





PRIMARY RESEARCH

Teachers' and students' perceptions of the academic and socio-emotional benefits of peer tutoring

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Abstract

This study explored the perspectives of teachers and students regarding the academic and socio-emotional benefits of Peer Tutoring (PT) as a strategy to support students with Specific Learning Difficulties (SpLD) in middle schools in Saudi Arabia. The research was prompted by the recent expansion of special education services in Saudi Arabia to include primary and middle school students and the introduction of new teaching methods to enhance the learning experiences of SpLD students. A qualitative case study was conducted in six inclusive schools running active PT programs for at least one year to ensure that participants had sufficient experience to develop an informed opinion on the benefits of this approach. Individual semi-structured interviews were conducted with 9 Special Education Need (SEN) teachers responsible for implementing PT in their schools, 18 mainstream students who played the role of tutors, and 19 SpLD students who played the role of tutees. Participants' perceptions were further examined using data collected from observations of student roles and behaviors during 16 PT sessions. The findings indicate that PT was perceived as an effective method for providing academic support for SpLD students and was associated with improved academic performance, motivation, and participation. However, SEN teachers and students expressed different perceptions about the efficacy of this technique in supporting the development of social and emotional skills among SpLD students. These differences may be attributable to a lack of systematic planning and supervision before and during PT sessions, reflected in limited awareness among students regarding the objectives of PT programs. Based on the findings outlined above, there is strong evidence for integrating PT programs into Saudi schools as a supplement to lecture-style classes, given the potentially academic, social, and emotional benefits that this approach offers to SpLD students.

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INTRODUCTION

Background and Motivation

Learning is commonly understood as a social activity in which individuals exchange knowledge and receive feedback. For children, this learning occurs in interactions with their parents, siblings, and peers. According to the social constructivism and cognitive development theories, social context is crucial to the knowledge building process, and the interaction among peers is essential for cognitive development (Piaget, 1985; Vygotskie, Embong, & Muslim, 1978). Many developed countries, such as the UK and the USA, have explicitly recognised the value of interactions between students and that teacher-centric educational models are ineffective in preparing students for the real world. This has been reflected in a shift towards the implementation of teaching approaches that are based on student-centered, constructivist principles of learning (Garrett, 2008). These principles seek to create and foster environments in which learning occurs through continuous interactions between students and their teachers, rather than directly from the teachers. These strategies also empower students' learning autonomy and the ability to self-direct their learning, as well as to use skills to think critically, inquire, and communicate with others to solve problems or construct understanding. This tendency towards the use of teaching approaches that encourage student participation has also been witnessed in

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the field of SEN. Indeed, many SEN students experience difficulties learning in traditional, teacher-centered classroom settings (Holecek, 2012; Wijetunge, 2016). To a large degree, this may be attributable to the challenge facing teachers in accommodating students with various abilities and needs, including those with SpLD. This has led to the investigation of cooperative teaching approaches, such as peer tutoring, that allow students to learn at their own pace in the least restrictive environment.

In Saudi Arabia, the country in which this study was carried out, education predominantly emphasises the notion of teacher as the main source for information. The lecturestyle approach dominates most Saudi classrooms, with teachers being responsible for the transmission of information to students in a liner model of interactions that places students into more passive roles (Aldahmash, 2016). However, the country is currently in the process of making fundamental changes in the quality of teaching and learning. This transformation began with the introduction of the King Abdullah Project for the Development of Public Education in 2007, which sought to equip teachers in selected schools with the necessary skills to implement more student-centered, participatory teaching approaches and to foster greater use of technology to prepare students with the skills needed in the global workplace. The recent introduction of Prince Mohammad bin Salman's Vision 2030 Plan is a logical extension of this policy, bringing about a national shift in education by targeting curriculum philosophy and teacher training programs to facilitate a shift from teachercentered to student-centered pedagogy.

At the same time, Saudi Arabia is also witnessing profound and rapid development in the quantity and quality of the services and programmes provided for individuals with SEN, including those with SpLD. This provision, which was previously limited to primary education, was recently expanded by the Department of Special Education (DSE) to offer support to middle school students. This widening of scope has included the introduction of numerous constructivist teaching methods intended to enhance the learning experiences of SpLD students. These approaches, including PT, differ from the traditional paradigm that dominates most Saudi classrooms (The Ministry of Education, 2011).

The Research Gap and Significance of the Study

Given the background of the study, an important question needs to be answered regarding whether PT can be implemented effectively to benefit students with SpLD within a teaching culture that has classically relied heavily on lecture-style pedagogy. In comparison with the culture of teaching in the West, Saudi learners are not prepared to participate in teaching approaches that require group or one-to-one interaction. The consequence of this is that the results of studies investigating PT in western schools may be largely irrelevant in the context of Saudi Arabia. The efficacy of PT in Saudi Arabia may, therefore, be hindered by numerous challenges that should be investigated, including shifting the authority from teachers to students and fostering collaborative work among students who are used to minimal classroom interactions. Successfully moving from a teacher-centered to a student-centered approach requires systemic changes to many aspects of the education system, including policies, teachers training, curriculum, and assessment. This, in turn, requires investigations to be conducted into the changes that occur at the national levels and how they are practiced locally in schools in Saudi Arabia.

Despite the introduction of the term PT in Saudi Arabia, almost no studies have examined the use of this approach to support students with SpLD. Indeed, there is a paucity of research on PT in the field of SEN in general. For example, Albajhan (2008) conducted a two-month study into the effect of PT on mathematical skills among students with mental disabilities in middle schools in the eastern province of Al-Hasa and found improved learning in comparison to students taught using traditional methods. Similarly, (Alharthi, 2007) identified a functional relationship between the implementation of PT and the acquisition of functional words by students with moderate mental disabilities in primary schools in Riyadh, the capital city of Saudi Arabia.

