

Social Skills, Academic Achievement, and Behavioural Adjustment: Differences between Students with Learning Disabilities and Typically Developing Students

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Abstract

This quantitative causal comparison study aims to compare the social skills of students with learning disabilities (LD) and their typically developing (TD) peers aged 7- 11 years in terms of age, gender, and grade level. The study group consisted of 261 students with DD and 189 TD students in primary schools affiliated with the Ministry of National Education. The Social Skills Rating System was used in the data collection process. As a result of the data analyses, it was found that the social skills scores of the students in the TD group were statistically significantly higher than those of the LD group. In academic performance evaluations, it was also observed that the mean scores of TD students were significantly higher than their LD peers. When behavioral problems were analyzed, it was supported by the data that individuals with LD exhibited more intense adjustment problems than the TD group. Analyses conducted according to gender show that female students scored significantly higher than male students, particularly in terms of social interaction and adaptation scores. This finding reveals that female students in both the OG and TG groups exhibited a more advantageous profile in terms of social interaction.

Keywords: Learning Disability, Social Skills, Academic Achievement, Problem Behaviour, Social Competence

Öz

7-11 yaş aralığındaki öğrenme güçlüğü (ÖG) olan öğrenciler ile tipik gelişim gösteren (TG) akranlarının sosyal becerilerini yaş, cinsiyet ve sınıf düzeyi açısından karşılaştırmayı amaçlayan bu araştırma nedensel karşılaştırma çalışmasıdır. Çalışma grubunu Milli Eğitim Bakanlığı'na bağlı ilkokullarda öğrenim gören 261 öğrenme güçlüğü olan öğrenci ile 189 tipik gelişim gösteren öğrenci oluşturmuştur. Veri toplama sürecinde Sosyal Beceri Derecelendirme Sistemi kullanılmıştır. Verilerin analizleri sonucunda, TG grubundaki öğrencilerin sosyal beceri puanlarının ÖG grubuna göre istatistiksel olarak anlamlı düzeyde yüksek olduğu bulunmuştur. Akademik performans değerlendirmelerine ait sonuçlarda; TG öğrencilerinin ortalama puanlarının ÖG akranlarından anlamlı derecede yüksek olduğu belirlenmiştir. Davranış sorunları incelendiğinde, ÖG olan bireylerin TG grubuna göre daha yoğun şekilde uyum sorunları sergiledikleri verilerle desteklenmiştir. Cinsiyete göre yapılan analizler, özellikle sosyal etkileşim ve uyum puanlarında, kız öğrencilerin erkek öğrencilere kıyasla anlamlı düzeyde daha yüksek puanlar aldığını göstermiştir. Bu bulgu, hem ÖG hem de TG gruplarında kız öğrencilerin sosyal etkileşim açısından daha avantajlı bir profil sergilediğini ortaya koymaktadır.

Anahtar kelimeler: Öğrenme Güçlüğü, Sosyal Beceri, Akademik Başarı, Problem Davranış, Sosyal Yeterlilik.



1.Introduction

Human beings are social creatures due to their biological and psychological structure; they spend a significant part of their lives in a network of relationships with others. These relationships are necessary for the individual to maintain their mental and social health. Deep and satisfying social ties are among the dynamics that directly shape individuals' happiness levels, life satisfaction, and capacity to adapt to the social environment. However, establishing such relationships requires the individual to have specific behavioral and cognitive competencies to establish healthy communication with others around them. At this point, social competencies stand out as a fundamental element that enables the individual to exist effectively in society and establish meaningful bonds with others (Bulut, 2016). The social characteristics of human beings have become a concrete need, especially in the primary school period. In this process, children support their academic development by transitioning from the family environment to a structured social environment such as school and actively experiencing social skills through interactions with peers.

When children in primary school transition from home to school life, they develop social interaction practices with their peers and form the basis of academic competencies such as reading and mathematical operations. In this process, students must acquire social competencies such as initiating and maintaining communication, cooperation, emotional expression skills, questioning, active listening, anger management, and coping with stress. Children with these skills gain an advantage in reaching their academic goals by developing more effective strategies to solve their problems (Akkök, 2003). From a developmental perspective, social competence is shaped through interactions with both family and peers, particularly during early and middle childhood (Bronfenbrenner, 1979; Denham et al., 2003). Children who fail to develop adequate social skills may experience difficulties in adjusting to school, where peer relationships and group dynamics play a central role (Rubin et. all 2006). Empirical studies have shown that students with poor social skills are more likely to face peer rejection, social exclusion, and communication difficulties, all of which can negatively impact their academic and emotional development (Wentzel & Asher, 1995; Vaughn et al., 2009).

