of Sharia law. For example, non-Muslims are not permitted to enter the holy cities of Mecca and Medina. Additionally, the use of pork products, alcohol, and drugs are prohibited, and the public wearing of religious symbols is not allowed. Religious practices, such as Ramadan, determine the academic schedule.

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Ministry of Education

The Saudi Ministry of Education was established in 1952 and was initially called the Ministry of Knowledge. Ten years later, it created a Special Education Department which focuses on providing education for students with LD, autism, communication disorders, intellectual disabilities, physical and multiple disabilities, and deafness and blindness (Altamimi et al., 2015). The Saudi government affirms the right to free education for all (Murry & Alqahtani, 2015), and the Ministry of Education has emphasized the inclusion of people with disabilities in mainstream public schools (Alquraini, 2010). The Ministry of Education in Saudi Arabia places great importance on individuals with special needs in all aspects. At the higher education level, universities in Saudi Arabia offer special programs to train teachers who specialize in teaching people with special needs, starting from the diploma stage to the end of the PhD degree. Also, the Ministry provides all educational means and interventions required to teach this class of students. The Ministry of Education also sends trainers, teachers and faculty members abroad through the ministry itself or through government universities to obtain the expertise required to develop the field of special education. As a result, Saudi Arabia established the Regulations of Special Education Programs and Institutes (RSEPI). RSEPI built on the US's 2004 IDEA Act (Alquraini, 2011). The RSEPI system emphasizes the right to free education, the right to individual education, early intervention, and transitional services, and the provision of equal educational opportunities for all individuals with disabilities laws (Alquraini, 2011).

Special Education in Saudi Arabia

Saudi Arabia has been one of the Middle East's leading countries in special education, with significant advancements in the teaching and training of learners and students with disabilities during the past year. Saudi Arabian did not provide special education services for

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people with disabilities prior to 1958. Children with special needs relied primarily on their parents for educational assistance (Al-Ajmi, 2006). In 1958, special education began as a program to teach people how to read Braille. There were no services for young people or for categories other than blindness, and the services were exclusively available to blind adults (Al-Wabli, 1996). In 1958, Saudi Arabia established the first institutional special education programs on how to read Braille. A private organization has funded services for people with visual impairments, such as the establishment of a method to help blind adults learn to read Braille (Al-Khereiji, 1989).

A private organization provided and supported this service, which was only available in the evenings, only in Riyadh, and exclusively for blind persons. The first special school for the blind, the Al-Noor Institute, was opened two years after a non-profit organization in Riyadh had opened one. The Al-Noor Institute, based in Riyadh, was the first educational institution for the blind in the country and marked the beginning of public special education. Between 1960 and 1971, Saudi Arabia's special education programs expanded from providing limited services for specific disabilities to becoming fully operational under the Special Education Agency within the Ministry of Education.

After that, the government opened special education schools for both males and females for individuals with hearing and visual impairments, as well as increasing the number of special day schools for those children. By 1987, Saudi Arabia had 27 special education institutions and institutes serving blind and deaf students as well as individuals with intellectual disabilities (Al-Kheraigi, 1989). This led to its expansion between 1987 and 2000, bringing the total number of schools to 54. The provision of services for children with LD in public schools through resource rooms was a crucial element of the progress. Due to a lack of awareness concerning LD, such

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programs were not available until 1990 (Al-Mousa, 2010). Currently, special education classrooms are available in roughly 746 Saudi Arabian public schools.

According to the Ministry of Education in Saudi Arabia, there are 47 programs that provide educational services for children with mild to moderate disabilities, such as intellectual disabilities, multiple disabilities, and mild to moderate autism disorders. Additionally, students with LD have been provided part-time special education services during the school day in resource rooms in public schools across Saudi Arabia as part of 1417 Programs. These students are also fully included in regular classrooms in public schools (Al-Otaibi & Al-Sartawi, 2009; Ministry of Education of Saudi Arabia, 2012). Nonetheless, special schools continue to accommodate individuals with severe and multiple disabilities. Other types of disabilities, such as behavioral and emotional disorders (BED) and attention deficit hyperactivity disorder (ADHD), are still not served separately because they are considered disorders rather than disabilities by the government (Alquraini, 2011).

Special Education and Related Background

Persons with Disabilities

Individuals with Disabilities Education Act (IDEA) (2004) classified disabilities into two groups, which are high-incidence and low-incidence. High-incidence disabilities are those that are more common among individuals with disabilities (Gage et al., 2012). According to Stichter et al. (2008), the high-incidence group of students in special education includes students with emotional and/or behavioral disorders (E/BD), learning disabilities (LD), mild intellectual disability (MID), high-functioning autism (HFA), attention-deficit hyperactivity disorder (ADHD), and speech and language impairment (SLI). Among this group, students with LD

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represent the largest percentage of the population in special education, about 33%. (National Center for Education Statistics, 2021).

There is a close relationship between individuals with high-incidence disabilities and social difficulties. Gresham et al. (2001) stated that social competence was used as one of the criteria to diagnose whether an individual has one of the high-incidence disabilities (e.g., LD, ADHD, and HFA). Social competence is defined as “the ability to handle social interactions effectively” (Weiner & Craighead, 2010, p.1623). Social competence includes listening to others, staying away from aggression, making eye contact, taking turns, knowing the feelings of others through knowing the other's gestures and facial expressions (Spence, 2003). It is essential to increase knowledge about social life and its context to spare individuals with high-incidence disabilities the risk of failing in social relationships and contexts (Al-Yagon & Mikulincer, 2004). Poor social interaction is a common characteristic among the high-incidence disability group.

Learning Disabilities

Some of the most used definitions of learning disability come from the IDEA and the National Joint Committee for Learning Disabilities (NJCLD). The IDEA (2004), formally known as the Education for All Handicapped Children Act (EHA), defines LD as:

a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken, or written that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Disorders not included. Specific learning disability does not include learning problems that are

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primarily the result of visual, hearing, or motor disabilities, of intellectual disability, of emotional disturbance, or of environmental, cultural, or economic disadvantage (Individuals with Disabilities Education Act, 2004).

An updated LD construct should be credited to Samuel Kirk, who included his definition of this disorder in the *Educating Exceptional Children* textbook (Mash & Barkley, 2012). As cited in Mash and Barkley (2012), Kirk's 1962 definition stated:

A learning disability refers to retardation, disorder, or delayed development in one or more of the processes of speech, language, reading, writing, arithmetic, or other school subjects resulting from a psychological handicap caused by a possible cerebral dysfunction and/or emotional or behavioral disturbances. It is not the result of mental retardation, sensory deprivation, or cultural or instructional factors (p. 602).

Similarly, the National Joint Committee on Learning Disabilities (NJCLD, 2016) defined LD as

a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other disabilities (for example, sensory impairment,

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intellectual disabilities, emotional disturbance), or with extrinsic influences (such as cultural or linguistic differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences.

NJCLD's (2016) most recent definition, which the research will rely on in this study, includes challenges in self-regulatory behaviors, social perception and social interaction, which IDEA's definition of LD did not have. The NJCLD (2016) definition believes that many individuals with LD have social deficits, for example, with social cognition, and social interaction. The research also stated that these social challenges do not necessarily cause academic issues, but they might be resulted from learning issues. Thus, the NJCLD (2016)'s definition is considered more inclusive. The definition of LD has remained largely unchanged over time but with the addition of some self-regulatory behaviors, social perception, and social interaction to its description. This reflects the understanding that these factors also play an important role in the process of learning and academic success of students with LD. All definitions of LD mainly focused on the academic aspects and agreed that LD was not caused by social interaction difficulties or other disabilities. This literature review will briefly mention the academic issues faced by students with LD below. To understand how to teach appropriate behavior to students with LD, it is important to understand the unique characteristics of these students as a whole. These literature review will briefly discuss the academic difficulties. Then this literature review will primarily focus on the social deficits of students with LD.

Types of Academic Difficulties Faced by Students with Learning Disabilities

Academic difficulties are types of learning problems that students with LD experience, and they frequently suffer in numerous areas of academic achievement. Students with LD have

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academic weaknesses in a variety of areas, including written expression, reading, and mathematics. Students may also experience social deficits that may increase learning difficulties, such as poor concentration (Swanson et al., 2013). A student may experience all these learning difficulties or only one. Among learning difficulties students with LD may experience, reading difficulties are the most dominant (Kluth, 2017). According to research, roughly 80 - 90% of students with LD struggle with reading (Swanson et al., 2013). Reading difficulties, according to Alamri and Ahmed (2021), may be connected to a lack of language abilities, the most important of which is phonological awareness. Students with LD, for example, are unaware that speech may be broken down into smaller sound components such as phonemes, words, and syllables (Taylor, 2014).

According to research, around 2.5 million students 5% in American public schools have LD. However, this percentage has decreased over the last decade due to the increased use of various instructional methodologies, early detection of LD, and emphasis on early childhood education. These efforts have helped to improve the educational outcomes of students with LD, resulting in a decrease in the number of students classified as having LD (Cortiella, et al., 2014). Bunning et al. (2017) explained that this is an issue that has not received enough attention since reading difficulty has been the most dominant challenges. Fortunately, math difficulties have gained more attention in recent years. Math difficulty usually lies in math reasoning or math calculations where some learners with LD struggle with mathematical thinking. Many students with LD are not able to comprehend mathematical concepts in numbers, addition and subtraction, estimation of quantities in two dimensions, space and shapes (Cortiella & Horowitz, 2014). Thus, they are unable to sort significant extraneous data, determine if the answer they get is reasonable, or identify the most appropriate computational procedure. These mathematical

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issues prevent these students from reaching some of their academic objectives, and they also have difficulty applying these arithmetic concepts in real-life situations (Swanson et al., 2013).

Arithmetic problems are academic difficulties that many students with LD struggle with (Swanson et al., 2013). Recognizing numbers and symbols, recalling facts, aligning numbers, and comprehending abstract concepts such as place value and fractions are all part of arithmetic concepts. About 11% of students with LD who have attention deficit hyperactivity disorder (ADHD) have arithmetic problems (Soares, et al., 2015). Other learning issues, such as reading and writing difficulties, are also frequent in students with ADHD - up to 45% of students with ADHD have a LD (DuPaul et al, 2013). Reading difficulty, often known as a LD in reading, commonly co-occurs with arithmetic problems; around half of students with arithmetic problems also have reading difficulties (Morsanyi et al., 2018). Even among students without LD, arithmetic problems are prevalent 3-6% (Shalev et al., 2000).

Another academic difficulties or area that students with LD may struggle with is written expression. Many students with LD have difficulty with not only spoken but also written language (Swanson et al., 2013). A LD characterized by difficulties with writing is known as a deficiency in written expression. It is a neurological condition that can affect both children and adults. People with a lack of written expression not only write words that are difficult to understand, but they also employ the wrong word for what they are attempting to communicate. It is estimated that 5 to 20% of all students suffer from some form of writing disability (Reynolds, 2007). In students with LD, a lack of written expression as well as other learning impairments such as reading, and math are widespread (Larson et al., 2011; DuPaul et al., 2013).

Writing is a sophisticated technique of expression which involves the integration of linguistic abilities, conceptual abilities, and hand-eye coordination (Kellems & Edwards, 2016).

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Due to the complexity of writing, it is usually the last skill that young students master (Kellems & Edwards, 2016). Students who have written expression deficits usually have difficulty developing writing fluency, inability to submit written work that satisfies the required length, and difficulty constructing and spelling written tasks in a legible manner (Swanson et al., 2013).

People with LD in basic writing abilities often have difficulties completing homework, using writing in everyday circumstances, and are at risk of failing in school. They may struggle to write letters on paper and have a difficulty understanding the relationship between letters, words, and sounds. They may also struggle with basic reading due to a lack of knowledge of letter and sound connections (Chung, 2020). Another academic difficulties or area that students with LDs may struggle with is cognitive deficit.

In students with LD, there is a considerable deficit in cognitive processing speed, attention, "working memory," spoken acquisition and memory, visual learning and memory, reasoning, and problem solving. Social interaction and behavioral adjustments are usually the cause of poor academic achievement in students with cognitive deficits (Alamri & Ahmed, 2021; Bora, 2015). These students, on the other hand, have a typical IQ. Meta-memory, working memory, and short-term memory are all evidently impaired in students with LD. According to several research, children with LD have varying degrees of difficulty analyzing task requirements, selecting appropriate techniques, allocating learning time, monitoring and regulating the learning process, and interpreting assessment outcomes (Peijnenborgh et al., 2016; Kolk et al., 2017).

Cognition issues are always present in students with LD. Cognition is a term that encompasses many different aspects of problem solving and reasoning. Students with LD frequently have disorganized thinking, which causes them to have difficulty planning and

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managing their lives at home (Hallahan & Kauffman, 2003). Even though all students with LD have cognitive issues, not all students have the same level of deficit. Instead, there is a range of cognitive capacities. (Henry, 2001). As a result of this discovery, specific, highly focused training for students with LD has been developed to replace generic curriculum, based on the idea that their cognitive abilities are generally inadequate (Hardman et al., 2011).

Moreover, students with LD have language and communication deficits, which includes failure to express their needs and intentions in a way that is consistent with the norms and values of society (Bryan et al., 2004). A study involving 242 children with LD aged 8 to 12 in an Alabama school system found that these children had language and communication deficits. The study used an individual assessment procedure to determine the prevalence of articulation, language, voice, fluency, and hearing impairments among the children. Results of the study showed that 96.2% of the children, or around 233 children, had a speech or hearing problem. The majority of students with LD had language deficits (90.5%), 23.5 % had articulation deficits, 12 % had voice problems, and 1.2 % had fluency disorders. They experience difficulties with the use of appropriate vocabulary, language rules, and spontaneity in communication. These children may say answers out of turn to attract the teachers' attention (Milligan et al., 2016). Furthermore, they experience communication difficulty in different settings, selecting topics, requesting clarification, and presenting logical opinions (Bryan et al., 2004; Womack et al., 2011).

In addition, research by Galway and Metsala (2011) indicated that students with LD have more difficulties social skills, which would be the focus of this study. They found that students with LD had difficulty in identifying an assertive response to a social situation and in offering the desired outcome. The findings revealed that students with LD have problem recognizing nonverbal social cues, which contributes to non-LD children's psychosocial adjustment issues.

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Cooperative Learning

The strategy of peer learning or cooperative learning is one of the most common strategies used in school to engage students to learn. Cooperative education provides better opportunities for the success of students with disabilities in particular. Cooperative learning is defined as an approach that increases pleasant situations as a result of quality performance among group members. Cooperative learning includes, for example, appropriate use of social skills, positive interdependence among team members, active engagement in a discussion which includes helping each other to achieve task success and providing feedback to correct concepts (Felder & Brent, 2007).

Cooperative learning is characterized by giving focused attention to group members in terms of intense interaction, use of effective personal and individual skills and abilities in the group, interdependence among group members, and team goal with rewarding effort (O'Brien & Wood, 2011). However, cooperative learning and other similar strategies are not utilized because it is not optimistic for individuals with LD to be successful because of the less interaction expected from these individuals. In addition, individuals with LD show weakness in actively participating in strategies that require intense social interaction and social skills (Maheady et al., 2001). Therefore, individuals with LD need to develop cooperative participation skills to have effective social interaction in an academic setting (O'Brien & Wood, 2011).

Social Skills

If students with LD have good social skills, it will help them with their learning. It's crucial to look into the various definitions that have been used to describe social skills. According to Maleki et al. (2019), social skills are defined as understanding and anticipating what is required to interact with others. Based on this definition, social skills are the currency for

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interacting with others. In addition, social interaction is defined as a behavior that alternates between two or more people, such as turn-taking like speaking in a conversation (APA Dictionary of Psychology, 2020). Listening to others, making eye contact, taking turns, and recognizing others' feelings through gestures and facial expressions are just a few examples (Spence, 2003).

This definition emphasizes the importance of students interacting with one another while learning. Elementary school students, for example, might use social interaction to seek out other people's viewpoints and ask teachers questions. Social skills, according to Behroz-Sarcheshmeh et al. (2017), are techniques that allow individual to relate to one another, and interact successfully, such that the lack of such skills constitutes a form of disability. Students with LD, for example, should play and interact with their peers in a learning environment without causing injury to one another. Mendo-Lázaro et al. (2018) define social skills behaviors as ways for people with LD to express their feelings, ideas, affection, and opinions in order to address social problems, develop relationships, and reinforce social circumstances. As defined by Avcioglu (2013), social skills can be considered the ability to interact with others in a specific context.

It is still possible to use social interaction to promote social learning. Social skills, according to Yuan et al. (2018), are behaviors portrayed by repetitive activities. A person with autism, for example, may repeat a single behavior over and over again when learning, though this might improve over time. Then according to Tanaka et al. (2017), social skills are a combination of verbal, nonverbal, and spoken gestures that students with LD utilize to communicate effectively in the classroom. A teacher, for example, can create an impressive discourse or teaching session in class by using hand gestures, facial emotions, and oral phrases. These abilities encourage social connection. Social skills are the abilities that allow a person to interact

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with others in his or her social context. They are crucial for initiating, and maintaining essential relations (Epps et al., 2003).

According to Bryan et al. (2004), in the United States, 38-75 % of students with disabilities have social issues. These difficulties have been noted by students of various ages, from preschool to high school. According to Kavale and Mostert (2004), around 75% of students with LD have social skill deficiencies. Social deficiencies in students with LD manifest themselves in a variety of ways, for example, self-esteem, education, vocation, socialization, and/or daily living activities. Furthermore, students with LD show a range of social deficits (Bryan et al., 2004; Elksnin & Elksnin, 2004). According to their findings, 80% of students with LD were found to be less likely to engage in social interactions, were less well-adjusted, were less accepted by their peers, and were less likely to be identified as friends compared to their non-disabled classmates.

Students with LD were more likely to be rejected by their peers, who viewed them as having lower levels of engagement, play, collaboration, and empathy. These disparities in social interaction among adolescents with LD may contribute to long-term issues such as school dropout and mental health issues (Nowicki, 2003). Social skills are the abilities that allow a person to interact with others in his or her social context. They are necessary for establishing and maintaining vital relationships (Epps et al., 2003).

