

PEER RELATIONSHIPS AND SCHOOL BELONGING AS KEY DIMENSIONS OF THE SOCIAL INTEGRATION OF STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN MAINSTREAM SCHOOLS

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Abstract: Social integration constitutes a central outcome of inclusive education because school participation is shaped through everyday relationships, reciprocal interaction, acceptance and a meaningful sense of membership in the school community. This article examines peer relationships and school belonging as interconnected dimensions of the social integration of students with special educational needs in mainstream schools. A focused literature review was conducted through targeted searches of peer reviewed educational and psychological literature, with emphasis on publications from 2021 to 2026 and selected foundational studies that established the conceptual structure of social participation and belonging. The synthesis shows that students with special educational needs frequently experience smaller friendship networks, lower peer acceptance and fewer reciprocal interactions, while the quality of a close friendship can remain a substantial source of companionship, support and positive self perception. School belonging emerges as a broader psychosocial experience through which students perceive acceptance, respect, safety, recognition and connection with peers and adults. Recent evidence further links inclusive teaching practices, supportive teacher relationships, peer understanding and deliberately structured opportunities for interaction with stronger social and emotional inclusion. Studies from Greece indicate comparable priorities around peer acceptance, friendship quality and inclusive classroom practice. Across the reviewed evidence, belonging appears to operate both as an outcome of positive relationships and as a condition that supports further participation. The most consistent pattern concerns the interaction between individual experience and classroom ecology, since students' opportunities for friendship depend on peer attitudes, teacher mediation, activity structures and the social accessibility of formal and informal school spaces. This perspective supports evaluation models that combine sociometric information with students' own accounts of connection and safety. The findings support a relational view of inclusion in which successful participation is evaluated through both the structure and the quality of students' social connections. Schools are therefore encouraged to combine inclusive pedagogy with peer mediated activities, cooperative learning, friendship sensitive practices, student voice and systematic attention to belonging. Future research in Greece can examine these dimensions longitudinally and across different categories of special educational needs.

Keywords: special educational needs, peer relationships, school belonging, social integration, inclusive education

1. INTRODUCTION

Inclusive education increasingly treats participation, recognition and relationships as core indicators of educational quality. Placement in a mainstream classroom creates access to shared learning environments, while social integration develops through opportunities to participate with peers, form reciprocal relationships and experience oneself as a valued member of the school community. Foundational reviews conceptualised the social dimension of inclusion through peer interactions, peer acceptance, friendships and students' own social perceptions (Koster et al., 2009; Bossaert et al., 2013). Recent synthesis retains these dimensions and places them within a broader ecological picture involving individual characteristics, peers, teachers and school supports (Wang et al., 2025). This relational perspective is especially important for students with special educational needs because school inclusion concerns both participation in educational activity and membership in the social life of the class.

Peer relationships provide one of the most immediate contexts in which social integration becomes visible. Friendship offers companionship, emotional support, mutual recognition and opportunities for developing social competence. Classroom networks also shape access to collaborative learning, informal information and everyday participation. At the same time, school belonging captures the subjective experience of being accepted, respected, included and supported within school. Belonging has been associated with academic, social and psychological adjustment across student populations, and meta analytic evidence identifies relationships with peers and teachers among its strongest school based correlates (Allen et al., 2018). For students with special educational needs, belonging offers a useful bridge between observable social participation and the student's own interpretation of school life (Prince & Hadwin, 2013).

The two constructs therefore illuminate complementary aspects of inclusion. Peer relationships describe who interacts with whom, how friendships are formed and whether ties are reciprocal, while belonging addresses

whether these connections generate a durable sense of membership, safety and authenticity. Contemporary work on relational inclusivity further argues for attention to friendship, play, academic support and emotional support networks as overlapping structures through which inclusion is enacted in everyday schooling (Mamas & Trautman, 2025). The present review examines how peer relationships and school belonging operate as key dimensions of the social integration of students with special educational needs in mainstream schools. It also considers implications for the Greek educational context, where evidence on social participation and friendship quality provides a relevant empirical basis for developing school level approaches.