Students with low social skills tend to be less accepted by their peers and frequently experience rejection (Çakıroğlu, 2019). Individuals who are excluded from the social environment are more likely to exhibit behavioral problems such as aggressive attitudes, social maladjustment, or withdrawal. At the same time, the effects of social competence deficits are not only limited to school life but can also negatively affect work life in adulthood. These deficits are associated with an increased risk of unemployment, low emotional intelligence, and professional failure (Elksnin & Elksnin, 1998; Çiftçi & Sucuoğlu, 2012). In addition, social skill deficiencies are considered a significant risk factor in the development of depression, alcohol addiction, and various psychopathologies (Hon & Watkins, 1995). This situation becomes more complex in individuals with learning disabilities.

Previous research has identified several factors influencing social skills in children with learning disabilities (LD), such as language impairments, executive function difficulties, and limited peer interaction (Kavale & Forness, 1996; Vaughn et al., 2003; Estell et al., 2008). These children tend to form fewer reciprocal friendships and are often less preferred as peers in classroom settings. Furthermore, structural elements such as classroom placement and teacher attitudes also play a role in shaping their social experiences. Despite these findings, relatively few studies have compared the social skill profiles of students with and without learning disabilities by considering demographic variables such as age, gender, and grade level simultaneously. The current study aims to fill this gap by examining the social skills of students with LD in comparison to their typically developing peers, while accounting for these variables. This multifaceted approach allows for a more comprehensive understanding of how different factors interplay in shaping social competence and offers practical insights for inclusive educational practices. However, when the social competence and skill levels of individuals with special needs are

analyzed, it is seen that this group faces a significant disadvantage compared to their typically developing peers (Akkök, 1999). Studies reveal that students with special needs in general education classes are more limitedly socially accepted by their peers (Avcıoğlu, 2005). According to research findings, it has been reported that approximately 75% of children with specific learning disabilities (SLD) have social skills deficits (Kavale & Forness, 1996). Among the reasons underlying this situation, it has been suggested that the difficulties experienced by individuals with SLD in social-cognitive processes (e.g., empathizing and interpreting social cues) during social interaction may be practical (Pierangelo & Giuliani, 2008). On the other hand, peer acceptance and social approval is an essential support mechanism that strengthens the social skills of individuals with special needs (Çiftçi, 2001; Sucuoğlu, 2006; Vuran, 2005). This fact emphasizes the importance of research that examines the educational, psychological, and social profile of students with SLD in depth (Urfalı-Dadandı, 2015). The acquisition of social skills is shaped by a variety of interrelated factors, including cognitive development, emotional regulation, language abilities, and environmental interactions (Denham et al., 2003; Guralnick, 2010). Among these, the role of the immediate social environment—particularly families, teachers, and peers—is critical. Families lay the foundation for early social learning through modeling, emotional support, and reinforcement of prosocial behavior (Hartup & Laursen, 1991). Teachers, on the other hand, play a mediating role by structuring classroom environments that encourage cooperation, empathy, and communication. Positive teacher-student relationships have been shown to enhance social competence and reduce problem behaviors in children with learning disabilities (Pianta, 1999). Peer interactions also serve as a key platform for practicing and refining social skills.

Structured peer-mediated interventions and inclusive classroom settings can foster acceptance and reduce the risk of social isolation for students with SLD (Kamps et al., 1992; Vaughn et al., 2003).

Therefore, collaborative support from families, educators, and peers is essential to address the multidimensional social skill deficits often observed in this population. Learning disability is a multifaceted obstacle that affects not only the academic achievement of these individuals but also their social relationships and emotional resilience. While the acquisition of social skills follows a natural course in typically developing children, this process is more complex and requires intervention in individuals with special needs. In addition, research findings reveal that there are significant differences between individuals with learning disabilities and their typically developing peers in terms of social and emotional development. These individuals are accepted by their peers at a lower level and are at risk of social isolation in the school environment (Walker, 2000). It has been stated that their peers prefer them in group activities, and the group most exposed to peer pressure is students with learning disabilities (Çakıroğlu, 2019). In addition to the academic difficulties of individuals with learning disabilities, their family relationships, friendship ties, and social interactions in business life are also negatively affected (LDAA, 2024). In the context of social skills (the ability to initiate and maintain relationships) defined by Morgan (1980) and Poole (2009), it has been emphasized that these students experience significant difficulties, and their social performance is limited (Kavale & Forness, 1996).