Therefore, the current study fulfils the important role of examining whether PT can be beneficial for SpLD students within a context that has traditionally lacked collaborative activities among students. Furthermore, although most of the studies conducted in the West found positive results to support the validity of PT as a classroom technique in the field of SEN (e.g., (Grünke, Wilbert, Tsiriotakis, & Agirregoikoa, 2017; Tsuei, 2017; Wood, Mustian, & Cooke, 2012)), they nevertheless ignored the perspectives of both teachers and students. In particular, few studies have focused on the relevance of this approach to students with SpLD. Hence, this paper seeks to address this gap in PT research by focusing on the opinions and insights of these stakeholders to, thereby, examine the potential academic and social benefits of working cooperatively in class, in order to obtain a deeper understanding of the value and impact of PT for SpLD students.



Research Objectives

This study was conducted to broaden our understanding of the effectiveness of PT. It examined whether the shift to student-centered pedagogy can work in an educational context that places a high degree of emphasis on the authority of teachers in delivering knowledge to students. In addition, it explored the question of whether PT can work effectively in the field of SEN, with a focus on students with SpLD, given the limited number of studies addressing the needs of this student population. The study also examined the insights of the stakeholders who are responsible for activating PT (SEN teachers and mainstream students), with a focus on the perceptions of the SpLD students who were the main beneficiaries of this approach. This was important to broaden our understanding of not only the academic benefits of PT, but also the socio-emotional benefits of this approach.

It is hoped that this study will shed light on an area of research that has been, and continues to be, carried out extensively in the West, but has not received much attention in Saudi Arabia, perhaps given its continued adherence to teacher-directed instruction. It is hoped that the findings from this study will not only help to uncover the benefits of PT for SpLD students, but also to help educators to maximise these outcomes by addressing the specific obstacles to this approach in the Saudi context.

In summary, this study is a qualitative investigation into the perceptions of Saudi teachers and students regarding the benefits of PT in supporting the academic and socioemotional development of students with SpLD.

LITERATURE REVIEW

Difficulties Encountered by Students with SpLD

There has been extensive debate concerning the accurate definition and delineation of SEN (Swanson, 2000), as evidenced by the controversies regarding the description of SpLD. These issues are largely attributable to the array of disciplines interested in this category of SEN, such as education and psychiatry, and the corresponding use of numerous explanatory concepts, such as behavioural, diagnostic, medical, and therapeutic models (Hallahan & Kauffman, 1991). As a consequence of these differences, no consensus has been reached on the definition of this type of disability. Nevertheless, a widely accepted classification was provided by the National Joint Committee on Learning Disabilities (1991), which stated that SpLD is not caused by cultural, economic or environmental deprivation, nor is it a sensory or emotional disability. Instead, it occurs due to dysfunction of the central nervous system, of basic mental processes, or cognitive processes, resulting in impaired mathematical

and productive (written and spoken) and receptive (reading and listening) language skills. This definition stipulates that SpLD students do not necessarily have sensory or cognitive deficiencies, meaning that they are, therefore, within normal parameters for intelligence.

As this concept does not describe a homogeneous group of students with the same characteristics, there is no list of universal, uniform difficulties facing all students with SpLD (The British Dyslexia Association, 2018). Nevertheless, it is possible to categorise the challenges that these students face as being either academic or non-academic/developmental (Wong, Graham, Hoskyn, & Berman, 2011). This classification has been widely adopted by researchers in Arab countries, including Saudi Arabia (e.g., (Alasiri, 2013; Albluwi, 2014; Gharib, 2014)).

There has been extensive research into the academic difficulties facing students with SpLD, with studies focusing on student performance and related academic problems, such as dyslexia and dyscalculia (The British Dyslexia Association, 2018). Although there is continued debate about the precise definition and causes of dyslexia, it is generally characterised as a "difficulty in learning to read and write by the methods normally used in classrooms" Stampoltzis and Polychronopoulou (2009, p. 1) and can be identified by errors in reading, slow reading speed, spelling mistakes or limited ability to follow the sequencing of a text (Karande, Sholapurwala, & Kulkarni, 2011). Another common issue for SpLD students is dyscalculia, which describes arithmetic weakness, such as problems with counting, orderirrelevance, writing numbers correctly or following mathematical processes (Hallahan & Kauffman, 1991). Students with dyscalculia often experience difficulties with tasks associated with basic mathematical concepts, such as dealing with money (The British Dyslexia Association, 2018).

Students with SpLD may also experience a number of developmental difficulties, in terms of the pre-academic cognitive processes that underpin academic achievement (Alasiri, 2013), such as language, memory, perception or critical thinking. According to Reid, Elbeheri, and Everatt (2015), students with SpLD often have difficulties with motor skills, such as correctly holding their pen, with memory, with remembering the correct sequence of letters, or with implementing learning styles. This can manifest in SpLD students having difficulty in accessing or utilising information or skills that they have previously acquired (Johnson, Humphrey, Mellard, Woods, & Swanson, 2010). Students with SpLD may also learn more slowly and, therefore, benefit from being given more time and opportunities to process new information than their same age peers (Macintyre &



Deponio, 2003). These kinds of developmental difficulties are central to definitions of SpLD (Individuals with Disabilities Act [IDEA] 2004, Public Law 108-446). However, they are often not assessed during SpLD determination. Given the findings of a growing body of research into the relationship between academic performance and cognitive processes, in addition to the particular challenges facing learning impaired individuals, this omission warrants reconsideration (Semrud-Clikeman, 2005).

The difficulties encountered by SpLD students have been found to have social and emotional repercussions for SpLD students (Nasen, 2015), manifesting in a range of issues, like poor development of social skills (Tur-Kaspa, 2002), restructuration and anxiety (Bryson, 2013) or low self-concept resulting from limited achievement (Shaywitz, 2003). In examining issues of self-esteem, Humphrey (2002) found that dyslexic students tended to exhibit timid behaviour, avoid stressful situations of possible stress, and continually seek reassurance or assistance. However, not all SpLD will present the same difficulties (Stampoltzis & Polychronopoulou, 2009).

