



Effect of a Classroom-based Intervention on the Social Skills of Students with Learning Difficulties

Emad M. Alghazo ^{1*}, Mahmoud Gharaibeh ¹, Samer Abdel-Hadi ¹

¹ College of Education, Humanities & Social Sciences, Al Ain University, Al Ain, United Arab Emirates.

Abstract

Children with learning difficulties often face challenges in social skills, hindering their ability to adjust and interact within society. The present study was designed to evaluate the effectiveness of a training program designed to enhance the social skills of individuals with disabilities. The quasi-experimental study involved 20 primary school students with learning difficulties exhibiting deficits in social skills in the United Arab Emirates. To evaluate the level of social skills of the sample children, a social skills assessment scale was employed, which was developed by the researchers. The assessment scale consisted of 24 statements that were organized into three dimensions based on previous research and theoretical frameworks. The results of the present study showed that the training program significantly and positively impacted the social skills of these children. There were statistically significant disparities between the mean ranks of the experimental group and the control group's scores on the social skills assessment scale after program completion. In conclusion, the study recommends integrating the developed training and similar programs into the public and private education curricula, including both government and private schools, to improve the social communication abilities of children with learning difficulties.

Keywords:

Social Skills;
Learning Disabilities;
Training Program;
Curriculum Development.

Article History:

Received:	27	March	2023
Revised:	22	June	2023
Accepted:	08	July	2023
Published:	27	July	2023

1- Introduction

Social Skills (SS) refer to a set of behaviors that enable individuals to effectively and smoothly interact with others in diverse social situations [1]. These skills are essential for regulating emotions, forming connections, and achieving academic success through interpersonal interaction, communicating appropriately, and responding to social cues [2]. The United Nations report on the Global Social Situation emphasizes the importance of social inclusion, which involves providing opportunities, resources, a voice, and respect for the rights of individuals with disabilities, including those with learning difficulties [3]. However, more than one billion people worldwide with disabilities face challenges such as poverty, negative attitudes, and social isolation [4]. Unfortunately, discrimination and stigma toward disabled individuals can lead to violence, exploitation, abuse, and marginalization. Discrimination against individuals with disabilities refers to any limitations or disparities that prevent them from exercising their legal entitlements in various domains, such as political, economic, social, cultural, civil, and other areas of life. Therefore, stigmatizing beliefs and prejudices against people with impairments can hinder their participation in society.

Learning difficulties, a cognitive-neurological disorder, significantly impact an individual's ability to learn [5]. This term refers to certain disabilities in information processing that affect learning processes, ultimately influencing an individual's ability to adapt to daily life [6]. Unfortunately, individuals with disabilities often experience social and political exclusion, which is a violation of their basic rights [7]. Stigmatizing attitudes and behaviors towards people

* **CONTACT:** emad.alghazo@aau.ac.ae

DOI: <http://dx.doi.org/10.28991/ESJ-2023-SIED2-011>

© 2023 by the authors. Licensee ESJ, Italy. This is an open access article under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<https://creativecommons.org/licenses/by/4.0/>).

with disabilities contribute to this exclusion, along with inaccessible environments, systems, and institutional barriers [8]. Children with learning difficulties often experience problems with SS, including interpreting social cues, initiating conversations, and regulating emotions [9]. These also worsen academic difficulties [10]. Additionally, learning difficulties can significantly impede academic progress, leading to challenges in acquiring essential reading, writing, and math skills, resulting in low confidence, frustration, and stress. Consequently, these difficulties can hinder SS development, making it challenging for children to engage with peers, form friendships, and participate in social activities [11]. As a result, children with learning difficulties may face long-term consequences such as social isolation and reduced social participation [12], leading to social segregation and feeling excluded from their social circle. For instance, they may struggle with comprehending social cues or regulating their emotions, leading to misunderstandings or conflicts with peers. Moreover, academic challenges can significantly affect social interactions, causing children with learning difficulties to feel excluded or marginalized by their peers [7]. Therefore, developing effective interventions to enhance children's SS is crucial.

It is crucial to provide individualized interventions to cater to the specific SS needs of children with learning disabilities since each child may require different levels of support [8]. Some children may benefit from more structured and intensive interventions, while others may require ongoing monitoring and assistance. Parents, teachers, and other professionals also play a vital role in facilitating the SS development of children with learning disabilities since learning disabilities can be complex and multifaceted, requiring a range of interventions and adaptations for effective treatment [13]. Tailored interventions are necessary to meet the unique needs of each child with learning disabilities, such as targeted reading instruction for a child with dyslexia or behavior modification strategies and medication for a child with attention deficit hyperactivity disorder (ADHD). In addition to such interventions, promoting the overall well-being of children with learning disabilities may require additional support, such as counseling or SS training [14]. Previous studies demonstrated that interventions can effectively improve the SS, community involvement, and relationships of individuals with learning disabilities [15–17]. SS training programs are those that aim to teach and improve children's appropriate, adaptive social behaviors [18]. It is, therefore, necessary to develop social inclusion skills through social and communication training, increase participation in sports and the arts, and foster supportive relationships, such as social support and violence prevention [16, 17, 19].