There are some operational definitions, for example, involved under social interaction which should be clarified for the purpose of the study. Scattone (2008) defined some of these definitions like smiling, defined as grinning or laughing. Initiations are defined as any unprompted question or comment made by an individual that was directed to the interaction partner, for example, "how are you today/I like your glasses." Greeting is defined as saying

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“Good Morning /Good Afternoon /Hello/Hi” when meeting familiar people for the first time a day (Avcioglu, 2013). Also, another skill turn-taking is defined as alternating between individuals, for example, discussion: raise a hand to start the sharing ideas or wait for the others to finish speaking without distracting others. Cooperative participation is defined as skills that were aimed to deal with a targeted task; for example, group members communicate and interact while listening to others within the same group that includes attending to the discussion, looking at the speaker, nodding in agreement, and also discussing with other (O'Brien & Wood, 2011). Finally, the appropriate use of language is defined as using an appropriate word that describes what individual think, for example, "I can't do the task" instead of "I will not do it," or "I don't understand something" instead of "I do not like it."

Table 1 Social Skills Definitions

Terms	Definitions
Social Skills	Techniques that allow individual children to relate and interact successfully (Behroz-Sarcheshmeh et al., 2017).
	Define social skills behaviors through which learners express feelings, ideas, affection, and opinions to solve arising issues, improve relationships, and strengthen social situations (Mendo-Lázaro et al., 2018).
	Behaviors depicted through repetitive and effective actions (Yuan et al., 2018).
	The combination of verbal, non-verbal, and speech gestures that people use to achieve efficient communication in the classroom. (Tanaka et al., 2017).
	Skills used for interaction between a person and his/her social environment. They are important for initiating and maintaining essential relations (Epps et al., 2003).
Social Competence	The concept of social competence includes knowing and anticipating what is required to interact with others, for example, listening to

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	others, staying away from aggression, making eye contact, taking turns, knowing the feelings of others through knowing the other's gestures and facial expressions (Spence, 2003).
Social Interaction	A behavior that alternates between two or more people, such as turn-taking like speaking in a conversation alternate between two or more parties (APA Dictionary of Psychology, 2020).

Table 2 Operational Definitions

Terms	Definition
Smiling	defined as grinning or laughing (Scattone, 2008).
Initiations	defined as any unprompted question or comment made by an individual that was directed to the interaction partner for example "how are doing you today/I like your glasses (Scattone, 2008).
Greeting	Defined as saying "Good Morning /Good Afternoon /Hello/Hi" when meeting familiar people for the first time a day (Avcioglu, 2013).
Turn Taking	Defined as alternating behavior between individuals, for example, discussion: raise hand to start the discussion or wait for the others to finish speaking.
Cooperative Participation	Skills that were aimed deal with a targeted task; for example, group members communicate and interact while listening to others within the same group that includes attending to the discussion, looking at the speaker, nodding in agreement, and discussing with other (O'Brien & Wood, 2011).
Appropriate Use of Language	Defined as using an appropriate word that describes what individual think, for example, "I can't do the task" instead of "I will not," or "I don't understand something" instead of "I do not like it."

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Peer Acceptance

Peer acceptance is defined by Armeetaa et al. (2020) as the degree to which students with and without LD are accepted and interact with each other in a regular classroom setting. It is important for students in the same class to accept and understand students with LD in order to prevent them from feeling alienated, as they may have different social behaviors and may struggle with social skills and understanding social cues (Pijl et al., 2011).

Many studies have found that students with LD are less accepted by their peers (Boer & Pijl, 2016; Petry, 2018). This includes a study in Greece that found evidence that students with LD have fewer friends and fewer interactions with their classmates, even though the quality of their friendships is positive (Avramidis et al., 2018; Petry, 2018; Boer & Pijl, 2016). This phenomenon may occur because students with LD tend to focus on the positive aspects of their friendships rather than the negative aspects. Despite this, it is still possible for them to fit in and feel included in an inclusive classroom setting without being negatively affected by their peers' lack of acceptance. Other studies have found that students in inclusive schools will typically welcome students with LD but may avoid them because they are concerned that they will be placed in the same group as their inclusive peers and will not be able to exhibit the same level of competency (Dare et al., 2017). Not only that, but students at inclusive schools may be unwilling to interact or connect with students with LD due to a variety of factors including attitude (Petry, 2018), lack of familiarity with students with LD, severity of LD (Schwab et al., 2015), and gender preferences (Sterrett et al., 2017). Intriguingly, previous study has indicated that primary school kids have stronger peer acceptability than secondary school students due to their lower levels of socialization (Pijl et al., 2011).

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A child is often considered socially skilled if they are accepted by their peers. However, one limitation of this definition is that it does not specify the specific behaviors that lead to a child being accepted or rejected by their peers. Without a clear understanding of these behaviors, it can be difficult to determine how to support a child's development of social skills and increase their chances of being accepted by their peers (Mulvey & Jenkins, 2020). Therefore, to be accepted by peers it is important to develop and utilize specific social interactions including having appropriate responses to peers and engaging peers correctly. These specialized skills, which include conflict resolution, social development, problem solving, and re-creation, are frequently deficient or not naturally developed in students with LD (Epps et al., 2003). The development and maintaining of social interactions are central to a child's education. Having positive relationships and being accepted by peers can offer many opportunities for development and learning in children. Through socialization, children can learn and improve on various aspects of their growth such as emotional intelligence, ethical, and moral development. This socialization process also helps the child to understand and adapt to the norms of the society and culture they grow up in. While teachers may instruct students to appropriately respond to peer interaction and reciprocity, the most proven way for students to develop appropriate responses to peers is by spending time with their peers to promote replication of social skills of responses to each other.

Previous research has consistently shown that students with LD are less accepted by their peers compared to mainstream students (Petry, 2018; Schwab, 2015). A study by Fuchs et al. (2000) explored the use of peer-assisted learning strategies to improve reading achievement for students with LD. The study found that students with LD who received instruction with the support of their peers demonstrated greater reading progress compared to students with LD who

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received instruction without peer support. This study proved that reading achievement is not the only benefit to be gained through peer-assisted learning; social interactions are also gained through this learning method as well as overall peer acceptance of students with LD. Several different methods can be used to assess social acceptance in an inclusive classroom setting. These categories include friendship quality, peer interaction, and social integration. Friendship quality can be evaluated by assessing the level of trust, mutuality, and satisfaction in the relationship. Peer interaction can be evaluated by assessing the frequency and quality of interactions between students, while social integration can be evaluated by assessing the degree to which students with and without disabilities are included in social groups and activities within the classroom (Schwab, 2015).

Developing the social skill of engaging peers correctly can be a challenge for students with LD. This could suggest that peers can urge students with LD to behave responsibly by modifying their views, values, or behavior to match those of the influential peers, which could have a positive or negative influence, or both. This skill differs from the social skill of having appropriate responses to peers in that the response skill is only focused on response. The skill of engaging peers correctly involves overall engagement including approach, communication, interaction, sharing with peers, and participation in conversations and activities that involve interaction. This social skill is important for development in preparation for interactions students will encounter as adults (e.g., the work environment and other situations).

According to the study conducted by Fuchs et al. (2002) peer-tutoring is a learning strategy which encourages the development of the engagement social skill and promotes peer acceptance of students with LD. In this study, it is explained that through peer tutoring, “explicit roles and responsibilities make them (*students with LD*) and their partners equally indispensable

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to the tutoring process” (Fuchs et al., 2002, p. 206). The study collected data from 39 classrooms in second through sixth grade, 22 of which were using the Peer-Assisted Learning Strategies (PALS) program. It aimed to investigate the social benefits of peer tutoring and how engagement was measured in this form of tutoring. Four types of students were profiled in each classroom: one with an LD, one low-achieving, one average-achieving, and one high-achieving student. The results showed that students with LD in PALS classes had better social acceptance among their peers compared to those in non-PALS classes, and they had similar social standing as their non-disabled classmates. As a result, non-traditional learning methodologies can be used to improve peer acceptability, a form of social skill that involves engaging peers correctly. Because standard learning approaches are ineffective for all kids, teachers must create new ways to engage their students. Peer tutoring, the inclusive classroom, and peer-assisted learning practices are examples of non-traditional learning strategies. This dissertation aims to expand upon the research by Fuchs et al. (2002) by focusing on VM as a form of intervention to promote social interaction among students with LD.

Social Behavior

Referring to the behavioral social skills definition, behaviors are observed in a specific context where both punishment and reward are present and are shaped by the culture surrounding the individual (Epps et al., 2003). This definition highlights that behaviors are closely tied to the environment and societal norms in which the individual is situated (Epps et al., 2003).

Additionally, the definition of behavior is contingent on an individual's past experiences and the consequences that result from them (Gürbüz & Kıran, 2018). Those social outcomes for children include adequate psychological adjustment, significant judgments of social skills, self-esteem, acceptance by the peer group, adequate self-concept, and academic competence.

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The behavior of students can be affected by LD. This can lead to a complex situation in which a child's learning difficulties combined with behavioral issues makes learning challenging. According to research by Diakakis et al., (2007), students with LD commonly have behavior difficulties as a result of low self-esteem, worry, and tension. According to the study, between 24-52 % of children with LD also show evidence of behavioral issues like aggressive behavior and social isolation.

In students with LD, the prevalence of pro-social conduct and the absence of behavior problems appear to be especially crucial for social participation (Schwab et al., 2015). Research has indicated that students with LD tend to exhibit more aggressive behavior and less pro-social behavior compared to their peers without LD. A study by Mand (2007) found that children with LD who displayed undesirable behavior were not well-liked in educational settings, suggesting that social conduct plays a crucial role in social involvement. Schwab (2014) also stated that social participation of children with LD is primarily determined by their social behavior and abilities. Sociometric studies have shown that typically developing students tend to have more positive related social behaviors, while children with LD tend to have significantly more negative associated social behaviors, such as aggressive behavior, compared to students with average ratings (Jones & Frederickson, 2010).

Loneliness is also one of several crucial indications of behavior difficulties in students with LD. According to Mencap (2019), not enough is being done to address the loneliness problem that students with LD experience. According to research, students with a learning disability engage in fewer activities and participate less frequently than their counterparts who do not have an LD. They have fewer friends as well (Solish et al., 2010; Taheri et al., 2016). Students with LD may be physically present in a community, but they may not feel included or

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welcomed by their classmates. Making meaningful contacts and participating in gratifying activities are key components of social inclusion (Cummins & Lau 2003; Overmars-Marx et al., 2013).

Research has shown that one in three students with LD spend less than an hour outside their home (Mencap, 2019). A survey conducted by Sense (2017) found that more than half of individuals with disabilities reported feeling lonely, with the number rising to 77% among those aged 18-34. Gilmore and Cuskelly (2014) have found that loneliness can lead to physical and mental health problems and a lower quality of life. Social skill deficits often contribute to loneliness, which can stem from difficulty making friends, less positive interactions with teachers, and rejection by peers.

Learning Disabilities and Social Competence

Individuals with LD have a lack of social ability, according to previous studies. Gresham et al. (2001) discovered that students with LD exhibit considerable social competence deficits. Poor social connection and social awareness, according to research, can have a long-term harmful impact on individuals and can lead to social avoidance from peers and society (Carpendale & Lewis, 2004). However, the findings of the NLTS 2 contradict these expectations. On the total social skills scale, 10% or fewer of students with LD, including speech impairments and physical impairments, are scored low; on the other hand, 20-31 % of children with other developmental disabilities are rated low (Levine et al., 2003). Students with LD exhibit problematic behaviors such as violence, isolation, and withdrawal from peers, as well as other emotional demands such as lack of self-concept, anxiety, and low self-esteem (Elksnini & Elksnin, 2004). (Bryan et al., 2004; Elksnin & Elksnin, 2004; Kavale & Mostert, 2004; Womack et al., 2011). Students with LD who experience these social skill deficits are at a disadvantage

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since effective communications, better social interaction skills, and appropriate ways of showing emotions are linked to better social and academic achievement (Milligan et al., 2016; Womack et al., 2011).

Academic Performance and Students with Learning Disabilities

According to Spafford and Grosser (1993), a person's academic performance has the ability to affect individual emotions and perception of social interaction, which can consequently have a negative impact on an individual's behavioral skills. Statistical analyses have disclosed a substantial increase in behavioral problems between students with LD and non-students with LD who perform poorly (Tur-Kaspa & Bryan, 1994). Findings indicate that academic performance failure is not the root of the social skills shortage of students with LD. However, LD may cause a lack of self-esteem and thus develop or cause social problems or impairment in the development of social skills, which could lead to poor academic performance for students with LD. In addition, the researchers emphasized that cooperative education, or peer learning, helps a lot in academic development, especially for individuals with LD (Fuchs et al., 2000; O'Brien & Wood, 2011). However, the impairments that students with LD experience in social skills may increase the problems of their desired academic development.

There is a lot of research on whether students with LD have the same academic achievement as students without impairments (Jorgensen et al., 2005). Sparks et al. (2004) found that many college students with ADHD and LD at a medium-sized university were academically competitive with their peers and graduated with similar GPAs to the average graduating senior at the same university. Over a five-year period, all students, both with and without LD, graduated from the university. In contrast, Sachs and Schreuer (2011) compared the academic achievement of 170 students with disabilities and 156 students without impairments, as measured by GPAs,

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and their involvement in higher education. Their findings revealed that students with LD had similar college experiences across the board, from social and athletic to intellectual.

Additionally, students with LD had similar academic achievements to students without LD, as measured by grade point averages (Sachs & Schreuer, 2011). According to Spafford and Grosser (1993), a person's academic performance can affect individual perception of social interaction, which can consequently have a negative impact on an individual's behavioral skills. Poor academic performance is not the root of social skills difficulties in students with LD (Swanson et al., 2013).

Due to cognitive deficiencies, many students with LD have deficits in social information processing, for example difficulty reading and interpreting physical gestures, tone, clothing, facial expressions, and body language. Failure to read, encode and decode information from others in a social context has been linked to poor academic outcomes, isolation from peers, low levels of self-esteem, and subsequently, under or unemployment in individuals with LD (Bryan et al., 2004). The deficit in social information processing, such as failure to understand sarcasm, irony, or satire, has negative impacts on students with LD (Milligan et al., 2016). All deficits in social information processing experienced by students with LD increase their risk of both social and academic failure (Bryan et al., 2004; Milligan et al., 2016; Womack et al., 2011).

Socio-emotional Performance and Learning Disabilities

According to Spafford and Grosser (1993), a person's academic performance can affect his/her emotions and perception of social interaction, which can consequently have a significant impact on his/her behavioral skills. Statistical analyses showed a substantial increase in behavioral problems between students with LD and typically developing students who perform poorly. Findings indicate that academic performance failure is not the root of social skills

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difficulties in students with LD. However, LD may cause a lack of self-esteem and thus develop or cause social challenges or impairment in the development of social skills.

Several researchers have looked into the social, emotional, and personal aspects of people with LD, including their persistent difficulties in forming and maintaining mutual interpersonal interactions with peers (Wiener et al., 2012). When students with LD are compared to their non-LD counterparts, studies show that they have poor social skills, less peer acceptability, higher feelings of loneliness, and inferior self-perception (Sharabi et al., 2012). Given the emotional programs of students with LD, only a few researchers have looked into their well-being and the particular links between social support, loneliness, and self-efficacy.

Social support is seen as a helpful aspect that helps students integrate well into society and is associated with better emotional well-being (Demaray et al., 2002). A lack of social support, few close friends, poor relationships with peers, and social rejection can lead to negative emotions such as anger, sadness, and low self-worth and negatively impact overall well-being (Beran, et al., 2012). Students with LD often struggle with developing and maintaining social and emotional support due to low social awareness, poor social skills, and difficulty interacting with peers (Beran, et al., 2012). Research has shown that students with LD have low levels of social support and self-perception, with female students scoring higher than male students (Heiman, 2018). Studies have also found that peers and family play a significant role in providing social and emotional support, helping with daily tasks and skills, offering encouragement, and reducing stress for students with learning disabilities (Goldberg et al., 2003).

Student growth and intellectual development are aided by a strong sense of self-efficacy, according to studies. When students with LD compare their performance to that of their peers who do not have LD, they tend to believe they are less valuable and skillful. Students with LD

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also have poor academic self-efficacy and academic competence. Even when students with LD perform academically on par with their typical peers, their overall self-perceptions reveal weaker self-efficacy and continuing emotional suffering (Idan, 2014). Other research has found that classroom isolation, difficulties dealing with school demands, and repeated experiences of school failure can all negatively impact self-efficacy in children with LD (Chen et al., 2014), and that students with LD tend to be more self-aware, and tend to have lower self-esteem, self-acceptance, and self-efficacy (Rojewski et al., 2012).

Subjective well-being (SWB) is a self-reported measure of happiness that focuses on how a person judges his or her own life. It includes moods and feelings, as well as assessments of one's contentment with various aspects of one's life (Olenik-Shemesh et al., 2018). Self-esteem was found to have a positive link with SWB and gender differences among 300 youths in studies on SWB and gender differences; men scored higher in self-esteem. Furthermore, low self-esteem was linked to low levels of SWB, while high levels of self-esteem may predict high levels of SWB in both women and men as they get older (Viner et al., 2012). In other studies, females reported lower well-being indicators than males, while females scored better on socio-emotional components and social connection than males, but males scored higher on self-efficacy than females (Ardal et al., 2018). Few research has looked at how students with LD perceive SWB. When compared to girls with LD and non-LD students, boys with LDs reported the lowest felt well-being and the highest symptoms of loneliness. Girls with LD reported the least loneliness and the highest sense of well-being compared to boys with LD (Idan, 2014).

Self-Concept and Students with Learning Disabilities

Also, as pointed out by Bryan et al. (2004), the most widely researched topic relating to children with LD is the lack of self-concept. According to Bryan et al. (2004), “one of the most

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frequently cited findings is that students with LD have lower academic self-concepts than peers” (p. 46). Self-concept is one of the most often discussed concepts in psychology, but it is also a vague and sometimes misunderstood construct. Different authors have defined or described the phrase in various ways.

Contributing, self-concept is defined by Fayombo (2001) as an individual's vision of himself or herself, which is made up of his or her views about himself or herself, including physical, scholastic, psychological, social, and emotional qualities, aspirations, and achievements. Furthermore, self-concept can be defined as the occurrence that causes a person to believe that he/she is capable, significant, successful, and deserving. Self-concept encompasses all of one's views about oneself and is essentially one's assessment of one's own abilities, influence, and popularity (Nadal, 2014). One's self-concept has an impact on their thoughts, behaviors, and academic performance. To psychologists and educators, self-concept is very essential since how a person feels or thinks about himself is very important and can be a strong driver of his behavior, even at school (Nadal, 2014). Individuals with physical disabilities had lower levels of self-concept and body image than those without apparent disabilities, according to the findings of a study. Self-concept and body image were found to be related to gender, family status, and the severity level of the condition (Shpigelman & HaGani, 2019).