2. MATERIALS AND METHODS

A focused literature review was undertaken in August 2026. Targeted searches were conducted through Google Scholar and bibliographic records available through PubMed, ERIC and major academic publisher platforms. Search combinations included special educational needs, inclusive education, social participation, peer relationships, friendship, peer acceptance, school belonging, school connectedness and social inclusion. Priority was given to peer reviewed studies and reviews published from 2021 to 2026, together with earlier studies that established widely used conceptual frameworks or provided evidence from Greece. The synthesis concentrated on school age students in mainstream or inclusive primary and secondary settings. Studies addressing friendship networks, peer acceptance, social interaction, social self perception, belonging, emotional inclusion and school practices were considered especially relevant. The review followed a thematic narrative approach. Evidence was organised around peer relationships, school belonging, their interaction, and school level conditions that support social integration.

3. RESULTS

PEER RELATIONSHIPS AS A STRUCTURAL AND QUALITATIVE DIMENSION OF SOCIAL INTEGRATION

The literature consistently presents peer relationships as a multidimensional outcome. Social integration includes frequency of interaction, acceptance within the peer group, number and reciprocity of friendships, and the student's perception of these relationships. The scoping review by Wang et al. (2025), based on 63 empirical studies, organised social participation into joint activities, social behaviour, peer relationships and social self perception. This synthesis confirms that an inclusive placement can generate varied social experiences, with student outcomes shaped by the quality of peer contact and the supports available in each classroom.

Empirical studies illustrate the importance of examining classroom networks directly. Schwab et al. (2022) analysed friendship nominations among 449 students in 25 inclusive primary classes and found substantial variation in the correspondence between teacher judgements and students' friendship networks. This finding strengthens the case for student reported and sociometric information when evaluating social participation. Garrote and Moser Opitz (2021) similarly showed that students with intellectual disabilities occupied more limited positions in peer relationship networks and developed fewer new reciprocal relationships across the school year. Such patterns indicate that classroom membership gains social meaning through reciprocal ties and shared activity.

Greek evidence provides a particularly relevant contribution. Avramidis et al. (2018) studied 457 upper primary students in regular Greek schools, including 45 students with moderate learning difficulties. Students with special educational needs received fewer peer acceptance nominations, had fewer friends and engaged in fewer interactions with classmates. At the same time, their social self perceptions and perceived best friendship quality were broadly positive. A later longitudinal study by Avramidis et al. (2022) followed students with moderate learning difficulties from Grade 7 to Grade 9 and again highlighted the value of looking beyond friendship counts toward the quality and continuity of close relationships. These findings suggest that a limited number of meaningful friendships can carry substantial social value and that social integration benefits from assessment of both network position and relationship quality.

Recent research also connects peer relationships with self concept. Douma et al. (2024) examined how acceptance and friendship contribute to the self concept of students with and without special educational needs. Their analysis places peer feedback and friendship experiences within the process through which students form evaluations of themselves. The systematic review by Mamas et al. (2021) reached a comparable conclusion for students with autism in general education settings, where social participation challenges were evident across friendship, interaction and acceptance outcomes. Together, these studies indicate that peer relationships function as both social resources and contexts for identity development.

SCHOOL BELONGING AS THE SUBJECTIVE EXPERIENCE OF INCLUSION

School belonging complements relational network indicators by focusing on the student's felt connection to school. Conceptual work describes belonging as a multidimensional experience involving acceptance, inclusion, support, identification and meaningful participation (Allen et al., 2021). A meta analysis of school belonging research showed that teacher support, positive peer relations and school climate are central correlates that schools can actively strengthen (Allen et al., 2018). In the field of special educational needs, Prince and Hadwin

(2013) identified belonging as a key construct for interpreting the effectiveness of inclusion because it links school context with cognitive, affective, behavioural and social outcomes.