According to Diaz-Garolera et al. [20], strengthening children's SS competencies can enhance their social networks. To address this issue, the researchers developed and evaluated the Friendship & Social Skills Programme (FSSP), a 12-session training program, with the participation of 10 young adults with learning difficulties. The curriculum focused on developing abilities such as initiating conversations, managing interpersonal relationships, and forming friendships. The study revealed that participants improved their willingness to make friends and acquired essential social interaction skills, which may lead to lasting friendships. The FSSP is a valuable resource that addresses the need for research on the social inclusion of people with learning disabilities and can be adapted to various settings. A study on the academic performance of children with and without learning problems was carried out by Ejaz et al. [19]. According to their findings, collaborative team teaching (CTT) is a useful instructional strategy for primary kids who need extensive support. Parents should strive to create a friendly environment for their children and foster positive relationships. It is also essential to develop a curriculum that is effective in an inclusive setting to ensure their academic success. In another study, Babzadeh et al. [5] aimed to investigate the impact of self-compassion training on the SS, social self-efficacy, and social adjustment of students with learning difficulties. Their results indicated that the students who received self-compassion training demonstrated improvements in these areas. Based on the findings, the study suggests that teachers should integrate self-compassion training into the curricula of students with learning impairments.

Similarly, Hunt et al. [16] conducted a study to investigate the impact of interventions aimed at improving livelihood outcomes for individuals with disabilities in low- and middle-income countries (LMICs). The study analyzes a range of outcomes, including access to formal and informal employment, skill development in the workplace, labor market accessibility, work-related income and earnings, and access to social protection programs and financial services. The findings of the study suggest that the implementation of various programmatic approaches has the potential to enhance the livelihood outcomes of people with disabilities in LMICs. In a systematic review, Saran et al. [17] assessed the efficacy of treatments intended to enhance social inclusion outcomes for people with disabilities residing in LMICs. The review encompassed 37 quasi-experimental studies, comprising 16 from South Asia, 9 each from East Asia, the Pacific, the Middle East, and North Africa. The findings of the review indicate that a diverse range of interventions can significantly improve the social inclusion of individuals with impairments. For instance, interventions such as social and communication training and personal support have been effective in enhancing the SS and conduct of people with disabilities.

The present study aimed to evaluate the effectiveness of a training program designed specifically to improve the SS of children with learning disabilities. The previous studies conducted in Arab and Western countries are aligned with the current study regarding its objectives, findings, and the amount to which it drew on earlier research. Additionally, the unique elements of the current study were found in comparison to previous research. This study evaluated the effectiveness of a SSs training program for students with LDs in UAE Elementary Schools. The study utilized a quasi-

experimental design similar to that of earlier research. The researchers drew from prior research to create the research topic and establish research questions, design the study instrument, choose the sample, identify key components of the theoretical framework, and pick statistical analysis methods for data evaluation.

1-1-Learning Difficulties in the UAE

The UAE is one of the first nations to give special education much attention. The federal legislation 29/2006 was created to promote the rights of persons with special educational needs as part of the UAE's commitment to inclusive education in schools. According to UAE legislation, students with disabilities cannot face barriers to admission or attendance at educational institutions, whether public or private. Additionally, the Ministry of Education adheres to the national and international educational inclusion standards, which allow children with disabilities to learn alongside their classmates in regular classes while receiving the appropriate support and in a setting tailored to their unique educational requirements [21].

Such commitment to people with disabilities is treated very respectfully in the UAE, where tradition and culture serve as the cornerstones of social responsibility among all parts of society [22]. Because of this, meeting these people's needs is not only the responsibility of their families; the whole Emirati community is dedicated to doing so [23].

In addition, the critical factor in the UAE is the lack of intervention tools to improve the SSs of people with learning difficulties [24]. For this, the UAE has supported the establishment of several training and rehabilitation facilities nationwide and has undertaken numerous initiatives to include kids with special needs in regular classroom settings [25]. Additionally, all institutions, whether public or private, must provide and guarantee equitable access to all students, according to the UAE Disability Law. Adopting this legislation and reforms makes it easier for children with disabilities to register in regular classrooms. Most of the schools in the UAE now accept kids with special needs and allow them to study alongside regular pupils [26].

1-2- Social Skills

SS are a collection of actions that allow individuals to effectively and harmoniously interact with others in different social situations. Different definitions of SS exist, with each emphasizing different aspects of this intricate concept. The American Speech-Language-Hearing Association (ASHA) defines SS as the ability to effectively use language and communicate socially in a variety of social situations [27]. SS includes the ability to initiate and maintain interactions with others, communicate effectively, and respond appropriately to social cues [2, 28]. Individualized interventions are crucial for addressing the SS needs of children with learning difficulties, as each child may require a different level of intervention. Some children may need more structured and intensive interventions, while others may benefit from regular monitoring and support. Moreover, parents, teachers, and other professionals have a significant role to play in facilitating the development of SS in children with learning difficulties.

Avoid expectations and needs for social connection and communication are inherent in school life. However, social issues such as starting and participating in conversations and adhering to social norms in a variety of spheres of life, including school life, characterize or are linked to the majority of students with disabilities, particularly Autism Spectrum Disorders (ASD), and a lesser extent, ADHD [29, 30]. Because of this, people with these disorders have less opportunity to develop their SSs and run a higher risk of being socially isolated and withdrawing [31]. SSs are often linked to the number and caliber of friendships [32], which are linked to happiness and life quality [33]. Peer likeability is positively correlated with motivation, contentment, interest in school, and academic success in a social setting [34, 35]. Peer social contact is an important part of everyday life at school, especially for adolescents [36].

Children with disabilities are now more widely recognized, and society, including regular classrooms, is responsible for understanding and supporting those identified children [37]. As a result, several high- and middle-income nations have made inclusive education a requirement for enrollment in their normal school systems [38, 39]. Students with impairments may benefit from regular educational settings if they are given the proper help in the learning environment [40, 41].