This high degree of variation and the far reaching impact of the difficulties experienced by individuals with SpLD support the need for supportive learning environments that include peer-group interaction and strong links between the academic and social dimensions of learning (Nind & Wearmouth, 2006). This has led numerous researchers to recommend teaching approaches that focus on the provision of intensive literacy support alongside self-esteem building activities (e.g., (Bowen & Yeomans, 2002; Glazzard, 2010)). Additionally, the increasing number of SpLD students receiving special education services in inclusive schools has made it imperative for teachers to find viable strategies that foster friendly and support environment for these students (Humphrey, 2002). PT is one of the strategies that has been found to be potentially beneficial in meeting the diverse needs of SpLD students in inclusive classrooms (e.g., Kunsch, Jitendra, and Sood (2007); Odluyurt, Tekin-Iftar, and Ersoy (2014).

Definition of Peer Tutoring

Peer tutoring is a peer-assisted strategy based on collaborative work between students (tutor and tutee). This technique can be traced back to the ancient Greeks, although it was updated into a more modern, systemic approach by Andrew Bell and John Lancaster in the 19th century (Thompson Jr, 2011). The definitions of PT are dependent on factors that include the nature or characteristics of student interactions. For instance, Hott, Walker, and Sahni (2012) define PT as a flexible yet unidirectional approach in which high-achieving tutors assist low-achieving tutees with key social or academic issues. In contrast, other researchers stress the collaborative aspect, describing PT as "people from similar social groupings, who are not professional teachers, helping each other to learn and learning themselves by teaching" Topping (1996, p. 32). This definition makes the valuable point that PT is not limited to the transmission of knowledge from a more able peer to their less able partner, instead emphasising that both parties benefit from the interaction. In other words, the reciprocal nature of interactions places collaboration as the central concept of PT, with both tutors and tutees giving and receiving help and support.

Despite the debate over the optimal framework for PT, it is clear that this approach contrasts with traditional teacherbased instructions, as students instead facilitate the instruction of their peers (Jones, Ostojic, Menard, Picard, & Miller, 2017). Crucially, tutor-tutee relationships are profoundly different from teacher-student relationships, with similarities in age and perspective leading students to perceive each other as friends or helpers, rather than teachers (Blatchford, Kutnick, Baines, & Galton, 2003). One possible consequence of this friend-to-friend interaction, or peer imitation, is that PT strategies can enable more democratic classroom societies to be constructed (Thomas, 2017). These kinds of classroom environments can be inherently motivating, as students can be empowered and more likely to ask questions when they can consult peers rather than speak to the teacher in front of the class (Baiduri, 2017; Yahya, Ismail, Salleh, & Abdullah, 2015). These approaches may foster a positive, welcoming learning community and empower students to reach their full potential. For this reason, such communities are the aim of many national educational systems and organisations.

PT offers numerous other advantages to learning, such as immediate feedback, more practice time, more response opportunities, and individualised support (Harper & Maheady, 2007). However, unlike other incidental tutoring arrangements, PT requires opportunities to be created for active student participation, feedback, and reinforcement (Heron, Villareal, Yao, Christianson, & Heron, 2006). Students also require training and monitoring by classroom teachers, who should facilitate the tutoring sessions (Cervantes, Lieberman, Magnesio, & Wood, 2013; Miller, 2005). In order to avoid incidental interactions when establishing a PT programme, consideration should be given to organisational issues including "curriculum content, contact constellation, within or between institutions, year of



study, ability, role continuity, time, place, helper characteristics, characteristics of the helped, objectives, voluntary or compulsory and reinforcement" Topping (2005, p. 633-634).

The Academic Benefits of Peer Tutoring

Although PT is widely recognised as a valid teaching strategy for the revision of material and improving retention and recall, it can also facilitate the teaching of new material and even the development of higher order, abstract cognitive skills (Topping, 2005). PT can be an effective way to improve a number of academic skills for students with SEN, such as reading, writing, and mathematics (Lingo, 2014; Tsuei, 2017). These programmes can also develop other skills that are likely to positively affect academic and everyday performance, such as brainstorming, decision-making, and planning practice (Hughes & Carter, 2008). Importantly, as PT necessarily involves another student modelling good student behaviour, this approach can create a learning structure to train pupils in using learning strategies more effectively. This can be especially valuable as tutors are likely to demonstrate sophisticated academic skills, particularly in terms of concentration, work habits, or asking appropriate questions (Fulk & King, 2001). This concept of learning by imitating modelled behaviour supports the general concept outlined in the social cognitive theory (Gibson, 2004), with modelled behaviour leading to the adoption of more efficient, positive conduct. Using peers as models increases the similarity factor, which facilitates the process of identification, in which students are more likely to ask questions or seek clarification because their tutor is similar in terms of age or experience (Johnson et al., 2010; Wang, 2015). In essence, the power of peer relationships is rooted in the absence of hierarchical relationships and correspondingly results in the greater accessibility of tutors (Thompson Jr, 2011).

The opportunity to practice new skills and receive immediate feedback from partners is particularly beneficial to students (Ayvazo & Aljadeff-Abergel, 2014). This can be difficult to achieve through traditional teaching methods, especially in large classrooms. Student achievement can also benefit from the provision of support for active pupil responses (Karagiannakis, 2008) and positive reinforcement (Topping, 2005).

As well as being beneficial to tutees, PT can also be invaluable for tutors, who may improve their understanding during preparation or tutoring, as well as gain the opportunity to better organise, rehearse, and discuss subject material with potentially insightful individuals who are likely to have quite different perspectives (Fulk & King, 2001). PT programmes should also offer the opportunity for tutors to cooperate with the teacher, improving their attitudes and understanding of the material through greater involvement in the classroom (Baiduri, 2017).

Given the potential diverse array of skills, characteristics, and difficulties facing students with SEN, it may be ineffective to rely upon a single instructional method in mainstream classrooms. For this reason, Avvazo and Aljadeff-Abergel (2014) argue that individualised approaches, such as PT, may be a more effective way to maximise student progress by providing more opportunity to practice and receive feedback tailored to their personal needs. This approach can also give students more opportunities to participate, through spoken or written interaction, which leads to more consistent, active engagement in the learning process (McCurdy & Cole, 2014). Furthermore, the tutor can modify the experience to meet the needs of their partner and may also be better equipped to explain certain concepts or subjects than the teacher, due to the linguistic or experiential context they share with the tutee.