Fyodorova-Radicheva (2021) conducted research to examine the presence of certain characteristics in the self-concept of middle school students with LD. The study included 32 students from high schools in the town of Plovdiv, with half of the participants having no record of a disability and the other half diagnosed with LD. The results revealed that certain aspects of self-concept exhibited clear and distinct differences between the two groups.

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According to Ruegg (2006), students with LD have low self-esteem, despair, and social skills difficulties. Also, some disorders that are common among children with the following diseases: depression, oppositional defiant disorder, and ADHD can cause social deficiencies. Kaukiainen et al (2002) have also argued that there is a link between social and learning skills. The authors report that students with LD had significant levels of hostility in their behavior. The difference in social skills of students with LD has an impact on the development of their personalities, especially between the ages of 10 and 16.

Adolescents at this age are "unusually involved in what they seem to represent in the eyes of others compared to what they themselves feel they are (Fyodorova-Radicheva, 2021, p.113). This particularly strong commitment is also manifested in teenagers as mature identity, which occurs in a certain social setting, whether at school or at home, and brings forth emotional behaviors in such students and their peers (Popzlateva, 2010). In this context, social interactions are important in the development of self-concept in this age range. When compared to their peers, students with LD have inferior academic accomplishments. Deficits in the acquisition of school skills imply a lower level of academic accomplishment in them. This shows that students with LD will almost certainly experience a negative aspect (poor academic achievement) in developing their self-concept during puberty (10-16 years).

Some students with LD may accurately rate their social skills competencies while others may over or underrate these skills (Elksnin & Elksnin, 2004). Students who accurately rate their social skills difficulties usually experience depression due to failure to match their competencies with other developing children (Bryan et al., 2004). Feelings of depression usually result in students with LD feeling hopeless and experiencing intense emotions of anxiety (Elksnin & Elksnin, 2004).

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However, research has indicated that it is not clear how social deficits develop in students with LD, and no evidence indicates how social skills are correlated with LD symptoms (Kavale & Mostert, 2004). Furthermore, there is no clarity on how cognitive, communication, memory, and self-esteem are linked to social deficits in the current literature (Elksnin & Elksnin, 2004; Kavale & Mostert, 2004). However, researchers have noted that some students with LD lack both social skills in specific social situations (Womack et al., 2011), as evaluated by their peers, teachers, and the community (Elksnin & Elksnin, 2004; Milligan et al., 2016).

Cornoldi et al., (2001) found that girls are more likely than boys to experience depressed symptoms, and that gender disparities persist throughout adolescence, with females experiencing twice as many depressive symptoms as males. Psychosocial risk variables, such as lower levels of school self-esteem and self-concept, influence these gender differences (Cornoldi et al., 2001). When students encounter a challenging or frightening assignment aimed at evaluating their competences, a low sense of self-worth may impair their mood (Steca et al., 2014). Low self-worth, on the other hand, can prevent students from socializing with their peers by increasing feelings of isolation and depressive tendencies.

Learning delays and issues with educational and social abilities stigmatize students with LD, which has a detrimental impact on their self-esteem. According to research, students with LD have a lower level of social acceptance from their classmates than students who do not have LD (Zhao & Zhang, 2008). Due to ongoing discrimination, mockery, and rejection, school is not always a positive environment for students with LD. Students with LD use tactics to disguise their learning and social interactions in order to avoid verbal and physical abuse from their classmates. A student with a LD may misread social cues. They suffer from despair and are subjected to a great lot of rejection and shame, all of which has a severe impact on their self-

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esteem. Some students with LD are embarrassed by their academic difficulties and avoid social situations. Because they are unable to communicate socially with their peers, they lose their self-confidence, which makes them feel less driven and leads to isolation. As a result, individuals experience self-doubt and have low self-esteem (Roffman, 2007).

In addition, past research has found that students with LD are more likely to be shunned by their peers than students who are typically developing (Al-Yagon & Mikulincer, 2004; Al-Yagon 2010). Due to academic obstacles, students with LD may feel disappointed in themselves, which can lead to self-depreciation or avoidance of others. This sense of inadequacy can lead to social deficits such as peer rejection and loneliness, as well as major difficulties in gaining additional social skills in students with LD. Not all children with LD, however, have social deficits (Swanson et al., 2013).

Video Modeling

VM has been shown to be an effective intervention for students with ASD (Wong et al., 2015) as well as students with disabilities in general (Edwards, 2015). Also, LD is similar to other disabilities in that students benefit from educational interventions to teach them social and academic skills. Individuals with ASD are visual learners who process knowledge through visual inputs (Terciano & Grandin, 2011; Biederman & Freedman, 2007). Terciano and Grandin (2011), for example, advocated for the use of spatial terms as a form of visual support, while Biederman and Freedman (2007) emphasized the importance of providing important visual support to assist students with ASD in processing whole messages. Professionals continue to get a better grasp of the relevance of visual stimuli in educational settings, as well as enhanced visual support for children with ASD.

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This program has proven to be effective in training young children with behavioral issues. This procedure entails the subject seeing a videotape of a model performing a certain behavior, which is then rehearsed and copied. This method has been shown to be effective in teaching social and play skills to students with ASD, as well as promoting vocalization and communication (Corbett & Abdullah, 2005).

According to Obiakor et al. (2018), four types of VM have been identified to teach different skills: basic VM, video prompting (VP), video self-modeling (VSM), and point-of-view modeling (PVM). These VM types could be working based on the student's individual needs. When the teacher or researcher chooses the appropriate type of VM to use for students, they must consider the skills being taught relating to the student's characteristics, such as the working memories and attention span, including complexities and duration of the skill (Buggey & Ogle, 2013; Clinton, 2016; Dowrick, 2012). The requirements for determining the appropriate type of VM is based on the unique needs of each individual. Educators must determine that their students are sufficiently capable in deciding to utilize the VM. Additionally, how the instructions are provided for the specific video-based intervention (VM, VP, VSM, or PVM) is another important factor because some students may benefit more from one type of VM to another (Edwards, 2015).

When a learner is given an instruction, a video model is a form of prompt that can be employed. Video modeling could be a useful technique for teaching a variety of abilities, including social skills (e.g., conversation, play routines). Identifying skill areas that require strengthening could be one method to include video modeling into social skills development. For example, when playing, yelling at others, failing to answer when a peer asks for help, or

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becoming hostile when someone is playing with an object. The learner can watch a video model of the area that needs to be strengthened once it has been recognized.

The first type of VM is basic video modeling (VM). According to Obiakor et al. (2018), "Basic video modeling involves recording someone besides the learner engaging in the target behavior or skill (i.e., models)" (p.136). The learners are then able to view the video at another time. In this type, the learner sees the target behavior, which is represented by another person, usually a peer of similar age and sex. The learner is then expected to apply this behavior in similar situations in and outside of school life.

Video prompting (VP), for example, is a type of VM that divides the video into clips or pieces. The person watches a single clip of a task step and then performs the task step. VP has been demonstrated to be a helpful solution for tough activities like social skills and complex mathematical computations, according to research.

Video self-modeling (VSM) takes place when a student looks at a video of their own behavior. The students can work to obtain the target skills by watching the videos taken of themselves performing the target skills (Buggey, 2012; Buggey & Ogle, 2012). After filming, the video is edited and assembled so that it looks like the student performed the behavior without any prompting. The reason for VSM is that some learners prefer to see themselves performing the desired behavior rather than others. Research has demonstrated numerous advantages of VSM because positive effects are found across age, disability, and academic and social-behavioral skills. VSM has also proven to help build self-efficacy and trust in students because they see the target skills as completed (Buggey & Ogle, 2012).

Point-of-view modeling (PVM) is the process of a student watching a film depicting the desired behavior and how the student would see the performance (Hine & Wolery, 2006).

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Models, or in this case students, typically have a video camera attached (near the eye level) to their shoulders or forehead. The end result gives the student the ability to look where their hands should be and to concentrate their eyes so that they can complete the target behavior (Tetreault & Lerman, 2010). As a result, basic visual modeling is eligible for use in this study because it entails recording someone other than the learner performing the target behavior or skill and then viewing the film at a later time. As a result, the learner is expected to apply this behavior in similar situations both inside and outside of school.

Previous research believes that VM is potentially more efficient than traditional teaching strategies for teaching social skills (Smith et al., 2014). Furthermore, teachers must assess the complexity of the target skills. For example, the use of VP is more effective than VSM if the target ability has many parts, because the teacher will break down the task into more manageable steps for the students (Gardner & Wolfe, 2015).

As VM has shown great success for students with ASD, the same principles that worked for these students can also be applied to other students with different disabilities. Similarly, visual and learning aids help students with LD to increase social skills. (Edwards, 2015; Hord et al., 2016; O'Brien & Wood, 2011). Also, the Center for Autism and Related Disabilities states:

Many children with disabilities have strong visual skills, and these skills can be capitalized on with visual supports. Visual communication tools such as objects, photographs, picture symbols, daily schedules, and choice boards can provide the support necessary to greatly improve a child's understanding and ability to communicate, helping children be more active, independent, and successful participants in their lives.

This evidence confirms that individuals with LD may benefit from visual support and visual learning interventions just as their peers with other disabilities, such as ASD and

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intellectual disabilities. This is corroborated with the study of Bradford (2004) that 65% of humans are visual learners. This could be an effective learning through VM for individuals with LD and the extent of their abilities to learn through visual ways. The Center for Autism and Related Disabilities additionally explain that students with disabilities have strong visual skills. This notion has been further supported by Xin and Rieth (2001) who found that when teaching words to students with LD using the traditional (non-visual) versus the modernized visual methods, 85% of participants who were in a visual instruction group prefer to learn visually. The results of their study clearly show that students with LD prefer to learn visually. Due to the similarly strong relationship in visual skills found between individuals with LD and individuals with ASD, it is expected that the students with LD will learn well with the VM intervention.

Moreover, when applying Bandura's (1977) social learning theory to teach students with LD, it is assumed that their social skills can be obtained through observation. Children learn by observing the behavior of those around them. They look up to their parents, the characters they see on television, the people in their peer group, and their teachers as role models who have a significant influence on their development. Children pay attention to and mimic the conduct of some of these people (models), and they may later imitate the diverse behaviors they have observed.

Certainly, these individuals were able to learn, for example, self-care, dancing, communication, and writing by observing other individuals who do these behaviors. This proves that this observational learning often occurs by looking to a model and acquiring what is seen. These modeling behaviors can also be presented in several ways, such as direct observation of a person or by video. Bandura (1986) asserts that learning by modeling requires attention, reflection, production, and motivation. If these requirements are fulfilled, the learner's behavior

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is maintained and manifested in behavior-like situations. For example, when an individual with LD observes a model of peers who start building friendships when meeting one another, it is expected that they will replicate the same behavior when meeting other people. This is an example of how social skills are and can be further learned by students with LD by using VM intervention as a method to present model social behavior. VM has been an effective intervention for teaching social and academic skills for students with LD (Decker & Buggey, 2012; Miller & Little 2018; O'Brien & Dieker, 2008; O'Brien & Wood, 2011).

Four crucial processes facilitate observational learning: retention, attention, production, and motivation (Corbett & Abdullah, 2005). In addition, there are four conditions necessary for learning by observation to occur: observer consideration for showed behavior competency, memory retaining, reproducing behavior from memory when there is a similar opportunity, and motivating oneself to display the behavior/competency observed (Bandura, 1977; Dowrick, 2012).

Many social skills and behaviors have been addressed through VM as a form of intervention. A common negative or challenging behavior among students with ASD and LD is aggression. Although their study focused on disruptive behaviors of students with Emotional or Behavioral Disorders (EBD), Losinski, Wiseman, White, and Balluch (2016), the in-depth research they conducted provided an understanding of relations between EBD, ASD, LD and other disabilities as they affect behavior. Disruptive behavior is an example of this type of behavior. When a student is disobedient and inhibits themselves and/or others from focusing on what they are doing, this is referred to as disruptive behavior. A disruptive student may also draw the focus of the teacher away from the other students and the task at hand. Among the most common forms of psychopathology in children and adolescents are disruptive behavior disorders.

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Severe disruptive behaviors in children damage social connections and academic achievements, and if uncontrolled, the behavior can lead to additional issues throughout the critical social years and later in life, such as juvenile delinquency, substance misuse, and criminal involvement (Kuperman et al., 2001).

This study examined the use of VM intervention to effectively reduce disruptive behaviors in students with disabilities. The results of their study showed VM interventions to be very effective at lowering instances of disruptive behaviors and can be a successful method for improving challenging behaviors of these students. However, with room to further develop its effectiveness toward meeting standards set by the Council for Exceptional Children, a certain number of study's replications must be present (five studies meeting QIs with at least 20 participants (Losinski et al., 2016). While this study did not specifically focus on the challenging behavior of aggression, that behavior is one of many grouped into the class of behaviors observed for the study.

Given that definition, the context of meeting someone for the first time can be difficult for many people to have the correct ability to approach with proper interaction whether they have a disability or not. This first interaction is often considered the most important as it sets the tone of the relationship and gives the first impression of your abilities, characteristics, and likability to the other people. For students with ASD and LD, meeting someone is a very challenging social context and most lack the skill of how to properly greet people when they meet. In Avcioglu's (2013) study conducted in Ankara, Turkey, on the effectiveness of VM was measured toward training students with LD to greet people when they first meet. This study used a small participant pool of only three students. The results of this study proved with correct responses to the target skills at 100% that VM was completely effective in training students with intellectual

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disabilities to greet people upon the first time of meeting them (Avcioglu, 2013). The results of the study are encouraging for this dissertation which aims to understand the impact of VM intervention on improving social skills in students with LD. The positive outcome of this study, which focused on one particular social skill, suggests that VM intervention is likely to be effective for other social skills as well.

Theoretical Basis of the Current Study

The Social Learning Theory

Different theories have been formulated to explain why people behave in a certain way. Bandura's social learning theory (SLT) is the theoretical basis for understanding video modeling related to the current study. Understanding the theory on which the video modeling strategy is based is important to obtain comprehensive knowledge that will enable us to reach the best results. The SLT is originated from observational learning. According to Bandura's (1977) explanation of the social learning theory, children's ability to learn is heavily reliant on observation. According to Bandura's explanation of the role of observation in social learning, children's behavior is based on how they see their parents behave (Grusec, 1992). For example, a child who is brought up seeing his parents being kind, caring for the environment, giving to charity, and caring for animals will tend to copy this behavior while a child who has been raised seeing violence, wrongdoing, punishment, and occurrences of arguments in his childhood will grow up to be more aggressive.

According to Bandura (1976), modeling is conceptualized as creating a model as an imitation or representation of the original for the learner. In social constructs, modeling is described as a process where individuals can demonstrate behavior that can be imitated (Corbett & Abdullah, 2005). This approach creates a desirable behavior for the target learners.

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Observational learning via VM is well-suited in teaching students with strong visual processing abilities such as individuals with ASD. In addition to improving their academic skills, VM can also help to improve the social communication skills of students with LD. Social skill development in students with LD are not only important for academic growth but also for future life success.

Bandura's argument focuses on the importance of attention, retention, production, and motivation to promote observational learning. There is proof that video modeling supports these processes (Johnson, 2017). Modeling improves attention by providing a restricted field of focus. Retention is facilitated through the repetition of the target behavior. Production of the behavior is facilitated through video modeling, which involves practicing or imitating the behavior. Motivation is the incentive provided to the child to produce the target behavior. This final step is critical in the process because it is the motivation to continue the behavior, which brings about a long-term behavioral change (Johnson, 2017).

The social learning theory (Bandura, 1977) lays out the fundamental understanding of learning in general and modeling. According to Corbett and Abdullah (2005), VM has proven to work well with strong visual learners, such as those with ASD. Many students with LD are also visual learners (O'Brien & Wood, 2011). In addition to improving their academic skills, VM can also help to improve the social communication skills of students with LD. Socially expressive behaviors and communicative skills are essential competence that should be effectively learned in the classroom (Charlop et al., 2010). Social skill development in students with LD are not only important for academic growth but also for future life success.

Bandura's (1986) social learning theory stresses that it is critical to recognize the effectiveness of attention, retention, production, and motivation of the behavior for observational

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learning to properly occur. Acknowledging the importance of each of these, Corbett and Abdullah (2005) provided justification for the use of modeling, specifically giving attention to VM, as an effective intervention of observational learning. In this it is explained that attention is gained through only providing a limited field of focus by using a single model or video for modeling. Description is also given for retention to occur with modeling through repeating the target behavior numerous times for the subject to have adequate exposure to remember the behavior and recall later.

VM is a well-validated behavioral intervention that was intended to facilitate observational learning and has been reported in behavioral science (Devi et al., 2017). This procedure entails the subject seeing a videotape of a model performing a certain behavior, which is then rehearsed and copied. This has been shown to help children with ASD learn social and play skills, as well as increase vocalization and communication (Corbett & Abdullah, 2005). Social learning through VM occurs in a social setting through the use of social tools that facilitate behavior imitation (Devi et al., 2017).

The VM approach enables individuals to reproduce the behavior due to the intervention's ability to correctly portray the intended behavior (Biliass-lolis et al., 2012). These results clearly showed that VM increases the corrective ability of the behaviors modeled in the video and enables the individual to repeat more accurately what is shown (Axelrod et al., 2014). Also, they suggested that participants need to observe desirable behaviors more and more to prepare students to demonstrate of the learned behaviors in the future.

Corbett and Abdullah (2005) state that "production is also gained through modeling from the repetition of behavior as this makes it an active process of observational learning that produces outcome of active response" (p. 4). Lastly, the explanation of how motivation is met

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through modeling specifically identifies video modeling as beneficial in this aspect of observational learning as through many studies on children with ASD has shown to be obsessed with watching visual media such as videos or television and approach the experience as a fun recreational activity rather than viewing it as a task or chore. Through previous studies, it is apparent that modeling comes from observational learning and has proven to be effective in teaching students with ASD and other disabilities as a fun and active way to learn and adapt behavior. In summary, the SLT explains ways to create educational opportunities and patterns to create, learn, modify, and ensure the continuity of new behavior in learners by teaching them the desired behavior through direct instruction and observation. Therefore, teaching individuals through video modeling will allow them to learn desired behaviors that may not already exist in learners.