Students with learning difficulties may benefit from studying alongside their neuro-typical classmates in an inclusive setting, which provides a flexible learning environment [42, 43]. Naturalistic surroundings are the most suitable setting for therapies, according to the recent Lancet Commission report on future care and clinical research in autism [43]. It also showed that children with learning difficulties received less attention than other disabilities explored in studies. Therefore, intervention research in educational settings with early development populations offers a wonderful chance to address the current gaps in the literature and boost capacity-building for people with learning difficulties in key societal contexts outside of clinical settings. Therefore, the researchers observed a noticeable decrease in the children's social abilities and learning difficulties during their work in education and interactions with them. Previous studies have also demonstrated the significance of training programs in enhancing the SSs of these children. These programs aim to improve communication and social interaction and comprehend social cues, emotions, and other essential social skills

required for adapting to society. The objective of the present study is to confirm the efficacy of a training program designed for children with learning difficulties and to assess the degree of progress they might achieve as a result. The current study addresses the following issue: How effective is the training program in enhancing children's social skills with learning difficulties? More specifically, the current research aims to confirm the following hypothesis:

- The training program will enhance the social skills of elementary school children with learning difficulties in the UAE.
- The experimental group will exhibit significantly higher scores on the social skills assessment scale after completing the program than before, as measured by the post-test.
- The experimental group's scores will show significantly greater improvement than those of the control group from the pretest to the post-test following the training program.
- The post-measurement test will indicate enhanced social skills among the children in the experimental group of the training program, irrespective of age and gender.

2- Methods and Procedures

2-1- Study Design

The study utilized a quasi-experimental design where the independent variable was the training program, and the dependent variable was the enhancement of social skills.

2-2- Study Location

The study was carried out at the two primary public schools in Al Ain, United Arab Emirates (School A for boys and School B for girls). In the UAE, Primary or Elementary schools are referred to as the first and Second Cycles. First Cycle (grade 1–grade 4; ages 6–9 years); and Second Cycle (grade 5–grade 8; ages 10–14 years). High Schools are referred to as the third Cycle (grades 8–12)*. It is important to note that public schools in the United Arab Emirates separate boys from girls starting the second cycle due to cultural and religious issues. School A had a total of 645 male students, and school B had a total of 460 female students. Both Schools were implementing inclusive education at the time of the study and had resource rooms for students with learning disabilities/difficulties, and students diagnosed with ADHD. There were 32 students diagnosed with learning disabilities and receiving special education services in school A (4.97%), and 55 students diagnosed with learning disabilities and receiving special education services in school B (11.96%). Both schools are affiliated with the College of Education, Humanities, and Social Sciences (CoEHSS) at Al Ain University.

Students perform their practicum course in those schools in addition to other schools. In addition, a memorandum of understanding was signed between schools in Al Ain and CoEHSS, which includes conducting research in schools to enhance educational services for students. Faculty members, in turn, conduct workshops and seminars at those schools as part of the professional development for teachers. All public elementary schools in the UAE admit students ages 9–13, and all students undergo diagnostic testing at the entry level to determine those who require additional diagnosis and who are eligible to receive special education services. The procedures set forth by the Ministry of Education for the identification of disabilities are: "When a student who is not enrolled in any special education program experiences learning or behavior difficulties or has sensory, medical, or physical needs, the student may be referred by a parent, school personnel, or community organization for a comprehensive evaluation to determine his eligibility for special education programs and services†". Each school has several teachers working with students with disabilities in the resource room: the special education teacher, the psychologist, and the sociologist. Each of those teachers provides services based on the needs of each student that are identified in his/her Individualized Education Program (IEP).

2-3- Facilities in the Resource Room

All teachers working in the resource room reported that they use all the resources that are provided by the Ministry of Education for Inclusive Education nationwide and adapt resources as needed to meet the individual needs of their students. All resource rooms are provided with teaching aids such as charts, pictures, laptops, data shows, and graphs. All teachers had a bachelor's degree in their field of study from local universities, and they were all Emirati Nationals.

2-4- Participants

Acknowledgments During the period of time spent conducting the study, there were a total of 87 students with learning disabilities receiving special education services in the resource room in both schools. A total of 33 students out of the 87 (37.9%) had SS problems, and they were targeted to participate in the study. Consent letters were sent to the

* <https://www.moe.gov.ae/>

† <https://www.moe.gov.ae/Ar/Legislation/Documents/English%20Side%20Final.pdf>

guardians of those students, assuring them anonymity in participating in the study; only 24 guardians agreed that their children participate, with a return rate of 72.7%. During the first week of the study, two students took leave of absence due to health issues, and only 22 students participated in the study. 12 of those participants were in school A, and 10 were in school B. The researchers decided to eliminate two participants from school A with the fewest SS problems in order to make the number of both the experimental and control groups equal. The final participants were 10 male students in school A and 10 female students in school B. All participants were in 5th grade, and their ages ranged from 10.3 to 14.6 years. In addition, all participants were from the same neighborhood and had similar socio-economic backgrounds.

2-5- Measures

2-5-1- Emotional and Social Skills Scale

The researchers utilized the [44] Emotional and Social Skills Scale, which comprises 20 items designed to assess the emotional and SS required by students with learning disabilities enrolled in resource rooms. This scale was deemed suitable for the current study because it integrates emotional and social skills, which are interconnected. To ensure the validity and reliability of the scale, Obeidat [44] initially presented it in its original form to eight special education experts, who evaluated its appropriateness and the importance of emotional and social skills and suggested modifications. The scale, originally consisting of 51 items, was then reduced to 20 items based on the experts' feedback and was rated on a three-point scale (always, sometimes, and rarely).