Unlike many other academic systems, PT facilitates the use of individualised rewards that better reflect the performance of a student and are, therefore, potentially more effective and consistent. These rewards may be tangible, social or even moral (Karagiannakis, 2008). In most settings, social rewards are the most common, especially in the form of verbal reinforcement and positive attention. The importance that the tutee places on the cooperative process is essential for the efficacy of social reinforcement, as is the social status of the tutor. As a consequence, motivational theorists often recommend the use of rewards to incentivise collaboration between students, which increases the opportunities for both to succeed.

The Socio-Emotional Benefits of Peer Tutoring

Given that people learn in a social context, communication is integral to effective education (Vygotskie et al., 1978). As a consequence of this, social learning approaches can enable more effective learning by fostering the development of social skills (Duran & Monereo, 2005), such as through cooperative learning. This approach can forge strong relationships between students, leading to greater positivity and helping participants to focus more effectively during lessons (Carter et al., 2015).

The protective, personalised environment and modelling of positive behaviour that occurs in cooperative learning can be especially effective in developing the social skills of students with behavioural issues, as well as providing a safe



space to practice these skills (Bradley, 2016).

Collaboration is a vital aspect of PT, offering interpersonal and intrapersonal advantages (Duran & Monereo, 2005). PT is inherently social, both necessitating and developing the key skills of interaction, through clear communication, understanding, effective listening, and soliciting clarification where required. In this way, PT provides a social constructivist contribution to education (Garrote, Dessemontet, & Opitz, 2017), as well as potentially offers invaluable support to students suffering from a wide range of negative experiences, including delinquency, absenteeism, and exposure to high-risk partners or violence (Blinn-Pike, 2005). PT programmes can also play a role in educational support systems that serve students with SEN, by bringing together previously unconnected groups and fostering a sense of unity among pupils (Hamilton et al., 2006). In this way, collaborative approaches may even be able to contribute to the evolution towards more equitable, empathetic, democratic societies (Fougner, 2013), fostering environments that better serve the individual needs of all involved.

The process of pairing students and encouraging their interaction also offers the opportunity for both parties, but especially students with SEN, to develop their social skills through behavioural modelling (Ayvazo & Aljadeff-Abergel, 2014). This modelling can enable observational development of social skills, with the tutees also able to practice complimentary communicative skills, such as active listening and help-offering. In addition to supporting the development of positive skills, the PT framework also minimises negative, disruptive behaviours because students are actively involved in the learning process and must, therefore, focus on their tasks, channelling their energy into understanding and communicating with their partner (Karagiannakis, 2008). Given the importance of this relationship between tutors and tutees, longer mentor relationships have been shown to have correspondingly more significant and positive outcomes for participants (Grossman & Rhodes, 2002). This illustrates the importance of ensuring that students are paired with good partners, based on

an understanding of the needs and preferences of both participants.

Another potential benefit of PT is increased inclusivity in mainstream classroom, arising from the support that SEN students receive from their classmates (Bradley, 2016). Given that PT creates an individualised educational experience that enables each learner to have a more personalised learning experience (Topping, 2005), this strategy is also well-suited to fostering inclusivity. The opportunity for students to communicate with pupils that they might not otherwise know can also create a sense of harmony that is beneficial to the learning process (Hamilton et al., 2006). As PT actively involves students in the teaching process, it has also been called "a classroom management strategy" Thompson Jr (2011, p. 42) that is even viable in large classrooms. The approach allows teachers to pair students across ability levels, thereby offering a versatile learning structure that can be applied in conjunction with other teaching methods to meet students' needs across multiple subjects (Topping, 2005).

As noted in the previous discussion on academic benefits, peer tutors can experience positive attitudinal or behavioural gains through the tutoring experience. They may develop a more positive self-image, develop more positive attitudes towards learning, or acquire a deeper understanding of the role of the teacher (Marlow, 2000). With the experience of shifting roles, a tutor can also practice valuable teaching and cognitive skills, including effective feedback, social distancing, and verbal and nonverbal directives. As PT requires an individual to focus exclusively on one person and fulfil a manageable well-defined role, it can be a relatively safe, unthreatening introduction to more sophisticated working or learning contexts.

METHODOLOGY

Research Design and Methods

This investigation comprises a single case study of six inclusive middle schools conducted in one city in Saudi Arabia. The relatively limited sample size in this study is due to the fact that PT has only been recently implemented for the support of SpLD students in Saudi Arabia. Hence, this research is a case study of schools that have been continuously running an active PT programme for a minimum of one year. The unit of analysis in these schools is the individual experiences of teachers and students (tutors/tutees) participating in PT. A case study was selected as the methodological approach in order to obtain a deep understanding of the research phenomenon by gathering rich data from a small number of participants (Thomas, 2017) and in recognition of the limited applicability of alternative data collection methods. For example, surveys would be of limited use because of the small number of schools with active PT programmes.

Qualitative data were collected through individual semistructured interviews, using different schedules for students (tutors/tutees) and teachers. Particular emphasis was placed on the perceptions of SpLD students regarding the benefits of this method. The central role that partici-



pants play in PT meant that their perceptions were invaluable. Semi-structured interviews were selected to enable responsiveness to emergent areas of importance to individual participants, which provided a better understanding of the research questions. These data were supplemented by the findings of sixteen semi-structured observations, which sought to examine a number of behaviours regarding the role of tutors (explaining, discussing, asking questions, correcting answers, and providing verbal and physical reinforcements) and tutees (observing their role in listening, asking for help, responding to questions, and working on tasks).

Participants

The sample was purposive, designed to meet the needs of the study, given that the subject of the research was the specific target group. The selection of participating schools was informed by three main criteria: the decision to collaborate with middle schools in Saudi Arabia, which differ from primary schools in that they must comply with the national policy that recommends the use of PT for students with SpLD; the institute must have an active learning difficulties programme for students with SpLD; and the PT programme must have been implemented for a minimum of two years. This last criterion was intended to ensure that both staff and students were sufficiently experienced in the approach to offer valid insights into its relative strengths and weaknesses.

The sample included all SEN teachers (nine), all students (eighteen mainstream students (tutors), and nineteen SpLD students (tutees) who had at least one year of experience in implementing and participating in PT sessions.