These limitations in both academic and social areas can profoundly affect the child's holistic development. This situation may push the child to loneliness by limiting social interactions in and out of school. Social competence deficits may lead to secondary difficulties, such as behavioral problems and school adaptation problems in these students. Focusing on academic achievement in the education system causes neglect of social skills development (Özkubat, 2010). However, supporting social skills can increase academic achievement, life satisfaction, and social integration. Therefore, it is critical to disseminate evidence-based practices to strengthen the social skills of students with special needs receiving inclusive education (Sazak Pınar, 2008). Social skills deficits may negatively affect not only the educational experiences of individuals with learning disabilities but also their private lives, social participation, and daily functioning (Ruegg, 2003). Research shows that these individuals are in a disadvantaged position due to low levels of social acceptance and conflicts in peer relationships. For

example, Kavale and Forness (1996) found that approximately 75% of children with learning disabilities had social skills deficits. These findings suggest that educators and policymakers should prioritize social skill development interventions.

It is known that children between the ages of 7 and 11 with learning disabilities have problems in social communication and peer interactions and success difficulties in academic areas such as reading, writing, and mathematics. Therefore, early diagnosis of social skills deficiencies in the educational processes of these children and designing systematic interventions to overcome these deficiencies are of great importance. In addition, teachers' participation in professional development programs for social skills training can play a key role in acquiring these skills. Especially since the 7–11 age group is a decisive period in which children's academic foundations are strengthened, and their social identities are shaped, supporting social skills in individuals with learning disabilities at an early age can ensure positive psychosocial outcomes in the long term. This study compares the social skills of 7-11-year-old students with learning disabilities and typically developing students in the context of age, gender, and grade level variables. Within the scope of the study, answers to the following research questions were sought:

1. Do the social skills scale scores of students with learning disabilities show significant differences compared to their typically developing peers?

2. Do the problem behavior and academic competence scores of students with learning disabilities differ statistically from their typically developing peers?

3. Do the social skills scores of students with learning disabilities exhibit significant differences in age, gender, and grade level variables when compared with their typically developing peers?

2. Method

This study was designed with the causal comparison model, one of the quantitative research paradigms. Causal comparison studies aim to examine the cause-effect relationships of differences between pre-existing groups without any intervention on the participants (Büyüköztürk et al., 2022)

2.2. Participants and procedure

The study group for the research consists of children with learning disabilities, children without additional disability diagnoses, and students aged 7-11 years with typical development who are studying in primary schools affiliated with the Ministry of National Education in Gaziantep Province and its central districts in the 2023-2024 academic year. Within the scope of the inclusion of children in this study, criteria such as only students with a diagnosis of learning disability attending primary schools and not having an additional diagnosis of disability was determined. Criterion sampling was preferred in the study sample selection. Criterion sampling is the formation of observed units from people, objects, events, or situations with certain qualities (Büyüköztürk et al., 2022).

The gender and class information of the students with typical development and learning disabilities in the research group are given in Table 1.

Table 1*Descriptive Statistics of Students According to Demographic Characteristics*

		LD	TD
Gender	Girl	105	102
	Male	156	87
Class Level	1st class	10	11
	2nd class	14	15
	3rd class	21	23
	4th grade	15	18
	5th grade	98	56
	6th grade	103	66
Total		261	189

LD: Learning Difficulties; TD: Typical Developing

Of the students in the study, 46% were female and 54% were male. When the distribution of the groups is analyzed, it is seen that 59% (n=261) of the participants are individuals with learning disabilities, and 41% (n=189) are typically developing students. Based on grade level, the highest participation rates were observed in the 5th (34%) and 6th (38%) grades. The average age of the participants was calculated as 10.00 (SD=1.17).