The researchers further validated the scale by presenting it to ten specialists in learning difficulties, who suggested minor modifications based on their observations. The scale's stability was tested through the application of Pearson's equation, resulting in a coefficient of 0.86, and the stability coefficient was obtained through test-retest methods, which involved 25 male and female students with learning difficulties from Irbid governorate, representing an acceptable percentage (80%) for this study's purposes.

2-5-2- Level of Social Skills

To evaluate the level of social skills of the sample children, a social skills assessment scale was employed, which was developed by the researchers. The findings of the assessment scale demonstrated that the degree of social skills deficits among both the experimental and control groups' children ranged from 32 to 44 points, with an average of 38 points. This highlights that the sample children were experiencing a significant decline in their social skills level. To ensure equivalence between the two groups' results in terms of their social skills level, the non-parametric Mann-Whitney statistical method was utilized, and the outcomes are presented in the table below (Table 1).

Table 1. Equivalence of experimental and control group children in terms of level of social skills (n=20)

Sample	N	Average ranks	Total	u-value	z-value	Sig
Experimental group	10	10.60	106	42	-0.60	-
Control group	10	10.40	104			

2-5-3- Social Skills Assessment Scale

The tools used in this study included a social skills assessment scale designed specifically for children with learning difficulties, which was developed by the researchers. Social skills refer to a set of abilities that enable children to effectively interact with others and society. These skills include communication, cooperation, social integration, problem-solving, emotional regulation, and others. The assessment scale consisted of 24 statements that were organized into three dimensions based on previous research and theoretical frameworks. The first dimension, communication, included eight statements. The second dimension, social interaction, also included eight statements. Finally, the emotional regulation dimension included eight statements.

2-5-4- Validity

The researchers presented the scale to eight experts who are members of the teaching staff in the special education and mental health fields to assess the validity of the scale items and their ability to measure the intended variables. The researchers incorporated feedback and suggestions from the experts and made the necessary modifications. The experts' agreement percentages on the scale items varied from 82% to 100%, indicating that all scale items were appropriate, resulting in a total of 24 items on the scale.

2-5-5- Reliability

The scale's reliability was assessed using two methods:

- The split-half method, which produced a reliability coefficient of 0.86, indicating high reliability.
- Cronbach's alpha coefficient, which resulted in a reliability coefficient of 0.83, also indicating high reliability.

2-5-6- Internal Consistency

To determine the internal consistency of the scale, correlation coefficients were calculated between each dimension of the scale and the total score. The resulting table displays the internal consistency of each dimension of the scale. Table 2 indicates that all correlation coefficients between each of the three main dimensions of the scale and the total score are significant at the 0.01 level. This demonstrates that the dimensions of the scale are coherent and possess a strong structure. As a result, we can confidently use this scale to measure the variables in the study sample.

Table 2. Internal Consistency of the Dimensions of the Social Skills Assessment Scale for Children with Learning Disabilities

Dimension	Correlation Coefficient	Sig
Communication	0.842	0.01
Social Interaction	0.782	0.01
Emotional Regulation	0.813	0.01

The Training Program (Prepared by The researchers):

- *Program Objective:*

The primary aim of the program is to enhance the social skills of primary school children with learning difficulties at UAE Elementary Schools.

- *Program Philosophy:*

The program philosophy is grounded in behavior therapy and its theoretical principles and techniques. Behavior therapy employs positive reinforcement and rewards to encourage the repetition of desirable behavior.

- *Training Program Sessions:*

The training program for children consists of a total of 15 sessions, which are divided into two parts. The first part comprises four introductory sessions for teachers of children with learning difficulties. The second part consists of 11 training sessions for the children with learning difficulties to teach them the program's activities. Each session covers specific topics, goals, and a predetermined timeframe.

2-5-7- Study Procedure

The study took place between September 2022 and November 2022. Before the beginning of the intervention program, the researchers reviewed the files of each student and held meetings with their teachers to determine the areas of deficit in social skills the students had. The three dimensions mentioned above were agreed upon by researchers and the teachers who were teaching those students in the resource room. The intervention program was administered in the resource room three times a week (three sessions), each session lasting 40 minutes. Each session consisted of a written scenario and guidelines on how to work with the students. The program also included man-made activities through which students were able to share their newly acquired social skills with one another.

2-5-8- Approvals of Conducting the Study

The researchers obtained approval to conduct the study from the schools as part of the agreement under the MOUs signed between the schools and the College of Education, Humanities, and Social Sciences at Al Ain University. In addition, approvals were obtained from the guardians of the participants by sending them a consent letter explaining the objective of the study, the process through which the study will be administered, and a letter assuring them of the anonymity of their children's participation.

3- Results

The initial hypothesis suggests that there are significant statistical variations between the mean scores of the experimental group's children prior to implementing the program and the average ranks of their scores on the social skills assessment scale following program implementation. To confirm this hypothesis, the researchers utilized the non-parametric statistical method and the Wilcoxon test to compare the pre-program scores of the experimental group's children with their post-program scores on the social skills assessment scale. Table 3 highlights the findings regarding the significance of the differences between pre- and post-measurements.

As shown in the preceding table, there are statistically noteworthy variances between the average scores of the children in the experimental group on the social skills assessment scale before and after participating in the program. Specifically, the post-measurement mean ranks of positive scores were significantly higher than those of negative scores, confirming the study's first hypothesis.