Empirical Literature Related to the Current Study

VM is one of the evidence-based practices that has successfully been used to increase the social skill levels and social interactions of students with certain disabilities (Edwards, 2015). A multitude of research, for example, found that VM was a very successful intervention to teach children with ASD different social skills (Acar et al., 2017; Alzyoud et al., 2014; Özerk & Özerk, 2015).

Inclusion and Exclusion Criteria

The studies had to meet the following criteria to be included in this review: (a) focus on video modeling as an intervention strategy, either alone or in combination with another strategy or embedded within an instructional program, (b) include at least one participant of all ages with LD, (c) be conducted in either private or public schools, (d) use a single-subject, experimental, or quasi-experimental group research design, (e) be published in peer-reviewed journals between

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2000 and 2021, and (f) be written in English. Studies were omitted if (a) children had physical or sensory problems or were classified as at-risk but had not been formally diagnosed with LD, and (b) individual data for the student(s) with LD was not available. Unpublished manuscripts, doctoral dissertations, master's theses.

Search Terms

To ensure a thorough examination of the literature, a primary and two secondary electronic searches, and a search of past reviews were conducted. To begin, the researcher searched six electronic education and technology databases (Researchgate, PsycINFO [EBSCO]), PubMed, scholar.Google, ERIC, and psycnet for potential peer-reviewed articles using groupings of the following subject terms "video modeling", "video self-modeling", "video instruction", "video interventions", "video technology", "video feedback", "video prompting", "social skills", "social interaction" and "learning disabilities") in all school levels.

There were no more studies that satisfied the inclusion criteria after a full-text review of the publications in the possibly met category. During this search, no other studies were discovered. Following that, an ancestor search was carried out by looking through the reference list of the previously recognized research, which led to the discovery of another study. After conducting a thorough evaluation of the literature, ten papers were found to match the inclusion criteria.

VM Intervention for Students with Learning Disabilities

VM is an evidence-based practice for students with disabilities (Edwards, 2016). Many studies found that VM works effectively in teaching academic skills like math, reading, and writing for students with LD (Cihak, 2009; Decker & Buggey, 2012; Hitchcock et al., 2004; Miller & Little, 2018; O'Brien & Dieker, 2008). Therefore, the following empirical studies were

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reviewed by the researcher and their efficacies in the intervention of students with LD and were reported.

O'Brien and Wood (2011) conducted research on the use of VM to improve cooperative discussion group behaviors in a secondary content-area classroom with students with LD. The objective of the study was to contribute to the existing knowledge on VM for students with LD by examining the effectiveness of video training in promoting the use of cooperative discussion behaviors among students with LD in general education classrooms in secondary schools. The study used a multiple baseline across participants design to evaluate the use of video modeling to promote cooperative behaviors and higher-level discussion skills among high school students with LD who participated in a secondary social studies class using the Numbered Heads Together (NHT) group discussion strategy. This study took place at a private school that specializes in students with learning and attention issues, with about 120 students in grades K–5, middle school (6–8), and high school (9–12).

All students at the school had been identified as having learning challenges, most of which were connected to reading. Low student-teacher ratios characterized the school's classrooms, offering children additional opportunity for direct teaching from their teachers. Students with LD were enrolled in a Grade 12 social studies curriculum that concentrated on American government and history. In the class, there were nine students (ages 17–18), eight males and one female. There were eight Caucasians and one African American among the students. The researchers and their assistants followed the process for carrying out the operation. The study found that using VM as a technological intervention was effective in promoting the use of group social interaction and discussion skills among students with LD who have difficulties with peer-mediated instructional strategies in secondary content-area classes. The

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results showed that the use of video modeling is a simple and efficient way to improve these skills. The results also demonstrated that the students' performance remained steady at 100 % during video modeling and maintenance. Overall, the data showed that when video modeling was implemented, target students increased and sustained their participation. While the study worked on students with LD in general education classrooms in secondary schools, the present study would examine the effectiveness of using video modeling on academic related social interaction improvement in students with LD in elementary schools in Saudi Arabia, hence an attempt to fill the gap.

In reading skills, O'Brien and Dieker, (2008) conducted a study to investigate the potential for learners with LD in grades 6 through 8 as well as their classmates while working in literature circles. The students were divided into two groups. One group was exposed to the intervention of literature circle exercise while the other group did not receive the intervention. The study indicated that learners in the video modeling group showed substantially more efficient adoption of literature circles and encompassing cooperative behaviors. Decker and Buggey (2012) conducted research involving two experiments to compare the impacts of VM as well as VSM on the verbal reading fluency of students with LD. The study included six elementary-aged learners, four girls and two boys. The outcome of the study indicated a rise in reading fluency for the students who received VM and VSM intervention.

In writing area, Miller and Little (2018) carried out a study aimed at determining the efficiency of an instructional package, which includes a cognitive approach, classical instruction, and a self-regulated strategy development, in conjunction with VSM on the advancement on the documented expression of 3rd-grade learners with LD. The researchers used a multiple probe across participant's design. The results of their study indicated that all learners who were

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provided with the instructional package mediation advanced their general performance in writing an opinion essay.

In math academic skill, Cihak (2009) evaluated the utilization of VM through the approaches of a handheld PC as a system of instructional provisions for learning primary expertise of geometric skills. The experimental study involved three high school students with LD between 15 and 18 years old. At the end of the study, all participants managed to acquire as well as maintain the geometric skills taught to them. A study by Hughes (2019) evaluates the impact of POVM interventions, such as the use of virtual demonstration of concrete mathematics manipulatives to teach simplification of fractions. The author selected three students with LD for the study. The research undertook a single-case multiple investigation experimental design on the participants with visual analysis as the primary data analysis method. Tau-U was calculated to determine the impact of the intervention because it is "a preferred nonparametric quantitative approach to analyze data from single-case experimental design" (Hughes 2019, p.44). Tau-U was calculated for two participants and 0.80 for the third. Results of the experiment indicate that all three students positively maintained their skills after completion of the research (n=1, 80%; n=2, 100%). Nevertheless, performance decreased when skills were transferred to word problems (n=1, 0%; n=2, 40%). Overall, the approach appeared to be effective in teaching students with LD. A study by Satsangi et al. (2019) used a single-subject alternating treatment intervention to compare the use of VM to face-to-face instruction for teaching geometry to three high school students with mathematical LD. The researchers used visual analysis, effect size measure, and an overlap measure for data analysis. Results after ten sessions of the VM intervention indicated that all participants showed improvement in performance for both interventions. However, a comparison of the two interventions shows that face-to-face instructions had higher scores

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compared to VM for two of the three students, whereas the third had identical scores on both interventions. Also, this study did not provide a maintenance phase after the use of the interventions, which does not give an obvious picture of the results. Additionally, there were several limitations in applying the single-subject design and difficulties in assessing the processes. Based on this evidence, it is apparent children with LD are able to learn effectively through VM in the areas of academic and social skills and that VM is a promising intervention for this group of students.

Video Modeling Targeting Social Interactions

The purpose of this section is to provide a review of the pertinent seminal, follow-up, and experimental research on the impacts of VM on social interaction of students with disabilities. The following studies focused on the effectiveness of VM on social skills of students with LD exhibiting EBD, ASD, ADHD, intellectual disabilities. Research also abounds on using VM on various social deficits for students with disabilities.

In a study carried out by Avcioglu (2013) on the effectiveness of video modeling in training students with intellectual disabilities to greet people when they meet. The purpose of the study was to see how video modeling practice affects students with intellectual disabilities when they interact with others. Teaching social skills was the focus of this study. Four students with intellectual disabilities, aged ten to eleven, were recruited to participate in this study. They were from a special education class at a primary school in Ankara. They were taught how to follow spoken instructions on their own. They are capable of reading and writing. They may concentrate on a single event for a long time (20 minutes), as well as collaborate with individuals and in groups. Three girls and two boys from the same primary school as the target students made up the peer group (all of them were 11 years old and continued their studies at 5th grade class). The

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study used a multiple probe design between subjects, which differed from single-subject research approaches. With the deployment of a training package based on video modeling at the starting level observed in the target, the experimental control of the research was given with an increased students' interaction with their peers showed the target skills.

According to the findings of the study, employing video modeling in educating students with intellectual disabilities helped them acquire the ability to greet others, and after gaining those skills, they continued to utilize them in various situations and with various people. Following interviews with the students' moms and teachers regarding the results of teaching the ability of "greeting when meeting people" through video modeling, it was discovered that they were satisfied with the skills given to the students. They also stated that kids had more interaction with their peers in a previous time period. While the study worked on students with intellectual disabilities, the present study would work with students with LD, to fill the gap in the existing literature.

In another study conducted by Park et al., (2020) was on using VM to teach social skills for employment to youth with intellectual disabilities. The study's purpose was to see if video modeling may help people enhance their social skills in the workplace. The following research questions were used to lead the study: What influence does VM have on the development of social skills in three young adults with intellectual disabilities? Was it possible for children to preserve their social skills when video modeling was removed? And did participants' ability to use a social skill in one setting transfer to another without VM? The study participants were three young adults with intellectual disabilities. They were all taught by the same special education teacher in the same transition facility. The criteria for selecting participants were: (a) identification of levels of intellectual disability; (b) the ability to communicate in English,

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ensuring that all participants could verbally respond in at least three-word sentences; (c) a teacher recommendation for students who lack social interaction, based on observation of student participation in center-provided programs; (d) the ability to actively listen to a video clip, which was assessed by having the students watch sample videos prepared by the researcher and imitate the model's verbal responses; and (e) any occupational skill target inside an Individualized Education Program (IEP). The accuracy of participants' verbal responses to the scenario was assessed using a multiple probe design across behaviors. Each intervention session lasted around 15 minutes and included five trials. It was done once or twice a week. Video modeling was used to teach participants one-on-one with a researcher. From baseline through intervention, all individuals improved their acquisition of targeted abilities, although they all struggled with response generalization. The study's findings revealed that from baseline to intervention, all participants' accuracy in responding to each skill improved across the three behaviors, implying that the intervention and the dependent variable had a functional relationship. As the research studied the adults with intellectual disabilities in vocational settings, the current study would focus on students with LD in elementary schools in using VM on social interactions deficit in public school in Saudi Arabia.

Frolli et al. (2020) carry out a study on video modeling and social skills learning in autism spectrum disorders-HF. The study's purpose was to examine two methods for improving communicative/social skills: self-video modeling and peer video modeling. We took 60 people with an ASD level 1 diagnosis (DSM 5, 2013) and separated them into two groups. All of the participants came from the same city (Caserta) and shared a similar social background. In neither group, family/environmental background had an impact on educational attainment. To rule out any participants with decreased intellectual capacities and hence a comorbidity with intellectual

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disability, all subjects took the Wechsler Intelligence Scale for Children (WISC-IV) (Frolli et al., 2020).

Two primary procedures were used in the research. Three video clips, with an average duration of 5 minutes, were recorded for each stimulation setting. A peer demonstrated the four key behaviors of each activity in the video, emphasizing the target behaviors and socially reinforcing proper performance. For the second intervention, Self-video modeling (SVM), three movies with an average duration of 5 minutes and a naturalistic environment were recorded for each stimulus circumstance. The subjects were filmed while executing the relevant duties in the video. The study's findings revealed that using the SVM process, the task of initiating and maintaining a conversation with peers might be learned in less time. The task of starting and maintaining a playful engagement with a peer was likewise acquired in less time when the SVM approach was used (Frolli et al., 2020). While the study used and compared two intervention strategies for students with high functioning autism, the present study would use a single intervention on social skills for students with LD.

Gül (2016) carried out a study on the combined use of video modeling and social stories in teaching social skills for individuals with intellectual disabilities. The purpose of the study was to see how an intervention package comprising of computer-presented video modeling and Social Stories affected people with intellectual disabilities in their early adulthood when it came to teaching social skills. The study was directed by four research questions. Learner participants, peer models, researchers, observers, and those delivering stimuli that evoke the goal skill were all included in the study. The effectiveness of the intervention package was evaluated using a multiple-probe approach across participants. The research was carried out in Ankara province's special education and rehabilitation center's personalized education classes. The investigation

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and maintenance sessions, as well as the stage of getting students to watch the films, were conducted in customized education classes with a table and chairs set up for the students to sit side-by-side or face-to-face. The waiting room, intervention kitchen, principal's office, and halls were all used for generalization sessions.

The results showed that all participants successfully acquired the intended skills with 100% accuracy, retained them over time, and were able to apply them in different locations, environments, and with different people. The study participants were able to acquire the social skills that were demonstrated in the video clips. Participants and their teachers had good attitudes regarding the target skill, intervention package, and study results, according to the social validity findings obtained through the subjective evaluation approach. The purpose of this study is to see how VM affects social skills in students with autism. The present study would find out the effect of VM on social skills for students with LD.

A study conducted by Chu and Baker (2015) was to examine the effects of video self-modeling on high school students with emotional and behavioral disturbances. The purpose of the study was to look at the impact of video self-modeling on four high school students with a wide range of challenging behaviors, such as laughing out loud, using profanity, and asking for help. The study was led by one research question: Is VSM helpful in reducing improper social behaviors and enhancing suitable behaviors in high school students with EBD in inclusive settings? This study had four volunteers that were eager to take part. They were diagnosed with emotional instability, a unique learning disability, and disruptive behavior. The four participants were placed in a setting based on instructor and student preferences as well as where incorrect social behaviors were most likely to occur. The intervention took place in a general education

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classroom and a café. All locations were places where the participants were ordinarily permitted. The videotaping took place during regular school hours at the participant's school.

The study's findings demonstrated that after implementing the video self-modeling intervention, all four participants saw rapid and significant gains, which were maintained after the intervention ended. The study's findings also demonstrated that the VSM intervention had an immediate and favorable impact on reducing two participants' inappropriate social behavior and raising two other participants' requests for help. The intervention technique was also endorsed by general education teachers and special education professionals, who noted improvements in each participant's behavior after it was implemented. The findings of this study suggest that video self-modeling could be a beneficial behavior modification intervention for high school students with emotional and behavioral issues in inclusive settings. The present study intends to fill the gap by using VM on social skills for students with LD in elementary schools in Saudi Arabia.

In a study on teaching social skills to children with autism using point-of-view video modeling (Tetreault et al., 2010), the goal was to examine the effectiveness of POVM for teaching students with ASD to initiate and maintain social interactions and also to evaluate the generalization across materials and maintenance over time. An impartial psychologist diagnosed three children as having mild-moderate to severe autism. The participants received behavior-analytic therapy at a private clinic for 6 hours per day, five days per week during the study. However, the students with ASD could only replicate three to four-word utterances in spontaneous social initiations. The VM intervention was a new treatment for all participants in this study.

The study used multiple baselines across behaviors design, with all sessions taking place in a class at the day treatment center during the experimental phase. A portable DVD player was

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used to play the specified video during training sessions. Participants were instructed to engage in looking at peers (eye contact) and speaking activities without the introduction of a vocal discriminative stimulus from the conversationalist. Both the presentation of the VM and the reward for target skills were included in the treatment package. Although this combination was successful in enhancing the social behavior of two participants, prompts were required for a third. These findings suggest that POVM may be a successful strategy for teaching some social skills to children with autism.

The effects of self-mediated video modeling (SMVM) versus video self-prompting (VSP) for teenagers with intellectual disabilities were studied by Shepley et al. (2018). The goal of the study was to see how effective self-instruction with mobile technology was when delivered as an SMVM versus when presented as a VSP. The research question was: will self-instruction utilizing SMVM or VSP result in more efficient education for participants with intellectual disabilities? The study included four high school females ranging in age from 15 to 20. All of the participants went to a rural public high school and were taught in a special education classroom on a daily basis. The prerequisite skills of attending to a task for 10 minutes, imitating a video model, receptively discriminating between five pictures, and fine motor skills that allowed navigation of an iPhone as well as the fine motor skills required for the target tasks were all demonstrated by all participants. Furthermore, all participants had prior mobile technology experience, and three of them had their own devices (e.g., iPod Touch).

To prepare them for the intervention, all participants were trained to bring their iPhone out of their pocket, navigate to the video that corresponded to the task direction, view the film, and hit pause/play if the screen presented a pause sign. The technological training videos and tasks were not the same as those employed in the experimental design. Overall, the study found that

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VSP produced independent task performance for all individuals and was the most effective self-instructional tool. Both SMVM and VSP tasks increased the percentage of accurate replies across all participants, whereas VSP tasks resulted in all participants meeting mastery criterion in the fewest number of sessions. As this study focused on using VM to initiate self-instruction for adolescents with intellectual disability, the present study would use the intervention on social skills for students with LD in Saudi Arabia, hence an existing gap to fill.

General Methods Used to Create Video Modeling Clips

VM often demonstrates desirable behaviors (i.e., social or academic) with good outcomes and undesirable behaviors with bad outcomes (example and non-example of desirable behavior). For example, the model of an individual in which an individual meets another person who knows and greets them and says “hello” and the other individual also responds with “hello, hi,” and then showed the interaction between the two parties began as a result of greeting. After that, VM displayed undesirable behavior, such as meeting a person without greeting, and there was no interaction after that. Some studies also showed other desirable behaviors, for example, speaking, discussion, and cooperation between participants and the resulting positive results. These models also showed non-example behaviors and their consequences. Sometimes researchers put titles that describe desirable or undesirable behaviors. Other researchers recorded an audio clip explaining the difference between behaviors, what the other person would feel, and what they should do and avoid.

In most of the studies used in this research, the VM was used to teach individuals desirable behavior. After that, people imitate what skills they saw in similar situations to what they saw previously in the video. The advantage of a VM is that it shows the possibility of an individual performing a specific behavior. In addition, the VM prevents distractions that may

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affect the learning of behavior that may not be available in the live model. Thus, this intervention removes the factors of fear and anxiety that we may find in live models and increases the possibility of the individual focusing on the behavior to be learned.

Chapter Summary and Literature Gap

The VM interventions for children of a variety of ages and disabilities were reviewed in various studies. Most of the studies found positive results from using VM with students with disabilities (Bellini et al., 2007; Buggey, 2005; Decker & Buggey, 2012). The only age group that did not provide an overall positive response to the VM intervention was the preschool age group; specifically, those ages three and younger (Buggey, 2012; Buggey & Ogle, 2013). Since most studies have proven to be effective with different disabilities, it is possible to say that video modeling may also be effective with students with LD. However, the effectiveness of this intervention must be empirically measured in both school and household settings.

The results of these studies demonstrate the effectiveness of using VM as an effective intervention to promote positive social interaction in individuals with disabilities. Despite the different social skills taught by VM, this intervention has proven to be effective in developing different social skills since 1987 with different individuals with disabilities. These positive results give strength in the likelihood of VM's success as an intervention to educate individuals with different disabilities' social skills.

