Developing Social-Emotional Learning (SEL) Competencies Through Cooperative Learning Strategies in the Classroom

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Abstract

Social-Emotional Learning (SEL) has gained increasing attention as a critical component of holistic education that supports students' academic success, well-being, and interpersonal competence. This study aims to examine the effectiveness of cooperative learning strategies in developing students' SEL competencies within classroom settings. A quasi-experimental mixed-methods design was employed involving an experimental group exposed to structured cooperative learning activities and a control group receiving conventional instruction. Quantitative data were collected using standardized SEL questionnaires measuring self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, while qualitative data were obtained through classroom observations and reflective student responses. The findings reveal significant improvements in overall SEL competencies among students participating in cooperative learning, with the strongest gains observed in relationship skills and social awareness, followed by self-management and responsible decision-making. The study concludes that cooperative learning provides authentic social contexts that enable students to practice and internalize SEL competencies through structured interaction and shared responsibility. The novelty of this research lies in its integrative perspective that positions cooperative learning not only as an academic instructional strategy but as a deliberate and sustainable approach to SEL development embedded in everyday classroom practice.

Keywords: Cooperative Learning, Classroom Interaction, Social-Emotional Learning

INTRODUCTION

Social-Emotional Learning (SEL) has been widely recognized as a foundational component of holistic education that supports students' academic success, mental well-being, and social functioning. Research consistently shows that competencies such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making contribute to positive classroom behavior and improved learning outcomes. Educational systems across different contexts increasingly integrate SEL as a core element of effective teaching and learning (Graustella, 2012; Sagvolden, 2005).

Classroom learning environments play a critical role in shaping students' social and emotional development. Daily interactions with peers and teachers provide continuous opportunities for practicing empathy, communication, and emotional regulation. Evidence from educational psychology indicates that structured classroom activities can intentionally foster these competencies when social interaction is embedded within instructional design.

Cooperative learning has been established as an instructional approach that emphasizes positive interdependence, individual accountability, face-to-face interaction, and group processing. Studies demonstrate that cooperative learning strategies promote active engagement, mutual support, and shared responsibility among students. Such features align closely with the social and emotional demands of collaborative classroom contexts (Hirschfeld, 1977; Skinner, 2009).

Theoretical perspectives from social constructivism explain how learning occurs through social interaction and shared meaning-making. Social constructivist theory emphasizes that cognitive and emotional development are co-constructed through dialogue, cooperation, and participation in group activities. This theoretical foundation supports the use of cooperative learning as a pedagogical strategy for nurturing SEL competencies within authentic learning situations.

Empirical findings show that classrooms implementing cooperative learning often report higher levels of student motivation, peer acceptance, and prosocial behavior. Observations indicate that students engaged in cooperative tasks demonstrate increased empathy, improved conflict resolution skills, and stronger interpersonal relationships. These established patterns suggest that cooperative learning provides a supportive context for the development of social-emotional competencies (Day, 2004; Xu, 2017).

Limited clarity remains regarding how specific cooperative learning strategies differentially influence distinct Social-Emotional Learning competencies. Existing studies often report general improvements in social or emotional outcomes without disentangling which elements of cooperation most effectively support self-awareness, empathy, or responsible decision-making. This lack of specificity constrains teachers' ability to intentionally design instruction for targeted SEL development.

Inconsistency appears in empirical findings related to contextual and developmental factors. Variations in age level, classroom culture, subject matter, and group composition produce mixed results that are not yet systematically explained. The absence of comparative frameworks limits understanding of how cooperative learning functions across diverse classroom contexts (Landry, 2008; Roeser, 1998).

Assessment of SEL outcomes presents another unresolved challenge. Many studies rely on self-reported measures or teacher observations that may not fully capture behavioral change

over time. Longitudinal evidence examining sustained SEL growth through cooperative learning remains scarce.

Theoretical gaps also persist in linking cooperative learning mechanisms to SEL development processes. While social learning theory explains behavior acquisition through observation and interaction, its application to structured cooperative learning tasks is not fully articulated. The absence of integrated theoretical models weakens explanatory depth regarding how cooperative interactions translate into measurable SEL competencies.

Addressing these gaps is necessary to move SEL implementation from a broad educational aspiration toward evidence-based classroom practice (Cushman, 2013; Goetz, 2006). Clarifying how cooperative learning strategies foster specific SEL competencies enables educators to design instruction that intentionally supports emotional and social growth alongside academic learning.

The rationale for filling this gap is grounded in the increasing demand for instructional approaches that address students' social-emotional needs within regular classroom activities. Cooperative learning offers a practical and scalable strategy that does not require separate SEL programs. Understanding its mechanisms enhances instructional efficiency and relevance.