2.3. Measures

Social Skills Rating System

The Social Skills Rating System (SSRS), developed by Gresham and Elliot (1990) and adapted into Turkish by Sucuoğlu and Özokçu (2005), was used as a data collection tool in the study. SBDS is a valid and reliable scale to assess preschool and primary school students' social skill levels, behavioral problems, and academic competencies. The Turkish version of the scale was adapted from the original English version through cultural and linguistic adaptation processes. In this study, total scores were calculated for three subdimensions of the scale: social skills, behavioral problems, and academic competence. The typically developing (TD) group obtained significantly higher scores in the social skills and academic competence subdimensions, while the learning disabilities (LD) group had higher scores in behavioral problems. These findings are consistent with the literature and support the scale's sensitivity in differentiating between diagnostic groups.

2.4. Data analysis and data collection process

Before the implementation of the study, Ethics Committee Approval and official permissions were obtained from the Ministry of National Education. Following the completion of the permission processes, face-to-face interviews were conducted with the relevant primary schools in Gaziantep, and the purpose of the study and participation criteria were shared. Demographic information (age, gender, grade level) and developmental profiles of the participating students were collected from the teachers through the Demographic Information Form prepared by the researchers

Social skills, problem behavior, and academic competence scores of students with learning disabilities and typically developing students were assessed by classroom teachers using the SBDS scale. Descriptive statistics (mean, standard deviation) and combined analyses were applied to the data analysis. Independent Samples t-Test: It was used to examine the differences between the problem behavior and academic competence scores of the groups with learning disabilities and typical development Two-Factor ANOVA: It was used to determine the level of differentiation of social skills scores between groups

in the context of age, gender and grade level variables. All analyses were performed using SPSS 27.0 statistical software, and the significance level was accepted as $p < .05$. The data were collected through classroom teachers, who filled out the SBDS forms for each student. No direct interviews were conducted with students or families. However, prior to data collection, informed consent was obtained from the families of all participating students through official school channels, in accordance with ethical research protocols. Participation was voluntary, and all identifying information was anonymized to ensure confidentiality. The study was conducted with the approval of the institutional ethics committee and the Provincial Directorate of National Education.

3. Findings

In this section, findings based on the results of the analyses of the data collected through the Social Skills Assessment Scale administered to teachers to assess the social skills profiles of students with learning disabilities and typically developing students are presented. Quantitative analyses aim to reveal the differences between both groups' social skills, problem behavior, and academic competence levels.

Table 2

T-test results of Academic Achievement and Problem Behaviour Scores According to Student Type

		N	X	S	d	T	P	η^2
Academic Achievement	LD	261	18.47	7.10	448	-32.07	.000**	.25
	TD	189	40.97	7.66				
Problem Behaviour	LD	261	15.16	7.19	448	18.24	.000**	
	TD	189	4.26	4.64				

** $p < .001$

LD: Learning Difficulties; TD: Typical Developing

The analysis revealed that the student's academic achievement and problem behavior scores showed a statistically significant difference according to the type of student (with learning disabilities vs. typical development). The mean academic achievement of students with typical development ($X = 18.47$) was significantly higher ($p < .05$) than the mean of students with learning disabilities ($X = 40.97$). This finding shows that the typically developing group has a significant superiority in terms of academic performance. According to the results obtained from the problem behaviors subscale, which is another dimension, students with learning disabilities have statistically higher problem behavior scores compared to their typically developing peers ($p < .01$). This result supports that individuals with learning disabilities have additional difficulties in social adaptation and behavioral regulation processes.

Table 3

ANOVA Results of Social Skills Scores According to Student Type and Gender, Age, and Grade Level

	SS	Df	Mean Squares	F	P	η^2
Student Group	79778.027	1	79778.027	338.664	.000**	.432
Gender	1873.014	1	1873.014	7.951	.005*	.018
Student Group	2.155	1	2.155	.009	.924	
Gender						
Error	105062.748	446	235.567			
Total	2687587.000	450				
Student Group	49220.291	1	49220.291	212.375	.000	.328
Age	1333.773	5	266.755	1.151	.333	.013
Student Group	803.634	4	200.908	.867	.484	.008
Age						
Error	101048.107	436	231.762			

Total	190502.239	446				
Student Group	46158.262	1	46158.262	195.759	.000	.309
Grade Level	1731.888	5	346.378	1.469	.199	.016
Student Group Grade Level	2064.328	5	412.866	1.751	.122	.020
Error	103276.565	438	235.791			
Total	190502.239	446				

SS: Sum of Squares

Social Skills Differences by student group were evident when the findings were analyzed. The mean social skills score of students with learning disabilities ($\bar{X} = 62.78$) was statistically significantly lower than that of their typically developing peers ($\bar{X} = 90.61$) ($F(1,446) = 338.66$, $p < .001$). The effect size ($\eta^2 = .43$) indicates a strong and meaningful difference between groups.