Data Collection and Analysis Procedures

Data were collected between 27 January and 18 April 2016. The procedures for this study were as follows. All potential participants were sent letters that provided details on the study and invited them to participate, in addition to a consent form to sign if they wished to take part. All participants

were informed of their rights, including the right to withdraw at any point, without prejudice.

The semi-structured interviews were scheduled to avoid, or at least minimise, the potential disruption to normal classroom activities and the schedules of all participants. For the classroom observations, field notes were used to capture the interactions between students and the multifaceted role played by teachers in training, planning, and supervising students during PT sessions. Thematic qualitative data analysis was utilised to study the collected data. The semi-structured interviews were audio-taped and then transcribed and translated. A coding frame was then developed from the keywords and concepts in the responses of participants that were related to the research questions. Themes were then developed based on different categories of the identified codes, which were then used to address the research questions.

FINDINGS

Teachers' and Students' Perceptions of Academic Benefits

Academic Performance and Achievement

The collected data showed that all SEN teachers in the six schools believed that participation in PT was more academically beneficial for SpLD than the lecture-style lessons. The majority of SEN teachers agreed that "SpLD students have become more able to provide correct answers to the questions related to the learning content which was taught by their peers" (S3ST8). Three out of nine SEN teachers also expressed the belief that the support of peer tutors helped SpLD students to memorise the information, resulting in higher grades in their school tests. The majority of students in the six schools, both tutors and tutees, shared the view that students with SpLD received academic benefits from their participation in PT. Almost all of the mainstream students (tutors) agreed that PT sessions had helped their tutees to develop a better understanding of the learning content in various subjects, such as reading and mathematics. One mainstream student commented that "my friend [SpLD student] learnt how to divide and multiply because she remembered the instructions which I gave her" (S2MS11). Almost half of the mainstream students (eight out of eighteen) added that the students with SpLD had become more capable of completing their assignments and doing their homework alone. They also stated the belief that the improvement that their tutees had received to their grades in school tests was due to the support that they received during PT sessions. The majority of SpLD students (tutees) stated the belief that the assistance from their partners was more beneficial than the support that they typically received from their classroom teachers. They stated that PT had helped them to improve their academic performance, enabling them to "answer difficult mathematical exercises" (S6Ss4) and to "read quickly" (S1Ss30). They stated that peer tutors fulfilled several essential roles in their academic improvement, including simplifying and rephrasing information, using simple teaching methods, and providing additional examples when required. The SpLD students



also commented positively about the effect of being given sufficient time to understand new concepts, supported by the closeness they felt for their tutors, which made them feel comfortable about asking for clarifications.

Motivation and Attitudes

The majority of SEN teachers agreed that the opportunity to participate in PT had been beneficial to their SpLD students in terms of motivation, as evident in a reduction in absenteeism. This dramatic decrease was attributed to the support given by peer tutors and the progress that the SpLD students had made (S3ST8) (S6ST1). Two out of nine SEN teachers also noticed that the previous attitudes of SpLD students towards their schools and subjects had improved after participation in PT. For instance, one commented that "our SpLD students do not like mathematics; they said that it is impossible for them to understand this subject. We did our best to help them by giving more exercises and examples but nothing worked, but after implementing PT, they managed to answer the mathematical exercises and started to have better attitudes to this subject" (S4ST5).

The majority of mainstream students confirmed that participation in PT was motivating for SpLD students and that it made them more positive towards their subjects, with students starting to request "clarifications during the lesson and pay interest to the lesson" (S4MS24). Some SpLD students even started to remind their peer tutors about the lesson time and to talk about their ambitions for the future (S2MS7) (S4MS23).

More than half of the SpLD students confirmed that the support of peer tutors had increased their motivation. They contrasted this with anecdotes of detrimental comments made by teachers, who told them that they "cannot read" (S4Ss22) or that they needed an excessively long time to understand a given topic (S3Ss36).

In-class Participation

Five out of nine SEN teachers agreed that SpLD students had become significantly more participative after receiving support from their peers. They noted that previously quiet SpLD students had begun to attempt to answer questions during the lessons, had become more engaged in answering worksheets, and had actively asked the teachers to check their work. However, one of the SEN teachers commented that this active participation was limited to those times that SpLD students were sitting next to their peers, who would continually engage "them in the activities and encourage them to raise their hands which helped them be more confident during the lesson" (S3ST8). This active participation was especially evident in art lessons, perhaps in response to the greater freedom given to students to communicate with each other and to discuss answers.

The majority of tutors and tutees agreed that the main motivators for the increase in the participation level among SpLD students were the continuous support provided by peer tutors, their direct encouragement to take part in answering questions at a class level, and attitudinal shifts resulting from participation in PT, such as the acceptance of making mistakes.

Teachers' and Students' Perceptions of Socio-emotional Benefits

Building Social Relationships and Fostering Inclusion

The majority of SEN teachers agreed that PT was beneficial to SpLD students as it helped them to make new friends. For example, one SEN teacher noted that "participation in PT helped SpLD students to communicate not only with their peer tutors but also with their tutors' friends, especially during free time" (S5ST9). All SEN teachers agreed that PT fostered an inclusive learning environment, with SpLD students starting to develop relationships with other mainstream students in the classroom. Four out of nine teachers also agreed that PT had improved the attitudes of mainstream learners towards their peers with SpLD.

In contrast, the majority of mainstream students (fourteen out of eighteen) did not believe that PT had fostered inclusion or improved the social skills of SpLD students.

Only eight SpLD students believed that their peer tutors encouraged them to make new friends, with the majority stating that their partners focused exclusively on the provision of academic support.

Providing Emotional Support

The majority of SEN teachers stated the belief that that PT had provided emotional benefits to students with SpLD, primarily in terms of increased self-esteem. Two SEN teachers expressly stated that their SpLD students had started to become more enthusiastic about receiving additional support related to their difficulties (S5ST7) (S4ST5). This position was supported by a minority of the mainstream students (six out of eighteen), who stated that they provided emotional support by listening to their peers talk about their problems and offering advice or encouragement. The remaining tutors confirmed that they did not make any effort to provide emotional support to their peers.