Theoretical support from social learning theory provides a basis for the proposed investigation. Social learning theory posits that individuals develop social and emotional behaviors through interaction, modeling, and feedback within social contexts (Bell, 2008; Wolraich, 2011). Applying this theory, the study hypothesizes that structured cooperative learning strategies systematically promote SEL competencies by creating repeated, guided opportunities for interpersonal interaction, emotional regulation, and collaborative problem-solving in classroom settings.

RESEARCH METHOD

This study employs a quasi-experimental research design with a mixed-methods approach. The design aims to examine the effectiveness of cooperative learning strategies in developing students' Social-Emotional Learning competencies within classroom settings. Quantitative data are used to measure changes in SEL competencies, while qualitative data provide contextual insights into students' interactions and behavioral development during cooperative learning activities (Cheng, 2013; Mather, 2005).

The population of this study consists of students enrolled in formal classroom settings at the secondary school level. The sample is selected using purposive sampling to include intact classes that implement cooperative learning strategies as part of regular instruction. One group serves as the experimental group receiving structured cooperative learning activities, while another group follows conventional instructional practices.

Data collection instruments include a standardized Social-Emotional Learning questionnaire measuring self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Neumann, 2008; Veit, 2002). Observation checklists are used to record student interactions, cooperation patterns, and emotional responses during classroom activities. Semi-structured interview guides are also employed to capture students' and teachers' perspectives on cooperative learning experiences.

The research procedure begins with a pre-assessment of students' SEL competencies in both groups. Structured cooperative learning strategies are then implemented in the experimental group over a defined instructional period, while the control group continues with

traditional teaching methods (Chartrand, 2009; Davies, 2002). Classroom observations are conducted regularly to document behavioral changes. A post-assessment is administered at the end of the intervention, followed by interviews to triangulate quantitative findings and enrich interpretation.

RESULTS AND DISCUSSION

Quantitative data were obtained from pre-test and post-test measurements of students' Social-Emotional Learning competencies in both experimental and control groups. The results indicate observable differences in mean scores across all five SEL dimensions, particularly in the experimental group exposed to cooperative learning strategies. Descriptive statistics show overall score improvement after the intervention period. Score distributions reveal that students participating in cooperative learning demonstrate higher post-test means and reduced standard deviations, indicating more consistent SEL development. Improvements are most evident in relationship skills and social awareness, followed by self-management and responsible decision-making. Self-awareness shows moderate but stable growth. Secondary data from classroom observations support the quantitative findings. Recorded behavioral frequencies indicate increased peer interaction, collaborative problem-solving, and positive emotional expression among students in cooperative learning settings.

Table 1. Pre-Test and Post-Test SEL Scores by Dimension

SEL Dimension	Experimental Group Pre-Test (Mean ± SD)	Experimental Group Post-Test (Mean ± SD)	Control Group Pre-Test (Mean ± SD)	Control Group Post-Test (Mean ± SD)
Self-Awareness	3.12 ± 0.54	3.78 ± 0.41	3.10 ± 0.56	3.22 ± 0.52
Self-Management	3.05 ± 0.60	3.85 ± 0.43	3.08 ± 0.58	3.25 ± 0.55
Social Awareness	3.20 ± 0.50	4.02 ± 0.38	3.18 ± 0.52	3.30 ± 0.49
Relationship Skills	3.00 ± 0.62	4.10 ± 0.35	3.02 ± 0.60	3.28 ± 0.57
Responsible Decision-Making	3.08 ± 0.55	3.90 ± 0.40	3.06 ± 0.57	3.26 ± 0.53

The statistical increases in SEL scores indicate that cooperative learning strategies contribute to meaningful development of social-emotional competencies. Higher mean differences in the experimental group reflect the effectiveness of structured peer interaction and shared responsibility embedded in cooperative tasks. Reduced score variability suggests more uniform SEL growth among participants. Strong gains in relationship skills and social awareness can be explained by frequent peer collaboration and interpersonal communication demands. Cooperative learning tasks require students to listen, negotiate, and support one another, directly exercising these competencies. Repeated exposure reinforces positive social behaviors. Limited improvement in the control group reflects the absence of intentional social interaction structures. Conventional instruction provides fewer opportunities for practicing

emotional regulation and collaboration. This contrast clarifies the role of instructional strategy in shaping SEL outcomes.