When gender was examined, female students had significantly higher social skill scores than male students ($F(1,446) = 7.95$, $p < .05$), indicating a consistent pattern favoring girls in social development. However, the interaction between student group and gender was not statistically significant ($F(1,446) = 0.009$, $p > .05$). This suggests that although girls generally performed better in social skills, this pattern did not differ between students with learning disabilities and their typically developing peers—the gender advantage was similar in both groups.

Regarding age, there was no significant effect on social skill scores ($F(5,436) = 1.151$, $p = .333$), indicating that social skills remained relatively stable across the 7–11 age range, regardless of group. Similarly, grade level did not have a significant impact on social skill levels ($F(5,438) = 1.469$, $p = .199$). These findings imply that neither age nor grade level contributed substantially to the observed differences in social skills. Furthermore, interactions between student group and both age ($F(4,436) = 0.867$, $p = .484$) and grade level ($F(5,438) = 1.751$, $p = .122$) were also non-significant. This suggests that the gap in social skills between students with learning disabilities and their typically developing peers remained consistent across different ages and grades, without being influenced by these developmental variables.

4. Discussion

This study aimed to compare the social skills of 7–11-year-old students with learning disabilities (LD) and typically developing (TD) students in terms of age, gender, and grade level. In line with the research questions, the discussion below is structured thematically based on the study's findings and supported by the existing literature.

This study aimed to compare the social skills of 7-11-year-old students with learning disabilities (LD) and typically developing (TD) students in terms of age, gender, and grade level. The study's findings revealed a statistically significant difference in favor of typically developing children regarding social skills scores. This result is consistent with the studies in the literature that emphasize the deficiencies in social competencies of children with learning disabilities. It has been determined that individuals with learning disabilities have lower social skill levels compared to their typically developing peers (Wight & Chapparo, 2008), exhibit problem behaviors more frequently (Nabuzoka & Smith, 1999), and have difficulty interpreting social situations (Meadan & Halle, 2004). The difficulties these children have in making sense of non-verbal cues (e.g., body language, facial expressions) in social interactions and correctly interpreting the intentions of the individuals around them negatively affect their communication processes. For example, they may perceive an interaction attempt as "hostile behavior" and have difficulty responding appropriately (Nabuzoka & Smith, 1999; Nowicki & Duke, 1992; Weiss, 1984). Furthermore, deficits in their ability to understand emotional states and decipher non-verbal social signals further complicate the social adjustment of this group (Dimitrovsky et al., 1998; Petti et al., 2003).

Carlson (1987) found that children with learning disabilities had inadequate knowledge of behavioral strategies that would ensure social acceptance. This can be considered one of the main reasons these children lag in social skills development compared to their typically developing peers. When we examine the literature, in the studies comparing the social skills of children with typical development and children affected by disability, it is stated that the social skills of children affected by disability are at an inadequate level compared to their typically developing peers (Baysal, 1989; Buhrow, et al., 1998; Gresham, 1997; Gresham & Reschly, 1987; Sabornie & Beard, 1990; Sucuoğlu & Özokçu, 2005; Şahbaz, 2004; Uysal, 2003; Özkubat, 2010; Sürün, 2012; Urfalı-Dadandı, 2015). The findings are consistent with the findings obtained in our study.

The findings of this study are in parallel with the results of the study conducted by Urfalı-Dadandı (2015), which compared the social skills levels of students with learning disabilities and typically developing students. This study determined that the social skills scores of typically developing students were significantly higher than their peers with learning disabilities. In the literature, many studies are revealing that there are similar deficiencies in the sub-dimensions as well as in the general level of social skills of individuals with learning disabilities. For example, these children have difficulties in social information processing processes (e.g., perceiving and interpreting social cues) (Tur- Kaspas, 2004; Bauminger & Kimhi-Kind, 2008), show limitations in social problem-solving skills (e.g., conflict management, co-operation) (Toro et al., 1990), exhibit inadequate performance in non-verbal communication skills (e.g., body language, eye contact) (Agaliotis & Kalyva, 2008), and have low levels of peer acceptance and adaptation to the social environment (Most et al., 2000; Smith & Nagle, 1995). The common finding of these studies is that children with learning disabilities lag behind their typically developing peers in both general and sub-dimensions of social skills. These deficits can be considered critical factors explaining these children's difficulties in social interactions.