These findings were supported by the responses of the SpLD students, with only five out of nineteen stating that they received emotional support from their tutors, in the



form of empathy or advice. Half of the SpLD students explained that they did not talk about their problems to their peers, so they had no expectations that there would be emotional benefits to their involvement in PT.

DISCUSSION

The findings of this investigation suggest that the choice of teaching method utilised to support students with SpLD can profoundly affect their learning outcomes. The perceptions of participating SEN teachers indicate a belief that PT yields significant academic socio-emotional benefits to students, which led many of them to favour PT as an alternative to traditional lecture-style approaches.

In terms of academic benefits, the SEN teachers and almost all students (tutors and tutees) reported that PT improved academic performance for tutees, as well as improved class participation and general motivation. The students stressed that PT was often a more effective way of acquiring an understanding of subjects than explanations given by the classroom teacher. This seems to be in line with the findings of previous studies, which demonstrated that the academic performance and engagement of SEN students increased in response to specific feedback, practice opportunities, and continuous support of peer tutors (Lingo, 2014; McCurdy & Cole, 2014; Tsuei, 2017). The impact of PT on students' motivation and attitudes to learning may be attributable to the friendly relationships among students, helping them to feel more comfortable and willing to seek help (Baiduri, 2017) in a non-judgmental communicative environment. According to (Thompson Jr, 2011), this method is more effective than other traditional teaching approaches because of the absence of hierarchical relationships among students.

Looking at the social benefits, the majority of SEN teachers stated a belief that PT provided essential emotional support for SpLD students, while also helping them to build relationships and fostering inclusion between SpLD students and their mainstream peers. This social support was associated with increases observed in the self-esteem of SpLD students. These results support those of previous studies, which found higher levels of social interaction between students with learning difficulties and other students after participation in PT activities (Bradley, 2016; Hamilton et al., 2006).

Most clearly, some students explained that they had not been asked to give social or emotional support to their partners. This was supported by the observations, which revealed that the overwhelming focus on all PT sessions was the provision of academic support and development related to curriculum content. No discussion was observed of social or emotional difficulties encountered by SpLD students.

CONCLUSION

Based on the findings outlined above, there is strong evidence for the implementation of PT in Saudi schools as a supplement to lecture-style classes, as this potentially offers academic, social, and emotional benefits to SpLD students. However, this implementation requires informed, systematic planning that includes a list of clear academic and socio-emotional aims for the programmes and continuous supervision of PT sessions to ensure that students are following, and coping with, the agreed plan. An overall shift from teacher- to student-centered approaches seems likely to entail the provision of sufficient training and development opportunities to teachers, in order to broaden their understanding of the organisational issues that must be considered during the implementation of PT programmes (Topping, 2005).

LIMITATIONS AND RECOMMENDATIONS

A significant proportion of the students (tutors and tutees) in all schools expressed less positive views regarding the socio-emotional benefits of PT. This may be attributable to the lack of systematic planning and supervision before and during PT session. Thus, this research must be replicated in future with a more systematized design to get better insights.

REFERENCES

- Alasiri, H. M. H. (2013). A program for professional development based on integrated education and its impact on the attitudes of primary school teachers towards it and communication skills with people with specific learning difficulties in the Kingdom of Saudi Arabia (Unpublished doctoral dissertation). Cairo University, Cairo, Egypt.
- Albajhan, E. (2008). The impact of the use of peer tutoring strategy in the development of mathematical skills and the development of attitudes towards mathematics among students with intellectual disabilities in middle school stage in Alahsa governorate (Unpublished master's thesis). King Saud University, Riyadh, Saudi Arabia.
- Albluwi, M. S. S. (2014). The effectiveness of graphic organizers on the development of reading comprehension among students with learning disabilities in the Kingdom of Saudia Arabia (Unpublished master's thesis). Yarmouk University, Yarmouk, Jordan.