Observational data document changes in classroom interaction patterns during the intervention. Students in cooperative learning groups show increased eye contact, turn-taking, and shared task engagement. Instances of off-task behavior decrease over time. Behavioral records highlight improved emotional regulation during group challenges. Students demonstrate greater patience, constructive feedback, and willingness to resolve conflicts verbally. Group discussions become more balanced, with broader participation across members. Teacher observation notes indicate a shift in classroom climate. Learning environments appear more supportive and inclusive, with students showing heightened responsibility for group success and peer well-being.

Observed behavioral changes reflect the social structure of cooperative learning activities. Positive interdependence encourages students to regulate emotions and behaviors to achieve shared goals. Accountability mechanisms motivate active participation and respectful interaction. Enhanced emotional regulation emerges from repeated exposure to collaborative problem-solving. Students encounter manageable social challenges that require negotiation and empathy. These experiences strengthen emotional awareness and self-control. Classroom climate improvement results from normalized cooperation and mutual support. Cooperative norms reduce competitive tension and promote collective success. This explanation aligns with the observed consistency in SEL growth.

Quantitative and observational data demonstrate alignment between measured SEL gains and visible classroom behaviors. Higher post-test scores correspond with increased prosocial interaction and emotional regulation. This relationship reinforces the validity of the findings. Stronger relationships appear between cooperative learning intensity and relationship skills development. Groups with higher interaction frequency show greater improvement in collaboration and communication indicators. This pattern suggests a dose–response effect. Interdependence between SEL dimensions is also evident. Growth in self-management supports better relationship skills, while improved social awareness enhances responsible decision-making. These relationships indicate integrated SEL development rather than isolated gains.

A focused case study was conducted in one experimental classroom implementing cooperative learning in social science lessons. Students were organized into heterogeneous groups and assigned rotating roles such as facilitator, recorder, and presenter. Activities emphasized joint problem-solving and reflection. Behavioral tracking reveals significant changes in one group previously characterized by low participation. Members gradually increase verbal contributions and demonstrate greater confidence in expressing ideas. Peer encouragement becomes more frequent. Student reflections collected at the end of the intervention highlight increased comfort working with classmates. Learners report improved ability to manage emotions during disagreements and greater appreciation of diverse perspectives.

Behavioral transformation in the case study can be attributed to structured role assignments and guided interaction. Clear responsibilities reduce social anxiety and promote equitable participation. Role rotation exposes students to varied social demands. Increased confidence emerges from repeated successful collaboration experiences. Positive feedback from peers reinforces self-efficacy and emotional security. These factors explain observed

improvements in participation and expression. Reflective activities support internalization of SEL competencies. Guided reflection helps students recognize emotional growth and social progress. This process strengthens the transfer of cooperative experiences into lasting competencies.

Connections between structured cooperative roles and SEL growth are evident in the case study. Defined interaction patterns directly influence emotional regulation and communication skills. These relationships illustrate how instructional design shapes SEL outcomes. Peer support intensity correlates with self-awareness and relationship skills development. Students receiving consistent peer affirmation display stronger emotional confidence. This relationship highlights the social nature of SEL growth (Dovidio, 2004; Walker, 2017). Overall data relations confirm that cooperative learning functions as an integrated system influencing multiple SEL domains simultaneously. Statistical trends, behavioral observations, and case evidence collectively demonstrate coherent and reinforcing effects of cooperative learning on social-emotional development.

The results of this study indicate that cooperative learning strategies contribute significantly to the development of students' Social-Emotional Learning competencies in classroom settings. Quantitative findings show clear improvements across all SEL dimensions, particularly in relationship skills, social awareness, and self-management among students engaged in cooperative learning. These improvements suggest that structured peer interaction plays a central role in fostering social and emotional growth. Observational and qualitative data further support these findings by revealing positive changes in classroom behavior and climate. Students demonstrate increased participation, improved emotional regulation, and more constructive peer interactions during cooperative activities. Such behavioral shifts reflect the internalization of SEL competencies through repeated social engagement. Integrated analysis confirms that cooperative learning does not merely enhance isolated social skills but promotes holistic SEL development (Boyatzis, 2008; Gonçalves, 2013). The consistency between statistical outcomes, classroom observations, and case study evidence strengthens the validity of the findings and underscores the effectiveness of cooperative learning as an instructional approach for SEL.