Most and Greenbank (2000) examined the social skills of 7th-grade students with learning disabilities and typically developing students from self-evaluation and teacher evaluation perspectives. In the study, while there was no significant difference between the groups in students' self-evaluations of their social skills, according to teachers' evaluations, it was found that the social skill levels of students with learning disabilities were significantly lower compared to their typically developing peers. This finding suggests that external assessment methods may be more sensitive in detecting social skills deficits. Another factor underlying the low social skills scores of students with learning disabilities may be the lack of peer acceptance. Vuran (2005) supported the studies showing that students accepted by their peers and perceived as popular in the social environment have higher social skill levels and emphasized that peer acceptance catalyzes social skill development. In this context, the experiences of children with learning disabilities who are excluded or not accepted by their peers may create a vicious circle by limiting their opportunities to practice their social skills.

This study reveals that students exhibit statistically significant differences in academic achievement and problem behavior scores according to student type (diagnosed learning disabilities vs. typical development). The academic performance scores of typically developing students were significantly higher than their peers with learning disabilities. On the other hand, students with learning disabilities exhibited higher levels of problem behavior scores than the typically developing group. These findings are consistent with the studies in the literature. According to the study, low academic achievement is directly related to social problems such as peer exclusion, lack of popularity, and inadequacy in cooperative behaviors. This situation creates a vicious circle by limiting the opportunities for children with learning disabilities to develop their social skills. The mechanisms identified by Kavale and Forness (1996) support the findings of this study and emphasize the need for holistic intervention for children with learning disabilities. Increasing peer acceptance and supporting collaborative learning environments can improve the social adjustment of these children. Education programs should integrate social skills training and academic support.

The findings that children with learning disabilities exhibit more behavioral problems compared to their typically developing peers are consistent with other studies in the literature. Batum and Öktem (2011) reported that children with learning disabilities were more likely to experience parental rejection and also showed internalized (e.g., anxiety, depression) and externalized (e.g., aggression, hyperactivity) problem behaviors more frequently. Similarly, Heiervang et al. (2001) found that children with learning disabilities between the ages of 10 and 12 years exhibited significantly more behavioral problems than their typically developing peers. These studies emphasize that even if children with learning disabilities are not aware of their behavioral difficulties, these problems can be cleared by teachers and parents. This suggests that the perspective of objective observers (teachers/parents) is critical in behavioral assessments. The studies of Heiervang et al. (2001) and Batum and Öktem (2011) support the findings of this study and reveal that individuals with learning disabilities need multidimensional support mechanisms. Behavioral intervention programs and strategies to increase peer acceptance should be designed to support these children's social and emotional adjustment. Increasing the awareness of teachers and parents about the behavioral needs of children with learning disabilities may facilitate early intervention processes.

This study revealed that there is a complex relationship between academic failure, behavioral problems, and social skills deficits in children with learning disabilities (LD). Sanford and Horner (2013) found a significant link between academic and behavioral problems in children with reading difficulties. Similarly, studies based on parent and teacher evaluations reported that children with SLD exhibited more behavioral problems than their typically developing (TD) peers. The fact that teachers report these behaviors more frequently may be explained by the fact that there are more observational opportunities in the classroom environment, and they can closely monitor peer interactions (Smith & Nagle, 1995).

Smith and Nagle (1995), in their study on 3rd and 4th-grade students, found that children with SLD scored lower in academic performance, social acceptance, and behavioral self-evaluations than their TD peers. This indicates that academic failure is associated with social rejection and behavioral maladjustment. Vaughn and Elbaum (1999) and Valas (1999) emphasized that children with SLD are less recognized among their peers and have poor social relationships due to academic difficulties. Margalit et al. (1999) revealed that these children tend to exhibit behaviors related to social maladjustment. Low academic performance in children with SLD prevents the development of social skills by decreasing peer acceptance; this situation increases behavioral problems and decreases academic motivation. This vicious cycle limits children's social skills experience and reinforces maladaptive behaviors. For example, a student who experiences peer rejection cannot develop communication skills because they lose social interaction opportunities, exacerbating behavioral problems. These findings show that the educational and social needs of children with LD cannot be separated from each other. Effective interventions are possible with multidimensional approaches that simultaneously address academic, behavioral, and social skills.