O'Brien and Wood (2011)'s study was the most related one that involves the use of video modeling to develop cooperative social interactions in students with LD. The study was able to develop social awareness that contribute to the development of academic skills in students with LD. Undoubtedly, cooperative social interactions are essential for academic learning, but there

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are also other important skills that students with LD need to build their social interactions in daily life and at school in different areas.

In summary, students with LD have difficulty with social skills (Bryan et al., 2004; Elksnin & Elksnin, 2004; Womack et al., 2011). These challenges are multiple and varied and should be investigated through more research that seeks to address and solve these issues rather than just discussing them. The social experiences of students with LD affect their daily lives (Al-Yagon, 2010). Using the VM intervention, it is possible to improve social skills in this population (O'Brien and Wood, 2011). The use of VM has proven to be effective with children with LD (Hitchcock et al., 2004; O'Brien & Dieker, 2008), as mentioned earlier, but few research focused on positive social interactions involving learners with LD has been done. Also, since VM has been effective with students with disabilities in areas of social skills, it is possible that VM can be an effective intervention for the dissertation study.

Chapter III

Methodology

Introduction

The purpose of this current study was to assess the effectiveness of using video modeling (VM) on teaching academic related social interactions in academic settings to students with LD in Saudi Arabia. To accomplish this task, it was important to choose a research method that best ascertains answers to the research questions while providing quality data for analysis and interpretation. As previous studies have been conducted concerning this topic, it was important for this study to fill in gaps left by previous research, and therefore, choose a method that best fits the study. For these reasons, the method chosen for this current study was the Single Subject Method (SSM). According to Fraenkel et al. (2011), the SSM “involves the intensive study of a single individual (or sometimes a single group) over time” (p. 12). This definition further states that this research method is most suitable for a study involving uniquely characterized participants because it provides direct observation (Fraenkel et al., 2011). As this current study seeks to understand a connection between the unique participants (students with LD) and the learning apparatus of VM toward improving social interactions, SSM is most appropriate to employ. This chapter provided descriptions concerning the methods utilized in this research study including the overall design, implementation, processes, and plans for data analysis.

Participants

The participants in this study included three male students Turki, Abdulaziz, and Khalid, grades four through six (approximately ages 9 through 11), who were diagnosed with LD and showed a lack of appropriate social skills used in social interaction. The socialization issues and/or challenges were obtained from the already established individual education plan (IEP) of

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the students, and the students were referred by the teachers, and assessed through researcher observation as they collect the percentage of students engaged in the skills according to the student's current skill level. All participants were enrolled in a particular school in Riyadh city, Saudi Arabia which has been chosen by the Ministry of Education for the purpose of this study which is Khalid Ben Zaid Elementary school in the Qadisiya district. Each participant was recruited after obtaining Institutional Review Board (IRB) approval. To recruit participants for this study, a formal invitation letter was sent to the Ministry of Education of Saudi Arabia, to obtain approval, permission, and cooperation from school administration. The next step in recruiting participants involved recommendation and assistance from teachers to obtain parental consent. This process included providing pertinent details of the study to assure that parents are well informed of the study's procedures as well as potential risks and benefits for their children. After receiving signed permission from parents, the researcher sorted through all potential participants and used the inclusion criteria to select students to participate in this study.

Table 3 Recruitment of Participants

Recruitment of Participant
a) IRB Approval
b) a formal invitation letter was sent to the Ministry of Education of Saudi Arabia
c) contacted school administration to request any further authorization needed to conduct the study.
d) provided pertinent details of the study and sent the consent/assent forms to parents.
e) obtained signatures on parental consent forms and child assent forms.

The researcher screened each potential participant and recruited those who are most eligible and fit for the dissertation study. Students who met all inclusion criteria were invited to

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participate in this study, until the target number was reached. It should be mentioned that the sample consisted of four participants until the fifth session. One of the participants had withdrawn from the study because their family moved to another city. The inclusion criteria for this study are listed below. The participants should:

- (a) enroll in a school between 1st and 6th grades,
- (b) have no prior experience with VM,
- (c) have an official diagnosis of LD,
- (d) have difficulty/challenge in socialization,
- (e) have IEP objectives that are aligned with the current study,
- (f) have no hearing or vision impairments.

After finalized participants, their basic demographics information was categorized and presented in Table 4 below.

Table 4 *Characteristics of Participants*

Name	Gender	Age	Grade Level	LD Diagnosis
Turki	M	(9)	(4)	Reading, Writing, & Math
Abdulaziz	M	(10)	(5)	Reading & Writing
Khalid	M	(11)	(6)	Math

Turki is a 9-year-old male student in the fourth grade. Turki classified as having an LD in reading, writing, and math. In addition, his social skills were noticeably very weak. Social interaction during cooperative learning between Turki and his peers was very poor. Turki never

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actively communicate with his group members, never made eye contact with group members. He tended to engage in playing with pens and looking at his teachers during cooperative learning but never nodded in agreement or nicely displayed disagreement, nor did he take turns to talk, neither discussed with others. Turki didn't pay attention to the task.

Abdulaziz is a 10-year-old male student in the fifth grade. Abdulaziz was diagnosed with having an LD in reading and writing. In addition, he has limited social skills. Social interaction during the cooperative learning between Abdulaziz and his peers was also very limited. Abdulaziz barely talked to his peers during group activities or involved in group discussion, nor did he make eye contact with group members. Abdulaziz did not nod in agreement or nicely display disagreement, and never took turns when he talked. Abdulaziz showed interruptive behavior and did not pay enough attention to the task.

Khalid is an 11-year-old six-grade male student. Khalid was classified as having an LD in math. In addition, Khalid was not able to show enough social interaction. Khalid did not communicate with group members and has limited eye contact with group members. Also, Khalid was not able to act nicely as he was having trouble taking turns and discussing with others. Khalid also did not pay enough attention to the task, and he demonstrated out of seat behavior (off-task behavior).

Setting

The setting of this study was in a school in Saudi Arabia. The researcher collected data from Khalid Bin Zaid Primary School, involving students in grades 4 to 6. Khalid Bin Zaid School is located in the Qadisiya district in Riyadh. Each academic grade consists of 9 classes.

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The number of students in this school is more than 1,000. Each class has 35-40 students and approximately 55 teachers in school. All participants must meet the inclusion criteria mentioned in the previous section. The researcher recruited the participants from this school after obtaining the IRB approval from Duquesne University. After the researcher obtained permission from the Saudi Ministry of Education, the researcher reached out to the school administrators to request further authorization to conduct the study in the school. The school consisted of typically developing students and students with LD. As most schools in Saudi Arabia are separated by gender, and this study sought to focus on male students, the school chosen for this study was a male-only one. The intervention was conducted in a classroom inside the school. The researcher visited the school from 8/29/2022-11/24/2022, to conduct the proposed intervention and collect data for the study.

Materials

The materials used in this study included both electronic devices used by participants and those used by the researcher for data collection. The materials used by participants included an iPad and video clips. The materials used by the researcher included an observation checklist, data collection sheets, and a stopwatch.

For every observation session, participants utilized an iPad provided by the researcher to access specific video clip(s). To minimize variables in this study, the same iPad and headphones were used by each participant. The researcher played the videos for the students. The researcher used an iPad pro-12.9-inch fifth generation that used iPad OS 15.7 system.

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How the Researcher Created Video Modeling Clips

Prior to the intervention phase, the researcher created the video clips (using similar aged, typically developing peers) and saved them on the iPad so it was easy for the participants to view. The researcher created video clips that showed the appropriate demonstration of targeted social behavior, such as, taking turns to talk appropriately. The researcher used four typically developing peers as models to role play the inappropriate social behaviors first, and after the narrator pointed out what was not done correctly, the group then demonstrated how to act appropriately in a cooperative learning setting. The video clips were recorded in a classroom-like environment. Each video clip was two to three minutes long.

For example, in one of the video clips, four typically developing peers were placed in a group to have a discussion on a general question that the teacher asked, such as, “what can the Saudi government do to help poor people?” (Table 5). The teacher first gave each student three minutes to brainstorm, and the screen showed “Three Minutes Later”. Then the students were asked to take turns to share their thoughts and discuss the rationale. In the video clip, there was a student who was not participating at all during the discussion, and another student who dominates the conversation, without taking turns or caring about other students’ feelings. After the discussion, the screen showed “What went wrong here?” Then a narrator pointed out what needs to be avoided and what should be done correctly in this case. Finally, the models in the videos modeled how to correctly demonstrate these behaviors, e.g., taking turns to talk during the discussion. Then the video clip was over. Each video clip was about three-minutes long.

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Table 5 Content of Questions and Video Models

Guided Questions for Group Discussion	Targeted Cooperative Behavior in Participants	
	Nonexample	Example
What can the Saudi government do to help poor people?	Discussion is off task	On-task discussion of guided question
What do you think your family should do to stay healthy during the COVID-19 pandemic?	Poor eye contact and limited nonverbal social interaction	Good partner skills and extensive interaction
What makes you feel happy when you do it?	Interrupted discussion or speaker resistances.	Kind and positive interactions e.g., taking turns nicely, using words like “I agree”, and paying attention to peers speaking.
What is the most wonderful thing that has happened to you, and what is the worst?	Distracting peers with off-task behaviors	Appropriate social skills and mutual respect (e.g., raising hand to speak, making eye contact, & no mocking the opinions of others)
What do you think your life will be like in the future?	Apathetic attitude toward task, including completely ignoring task	Enthusiasm for developing a consensus response to the guided question.
What is something you are good at and would like to teach others?	Discussion is off task	On-task discussion of guiding question
What is the thing you are most grateful for?	Poor eye contact and limited nonverbal social interaction	Good cooperative skills and extensive interaction
Which of your friends do you like more? And why?	Interrupted discussion or speaker resistances.	Kind and positive interactions e.g., taking turns nicely, using words like “I agree”, and paying attention to peers speaking
What change would you like to make in the world if you could?	Distracting peers with off-task	Appropriate social skills and mutual respect (e.g., raising hand to speak,

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	behaviors (such as off-seats behavior)	making eye contact, & no mocking the opinions of others)
What's your favorite animal? And why?	Apathetic attitude toward task, including completely ignoring task	Enthusiasm for developing a consensus response to the question.
In your opinion, what should a student do to be successful in school?	Distracting peers with off-task behaviors (e.g., off-seat behavior	Appropriate social skills and mutual respect (e.g., raising hand to speak, making eye contact, & no mocking the opinions of others)

Research Design

Toward the goal of assessing the effectiveness of VM on increasing positive social interaction in academic settings of students with LD in Saudi Arabia, a Single Subject Method (SSM), specifically a multiple baseline across participants design, was utilized in the current study. The SSM is a design method that allows the researcher to concentrate their study on either a single individual participant or a group of participants who are uniquely alike (Fraenkel et al., 2011). According to Horner et al. (2005), the purpose of SSM is to “document casual, or functional, relationships between independent and dependent variables” (p. 166). Variables to consider in utilizing SSM for this current study, as proposed by Horner et al. (2005), include: thinking of each participant as an item to be analyzed, characteristics of setting and participants, the independent and dependent variables, and baseline conditions. Utilizing SSM, the researcher has the following capabilities in their study: (1) to have an in-depth focus on one particular behavior of participants, (2) to recognize active and purposeful relationships between the independent and dependent variable(s), (3) to investigate constant solid effects that hold social

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significance, and (4) to note that the effect of each session is recognized and there is control over all other variables (Hammond & Gast, 2010).

The form of baseline to be employed is another important factor to determine when using SSM. As stated by Hammond and Gast (2010), baseline is essential to SSM as it provides the underlying measure from which to assess the dependent variable. Though SSM can be conducted with a unified baseline for all participants, this study implemented a multiple baseline across participants. This means that each participant held their own unique baseline from other participants, but progression was tracked accordingly for each individual participant as progress from their given baseline. This allowed for more accurate data collection and analysis from the observations, as each student was unique in their social skill levels and may progress at varied rates through the process of this study. This also encouraged recognition of working relationships between the variables (independent and dependent) and fostered simultaneous use of a given intervention among participants.

Appropriateness of the Chosen Study Design

While SSM can be applied to the participant referring to an academic discipline, it can also be utilized toward a particular skill or aspect of learning. In this study, the single subject investigated was social interaction in academic setting in students with LD. The goal of the current study was to ascertain the relationship between VM and social interaction during group discussion. According to Hammond and Gast (2010), the difference between using SSM toward gaining an understanding of a particular academic subject and a socially significant skill is similar to the variations of basic research and applied research. Considering applied research as one that allows for improvements and understanding of a particular problem or issue, it was an appropriate description for this study to help students with LD improve their social interaction.

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As the single subject method was appropriate for the goal of this study to ascertain the relationship between VM and the teaching of social interactions, the multiple baselines across participants design was appropriate for this purpose. Harvey et al. (2004) stated how the multiple baseline design makes it possible to compare between the baseline and intervention while supporting replication. According to Cooper et al. (2007), the multiple baseline design is appropriate for studying a condition affecting behavior that can change or improve with a variation among different participants. Toward the goal of gaining an understanding of the relationship between VM and the teaching of social skills, each participant's baseline performance served as a pre-intervention comparison for assessing the impact of VM on social behavior. For this study, it was important to establish multiple baselines across participants, with a specific baseline for each participant with every given social skill, to properly assess the influence of the variables. The multiple baseline design was therefore an appropriate design for this study, when we consider the focus, goal, purpose, and uniqueness of participants in this study.

Operational Definition of Variables

Dependent Variable. The dependent variable in this study was the percentage of occurrence of targeted social interaction behavior per session. The targeted social interaction behavior was cooperative participation that was defined as behavior involved in cooperative learning that included active engagement in discussion; for example, group members communicate and interact while listening to others within the same group that includes attending to the discussion, making eye contact with group members, nodding in agreement or nicely display disagreement, turn-taking, and also discussing with others (Gillies & Ashman,

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2000; O'Brien & Wood, 2011). Non example Behavior included showing up dominating the discussion, engaging in discussion without take turns, working individually, off task behavior, playing with a pen, and not paying attention. Non example also included all behaviors that included individual action directed to the task but not to the group; group resistance included unkind opposition and criticism, unsolicited explanations, and interruptions (Gillies & Ashman, 2000).

The target behavior was assessed during each 15-minute discussion session using a 30-second partial interval recording system. If any of the above-mentioned social interactions and/or communication occurred any time during each 30-second interval, the researcher recorded it as a YES on the recording sheet; if not, a NO was recorded. At the end of each session, the researcher calculated the percentage of occurrence of target social behavior per session. The equation reported by Cooper et al. (2007) was used to calculate the percentage of occurrence of target social behavior per session as follows: the number of intervals the behavior occurred divided by the total number of intervals (30) then times 100. Table 6 is a sample data collection sheet for documenting occurrence of target social behaviors per session.

Table 6 *Data Collection Sheet Used to Document the Percentage of Occurrence of Positive Social Interaction Per Session*

30-second Partial Interval Data Collection Sheet

Observer Name: _____ Student Name: _____
 Target social behaviors: _____ Date: _____
 Start Time: _____ End Time: _____
 Percentage of Occurrence in a Discussion Session _____

Second(s)	<i>The Targeted Social Behaviors</i>	
	<i>Observed (Y)</i>	<i>Not Observed (N)</i>
0:30		
1:00		
1:30		

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2:00		
2:30		
3:00		
3:30		
4:00		
4:30		
5:00		
5:30		
6:00		
6:30		
7:00		
7:30		
8:00		
8:30		
9:00		
9:30		
10:00		
10:30		
11:00		
11:30		
12:00		
12:30		
13:00		
13:30		
14:00		
14:30		
15:00		
Total		

Independent Variable. Fraenkel et al. (2011) defined independent variable as a manipulated variable. Through manipulating the video modeling intervention, the researcher

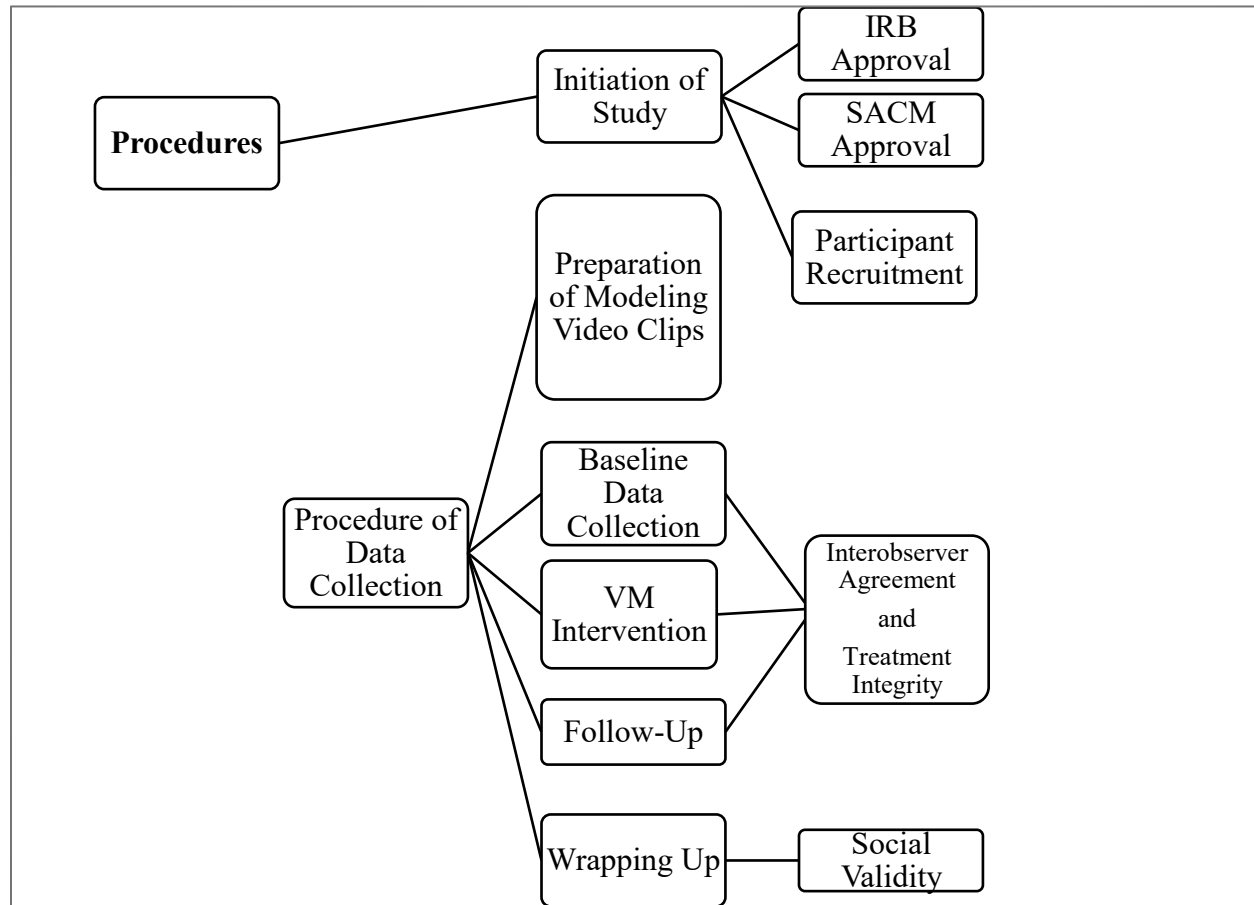
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sought to examine its effect on the target social skill in the participants with LD. Therefore, the independent variable in this study was the intervention that used pre-made video clips to teach target social interaction in students with LD. The VM in this study had been chosen by the researcher to address specific social skills that are challenging to each of the participants. Thus, VM clips were created specifically to address the targeted social skills that needed to be improved based on individual student's needs. The researcher delivered one VM intervention session to the students a day, three days a week for each targeted student. The whole intervention phase took two to four weeks.