Table 3. outlines the variations in mean scores of the group of children who participated in the program for developing social skills

Sample	Results of pre and post	N	Average Ranks	Sum of ranks	z-value	Sig
Experimental	Negative ranks	0	-	-	-2.94	Not
	Positive ranks	10	5.4	54		
	Equal ranks	0	-	-		
Total		10				

The second hypothesis asserts the presence of noteworthy disparities between the mean scores of the experimental group's children and the mean ranks of the control group's children on the social skills assessment scale, subsequent to the program's completion. To examine this hypothesis, the researchers utilized the non-parametric Mann-Whitney statistical technique to compare the average scores of both groups post-program implementation and to ascertain the magnitude of any differences. The researchers' discoveries on this matter are presented in Table 4.

Table 4. Significance of variances between the average scores of the experimental and control groups

Sample	N	Average rank	Total rank	u-value	z-value	sig
Experimental	10	16.5	165	0	-3.84	0.01
Control	10	5.4	54			

Table 3 reveals significant statistical disparities between the mean ranks of the experimental group and the control group's scores on the social skills assessment scale after program completion. Precisely, the mean ranks of the experimental group's scores were significantly higher than those of the control group, which validates the study's second hypothesis.

The third hypothesis suggests that there are no significant differences between the mean ranks of the experimental group's scores on the social skills assessment scale during the post-measurement and the follow-up measurement after two weeks of program completion. To examine this hypothesis, the researchers utilized the non-parametric Wilcoxon statistical technique to compare the mean scores of the experimental group post-program completion with the mean ranks of the same group's scores on the social skills assessment scale two weeks later. The aim was to determine the magnitude of any variations between the post- and follow-up measurements. Table 5 displays the findings.

Table 5. Statistical significance of variances between the mean scores of the experimental group children, on the social skills assessment scale in the post and follow-up measurements after two weeks of completing the program designed to improve their social skills.

Sample	Results of pre and post	N	Average Ranks	Sum of ranks	z-value	Sig
Experimental	Negative ranks	1	2.5	2.5	-1	Not
	Positive ranks	3	2.5	7.5		
	Equal ranks	6	-	-		
Total		10				

According to the previous table, there were no statistically significant differences between the mean ranks of scores for the experimental group children before and after one month of applying the program on the social skills assessment scale. This supports the third hypothesis of the study.

4- Discussion

The results of the study showed that there was an effect of the training program on the development of social skills in students with learning difficulties in UAE elementary schools. This indicates that the training program was effective and highly efficient in developing the social skills of students with learning difficulties, as evidenced by the improvement that occurred in the experimental group. Moreover, it can be learned that these life skills and others can be learned if suitable means, methods, and strategies are provided. The researchers attribute this result to the fact that the training program contributed to linking learning with work and provided opportunities for positive interaction among students through organized interaction. It enabled students to engage in speaking, listening, reading, writing, and developing team spirit, which helped in developing the social skills of students with learning difficulties and made them more capable of communicating with others.

The researchers attribute the improvement in social skills to the success of the training program because the skills that were presented to the students in the sessions met the needs of students with learning difficulties in their social interactions with others. Additionally, the students felt that these skills were necessary for their lives, which increased their mastery of them. Moreover, the responsibility for training and practicing social skills at home rested on the students

themselves, which made them responsible for mastering these skills. In addition, the comfortable classroom atmosphere in which the students with learning difficulties felt free, safe, and fearless gave them the freedom to express their ideas and allowed them to collaborate and interact socially with their peers. This increased their confidence, respect, cooperation, and positive interaction among groups and individuals. This was confirmed by Al Hammouri & Al Basheer [3] and Hadi et al. [46] in their studies, where they emphasized the importance of teaching children with learning difficulties nonverbal communication, interpreting self-feelings, and enabling them to learn social and emotional skills.

This result is consistent with previous studies that have indicated the effectiveness of social skills training programs in improving self-concept, social competence, interaction, and engagement with others, such as Al Hammouri & Al Basheer [45], Hadi et al. [46], and Khalil et al. [47], each of which demonstrated the effectiveness of the developed training program in improving and developing social skills in students with learning difficulties. This result is also consistent with the Al-Natour et al. [48] study, which demonstrated the effectiveness of the training program on social skills in students with learning difficulties in terms of improving self-concept and social competence, as well as the Al-Natour et al. [48] study, which indicated a tangible improvement in social skills among the experimental group. The results of the study also agree with many Arab studies conducted in this field, such as the Saiegh-Haddad [49] study, which demonstrated the effectiveness of the program in developing self-concept, self-confidence, and social skills in students with learning difficulties. They also agree with the results obtained by Khalil et al. [47] regarding the effectiveness of the reinforcement-based training program and learning by modeling in developing social skills in students with learning difficulties. Similarly, they are consistent with the results obtained by Chaidi & Drigas [50], who were able to develop social and emotional skills through a peer-based training program.

The study found that there were significant differences in the mean ranks of scores on the social skills assessment scale for the experimental group before and after the program. Specifically, the post-measurement scores showed an improvement in social skills after the program was implemented. This comparison between pre- and post-measurements allowed for a demonstration of the program's effectiveness in improving the social skills of children in the experimental group. The significant differences in mean scores also indicate that the program achieved its goals. These results are consistent with those found in the studies conducted by Al Hammouri & Al Basheer [45] and Conrad et al. [51].

The study yielded notable statistical variations in the mean scores of the experimental group relative to the control group post-program implementation. The disparities signify an improvement in the social skills of the experimental group compared to the control group, thereby validating the efficacy of the training program as an intervention for children encountering social difficulties in comparable school settings. These findings are consistent with the outcomes of the Al Hammouri & Al Basheer [45] investigation.