The study's findings revealed that social skills scores of students with learning disabilities (LD) differed significantly according to gender variable. Female students showed higher performance in social skills scores than male students. However, this result contradicts the study of Urfalı-Dadandı (2015). Urfalı-Dadandı did not find a significant difference in social skills between male and female students with LD. This discrepancy can be explained by environmental factors such as peer acceptance, academic skill level, or teacher attitudes. Social skills scores did not show a significant difference independent of grade level and LD diagnosis interaction. This suggests that the development of social skills is not directly related to age and that cognitive and environmental factors may be more determinant. Tur-Kaspa (2004) found that 5-6-year-old girls with LD had significantly lower social information processing skills compared to their typically developing peers. However, Göl (2017) emphasized that age does not affect social skills in preschool children with hearing impairment, and the duration of school attendance is a critical factor. On the other hand, Poyraz-Tüy (1999) found that age significantly affected social skills in

the 3-6 age group with hearing impairment. These contradictory results may be related to differences in sample characteristics (diagnosis type, age range) and environmental context (school support, family involvement).

Social skill deficits in children with ASD are intertwined with factors such as academic failure and peer rejection. Low academic performance makes it difficult to be accepted among peers, preventing social skill development and increasing behavioral problems. For example, in Tur-Kaspa's (2004) study, the low performance of girls with LD was explained by a combination of cognitive difficulties (processing social cues) and environmental influences (teacher attitudes). Social skill development is a multidimensional process shaped not only by individual characteristics but also by academic achievement, peer relationships, and environmental support mechanisms. Interventions that cover these dynamics are necessary to improve children's social adjustment with LD.

5. Future Directions

In the light of the research findings, the following suggestions were developed to meet the social and academic needs of students with learning disabilities: Educational programs for students with learning disabilities should be designed with an integrated approach that addresses social skills development, behavioral support mechanisms, and academic skills. Considering gender-based differences, gender-sensitive interventions should be developed based on the social interaction styles of male and female students. Training for teachers in classroom observation techniques and practical assessment methods for early identification of social and behavioral needs of students with learning disabilities. Peer mentoring, joint project-based activities, and cooperative learning groups should be established to increase social acceptance. Social integration programs that strengthen peer-to-peer interaction should be integrated into the school curriculum. Early integration programs that support social skills should be implemented in the preschool period, and cooperation should be made with families, especially considering the effect of school attendance on social adaptation. Inclusive education models that combine social skills training with strategies to increase academic achievement should be designed. These models should support both the academic and social development of students simultaneously. Workshops with family participation, teacher-parent coordination platforms, and social awareness projects should support the social skills of students with learning disabilities. Education policies should be revised to meet the social and academic needs of students with learning disabilities, and schools should be provided with resources and expert support.

6. Conclusion

The research findings show that the type of student (learning disability vs. typical development) statistically affects social skills scores. In contrast, the interaction of grade level and disability type and grade level does not significantly affect social skills scores. The social skills scores of typically developing students ($\bar{X}=90.61$) were significantly higher than their peers with learning disabilities ($\bar{X}=62.78$). Students with learning disabilities had higher problem behavior scores than typically developing students. The mean academic achievement of students with typical development ($\bar{X}=18.47$) is significantly higher than the mean academic achievement of students with learning disabilities ($\bar{X}=40.9$). Social skills scores showed a significant difference according to gender ($F(1,446)=7.95, p<.05$). Female students showed higher social skills performance compared to male students. The age variable does not significantly affect social skills scores. Class level and disability type-grade interaction do not statistically affect social skills scores. The disadvantages of students with learning disabilities in social skills and academic achievement require multidimensional support programs. Gender-based differences make it essential to investigate the factors (e.g., communication styles, peer support) that strengthen the social

interaction skills of female students. The lack of effect of age and grade level suggests that social skill development is more closely related to cognitive and environmental dynamics.

7. Statement of Researchers

Footnote: This article is based on the data of the 1st author's master's thesis

Data Availability Statement

The data are available upon reasonable request from the corresponding author due to privacy restrictions

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Ethical approval and informed consent statements: This study was conducted in accordance with the Declaration of Helsinki and was approved (E E-97105791-050.01.01-49069). Informed parental consent was obtained

Conflict statement

From the beginning of the research, the authors took an active role in every stage of the process, including the selection of research methods, the design of the study, the analysis and interpretation of the findings, as well as the evaluation of the draft manuscript

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