Procedures

Maintaining order in conducting research is crucial for ensuring validity of the study and gaining the most and best data for analyzation, implementation, and projected future research. This current study adhered to a basic outline of procedures: (1) Initiation of study, which included IRB Approval, SACM Approval, and participant recruitment. (2) Procedure of data collection, including preparation of modeling video clips, baseline data collection, implementing the VM intervention, and follow-up three weeks after the intervention. Each phase included interobserver agreement and treatment integrity (3) Wrapping up the study and addressing social validity. The following section detailed each procedure followed in conducting this study.

Figure 1 Flow Chart: Procedure of the Current Study



Participant Recruitments

To initiate the study, multiple steps were applied. This involved sending letters to the Ministry of Education to gain permission for conducting this study in Saudi Arabia and to access potential participants. Once SACM approved, the researcher reached out to the school recommended and got in touch with the administrators and teachers. They helped the researcher identify potential participants who met the inclusion criteria. Then letters were sent to the parents of potential participants to invite their child to participate in the dissertation study. Parental consent and child assent were obtained before the study begins. Three participants were recruited for this study.

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Data Collection Procedure

O'Brien and Wood (2011) had suggested that the observation period should be longer than 5 minutes. In this study, three phases were applied: baseline, intervention, and follow-up. During the baseline, each student observed for 15 minutes during the group discussion session. The 15 minutes was divided into 30 30-second intervals. Students' target social behavior(s) were observed and recorded as YES if observed anytime during the 30-second interval, and NO if not observed. In the intervention phase, the students were asked to first watch the video clip for about three minutes, then be placed in a group of 4 students and engage in a 15-minute group discussion. Similarly, students' target social behavior(s) was observed and recorded using the same approach as in the baseline. Finally, four weeks after the video modeling intervention was completed, the students were observed again for 15 minutes during a group discussion session, and their targeted social behavior were recorded the same way as in the baseline. The following section will describe this process across different phases in greater detail.

Baseline: During the baseline, the researcher observed each participating student in their own classroom. The teacher placed four students in a group, then gave them a question (for example: What do you think your family should do to stay healthy during the COVID-19 Pandemic?) and asked them to brainstorm for 3 minutes first, then they engaged in a group discussion for 15 minutes. The researcher observed the participants during this 15-minute discussion session using a 30-second partial interval recording system. If the targeted social behavior(s) occurred any time during each 30-second interval, the researcher recorded it as a YES on the recording sheet; if not, a NO was recorded. At the end of each session, the researcher calculated the percentage of occurrence of target social behavior per session during baseline.

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The baseline had a minimum of three measurable data points (i.e., three discussion sessions) or until baseline data became stable (Fraenkel et al., 2011). To further assure baseline data was accurately collected for each participant, a teacher of students with LD (a special education teacher) was asked to conduct observation of the student's performance during the same discussion sessions independently from the researcher. An interobserver agreement of a minimum of 85% between the researcher and the teacher of students with LD was required for this study.

The Intervention: Prior to implementing the intervention, the researcher created the video clips that showed the appropriate demonstration of targeted cooperative behavior using similar age, typically developing peers and saving them on the iPad so it was easy for the participants to view. Each video clip was about three-minutes long. During the intervention phase, the participant first watched the previously created video modeling clip(s) twice, then the participant placed in a group with 4 typically developing peers and was asked to engage in a 15-minute class discussion. Data collection during the intervention phase followed the same procedure as in the baseline, so the researcher will not repeat here. Each intervention session lasted for about 35 to 40 minutes. At the end of each session, the researcher calculated the percentage of the occurrence of target social behavior per session during the intervention phase. Only one intervention session was implemented a day, three days a week. The whole intervention phase lasted for about three to four weeks.

Follow-up: Three weeks after the intervention ended, the researcher conducted three follow-up observations to determine if the participants still retained the social skill(s) they learned from the VM intervention. The researcher used the same procedure as that of the baseline. At the end of each session, the researcher calculated the

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percentage of occurrence of the target social behavior per session during the follow-up phase.

Data Analysis

Visual Analysis

After collecting all data, the data analysis process started. For this study, visual analysis was employed to present data collected. The Microsoft Excel Software used to create the graphs is a well-known program for statistical analysis of research data, specifically when presenting data in a way that is easily understood by average readers. By using this software, the data collected during this study were easily analyzed and presented in Excel spreadsheets for optimal understanding and interpretation for student performances. This allowed for easy access to the data collected, speed up the data analysis process, and provided autocorrelation. By looking at the chart, the reader can know the direction and level of improvement of the participants' level, stability, and variability during all stages. The graph also showed the points of rapid growth and the level of change between the baseline and the intervention stage to determine the relationship between the independent and dependent variables. Finally, the mean was used to show the percentage of changes in baseline, intervention, and follow-up.

Interobserver Agreement (IOA)

The reliability of the data collected was assessed by a second observer through what is known as an interobserver agreement (IOA). The researcher observed and collected performance data on participants across all phases. In this study, the teacher of students with LD served as a second observer and did the same thing as the researcher across all phases and sessions. The second observer attended at the same time as the researcher at least 33% of each phase for each student. Then data collected by both observers were compared and the IOA was calculated by

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using the mathematical equation that divides the number of agreements by the number of agreements plus the number of disagreements, then multiplied by 100. In this study, a minimum of 85% criteria must be reached to validate the reliability of the data collected.

Treatment Integrity

Treatment integrity is used to ensure that all steps described in the study have been implemented as proposed across all participants. A list of steps that need to be followed in baseline, intervention, and follow-up was developed. Treatment integrity of 100% was targeted for each participant. Table 7 lists the treatment integrity checklist.

Table 7 Treatment Integrity Checklist

<i>Steps:</i>	$\sqrt{x/NA}$
1- Ask the students to pay attention to what he will see and hear in the video clip.	
1- The student watched the video clip that has been chosen for him twice for 10 minutes	
3- The students will be asked to join a group discussion for 5 minutes	
4- The teacher will ask a general question to be discussed	
5- Before beginning the discussion, the student will have 3 minutes for brainstorm.	

Social Validity

For the social validity assessment, this research adopted the questionnaire created by Alhuzimi (2020). After finishing the intervention phase for all students, the researcher asked the special education teacher (teacher of students with LD) to fill out a questionnaire that used a 5-point scale rating (1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 =

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Strongly Agree) to assess their opinion on the use of VM intervention. (Please refer to Table 8 below).

Emphasize Issues Relating to Interaction with Subjects and Subjects' Rights

The researcher had direct interaction with the participants in the study. Participants had the option to continue or withdraw from the study at any time without any penalty, as participation was voluntary. All personal information, including the children's names, would never be used in the study, and the researcher used pseudonyms instead. The data would be kept in its vault for two years and then destroyed. The researcher shared phone numbers and e-mails with parents to express parents' concerns and answer their inquiries.

Table 8 Social Validity Questionnaire

1. The VM intervention is easy to implement	1	2	3	4	5
2. The VM is enjoyable to implement.	1	2	3	4	5
3. The VM is enjoyable for participants to learn targeted social behavior.	1	2	3	4	5
4. The VM intervention is effective in improving targeted social skill in participants.	1	2	3	4	5
5. The targeted social behavior is an important social skill	1	2	3	4	5
6. Overall satisfaction with the VM intervention	1	2	3	4	5

Chapter IV

Results

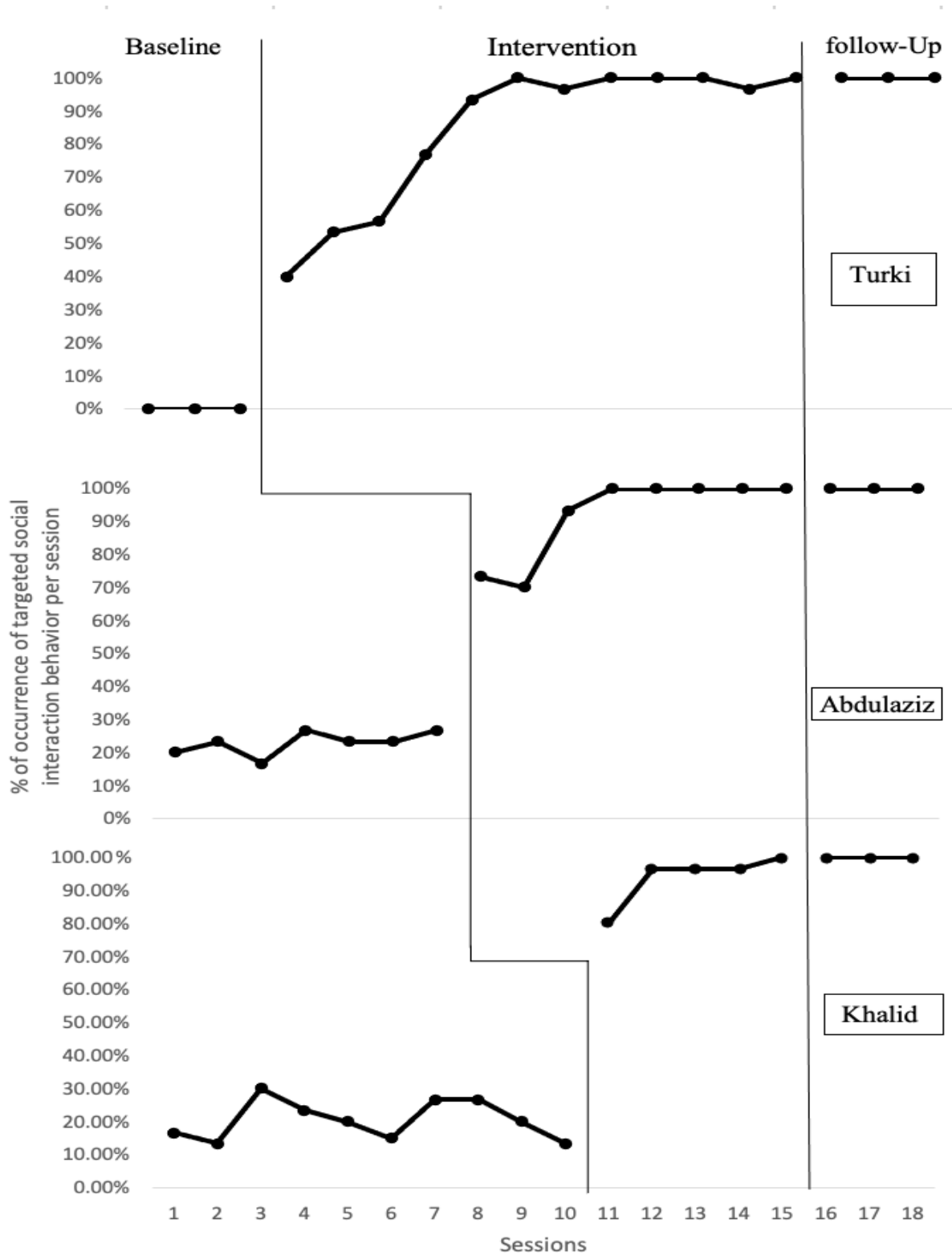
This study was conducted to examine the effectiveness of using VM on increasing positive social interaction in academic settings in students with LD in Saudi Arabia. In this chapter, results from baseline, intervention, and follow-up were presented. In addition, the agreement between the researcher and a second observer was calculated and results were reported. Social validity was also assessed in this chapter.

The researcher calculated the incidence of cooperative participation behavior within 15 minutes. At baseline, the three participants demonstrated 0% to 30% occurrence of cooperative participation behavior for the 30 intervals during the 15 minutes period per session, with a mean of 18%. In the intervention phase, a rapid increase in the occurrence of positive social interaction (cooperative participation) was observed, ranging between 40% to 100% during the 15 minutes period per session, with an average of 88.80%. Three weeks after the last VM intervention, participants with an LD remain at 100% during the 15 minutes in the follow-up phase. These results support the hypotheses put forward previously: VM intervention will promote positive social interactions in students with LD in Saudi Arabia, and participants will be able to maintain the positive social interactions two to four weeks after the VM intervention.

Three participants were recruited by this study and were observed for 15 minutes each session, one session a day, three days a week (total of 18 sessions during 6 weeks per participant). The aim of this study was to increase positive social interactions in an academic setting by using a VM intervention. Figure 2 presented the result of the three participants through three phases: baseline, intervention, and follow-up.

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Figure 2 Participants' Cooperative Participation Behavior During Baseline, Intervention, and Follow-Up Phases



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Turki's Performance

Baseline. After observing Turki (an eight-year-old fourth grader) in the baseline stage for 15 minutes, which was divided into 30 30-second intervals in each session (one session per day), the researcher found that Turki's cooperative participation behavior was very low. For example, Turki did not show any positive verbal or non-verbal interaction, and Turki looked at the teacher all the time instead of making eye contact and talking to his peers. He also engaged in out-of-task behaviors. During the baseline phase, Turki had an average of 0% of cooperative participation and 0% occurrence of the target behavior for the intervals in each session. In summary, Turki was not able to positively interact with peers during group discussion, which leads to low self-esteem and his lack of self-confidence. The researcher decided to start the intervention from the fourth session since his baseline data stably remained at 0%.

Intervention. Turki's cooperative participation behavior immediately increased significantly after the intervention began. On the first day, Turki made great progress and scored 40% of intervals with cooperative participation behavior. Turki's targeted behavior increased continuously until he achieved 100% in the sixth session of the intervention. As shown in Figure 2, Turki's behavior remained at or close to 100% until the end of the intervention phase. The average rate of Turki's cooperative participation behavior in the intervention phase was 84%. Compared to the baseline, the average of Turki's performance increased by 84%, which was a significant increase and indicated that the use of VM intervention was effective in promoting cooperative behavior in academic setting in Saudi students with LD.

Follow-Up. Three weeks after the last intervention, three sessions were conducted as follow-up to measure how well Turki was able to retain the learned skill. Results showed that he was able to maintain his cooperative participation behavior in the follow-up phase. He managed

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to score 100% of intervals with cooperative participation behavior in these three sessions. This phase proves that the VM intervention effectively promoted positive social interaction for Turki in group discussion.

Abdulaziz's Performance

Baseline. After observing Abdulaziz (a nine-years old fourth grader) in the baseline stage for 15 minutes (or 30 30-second intervals in each session (one session per day), the researcher found that he displayed limited cooperative participation behavior. For example, Abdulaziz did not interact positively with his peers, instead, he interrupted with side topics. During the baseline phase, Abdulaziz scored an average 23% of intervals with targeted cooperative participation, ranging from 16.67 to 26.67%. The student cannot benefit from cooperative learning with his peers due to his poor social skills, which can negatively impact his self-esteem and self-confidence. After achieving stable baseline data, the researcher decided to start the intervention from the seventh session, after the intervention started to show its effects on the first participating student.

Intervention. During the intervention, Abdulaziz immediately increased his cooperative participation behavior. On the first day in the intervention phase, Abdulaziz scored 73%. Abdulaziz's desired behavior increased sequentially until he achieved 100% in the sixth session of the intervention. As shown in Figure 2, Abdulaziz's performance remained at 100% until the end of the intervention phase. Abdulaziz's cooperative participation behavior in the intervention phase was 92.08% at average. Compared to the baseline (23%), Abdulaziz's average performance increased by 69.08%, which is a significant difference and reflects for the positive effects of the VM intervention.

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Follow-Up. Three weeks after the intervention completed, two follow up sessions were conducted on Abdulaziz. He was able to maintain the learned cooperative participation (100%) on all three sessions in the follow-up phase. This showed that the VM intervention effectively increased positive social interaction in Abdulaziz.

Khalid's Performance

Baseline. After observing Khalid (an 11-year-old, sixth grade) in the baseline stage (15 minutes divided into 30 30-second intervals in each session, one session a day), the researcher found his cooperative participation was low. For example, Khalid had limited interaction with his peers, and Khalid interrupted whoever was speaking by laughing. During the baseline phase, Khalid scored an average 20.50% of intervals with cooperative participation, ranging from 13.33 to 30% in each session. Khalid could barely benefit from group work due to his low cooperative participation. The researcher decided to start the intervention from the tenth session, after the intervention showed effects on both participating students.

Intervention. Khalid's cooperative participation behavior immediately increased right after the introduction of the intervention. On the first session/day in the intervention phase, Khalid scored 80% and his performance continued to increase until he reached 100% on the fifth session/day of the intervention phase. As shown in Figure 2, Khalid's performance remained at 100% by the end of the intervention phase. The average percentage of Khalid's cooperative participation behavior during the intervention phase was 94%. Compared to the baseline (20.50%), Khalid's average performance during the intervention increased by 73.5%, which is a significant progress and indicates the effectiveness of the VM intervention.

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Follow-Up. Three weeks after the last intervention, three sessions were conducted for the follow-up phase. Khalid was able to remain 100% of intervals with cooperative participation in the follow-up phase. This evidence proves that the VM intervention effectively increased positive social interaction in Khalid.