- Aldahmash, A. H. (2016). Saudi Arabia science teachers' trends in science teaching practices of teaching related scientific activities according to their supervisors' prospective and the supervisors estimates of the importance of such practices. *Journal of Educational and Psychological Studies*, 10(3), 577-595. doi:https://doi.org/10.24200/jeps.vol10iss3pp577 -595
- Alharthi, M. F. (2007). *The effectiveness of using PT in the acquisition of functional words among students with moderate mental disability in primary schools in Riyadh* (Unpublished master's thesis). King Saud University, Riyadh, Saudi Arabia.
- Ayvazo, S., & Aljadeff-Abergel, E. (2014). Classwide peer tutoring for elementary and high school students at risk: Listening to students' voices. *Support for Learning*, *29*(1), 76-92. doi:https://doi.org/10.1111/1467-9604.12047
- Baiduri. (2017). Elementary school students' spoken activities and their responses in math learning by peer-tutoring. *International Journal of Instruction*, *10*(2), 145-160. doi:https://doi.org/10.12973/iji.2017.10210a
- Blatchford, P., Kutnick, P., Baines, E., & Galton, M. (2003). Toward a social pedagogy of classroom group work. *International Journal of Educational Research*, *39*(1-2), 153-172. doi:https://doi.org/10.1016/s0883-0355(03)00078-8
- Blinn-Pike, L. (2005). Pregnant and parenting adolescents. In D. L. DuBois & M. J. Karcher (Eds.), Handbook of youth mentoring (p. 467-481). Thousand Oaks, CA: Sage Publications, Inc. doi:https://doi.org/10.4135/9781412976664 .n31
- Bowen, P., & Yeomans, J. (2002). Focus on practice: Accelerating the progress of failing readers: An evaluation of the enable-plus programme pilot study. *British Journal of Special Education*, *29*(4), 170-177. doi:https://doi.org/10.1111/ 1467-8527.00265
- Bradley, R. (2016). 'Why single me out?' Peer mentoring, autism and inclusion in mainstream secondary schools. *British Journal of Special Education*, 43(3), 272-288. doi:https://doi.org/10.1111/1467-8578.12136
- Bryson, K. J. (2013). Teaching a student with dyslexia. *Journal of Singing-The Official Journal of the National Association of Teachers of Singing*, 69(4), 429-435.
- Carter, E. W., Moss, C. K., Asmus, J., Fesperman, E., Cooney, M., Brock, M. E., ... Vincent, L. B. (2015). Promoting inclusion, social connections, and learning through peer support arrangements. *Teaching Exceptional Children*, 48(1), 9-18. doi: https://doi.org/10.1177/0040059915594784
- Cervantes, C. M., Lieberman, L. J., Magnesio, B., & Wood, J. (2013). Peer tutoring: Meeting the demands of inclusion in physical education today. *Journal of Physical Education, Recreation & Dance, 84*(3), 43-48. doi:https://doi.org/10.1080/07303084.2013.767712
- Duran, D., & Monereo, C. (2005). Styles and sequences of cooperative interaction in fixed and reciprocal peer tutoring. *Learning and Instruction*, *15*(3), 179-199. doi:https://doi.org/10.1016/j.learninstruc.2005.04.002
- Fougner, A. (2013). Peer tutoring in social work education: A study of changes in the authority of knowledge and relationships between students and teachers in Norway. *Social Work Education*, *32*(4), 493-505. doi:https://doi.org/10.1080/ 02615479.2012.685882
- Fulk, B. M., & King, K. (2001). Classwide peer tutoring at work. *Teaching Exceptional Children*, 34(2), 49-53. doi:https:// doi.org/10.1177/004005990103400207
- Garrett, T. (2008). Student-centered and teacher-centered classroom management: A case study of three elementary teachers. *The Journal of Classroom Interaction*, 43(1), 34-47.
- Garrote, A., Dessemontet, R. S., & Opitz, E. M. (2017). Facilitating the social participation of pupils with special educational needs in mainstream schools: A review of school-based interventions. *Educational Research Review*, *20*, 12-23. doi: https://doi.org/10.1016/j.edurev.2016.11.001
- Gharib, R. M. M. (2014). Effectiveness of a training program to improve the skills of self-determination and academic achievement of students with specific learning difficulties (Unpublished doctoral dissertation). Jordanian University, Amman, Jordan.
- Gibson, S. K. (2004). Social learning (cognitive) theory and implications for human resource development. *Advances in Developing Human Resources*, 6(2), 193-210. doi:https://doi.org/10.1177/1523422304263429
- Glazzard, J. (2010). The impact of dyslexia on pupils' self-esteem. *Support for Learning*, 25(2), 63-69. doi:https://doi.org/ 10.1111/j.1467-9604.2010.01442.x
- Grossman, J. B., & Rhodes, J. E. (2002). The test of time: Predictors and effects of duration in youth mentoring relationships. *American Journal of Community Psychology*, *30*(2), 199-219. doi:https://doi.org/10.1037/e314762004-001



- Grünke, M., Wilbert, J., Tsiriotakis, I. K., & Agirregoikoa, A. L. (2017). Improving the length and quality of texts written by fourth graders with learning disabilities through a peer-tutoring graphic organizing strategy. *Insights into Learning Disabilities*, *14*(2), 167-188.
- Hallahan, D. P., & Kauffman, J. M. (1991). *Exceptional children: Introduction to special education*. New York, NY: Pearson Education.
- Hamilton, S. F., Agnes Hamilton, M., Hirsch, B. J., Hughes, J., King, J., & Maton, K. (2006). Community contexts for mentoring. *Journal of Community Psychology*, 34(6), 727-746. doi:https://doi.org/10.1002/jcop.20126
- Harper, G. F., & Maheady, L. (2007). Peer-mediated teaching and students with learning disabilities. *Intervention in School and Clinic*, *43*(2), 101-107. doi:https://doi.org/10.1177/10534512070430020101
- Heron, T. E., Villareal, D. M., Yao, M., Christianson, R. J., & Heron, K. M. (2006). Peer tutoring systems: Applications in classroom and specialized environments. *Reading & Writing Quarterly*, 22(1), 27-45. doi:https://doi.org/10.1080/ 10573560500203517
- Holecek, D. L. (2012). *Cross age/cross disability peer tutoring* (Unpublished doctoral dissertation). University of Wisconsin-Superior, Superior, WI.
- Hott, B., Walker, J., & Sahni, J. (2012). Peer tutoring. Overland Park, KS: Council for Learning Disabilities.
- Hughes, C., & Carter, E. W. (2008). *Peer buddy programs for successful secondary school inclusion*. Baltimore, MD: PH Brookes Publishing Company.
- Humphrey, N. (2002). Teacher and pupil ratings of self-esteem in developmental dyslexia. *British Journal of Special Education*, 29(1), 29-36. doi:https://doi.org/10.1111/1467-8527.00234
- Johnson, E. S., Humphrey, M., Mellard, D. F., Woods, K., & Swanson, H. L. (2010). Cognitive processing deficits and students with specific learning disabilities: A selective meta-analysis of the literature. *Learning Disability Quarterly*, 33(1), 3-18. doi:https://doi.org/10.1177/073194871003300101
- Jones, G., Ostojic, D., Menard, J., Picard, E., & Miller, C. J. (2017). Primary prevention of reading failure: Effect of universal peer tutoring in the early grades. *The Journal of Educational Research*, *110*(2), 171-176. doi:https://doi.org/10.1080/00220671.2015.1060929
- Karagiannakis, A. (2008). *Classwide peer tutoring: Social status and self-concept of boys with and without behaviour problems* (Unpublished doctoral dissertation). McGill University, Quebec, Canada.
- Karande, S., Sholapurwala, R., & Kulkarni, M. (2011). Managing specific learning disability in schools in India. *Indian Pediatrics*, *48*(7), 515-520. doi:https://doi.org/10.1007/s13312-011-0090-1
- Kunsch, C. A., Jitendra, A. K., & Sood, S. (2007). The effects of peer-mediated instruction in mathematics for students with learning problems: A research synthesis. *Learning Disabilities Research & Practice*, 22(1), 1-12. doi:https://doi.org/ 10.1111/j.1540-5826.2007.00226.x
- Lingo, A. S. (2014). Tutoring middle school students with disabilities by high school students: Effects on oral reading fluency. *Education and Treatment of Children*, *37*(1), 53-76. doi:https://doi.org/10.1353/etc.2014.0005
- Macintyre, C., & Deponio, P. (2003). *Identifying and supporting children with specific learning difficulties: Looking beyond the label to assess the whole child*. London, UK: Taylor & Francis Group. doi:https://doi.org/10.4324/9780203561577
- Marlow, G. D. (2000). *Peer tutoring in the ESL classroom: What do these students tell us?* (Unpublished doctoral dissertation). University of British Columbia, Vancouver, Canada.
- McCurdy, E. E., & Cole, C. L. (2014). Use of a peer support intervention for promoting academic engagement of students with autism in general education settings. *Journal of Autism and Developmental Disorders*, 44(4), 883-893. doi:https://doi.org/10.1007/s10803-013-1941-5
- Miller, M. A. (2005). Using peer tutoring in the classroom: Applications for students with emotional/behavioral disorders. *Beyond Behavior*, *15*(1), 25-30.
- Nasen. (2015). Supporting pupils with specific learning difficulties (dyslexia) in secondary schools: A quick guide to supporting the needs of pupils with dyslexia (Tech. Rep.). Tamworth, UK: National Association for Special Educational Needs.
- National Joint Committee on Learning Disabilities. (1991). Learning disabilities: Issues on definition. *Asha*, 33(5), 18–20.
- Nind, M., & Wearmouth, J. (2006). Including children with special educational needs in mainstream classrooms: Implications for pedagogy from a systematic review. *Journal of Research in Special Educational Needs*, 6(3), 116-124. doi:https:// doi.org/10.1111/j.1471-3802.2006.00069.x