The investigation revealed no distinctions between the mean ranks of scores for the experimental group on the social skills assessment scale during the post-measurement and follow-up measurements. This observation implies that the program's beneficial effects endured over time, indicating that the intervention has the potential to generate enduring advantages for children with learning difficulties, which could contribute to their social and academic accomplishments. These findings are in line with the outcomes of studies conducted by Al-Natour et al. [48] and Khalil et al. [47].

The study's results indicate that the training program was successful in enhancing the social skills of children with learning disabilities. This success can be attributed to the program's ability to provide an effective intervention for socially challenged children, with positive effects that persist over time. These findings underscore the importance of providing training programs for children with learning disabilities to improve their social skills, which could lead to better academic performance and increased social inclusion in the long term. The researchers believe that this study provides compelling evidence of the program's effectiveness in helping children with learning difficulties who struggle with low social skills.

5- Conclusion

The present study utilized the social skills assessment scale for the evaluation of social skills and an intervention program to enhance the social skills of children with disabilities. The results of the present study showed that the training program significantly and positively impacted the social skills of these children, with statistically significant disparities between the mean ranks of the experimental group and the control group's scores on the social skills assessment scale after program completion. This was one of the few studies reporting the benefits of an intervention program on the social skill enhancement of children with disabilities in the UAE. Training programs and similar interventions are imperative in the general education curricula, both in public and private schools, to improve the social communication skills of children with learning difficulties. It is recommended to provide individual training to children with learning disabilities on communication skills to achieve better results, as these skills can lead to improved self-confidence and effective communication with others. Using the results of this study will be beneficial in developing similar training programs for other schools to improve the social skills of children with learning difficulties. Developing teachers' skills is also necessary for dealing with children with learning difficulties and enhancing their ability to implement training programs aimed at improving their social skills. Working on developing educational resources that are made available to families and teachers to support the education of children with learning disabilities and improve their social communication skills both at home and at school.

6- Declarations

6-1-Author Contributions

Conceptualization, E.A., S.A., and M.G.; methodology, E.A., S.A., and M.G.; formal analysis, S.A. and M.G.; data curation, E.A.; writing—original draft preparation, E.A., S.A., and M.G.; writing—review and editing, E.A., S.A., and M.G. All authors have read and agreed to the published version of the manuscript.

6-2-Data Availability Statement

The data presented in this study are available on request from the corresponding author.

6-3-Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

6-4-Institutional Review Board Statement

Not applicable.

6-5-Informed Consent Statement

Approvals were obtained from the guardians of the participant's by sending them a consent letter explain the objective of the study and explain the process through which the stud will administered and a letter assuring them the anonymity off their children participation.

6-6-Conflicts of Interest

The authors declare that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

7- References

- [1] Mafra, H. (2015). Development of Learning and Social Skills in Children with Learning Disabilities: An Educational Intervention Program. *Procedia - Social and Behavioral Sciences*, 209, 221–228. doi:10.1016/j.sbspro.2015.11.220.
- [2] O'Reilly, M. F., Lancioni, G. E., Sigafoos, J., O'Donoghue, D., Lacey, C., & Edrisinha, C. (2004). Teaching social skills to adults with intellectual disabilities: A comparison of external control and problem-solving interventions. *Research in Developmental Disabilities*, 25(5), 399–412. doi:10.1016/j.ridd.2003.07.003.
- [3] Groce, N., & Trani, J. (2011). *Disability and the millennium development goals*. United Nations Publication, New York, United States.
- [4] Krahn, G. L. (2011). WHO World Report on Disability: A review. *Disability and Health Journal*, 4(3), 141–142. doi:10.1016/j.dhjo.2011.05.001.
- [5] Babazadeh, Z., Mojaver, S., Fathi, K., & Jabbari, S. (2022). The effectiveness of self-compassion training on social skills, social self-efficacy and social adjustment of students with learning disabilities. *Journal of Learning Disabilities*, 11(3), 30–44. doi:10.22098/JLD.2022.7665.1823.
- [6] Spector, P. E., & Fox, S. (2006). The Stressor-Emotion Model of Counterproductive Work Behavior. *Counterproductive Work Behavior: Investigations of Actors and Targets.*, 2005, 151–174. doi:10.1037/10893-007.
- [7] Rakhshandeh, L., & Sobhi Gharamaleki, N. (2022). Comparison of emotional expression, cognitive avoidance and social skills in students with and without specific learning difficulties. *Journal of Learning Disabilities*, 11(3), 62–75. doi:10.22098/JLD.2022.7875.1844.
- [8] Winner, M. G. (2022). *Why teach social thinking?: Questioning our assumptions about what it means to learn social skills*. Think Social Publishing, San Jose, United States.
- [9] Banks, L. M., O'Fallon, T., Hameed, S., Usman, S. K., Polack, S., & Kuper, H. (2022). Disability and the achievement of Universal Health Coverage in the Maldives. *PLOS ONE*, 17(12), e0278292. doi:10.1371/journal.pone.0278292.
- [10] Bruefach, T., & Reynolds, J. R. (2022). Social isolation and achievement of students with learning disabilities. *Social Science Research*, 104, 102667. doi:10.1016/j.ssresearch.2021.102667.
- [11] Sheppard, P., Polack, M., & McGivern, M. (2018). *Missing millions: how older people with disabilities are excluded from humanitarian response*. HelpAge International, London, United Kingdom.