Table 9 Participants Percentage of Intervals with Cooperative Participation across Phases

Participants	Participants Percentage of Intervals with Cooperative Participation across Phases					
	<i>Baseline</i>		Intervention		Follow-Up	
	Range	Average	Range	Average	Range	Average
Turki	0%	0%	40%-100%	84%	100%	100%
Abdulaziz	16.67-26.67%	23%	70%-100%	92.08%	100%	100%
Khalid	13.33-30%	20.50%	80%100%	94%	100%	100%

Interobserver Agreement (IOA)

One of the LD teachers in the school served as a second observer. The teacher attended more than 33% of each student at each phase and did the observation completely independently and achieved 96.66% as the lowest IOA. For Turki, the average IOA for all sessions across the phases was 99% (ranging from 96% to 100%). For Abdulaziz, it was 99.72% (ranging from 98.33% to 100%). For Khalid, it was 99% (ranging from 96.66% to 100%). These numbers were all higher than 85%, which confirms the validity of the researcher's observation and their compatibility with the research conditions.

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Treatment Integrity

The researcher used the treatment integrity checklist to ensure that all steps of the intervention were implemented as intended on all participants across all phases in this study. The treatment integrity checklist is presented on table 7.

Social Validity

After the researcher used the 5-point scale rating (1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, and 5 = Strongly Agree) to assess the social validity opinion on the use of VM intervention, the questionnaire results were reported below on Table 10:

Table 10 Results of Social Validity-Teacher's Opinion on the Use of VM Intervention

1. The VM intervention is easy to implement	4
2. The VM is enjoyable to implement.	5
3. The VM is enjoyable for participants to learn targeted social behavior.	5
4. The VM intervention is effective in improving targeted social skill in participants.	5
5. The targeted social behavior is an important social skill	5
6. Overall satisfaction with the VM intervention	5

Summary

Results of this study have shown the strength of using VM to increase positive social interaction among students with LD in Saudi Arabia (Figure 2 and Table 8). It also proved that

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individuals with LD can learn how to appropriately participate in cooperative learning settings through visual learning. The results also showed a high IOA between the researcher and a second observer. After three-weeks from the intervention phase, the students were able to retain the skills they had learned through the VM. For the social validity, the LD teacher reported the intervention is easy to be implemented and the results were positive when implemented in students with LD.

Chapter V Discussion

In this chapter, the results of the study are discussed. They were also compared with previous studies that involved individuals with other special needs and LD. The limitation of the study and implication for future studies are also addressed.

Discussion of Research Findings

At the baseline stage, students with LD did not show a high level of cooperative participation behavior. For example, participants exhibited behaviors such as off-task behavior, interrupting speakers, individually asking for help from the teacher, not listening, and not engaging in speaking especially in the last 5 minutes. Some cooperative learning behaviors were observed on both Abdulaziz and Khalid, while none was recorded for Turki. Turki's responses were clearly stabilized at the baseline phase, which prompted the researcher to use the VM intervention for him first. For Abdulaziz and Khalid, their responses varied at the beginning of the baseline phase. After ensuring the stability of Abdulaziz and Khalid's responses, the intervention was introduced to the participants in a staged order.

In the intervention phase, participants were able to learn from the VM intervention, and significantly increase their positive social interaction with their peers. For example, during baseline, Turki's did not interact with his peers at all, but in the intervention phase, he showed cooperative participation behavior on an average of 84% of all intervals. This indicates the VM intervention has significantly increase his targeted social behavior in cooperative learning settings. Both Abdulaziz and Khalid's performance also improved significantly, up to 92.08%. All participants achieved 100% shortly after receiving the VM intervention and were able to retain their performance until the end of the study.

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Abdulaziz would avoid situations that involve discussion, however if it is his turn to talk, he would use uncommon words that he learned from his parents, but his peers could not understand what he meant. The researcher used the VM intervention to teach him that he should use only the common words during discussion.

Three weeks after the VM intervention completed, in the follow-up phase, all students were able to maintain the learned skills. The average positive response was 100%, which confirms the students' ability to retain the learned skills. At this point, all three participants were able to interact with their peers positively. The participants also took the initiative to talk and shared their thoughts and received feedback from their peers without feeling ashamed or bored, nor showing off-task behavior.

Comparison of Results

This study included three targeted students with LD ranging in age from 8 to 11. The students were referred by their LD teachers and were confirmed by the researcher after reviewing the students' IEPs. The results support the research literature review finding that were presented previously in the first two chapters of this dissertation. The participating students benefited from the VM intervention and were able to retain their learned skills in the follow-up phase. Positive results have been achieved since the VM intervention was introduced. Participants had increased cooperative participation skills that included more two-way communication and reciprocal social interaction with other group members in addition to listening to them only. These positive social and communicative behaviors included but were not limited to attending to the discussion, making eye contact with group members, nodding in agreement, and also engaging in discussion.

This study enriched the current literature in this field. Previous studies have found that VM intervention is one of the evidence-based interventions that can promote positive social

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interaction in individuals with special needs (Avcioğlu, 2013; Bryan et al., 2004; Chu & Baker, 2015; Elksnin & Elksnin, 2004; Frolli et al., 2020; Gül, 2016; Park et al., 2020; Womack et al., 2011). Video modeling has also been a common and effective intervention for students with LD for the past decade. For example, Decker and Buggey (2012) and Miller and Little (2018)'s studies use VM interventions to effectively improve academic performance (i.e., in reading and writing) in their participating students with LD. More specifically, Decker and Buggey (2012) reported a high increase in the development of academic skills in reading using a VM intervention. Their participants were able to retain their learned skills in the follow-up/maintenance phase. Similarly, Miller and Little (2018) also reported that their students with LD's overall writing performance on opinion essays was significantly improved after receiving an VM intervention. These results are consistent with the findings of the current study in terms of the effectiveness of the use of VM intervention with students with LD in academic settings.

Similar to the current study, O'Brien and Wood (2011) examined the effects of the use of video modeling on the development of cooperative discussion in students with LD. In their study, during the cooperative group discussion, students were able to rapidly develop cooperative participation skills after receiving the intervention, which was aligned with the findings of the current study: all participants increased their cooperative participation skills immediately after the use of VM intervention. In the follow-up phase, all students preserved their skills they obtained from the intervention phase, which was also consistent with the current study. However, the performance of students in the baseline phase in O'Brien and Wood (2011)'s study, was better than the performance of students in this study. This may be due to the very short observation period as reported by the researchers of that study.

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In summary, the results of the current study were consistent with previous similar studies that were reviewed in Chapter two of this dissertation and demonstrated the obvious effects of the use of VM on promoting positive social interaction in Saudi students with LD in an academic setting (Cihak, 2009; Decker & Buggey, 2012; Hitchcock et al., 2004; Miller & Little, 2018; O'Brien & Dieker, 2008; O'Brien & Wood, 2011). The difference between the results of this and previous studies mainly lies in how fast the students can achieve the targeted performance, which depends mainly on these individuals' capabilities and the types and severity level of their disabilities.

Other Possible Impacts of VM Intervention

This research builds upon the efforts of other researchers. This study, for example, shows that it is possible to use VM intervention to target other behaviors in a non-academic setting for Saudi students with LD. The following section discusses other potential impacts that future researchers can explore.

Possible Impacts on Social Interaction Outside of School

Future researchers could expand the field of research beyond the school setting or even train parents to use VM intervention at home setting. Many social interaction skills can be taught to individuals outside of school, such as play, sharing, negotiation skills, life/daily functioning skills, etc. The teaching of these skills using VM intervention has not been done in Saudi Arabia. Teaching social skills in various aspects of life can increase self-confidence of individuals with LD. For example, Turki avoided talking and looking at his colleagues because of his feelings of shame and fear of negative reactions/judgement from his peers towards him. Abdulaziz, too, was not talkative due to a lack of meaningful vocabulary or what words should be used appropriately in social interaction with peers.

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This intervention gave the students a sense of self-confidence because they learned what behaviors they were supposed to display/demonstrate correctly after they observed the wrong behaviors that were shown from the video clips. This can also apply to situations outside the school settings with other people, for example, siblings and relatives. Using these skills in different settings enables individuals with LD to interact confidently in similar situations and avoid embarrassing social interactions, just as what happened in the baseline in this study. This is consistent with the social learning theory presented by Bandura (1977). Bandura stated that individuals learn social skills by observation. What was observed by the participants from the video clip were first undesirable behaviors, such as interrupting the speaker. The clips also showed the negative consequence resulted from these undesirable behaviors, such as peer rejection. Then, the participants also observed what desirable behaviors were expected under the same social situation from the video clips and their positive outcomes from the peers as a result.

When implementing the intervention during the study, many teachers were interested in learning how to apply VM intervention to the students due to its positive effects on the participants that they could observe. General education teachers noticed that the participating students became more actively participate in cooperative discussion with their typically developing peers using desirable social behaviors, thus improved positive social interaction and significantly decreased off-task behavior. All of this indicated that it is possible to use VM intervention to promote positive social interaction in non-school settings, too.

Potential Impact on Academic Performance

Although this study did not measure the effects of using video modeling on academic performance such as reading, writing and math, however, teachers reported that improved positive social interaction in participants after receiving VM intervention might help improve

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their academic performance in school, too. During this study, the participants were able to show initiative and engaged in discussion with their peers. The more the participants were engaged in cooperative learning, the more positive academic outcomes they may achieve.

It is also possible that VM intervention may be effective in increasing academic performance in areas such as reading and mathematics in individuals with LD in Saudi Arabia. Previous studies have proven that VM was effective in teaching academics skills such as math to students with LD (Cihak, 2009 & Hughes, 2019 & O'Brien & Dieker, 2008), but there is still a need to conduct such studies in Saudi Arabia. There has not yet been such a study involving Saudi students with LD published yet.

Implications for Research

At the baseline phase, the researcher observed through the data collection sheet that both Abdulaziz and Khalid barely interacted with their peers in the last 5 minutes of the 15 minutes observation. Both students exhibited some off-task behaviors due to the length of the session. However, after receiving VM intervention, both participants were able to increase positive social interaction throughout the entire observation time, especially the last 5 minutes of each session.

Regarding Turki, he did not show any positive social interaction during the baseline phase. In the intervention phase, the participant demonstrated social interaction during the session, but to a lesser extent in the last 5 minutes. By emphasizing the correct social behavior during cooperative learning in the video clips he viewed and targeting the increase in the desired behavior, Turki was able to gradually increase these desirable behaviors for the entire session.

Before implementing the study, the teacher reported that Turki was suffering from social isolation and lack of friendship. This loneliness as reported in his IEP may lead to avoidance of peers or escaping from unpleasant social situations in school. Loneliness is one of the problems

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that many individuals with LD face (Mencap, 2019). After receiving the intervention, Turki was able to develop more positive social skills and make new friends in class. Undoubtedly, positive peer interactions in academic settings enhance the feeling of happiness and quality of life, which can positively affect their performance in non-academic settings and quality of life. In addition, learning more appropriate social communicative skills in academic settings, such as taking turns, attentive listening, avoiding interrupting others, and sharing ideas, will make them more likely to be accepted by typically developing peers inside and outside of school. The researcher might consider measuring the effects of social skill improvement on both self-confidence and loneliness, which was mentioned in the case of Turki, as secondary dependent variables.

This study provided details and information that might promote the use of video modeling in elementary students with LD to achieve more positive social interactions with typically developing peers in academic settings in Saudi Arabia. By conducting more future research in this field in this country, a more reliable causal relationship between the intervention and the results can be then determined. Then the results of the study can be generalized to the community of individuals with LD in different stages, larger numbers, and other research methods. Also, when the effectiveness of the research is confirmed, a project idea can be submitted to the Ministry of Education of Saudi Arabia to create a library of videos to model different behaviors for typically developing students and learners with diverse learning needs.

It is important to keep in mind that the performance of individual learners receiving a VM intervention depends on the careful selection of modeling skills the learners need. For example, in this study, one video that was effective in one participant turned out to be ineffective in the other two participants. The researcher noted this when conducting the study during the

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intervention phase because this video clip showed undesirable behavior to the first participant who also showed such behavior, but the other two participants did not have the same issue.

The researcher needs to be mindful of the quality while creating appropriate video clips for the target skill to be taught. For example, when teaching active listening skills, the researcher must show the target student what the wrong way is and then show the correct way of active listening. For example, the target model looks at the speaker, thinks about what the speaker said, and then shares their ideas based on what their peer said. The interrelationship between these skills, which eventually be replaced by the appropriate skill (e.g., active listening), must be demonstrated. The poor results may be due to the video clip's inadequacy and not the VM's intervention. Also, the researcher should use several video clips for the same skill to avoid students' boredom and cover the shortcomings in one video clip.

Implications for Practice

Technology and Cost Concern

Previous research and the current study have proven that VM can be used to promote positive social, academic and behavioral developments in students with various disabilities in school, home and community settings. If Saudi Arabia wants to adopt the use VM into the educational systems nationwide, the Ministry of Education need to train their general and special education teachers on how to use VM as an instructional or intervention approach. This supports the Ministry of Education's rapid moves to include individuals with disabilities in all regular classrooms with typically developing students. These moves are one of the plans of Vision 2030, in which Saudi Arabia seeks comprehensive educational development as one of its goals. Also, these teachers need quick access to VMs, which can be a swift and comprehensive solution to many challenging behaviors that faced by schools, both academic and non-academic related.

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However, the procedures of creating quality instructional or interventional video clips need to be carefully monitored by a team of experts or specialists in education and technology. For example, to teach a socially more appropriate behavior to replace a challenging, the team should carefully define the desirable and undesirable behaviors in an observable and measurable manner in the video clip, and then use appropriate adult or peer model to demonstrate both under the same circumstances, so that learners can easily differentiate the differences between the two and learn how they are supposed to behave. All of these video production process takes a lot of efforts from the technology team, thus costs a lot of money as they require professional cameras and crew members, such as computer technicians who are competent in editing these videos. Additionally, training teachers how to implement them also require extra time and support from the school. That is why the Ministry of Education should provide financial and administration supports to schools and teacher on promoting the creation and use of VM in this country.

Combining VM with Other Evidence-Based Interventions/Approaches

Results of the current study have demonstrated that VM can promote positive social interaction in academic settings. To maximize the best intervention outcomes in practice, other evidence-based interventions such as the token economy and positive reinforcement can be combined with VM to make it an intervention package, which have not been examined in Saudi Arabia yet, so future studies should consider more such options.

Limitations

This study added new information to the field regarding the effectiveness of using VM on the social interaction of students with LD in the academic settings in Saudi Arabia. However, each study has limitations. In the following, the limitations that were present in this study are explained.

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The first limitation was that this study did not include female participants. The cultures and laws of Saudi society emphasize the absence of mixing in schools and the separation of males from females, especially adults. This may affect the generalizability of the results to a particular population, such as the population of LD or the Saudi population.

In addition, this study was not applied to individuals with LD in early/primary grades, which are first, second, and third grades. Saudi Arabia currently is experiencing reforms and modifications in various fields, including education. One of these changes in the field of education is that male students in primary grades were transferred to females' schools, which adult males cannot enter. This change was unexpected to the researcher because this new policy was adopted in a very extensive way at the beginning of the school year of 2022-2023, that is, one week before the researcher started data collection of this study. This will certainly affect the generalization of the results of this study to the primary schoolers. This limitation can be overcome by a female researcher who can have access to this sample of students.

Additionally, another limitation is the small number of participants in the study. As pointed out by Horner et al. (2005), small sample size affects the external validity of the research. However, small sample size reflects the nature of single subject research design. This limitation can be overcome by conducting more such studies in this field.

Finally, very few research study was conducted specifically on the topic of students with LD using VM as an intervention to promote appropriate social interaction in academic setting to minimize inappropriate behaviors in academic setting. As a result of this limited research, numerous weaknesses and gaps in the existing literature still need to be addressed in future research.

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Recommendations for Future Research

This study showed positive results of examining the effectiveness of using VM on increasing positive social interaction in academic settings in students with LD in Saudi Arabia. This study was an extension and further knowledge of a few previous studies to close the gaps. As a result, the researcher recommends more future research should be conducted to target the use of VM to promote positive social interaction in individuals with LD. This field is still fertile for research and needs a lot of research that will promote a deeper and more comprehensive understanding.

Expanding Study Population or Settings

Researchers can conduct research on a different study sample. For example, there is a need to conduct similar research on other age groups, such as ages 6-8 and 12 and above. In these age groups, the researcher did not find any research study that was either conducted or published in Saudi Arabia. It is also possible to replicate this study to the same age group used in this research to determine if the results will be consistent with this study. Researchers can also conduct this research in different settings. For example, this study can be conducted at home, at universities (for ages over 18), in recess at school, on the school bus, etc. These different settings can help researchers determine whether desirable positive outcomes can be achieved across different population and settings using VM intervention.

Measuring Academic Improvement and/or Quality of Life as Secondary Dependent Variables

The current study shows that VM has been proven effective in promoting positive social interactions in Saudi students with learning Disabilities. It is interesting to note that the teachers of the participants reported improved academic performance in the students as a “side effect” of the VM intervention, however, this was not measured as a dependent variable in the current

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study. Previous studies have reported similar findings (Avcioğlu, 2013; Murry, 2018).

Researchers may consider adding academics-related measurement as a secondary dependent variable in future research. Using VM intervention has the potential to achieve a student's educational goals faster and more effectively, which improve their self-confidence and mental health (i.e., isolation and loneliness, etc.), and may generalize the learned skills to other areas and different settings, thus eventually improve their quality of life.

Conclusion

The current study has proven that VM intervention was effective in promoting positive social interaction in students with LD in the academic settings. All three participants were able to significantly increase positive social interaction with typically developing peers after receiving VM intervention and were able to retain the learned skills in the follow-up phase three weeks after the intervention. Results of the current study were also consistent with those of previous studies that involve individuals with LD or with other disabilities. It also suggested possible positive effects on academic performance in students with LD or other social behaviors in non-academic setting. Similar research can be conducted during recess and school activity classes and in learning academic skills such as mathematics, reading, and writing, especially in the Kingdom of Saudi Arabia. More future research in these areas is needed to expand the use of VM intervention.

The application of the study had a significant positive impact on teachers and students in the school. The teachers were excited to learn how to use the VM intervention due to the positive results they experienced in the study sample. The students were also very enthusiastic about participating in the follow-up phase due to the positive experience during the intervention phase. The researcher mentioned several research limitations, such as the gender of the research sample

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(which includes only male students and no female students), the small sample size, and the researchers' inability to recruit research participants from grades 1-3. The research also provided several tips for future research, which can be used to overcome the limitations of previous research. In conclusion, the current study enriched the existing research literature and filled the gaps in the field, however, more research is still needed to be conducted using more reliable research methodologies or approaches involving the use of VM intervention.