Recent evidence supports this connection. Goldan et al. (2022) found lower school related subjective well being among children with special educational needs in inclusive classrooms across several domains that included school experience, friendships and loneliness. Alnahdi et al. (2022) reported lower perceived social and emotional inclusion among students with special educational needs and also found that students' perceptions of inclusive teaching practices predicted stronger social inclusion, emotional inclusion and academic self concept. These results position belonging within everyday pedagogy rather than as an individual disposition.

Belonging also depends on opportunities for students to experience authenticity and interpersonal safety. Atkinson et al. (2026), studying autistic students in mainstream secondary schools, found that school belonging was related to anxiety through camouflaging and that social relationships, acceptance, understanding and supportive school environments shaped students' experiences of belonging. Page et al. (2024) similarly demonstrated that belonging for students with disability can be facilitated through relational, pedagogical and material features of learning environments. Guillemot et al. (2024) added a family perspective by showing that social inclusion and subjective well being are associated with characteristics of the school experience and the quality of relationships surrounding the student. Across these studies, belonging emerges as an ecological outcome produced through interactions among people, pedagogy and environment.

THE INTERDEPENDENCE OF FRIENDSHIP AND BELONGING

Peer relationships and school belonging reinforce one another. Reciprocal friendships create concrete experiences of recognition and companionship, while a strong sense of belonging can increase confidence to participate, seek support and enter shared activities. Mamas (2025) places students' own friendship perspectives at the centre of relational inclusivity and shows the value of examining whom students identify as meaningful social partners. Mamas and Trautman (2025) extend this approach through multiple school networks, arguing that inclusion becomes more visible when friendship, play, academic help and emotional support are considered together. This framework captures forms of connection that conventional placement based indicators can overlook.

Intervention oriented evidence points in the same direction. Mamas et al. (2023) documented a research practice partnership designed to strengthen friendships and classroom cohesion, illustrating how relational data can inform practical action. Allen et al. (2022) found across school based belonging interventions that belonging can be strengthened through deliberate strategies, especially when initiatives address relationships and the wider social ecology of school. Lindner et al. (2022), drawing on the perspectives of students, parents and teachers, identified promoting factors at educational, intrapersonal and interpersonal levels. These findings support school practices that create repeated, structured and meaningful opportunities for connection.

IMPLICATIONS FOR MAINSTREAM SCHOOLS IN GREECE

For Greek mainstream schools, the available evidence suggests a shift toward relational indicators of inclusion. The study by Avramidis et al. (2018) already demonstrates the value of combining sociometric position, observed interaction, social self perception and friendship quality. More recent Greek literature on inclusive education also highlights the importance of teachers' knowledge, preparation and capacity to implement inclusive practice (Sakellaropoulou et al., 2025). These strands can be integrated through classroom approaches that treat peer participation and belonging as explicit educational aims.

Practical priorities include cooperative learning with carefully structured roles, peer mediated support, mixed group activities, inclusive extracurricular opportunities, friendship sensitive classroom organisation and systematic attention to recess and other less structured periods. Teachers can use student voice, brief belonging measures and sociometric information ethically to identify patterns of connection and guide class wide interventions. The emphasis remains on expanding authentic opportunities for reciprocity and shared participation for all students. Such practices align social integration with everyday school life and provide a stronger foundation for evaluating the broader processes of rehabilitation, participation and inclusion.

4. DISCUSSIONS

The reviewed literature supports a relational interpretation of social integration. Successful inclusion is most visible when students participate in reciprocal peer relationships and simultaneously experience school as a community in which they are accepted, supported and recognised. This interpretation adds depth to traditional indicators based on placement and access. The four dimensions established in earlier social participation research remain highly useful, while recent work expands the framework by connecting network structure with belonging, authenticity, emotional support and school ecology.