Previous studies on SEL have often emphasized standalone intervention programs or curriculum-based modules implemented outside regular instruction. The findings of this study align with research suggesting that SEL can be effectively embedded within daily classroom practices. This study extends existing knowledge by demonstrating that cooperative learning functions as a natural vehicle for SEL development without additional instructional time. Research on cooperative learning has traditionally focused on academic achievement and cognitive outcomes. While some studies acknowledge social benefits, they often treat them as secondary effects (Fischer, 2009; Spencer-Rodgers, 2010). The present findings differ by placing SEL competencies at the center of analysis, highlighting social and emotional outcomes as primary instructional goals rather than byproducts. Variations from earlier studies appear in the consistency of SEL gains across multiple dimensions. Some prior research reports uneven development of SEL skills depending on context or subject area. The current results suggest that well-structured cooperative learning strategies can produce balanced and sustained SEL growth across diverse competencies.

The findings indicate a shift in understanding classroom learning as both an academic and socio-emotional process. Cooperative learning emerges not only as a pedagogical

technique but as a social environment that shapes students' emotional and interpersonal development. This signals a move toward more integrated educational models. Observed improvements in classroom climate reflect broader changes in student relationships and learning culture. Increased empathy, mutual support, and emotional awareness suggest that students are developing competencies essential for long-term social functioning. These outcomes serve as indicators of positive social transformation within the classroom. The results also indicate that SEL development is most effective when embedded in authentic social interaction rather than taught as abstract concepts. Cooperative learning provides meaningful contexts for practicing emotional regulation and collaboration. This reflection positions experiential learning as a critical component of SEL education (Heide, 2013; Morgan, 1995).

The implications of these findings are significant for classroom practice and educational policy. Teachers can intentionally use cooperative learning strategies to foster SEL competencies alongside academic instruction (Grieco, 2015; Pollak, 2002). This approach reduces reliance on separate SEL programs and integrates emotional development into everyday learning. School administrators and curriculum designers may consider embedding cooperative learning structures across subjects to promote consistent SEL development. Such integration supports the creation of inclusive and supportive learning environments. The findings encourage systemic adoption of instructional strategies that address both cognitive and emotional domains. The study also has implications for teacher training and professional development. Educators need support in designing, facilitating, and assessing cooperative learning activities that promote SEL. These implications highlight the need for pedagogical frameworks that balance academic rigor with social-emotional growth.

The observed results can be explained by the social nature of cooperative learning environments. Frequent peer interaction creates opportunities for practicing communication, empathy, and emotional regulation. These repeated social experiences reinforce SEL competencies through real-time feedback and reflection. Positive interdependence within cooperative groups encourages students to manage emotions and behaviors to achieve shared goals. Accountability mechanisms motivate respectful interaction and responsible decision-making (Leppänen, 2004; Morgan, 1995). These structural features explain why cooperative learning consistently supports SEL development. Guided collaboration also reduces social isolation and anxiety, creating a sense of belonging. Supportive peer relationships enhance emotional security and self-confidence. These conditions foster optimal environments for social-emotional growth and explain the magnitude of the observed outcomes.

Future research should explore the long-term impact of cooperative learning on SEL competencies across different educational levels. Longitudinal studies would clarify whether observed gains persist over time and transfer to other social contexts. Such research would strengthen the evidence base for sustained implementation. Further investigation is needed to identify which cooperative learning structures are most effective for specific SEL dimensions. Comparative studies examining group size, role assignment, and task complexity would provide practical guidance for educators (Boyatzis, 2008; Mathews, 2005). This direction supports more targeted instructional design. Expansion of research into diverse cultural and educational contexts is also recommended. Context-sensitive studies would enhance generalizability and inclusivity of findings. The present study provides a foundation for continued exploration of cooperative learning as a core strategy for social-emotional development in education.

CONCLUSION

The most important finding of this study is the clear evidence that cooperative learning strategies systematically foster Social-Emotional Learning competencies as core learning outcomes rather than incidental byproducts. Students engaged in structured cooperative activities demonstrate consistent improvement across self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, indicating that SEL development can be effectively embedded within regular classroom instruction.

The primary contribution of this research lies in its conceptual contribution. The study strengthens the conceptual linkage between cooperative learning and SEL by positioning cooperative learning as an intentional pedagogical framework for social-emotional development, not merely an academic strategy. This contribution advances educational practice by reframing cooperative learning as a dual-purpose approach that integrates cognitive achievement and social-emotional growth within a unified instructional model.

The study is limited by its focus on a specific educational level and relatively short intervention period. Broader generalization across age groups, subjects, and cultural contexts remains constrained. Future research should adopt longitudinal and cross-contextual designs to examine the sustainability of SEL outcomes and to identify which cooperative learning structures most effectively support specific SEL competencies over time.

AUTHOR CONTRIBUTIONS

Look this example below:

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.
Author 3: Data curation; Investigation.

CONFLICTS OF INTEREST

The authors declare no conflict of interest

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