- [12] Bright, T., Wallace, S., & Kuper, H. (2018). A systematic review of access to rehabilitation for people with disabilities in low- and middle-income countries. *International Journal of Environmental Research and Public Health*, 15(10), 2165. doi:10.3390/ijerph15102165.
- [13] Drigas, A., Mitsea, E., & Skianis, C. (2022). Virtual Reality and Metacognition Training Techniques for Learning Disabilities. *Sustainability (Switzerland)*, 14(16), 10170. doi:10.3390/su141610170.
- [14] Tabari, R. (2022). Embracing Dyslexia within Diversity and Multilingualism in the United Arab Emirates. *The Routledge International Handbook of Dyslexia in Education*. Routledge, Milton Park, United Kingdom. doi:10.4324/9781003162520-40.
- [15] Rahman, M. M., Jung, J., Islam, M. R., Rahman, M. M., Nakamura, R., Akter, S., & Sato, M. (2022). Global, regional, and national progress in financial risk protection towards universal health coverage, 2000–2030. *Social Science & Medicine*, 312, 115367. doi:10.1016/j.socscimed.2022.115367.
- [16] Hunt, X., Saran, A., Banks, L. M., White, H., & Kuper, H. (2022). Effectiveness of interventions for improving livelihood outcomes for people with disabilities in low- and middle-income countries: A systematic review. *Campbell Systematic Reviews*, 18(3), 1-34. doi:10.1002/cl2.1257.
- [17] Saran, A., Hunt, X., White, H., & Kuper, H. (2023). Effectiveness of interventions for improving social inclusion outcomes for people with disabilities in low- and middle-income countries: A systematic review. *Campbell Systematic Reviews*, 19(1), 1-32. doi:10.1002/cl2.1316.
- [18] Frey, K. S., Hirschstein, M. K., & Guzzo, B. A. (2000). Second step: Preventing aggression by promoting social competence. *Journal of Emotional and Behavioral Disorders*, 8(2), 102–112. doi:10.1177/106342660000800206.
- [19] Ejaz, K., Dahar, M. A., & Yousuf, M. I. (2022). Academic Achievement Of Students With And Without Learning Disabilities In Inclusive Education. *Journal of Positive School Psychology*, 6(12), 1788-1801.
- [20] Diaz-Garolera, G., Pallisera, M., & Fullana, J. (2022). Developing social skills to empower friendships: design and assessment of a social skills training programme. *International Journal of Inclusive Education*, 26(1), 1–15. doi:10.1080/13603116.2019.1625564.
- [21] O’Sullivan, K. (2016). Education Quality in the UAE - Factors in Creating a Knowledge-Based Economy. *International Journal of Research and Current Development*, 2(1), 98-104. doi:10.2139/ssrn.3194377.
- [22] Meda, L., ElSayary, A., & Mohebi, L. (2023). Exploration of In-Service Teachers’ Preparedness and Perceived Challenges about Inclusive Education in the United Arab Emirates. *Journal of Educational and Social Research*, 13(1), 22–31. doi:10.36941/jesr-2023-0003.
- [23] Abdat, R., Opoku, M. P., Safi, M., Al Harballeh, S., & Garces-Bacsal, R. M. (2023). Virtual Training on Stress Management for the Mothers of Children with Disabilities in the United Arab Emirates. *International Journal of Environmental Research and Public Health*, 20(2). doi:10.3390/ijerph20021450.
- [24] Lee, D. (2022). 3Ms of Occupational Engagement: Awareness of Entitlement and Support Programs for People with Disabilities (People of Determination) in the United Arab Emirates. Ph.D. Thesis, Boston University, Boston, United States.
- [25] ElSayary, A. (2023). The impact of a professional upskilling training programme on developing teachers’ digital competence. *Journal of Computer Assisted Learning*. doi:10.1111/jcal.12788.
- [26] Tedam, P., Wagner, B., & Mitchell, V. (2023). Social Work Regulation in the United Arab Emirates. *Research on Social Work Practice*, 33(1), 29–40. doi:10.1177/10497315221120601.
- [27] Barnes, P.W. (2003). The roles of assertiveness and generalized self-efficacy in the relationship between perceived discrimination and psychological distress among African-Americans. Ph.D. Thesis, The University of Memphis, Memphis, United States.
- [28] Montoya-Rodríguez, M. M., de Souza Franco, V., Tomás Llerena, C., Molina Cobos, F. J., Pizzarossa, S., García, A. C., & Martínez-Valderrey, V. (2022). Virtual reality and augmented reality as strategies for teaching social skills to individuals with intellectual disability: A systematic review. *Journal of Intellectual Disabilities*, 1-23. doi:10.1177/17446295221089147
- [29] Askari, S., Anaby, D., Berthorson, M., Majnemer, A., Elsabbagh, M., & Zwaigenbaum, L. (2015). Participation of Children and Youth with Autism Spectrum Disorder: A Scoping Review. *Review Journal of Autism and Developmental Disorders*, 2(1), 103–114. doi:10.1007/s40489-014-0040-7.
- [30] Korrel, H., Mueller, K. L., Silk, T., Anderson, V., & Sciberras, E. (2017). Research Review: Language problems in children with Attention-Deficit Hyperactivity Disorder – a systematic meta-analytic review. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 58(6), 640–654. doi:10.1111/jcpp.12688.
- [31] Bauminger, N., & Shulman, C. (2003). The development and maintenance of friendship in high-functioning children with autism: Maternal perceptions. *Autism*, 7(1), 81–97. doi:10.1177/1362361303007001007.
- [32] Spithoven, A. W. M., Lodder, G. M. A., Goossens, L., Bijttebier, P., Bastin, M., Verhagen, M., & Scholte, R. H. J. (2017). Adolescents’ Loneliness and Depression Associated with Friendship Experiences and Well-Being: A Person-Centered Approach. *Journal of Youth and Adolescence*, 46(2), 429–441. doi:10.1007/s10964-016-0478-2.