- Odluyurt, S., Tekin-Iftar, E., & Ersoy, G. (2014). Effects of school counselor supervised peer tutoring in inclusive settings on meeting IEP outcomes of students with developmental disabilities. *Education and Training in Autism and Developmental Disabilities*, 49(3), 415-428.
- Piaget, J. (1985). *The equilibration of cognitive structures: The central problem of intellectual development.* Chicago, IL: University of Chicago Press.
- Reid, G., Elbeheri, G., & Everatt, J. (2015). *Assessing children with specific learning difficulties: A teacher's practical guide*. London, UK: Routledge. doi:https://doi.org/10.4324/9781315693873
- Semrud-Clikeman, M. (2005). Neuropsychological aspects for evaluating learning disabilities. *Journal of Learning Disabilities*, 38(6), 563-568. doi:https://doi.org/10.1177/00222194050380061301
- Shaywitz, S. E. (2003). Overcoming dyslexia: A new and complete science-based program for reading problems at any level. New York City, NY: Knopf.
- Stampoltzis, A., & Polychronopoulou, S. (2009). Greek university students with dyslexia: An interview study. *European Journal of Special Needs Education*, 24(3), 307-321. doi:https://doi.org/10.1080/08856250903020195
- Swanson, H. L. (2000). Issues facing the field of learning disabilities. *Learning Disability Quarterly*, 23(1), 37-50. doi:https://doi.org/10.2307/1511098
- The British Dyslexia Association. (2018). What are specific learning difficulties? Bracknell, UK. Retrieved from https://bit.ly/2mrrCzP
- The Ministry of Education. (2011). *Teacher's guide to learning difficulties programs*. Riyadh, Saudi Arabia. Retrieved from https://bit.ly/2NqW74a
- Thomas, G. (2017). How to do your research project: A guide for students. London, UK: Sage.
- Thompson Jr, D. E. (2011). *The perceptions of peer tutoring among middle school teachers within multi-ability classrooms* (Doctoral dissertation). The University of Memphis, Memphis, Tennessee.
- Topping, K. J. (1996). The effectiveness of peer tutoring in further and higher education: A typology and review of the literature. *Higher Education*, *32*(3), 321-345. doi:https://doi.org/10.1007/bf00138870
- Topping, K. J. (2005). Trends in peer learning. *Educational Psychology*, *25*(6), 631-645. doi:https://doi.org/10.1080/ 01443410500345172
- Tsuei, M. (2017). Learning behaviours of low-achieving children's mathematics learning in using of helping tools in a synchronous peer-tutoring system. *Interactive Learning Environments*, *25*(2), 147-161. doi:https://doi.org/10.1080/ 10494820.2016.1276078
- Tur-Kaspa, H. (2002). Social cognition in learning disabilities. In T. H. Bryan, M. L. Donahue, & B. Y. L. Wong (Eds.), *The social dimensions of learning disabilities*. New Jersey, NJ: Lawrence Erlbaum Associates.
- Vygotskie, L., Embong, A. R., & Muslim, N. (1978). *Mind in society: The development of higher psychological*. Cambridge, MA: Harvard University Press.
- Wang, H. Y. (2015). Needs analysis of sophomore-year students in a Technology University in Taiwan. *International Journal of Humanities, Arts and Social Sciences, 1*(2), 101-107. doi:https://doi.org/10.20469/ijhss.20007-2
- Wijetunge, M. T. N. (2016). Using communicative task-based speaking activities to enhance ESL speaking motivation in undergraduates. *International Journal of Humanities, Arts and Social Sciences*, 2(6), 203-208. doi:https://doi.org/ 10.20469/ijhss.2.20002-6
- Wong, B., Graham, L., Hoskyn, M., & Berman, J. (2011). The abcs of learning disabilities. Cambridge, MA: Academic Press.
- Wood, C. L., Mustian, A. L., & Cooke, N. L. (2012). Comparing whole-word and morphograph instruction during computerassisted peer tutoring on students' acquisition and generalization of vocabulary. *Remedial and Special Education*, 33(1), 39-47. doi:https://doi.org/10.1177/0741932510362515
- Yahya, M. S., Ismail, M. H., Salleh, M. F. M., & Abdullah, H. (2015). Science teachers' continuous professional development: Nature of in-service training and its implementation. *International Journal of Humanities, Arts and Social Sciences, 1*(1), 6-12. doi:https://doi.org/10.20469/ijhss.20002