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Appendixes

Duquesne University
Institutional Review Board
Protocol #: 2022/05/24
Verified On: 05/29/2022
Expires: No Expiration Date



DUQUESNE UNIVERSITY
600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

PARENT CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE:

Examining the Effectiveness of Using Video Modeling on Increasing Positive Social Interaction in Academic Settings in Students with Learning Disabilities in Saudi Arabia

WHO IS DOING THE STUDY?

Ayman Alamri, Ph.D. Candidate in Special Education, School of Education, Duquesne University, United States

ADVISOR: Ann X. Huang, Ph.D., Associate Professor, School of Education, Duquesne University

WHAT IS THE PURPOSE OF THIS LETTER?

Please read the information provided in this paper. This information will help you decide whether to allow your child to participate in this study.

SOURCE OF SUPPORT (if applicable):

There is no support for this study.

WHY IS THIS RESEARCH STUDY BEING DONE?

This invitation is for your child to participate in a research study to develop the social interaction of students with learning disabilities through video modeling. This study aims to develop social interaction in an academic setting for children in Saudi Arabia.

This study requires that the participants be students enrolled in the school's learning disabilities program, between the ages of 6 to 11 years, and have difficulty in one or more social interaction in academic settings.

WHAT WILL MY CHILD BE ASKED TO DO?

Your child will be asked to view a video that shows an appropriate social skill. The video will be created by the researcher (Ayman). Your child also will be placed in a group discussion to discuss general questions with his peers.

HOW DOES THE REWARDS SYSTEM WORK?

If your child improves in social interaction in the academic setting through this intervention, he will feel confident, and this will increase his communication and interaction with his peers.

WHERE WILL THE STUDY HAPPEN AND HOW LONG WILL IT TAKE PLACE?

This study will take place during school time, and it will take 25-30 minutes three times a week.

WHAT ARE THE RISKS AND BENEFITS OF THE STUDY?

- There are no potential risks in this study.
- The potential benefits of this study are that your child's ability to communicate and interact with peers will positively increase. This behavior will benefit your child socially throughout his life. According to studies in this field, learning social skills may also help your child increase his academic achievement.

WILL MY CHILD BE PAID FOR TAKING PART IN THIS RESEARCH STUDY?

No, your child will not receive payment.

ASSURANCE OF CONFIDENTIALITY

We assure you that neither your child's nor your name will be shown anywhere. Pseudonyms will be used to report results only. No one will ever be able to know any information about the participants in this study except the researcher and a qualified research assistant. All the information collected will be encrypted and destroyed after two years from the date of the study.

RIGHT TO WITHDRAW AT ANY TIME

You have the option to allow your child to join this study or not. Also, you have the right to withdraw from this study at any time and without reason and without any liability towards you. If you wish to withdraw from this study, please see the contact information provided in this paper or contact the school to inform them.

SUMMARY OF RESULTS

The researcher will provide a summary to you about the study at no cost by the end.

VOLUNTARY CONSENT:

I have read and understood my rights and the rights of my child. My son's participation in this study is optional, and I am free to withdraw from this study at any time and for any reason.

Accordingly, I consent to the enrollment of my child in this study.

I know that I can contact the researcher to ask questions or share my concerns via the phone number +966569996196, e-mail: Alamria1@duq.edu, or the project advisor, Dr. Ann Huang, at

huanga2840@duq.edu. If I have questions regarding the protection of subjects' human rights, I may contact Dr. David Delmonico, chair of the Duquesne University Institutional Review Board, at +1 412-396-4032 (U.S. phone number).

A copy of this form will be given to you to keep for your records.

Parent/Legal Guardian's Signature

Date

Child's Name

Date

Researcher's Signature

Date



DUQUESNE UNIVERSITY
600 FORBES AVENUE • PITTSBURGH, PA 15282
STUDENT ASSENT TO PARTICIPATE IN A RESEARCH STUDY

WHAT AM I BEING ASKED TO DO?

We would like to invite you to join a study to help children ages 6-11, who are in a learning disability program, to increase their social interaction. If you find this interesting, please keep reading.

WHO IS DOING THE STUDY?

The study is being conducted by Ayman Alamri, a Ph.D. candidate from Saudi Arabia attending Duquesne University in Pittsburgh, Pennsylvania, USA.

WHAT IS A STUDY?

Studies help us to learn new things. In this study, we will introduce a new way to communicate and interact with others. For example, we will use a video to try learning a new skill or improve skills you already have.

WHY IS THIS STUDY BEING DONE?

This study is being done because we are trying to help people ages 6-11 to communicate well with their friends and, also, increase communication skills to help them work with others in a more effective way in academic settings.

WHO IS BEING ASKED TO PARTICIPATE?

Elementary boys aged 6 to 11 from your school who need to improve their social interaction in academic settings.

WHAT DO I HAVE TO DO?

If you are willing to join this study, we will take 25-30 minutes from your school time, and we will ask you to watch a video which will teach you how to interact with classmates in academic settings. You will also be placed in a group discussion before and after watching the video to discuss a general question.

WHERE WILL THE STUDY HAPPEN AND HOW LONG WILL IT TAKE PLACE?

The study will happen in the regular classroom. Also, it will take place three times a week. The video change will be based on your needs.

COULD I BE HARMED BY PARTICIPATING IN THIS STUDY?

This study will not be harmful, and there will not be any kind of risk.

WHAT SHOULD I DO IF I AM UNCOMFORTABLE WITH ANY PART OF THE STUDY?

If you are uncomfortable, you are able to stop this study at any time.

WILL I BE PAID TO DO THIS STUDY?

No, there is no pay for doing this study.

ARE OTHER PEOPLE GOING TO KNOW WHAT I DID OR SAID?

No one will know what you do in this study except for the researcher and the research assistant. Also, we will keep all names secret when reporting the outcomes. Only Ayman Alamri and a research assistant will know the true identities of participants.

CAN I QUIT IF I WANT TO?

Yes. You can quit any time. What you need to do is just ask me to remove you from this study.

CAN I FIND OUT WHAT YOU LEARN FROM THE STUDY?

Yes. By the end of this study, I will explain how you improved and show you the results of your progress.

Okay, would you like to be part of this study?

If you read and understood this paper, and you understand that it is optional to join this study, and you can quit at any time, then circle the green happy face and write your name below it. If you would rather not be in the study, please circle the red face and write your name below. Thank you,



جامعة دوكوينسي
أفيو بيتسبرغ بنسلفانيا 15282 • فورس 600
موافقة ولي الأمر على المشاركة في دراسة بحوثية

الغرض:
الهدف من هذه الدراسة هو زيادة التفاعل الاجتماعي الإيجابي في الأوساط الأكاديمية لدى الطلاب ذوي صعوبات التعلم في المملكة العربية السعودية من يقوم بالدراسة؟
أين المعلمين، الدكتوراه، مبرمج في التربية الخاصة، كلية التربية، جامعة دوكن، الولايات المتحدة المستشرق: إن إكس هوانغ، دكتوراه، أستاذ مشارك، كلية التربية، جامعة دوكن
ما هو الغرض من هذه الرسالة؟
يرجى قراءة المعلومات الواردة في هذه الورقة. يساعدك هذه المعلومات على تحديد ما إذا كنت تسمح لتفعلك بالمشاركة في هذه الدراسة.

مصدر الدعم (إن وجد)

لا يوجد دعم لهذه الدراسة.

لماذا يتم إجراء هذه الدراسة البحثية؟

هذه الدعوة موجهة لتفعلك للمشاركة في دراسة بحثية لتطوير التفاعل الاجتماعي للطلاب الذين يعانون من صعوبات التعلم من خلال تجربة الفيديو. الهدف من هذه الدراسة هو تطوير التفاعل الاجتماعي في سياق أكاديمي للأطفال في المملكة العربية السعودية. تتألف هذه الدراسة من ثلاث مجموعات من المشاركين: طلاب، معلمين في برنامج صعوبات التعلم والمدرسة، والذين تتراوح أعمارهم بين 6 إلى 11 عامًا، ووالدواهم مسؤولين في تفاعل اجتماعي واحد أو أكثر في الأوساط الأكاديمية.

مما سيطلب من طفلي أن أفعل؟
سيطلب من طفلك مشاهدة مقطع فيديو يظهر مهارة اجتماعية مناسبة. الفيديو من إخراج الباحث (أين) سيتم وضع طفلك أيضًا في مناقشة جماعية لمناقشة الأسئلة المعلمة مع أقرانه.

كيف يعمل نظام المكافآت؟

إذا تحسن تفاعل طفلك الاجتماعي في الوسط الأكاديمي من خلال هذا التفاعل، فسيتمثل بالقلعة، وسيزيد ذلك من تواصله وتفاعله مع أقرانه.

أين ستحدث الدراسة وكيف من الوقت مستغرق؟

ستتم هذه الدراسة خلال وقت المدرسة، وستستغرق من 25 إلى 30 دقيقة ثلاث مرات في الأسبوع.

ما هي مخاطر وفوائد الدراسة؟

- لا توجد مخاطر محتملة في هذه الدراسة.
- الفوائد المحتملة لهذه الدراسة هي أن تدرك طفلك على التواصل والتفاعل مع أقرانه مستزيد بشكل إيجابي. هذا السلوك سيقود طفلك اجتماعياً طرأل حياته. ووفقاً لدراسات في هذا المجال، قد يساعد تعلم المهارات الاجتماعية طفلك أيضاً على زيادة تحصيله الأكاديمي.

هل سيتم دفع نفقلى مقابل المشاركة في هذه الدراسة البحثية؟

لا، إن يتلقى طفلك أي مبلغ.

ضمان الخصوصية

نؤكد لك أنه لن يتم عرض اسم طفلك أو اسمك في أي مكان. سيتم استخدام الأسماء المستعارة للإبلاغ عن النتائج فقط إن سيتم تنفيير. الباحث ومساعد باحث مؤهل يمكن أي شخص من معرفة أي معلومات عن المشاركين في هذه الدراسة باستثناء جميع المعلومات التي تم جمعها والاتصال بها بعد عامين من تاريخ الدراسة.

الحق في الانسحاب في أي وقت

لذلك خيار السماح لطفلك بالانضمام إلى هذه الدراسة أو لا. كما يحق لك الانسحاب من هذه الدراسة في أي وقت وبدون سبب وبدون أي مسؤولية تجاهك. إذا كنت ترغب في الانسحاب من هذه الدراسة، يرجى الاطلاع على معلومات الاتصال الواردة في هذه الورقة أو الاتصال بالمدرسة لإبلاغهم.

ملخص النتائج

سيقدم لك الباحث ملخصاً عن الدراسة دون أي تكلفة بحلول النهاية.

الموافقة الطوعية:

لقد قرأت وفهمت حقوقي وحقوق طفلي، مشاركة إني في هذه الدراسة اختيارية، وأنا حر في الانسحاب من هذه الدراسة في أي وقت ولأي سبب. وفقاً لذلك، أوافق على تسجيل طفلي في هذه الدراسة.

البريد: +966569996196. أعلم أنه يمكن الاتصال بالباحث لترى الأسئلة أو مشاركة مخاوفي عبر رقم الهاتف الإلكتروني: huanga2840@duq.edu أو مستشار المشروع، الدكتور أن هوانغ، على: Alamri1@duq.edu الإلكتروني. كانت لدي أسئلة بخصوص حماية حقوق الإنسان الخاصة بالموضوع، فيمكنني الاتصال بالدكتور ديفيد ديمونيكو، رئيس مجلس الترجمة الموسمية بجامعة دوكن، على: +1 412-396-4032 (رقم هاتف الولايات المتحدة).

سيتم إبطوك نسخة من هذا النموذج للاحتفاظ بها في سجلاتك.

توقيع ولي الأمر / الوصي القانوني

اسم الطفل

توقيع الباحث



YES



NO

Child's name and signature

Date

Guardian's signature

Date

Researcher's signature

Date

جامعة دوكن

600 فوربز أفينو • بيتسبرغ، بنسلفانيا 15282



موافقة الطالب على المشاركة في دراسة بحثية

ما المطلوب مني فعله؟

نود أن ندعوك للانضمام إلى دراسة لمساعدة الأطفال الذين تتراوح أعمارهم بين 6 و12 عامًا، والذين هم في برنامج صعوبات التعلم، على تحسين مهاراتهم الاجتماعية. إذا وجدت هذا ممتعًا، يرجى مواصلة القراءة.

من يقوم بالدراسة؟

أجرى الدراسة أيمن العمري دكتوراه، طالب من المملكة العربية السعودية يدرس في جامعة دوكن في بيتسبرغ، بنسلفانيا، الولايات المتحدة الأمريكية.

ما هي الدراسة؟

تساعدنا الدراسة على تعلم أشياء جديدة. في هذه الدراسة، سنحاول طريقة جديدة للتواصل والتفاعل مع الآخرين. على سبيل المثال، سنستخدم مقطع فيديو لمحاولة تعلم مهارة جديدة أو تحسين المهارات التي يمتلكونها بالفعل.

لماذا يتم إجراء هذه الدراسة؟

يتم إجراء هذه الدراسة لأننا نحاول مساعدة الأشخاص الذين تتراوح أعمارهم بين 6 و12 عامًا على التواصل بشكل جيد مع أصدقائهم، وكذلك العمل مع الآخرين بطريقة أفضل.

من المطلوب للمشاركة؟

الأطفال الذكور في المرحلة الابتدائية الذين تتراوح أعمارهم بين 6 و12 عامًا من مدرستك والذين يتحدون إلى تطوير مهاراتهم الاجتماعية.

ماذا علي أن أفعل؟

إذا كنت على استعداد للانضمام إلى هذه الدراسة، هوف نأخذ ٣٠-٦٠ دقيقة من وقت المدرسة، وسنطلب منك مشاهدة فيديو قصير. سوف تكون في مجموعة وسوف تقوم بسؤال عام وسوف تتلقونه مع زملائك لمدة خمس دقائق.

أن ألتقي من المشاركة في هذه الدراسة؟



إن تكون هذه الدراسة ضارة ولن يكون هناك أي نوع من المخاطر.

ماذا علي أن أفعل إذا كنت غير مرتاح لأي جزء من الدراسة؟

إذا كنت غير مرتاح، يمكنك إيقاف هذه الدراسة في أي وقت.

هل سأفقد مقابل هذه الدراسة؟

لا، لن تتفق أي شيء.

هل سيعرف الآخرون ما فعلته أو قلته؟

ما سنتعلمه سري للغاية. إن يعرف أحد ماذا فعلنا، سنحافظ على سرية اسمك عند الإطلاع عن النتائج. الباحث أيمن العمري ومساعدته سيكونون الزوجين اللذين يعرفون اسمك الحقيقي.

هل يمكنني الانسحاب إذا كنت أرغب في ذلك؟

نعم فعلا. يمكنك الانسحاب في أي وقت. ما عليك فعله هو أن تطلب مني حذفك من هذه الدراسة.

هل يمكنني معرفة ما تعلمته من الدراسة؟

نعم فعلا. بنهاية هذه الدراسة، سنشرح كيف تحسنت وأعرض لك نتائج تعلمك.

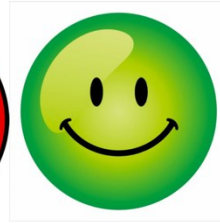
حسناً، هل توجد أن تكون جزءاً من هذه الدراسة؟

إذا قرأت هذه الورقة وفهمتها، وفهمت أنه من الاختياري الانضمام إلى هذه الدراسة، ويمكنك الإطلاع عنها في أي وقت تريده، ثم صعب دائرة حول الوجه الأخضر. السيد والكتب اسمك تحته.

إذا كنت تفضل عدم المشاركة في الدراسة، يرجى وضع دائرة حول الوجه الأحمر وكتابة اسمك أدناه. شكراً لك.



لا



نعم

التاريخ

اسم الطالب وتوقيمه

التاريخ

توقيع ولي الامر

٤ - ٣ - البحث



الرقم: ٤٢...٨٨٠٣٢
التاريخ: ٢٠٢٤/٢/٢٤هـ
المرفقات:



المملكة العربية السعودية
وزارة التعليم
٢٨٠
الإدارة العامة للتعليم بمنطقة الرياض
إدارة التخطيط و التطوير

" تسهيل مهمة باحث "

أيمن بن عبدالله بن هزاع العمري	اسم الباحث
١٠٦٨٧٦٣٠٩١	السجل المدني
العام الدراسي	١٤٤٤هـ
دوكين	الجامعة
الكلية	التربية
التخصص	الدراسة الحالية
دكتوراه	تربية خاصة
الحصول على الدرجة العلمية	الغرض من الدراسة
عينة الدراسة	طلاب صعوبة تعلم
فحص فاعلية استخدام نمذجة الفيديو في زيادة التفاعل الإيجابي في الأوساط الأكاديمية لدى طلاب ذوي صعوبات التعلم في المملكة العربية السعودية	عنوان الدراسة
خلال الفصل الدراسي الأول لعام ١٤٤٤هـ	فترة التطبيق
alamria1@duq.edu	للتواصل مع الباحث

المكرم مدير مدرسة (برنامج صعوبات التعلم) وفقه الله

السلام عليكم ورحمة الله وبركاته ، ، ، وبعد:

إشارة إلى قرار سعادة مدير عام التعليم بمنطقة الرياض رقم ٢٨٩٢٠٧٩٣ وتاريخ ٢٣/٦/١٤٣٨هـ بشأن تفويض الصلاحية لإدارة التخطيط والتطوير لتسهيل مهمة الباحثين والباحثات، وحيث تقدم إلينا الباحث (الموضحة بياناته أعلاه) بطلب تطبيق أداة البحث على عينة الدراسة في نطاق الإدارة العامة للتعليم بمنطقة الرياض، ونظراً لاكمال الأوراق المطلوبة، **نأمل تسهيل مهمته**، مع ملاحظة أن الباحث يتحمل كامل المسؤولية المتعلقة بمختلف جوانب البحث، ولا يعني سماح الإدارة العامة للتعليم موافقتها بالضرورة على مشكلة البحث أو على الطرق والأساليب المستخدمة في دراستها ومعالجتها، أو على نتائجها.

مع أخذ موافقة أولياء أمور الطلاب المطبقة عليهم الدراسة.

شاكرين ومقدرين جهودكم وتقبلوا تحياتنا .. والله الموفق ، ، ،

مدير إدارة التخطيط والتطوير

محمد بن إبراهيم الريدي