A central implication concerns measurement. Teachers possess important observational knowledge, yet friendship network research shows that adult perceptions can differ from students' own relational realities (Schwab et al., 2022). A comprehensive evaluation of social integration therefore benefits from multiple perspectives and methods. Sociometric nominations can describe network position, student self reports can capture belonging and perceived inclusion, qualitative accounts can reveal the meaning of relationships, and

observations can identify participation patterns in classrooms and informal spaces. This multimethod orientation is especially relevant for future Greek research because it allows social integration to be examined as both an observable and a subjective process.

A second implication concerns the unit of intervention. Several findings direct attention toward classroom and school conditions. Inclusive teaching practices predict stronger perceptions of inclusion (Alnahdi et al., 2022), relational and environmental design can support belonging (Page et al., 2024), and multi perspective research identifies pedagogical and interpersonal factors that promote social inclusion (Lindner et al., 2022). The practical focus therefore extends from individual social skills toward the organisation of opportunities, norms and relationships across the whole class. Peer understanding, cooperative structures, emotionally supportive teacher behaviour and spaces for shared interests can create conditions in which friendships and belonging develop more naturally.

Belonging can also be interpreted as both an educational outcome and a relational mechanism. When students experience recognition and secure membership in a classroom, they gain a stronger platform for approaching peers, participating in collaborative activity and seeking academic or emotional support. Conversely, repeated experiences of reciprocity and shared success can deepen identification with the class and school. This reciprocal process helps explain why isolated interventions directed only at individual social competence may have limited reach, whereas approaches that reshape classroom interaction patterns can influence several dimensions of inclusion simultaneously. The literature on relational inclusivity makes this point explicit by treating friendship, play, academic support and emotional support as interconnected networks rather than separate outcomes (Mamas & Trautman, 2025). For research and practice, this means that social integration can be assessed through changes in both the density and reciprocity of relationships and the student's perceived sense of acceptance, safety and membership.

The evidence also encourages attention to heterogeneity. Special educational needs encompass diverse profiles, ages and educational experiences. Findings for learning difficulties, intellectual disabilities and autism reveal common relational themes alongside distinct needs. Atkinson et al. (2026), for example, highlights authenticity, acceptance and camouflaging in autistic students, while Greek longitudinal research on moderate learning difficulties foregrounds continuity and quality of friendship (Avramidis et al., 2022). Future studies can therefore examine common relational mechanisms while retaining sensitivity to disability specific experiences, developmental stage and school context.

For the Greek context, a promising research agenda would connect peer relationships and belonging with broader processes of social rehabilitation and integration. Longitudinal designs can examine how classroom networks evolve across school transitions. Mixed methods can explore how students interpret acceptance, support and participation. Intervention studies can evaluate cooperative learning, peer support, inclusive extracurricular activities and teacher professional development. A further priority involves direct participation of students with special educational needs in defining the outcomes that represent meaningful inclusion for them. This approach strengthens the conceptual and practical alignment between inclusive education and social integration.

5. CONCLUSIONS

Peer relationships and school belonging represent two closely connected dimensions of the social integration of students with special educational needs in mainstream schools. Peer networks reveal access to interaction, acceptance, friendship and reciprocal support, while belonging captures the personal experience of being recognised and connected within the school community. Current evidence shows that the quality of close friendships can carry substantial value even when wider peer networks remain limited, and that inclusive teaching, supportive adults, peer understanding and thoughtfully organised learning environments can strengthen social and emotional inclusion. For mainstream schools in Greece, the literature supports systematic attention to friendship quality, student voice, classroom networks and belonging alongside academic participation. A relational model of inclusion can therefore guide both school practice and future research by treating meaningful connection as a central educational outcome. Such a perspective also offers a productive conceptual bridge to wider research on social rehabilitation and integration, because it locates inclusion in the lived relationships through which children participate, develop identity and acquire membership in the school community.

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