- [33] Demir, M., Jaafar, J., Bilyk, N., & Mohd Ariff, M. R. (2012). Social skills, friendship and happiness: A cross-cultural investigation. *Journal of Social Psychology*, 152(3), 379–385. doi:10.1080/00224545.2011.591451.
- [34] Engels, M. C., Colpin, H., Van Leeuwen, K., Bijttebier, P., Den Noortgate, W. Van, Claes, S., Goossens, L., & Verschueren, K. (2017). School engagement trajectories in adolescence: The role of peer likeability and popularity. *Journal of School Psychology*, 64, 61–75. doi:10.1016/j.jsp.2017.04.006.
- [35] Gifford-Smith, M. E., & Brownell, C. A. (2003). Childhood peer relationships: Social acceptance, friendships, and peer networks. *Journal of School Psychology*, 41(4), 235–284. doi:10.1016/S0022-4405(03)00048-7.
- [36] Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, 52(1), 83–110. doi:10.1146/annurev.psych.52.1.83.
- [37] Almerie, M. Q., Okba Al Marhi, M., Jawoosh, M., Alsabbagh, M., Matar, H. E., Maayan, N., & Bergman, H. (2015). Social skills programmes for schizophrenia. *Cochrane Database of Systematic Reviews*, 2015(6). doi:10.1002/14651858.CD009006.pub2.
- [38] UNESCO. (1994). *The Salamanca Statement and Framework for action on special needs education: Adopted by the World Conference on Special Needs Education; Access and Quality. 7-10 June, 1994. Salamanca, Spain.* Available online: <https://unesdoc.unesco.org/ark:/48223/pf0000098427> (accessed on May 2023).
- [39] Stein, M. A. (2007). A quick overview of the United Nations Convention on the Rights of Persons with Disabilities and its implications for Americans with disabilities. *Mental and Physical Disability Law Reporter*, 31(5), 679–683.
- [40] Artiles, A. J., Kozleski, E. B., Dorn, S., & Christensen, C. (2006). Learning in inclusive education research: Re-mediating theory and methods with a transformative agenda. *Review of Research in Education*, 30(1), 65–108. doi:10.3102/0091732X030001065.
- [41] Fisher, D., Roach, V., & Frey, N. (2002). Examining the general programmatic benefits of inclusive schools. *International Journal of Inclusive Education*, 6(1), 63–78. doi:10.1080/13603110010035843.
- [42] Mikton, C., Maguire, H., & Shakespeare, T. (2014). A Systematic Review of the Effectiveness of Interventions to Prevent and Respond to Violence Against Persons With Disabilities. *Journal of Interpersonal Violence*, 29(17), 3207–3226. doi:10.1177/0886260514534530.
- [43] Lord, C., Charman, T., Havdahl, A., Carbone, P., Anagnostou, E., Boyd, B., Carr, T., de Vries, P. J., Dissanayake, C., Divan, G., Freitag, C. M., Gotelli, M. M., Kasari, C., Knapp, M., Mundy, P., Plank, A., Scahill, L., Servili, C., Shattuck, P., ... McCauley, J. B. (2022). The Lancet Commission on the future of care and clinical research in autism. *The Lancet*, 399(10321), 271–334. doi:10.1016/S0140-6736(21)01541-5.
- [44] Obeidat, K. (2003). *The effect of using cooperative learning on the achievement of students with difficulties Learning in mathematics and their social interactions.* Master Thesis, University Amman Arab University for Postgraduate Studies, Amman, Jordan.
- [45] Al Hammouri, W., & Al Basheer, M. (2023). Degree Of Security And Safety Factors Availability In Teaching Throwing And Jumping Activities For Students Studying Athletics Curricula In Faculty Of Physical Education At Yarmouk University From Their Viewpoint. *Journal of Namibian Studies: History Politics Culture*, 34, 829-851. doi:10.59670/jns.v34i.2237.
- [46] Hadi, N., Spott, J. L., & Higgins, R. (2022). Underrepresented Students' Experiences in STEM at Community Colleges: A Qualitative Exploration of Self-Identified Challenges and Supports. *Journal of The First-Year Experience & Students in Transition*, 34(2), 65-82.
- [47] Khalil, M., Slade, S., & Prinsloo, P. (2023). Learning analytics in support of inclusiveness and disabled students: a systematic review. *Journal of Computing in Higher Education*, 1-18. doi:10.1007/s12528-023-09363-4.
- [48] Al-Natour, M., Al-Mashayek, F., & Alkhamra, H. A. (2022). Analyzing Reading Errors among Dyslexic Students According to the Dual-Route Model. *International Journal of Instruction*, 15(3), 137-152. doi:10.29333/iji.2022.1538a.
- [49] Saiegh-Haddad, E. (2023). Embracing diglossia in early literacy education in Arabic: A pilot intervention study with kindergarten children. *Oxford Review of Education*, 49(1), 48-68. doi:10.1080/03054985.2022.2090324.
- [50] Chaidi, I., & Drigas, A. (2022). Social and Emotional Skills of children with ASD: Assessment with Emotional Comprehension Test (TEC) in a Greek context and the role of ICTs. *Technium Social Sciences Journal*, 33(1), 146-163.
- [51] Conrad, C., Deng, Q., Caron, I., Shkurska, O., Skerrett, P., & Sundararajan, B. (2022). How student perceptions about online learning difficulty influenced their satisfaction during Canada's Covid-19 response. *British Journal of Educational Technology*, 53(3), 534-557. doi:10.1111/bjet.13206.