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Unveiling the Implementation of Social-Emotional Learning among College Students: A Systematic Literature Review

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Abstract. Social-emotional learning (SEL) has become a cornerstone of holistic education, emphasizing the development of students' emotional intelligence, interpersonal competence, and psychological resilience. This systematic literature review synthesizes findings from 26 peer-reviewed studies published between 2012 and 2024, focusing on the implementation of SEL programmes in tertiary education. The review explores key factors shaping successful SEL integration, including institutional support, educator preparedness, and cultural relevance. It also examines the influence of SEL on students' academic performance, retention, and well-being. Findings suggest that SEL interventions contribute significantly to academic success and emotional health through mechanisms such as enhanced self-awareness, improved self-regulation, and stronger social connections. Challenges related to cultural adaptability, educator training, and programme sustainability are also highlighted. Best practices emerging from the literature include embedding SEL into both curricular and co-curricular domains, adopting context-specific approaches, and prioritizing inclusive, student-centred programme designs that reflect diverse learning needs. This review concludes with recommendations for future research, including the need for longitudinal studies to assess sustained outcomes, comparative analyses across disciplines and educational systems, and the exploration of technology-mediated SEL interventions in increasingly digital learning environments. Collectively, this review underscores SEL's transformative potential to enrich higher education settings and promote student success both within and beyond the classroom.

Keywords: Social-Emotional Learning; Systematic Literature Review; Higher Education; Academic Success; Student Well-being

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1. Introduction

In this era of rapid change and evolution in higher education, the academic journey for college students represents a synthesis of challenges, opportunities, and transformative experiences. Within this landscape, the modern educational paradigm recognizes that the development of students extends far beyond traditional academic pursuits (Alam & Mohanty, 2023). Instead, it embraces a holistic approach that prioritizes the cultivation of emotional intelligence, interpersonal skills, and resilience alongside academic achievement. Social-emotional learning (SEL) emerges as a powerful pedagogical framework within this context, serving as a guiding light for educators and institutions alike (Hayashi et al., 2022). By embracing SEL principles, educators can empower students to become not just knowledgeable graduates, but well-rounded individuals equipped with the essential tools to navigate contemporary life in modern society.

In college life, students undergo profound personal growth as they navigate a multitude of transitions from the structured environment of high school to the new autonomy and diversity of a university setting, which can be both exhilarating and frustrating. As they attempt to achieve academic excellence, students find themselves immersed in a complex web of social interactions, self-discovery, and the evolving demands of an interconnected world (Bosacki et al., 2023). It is within these complex challenges and opportunities that SEL emerges as a transformative approach to address this issue. The urgency of addressing social-emotional development in higher education is underscored by a growing mental health crisis among college students worldwide. Recent reports have documented alarming increases in anxiety, depression, and emotional distress within this demographic, often linked to academic pressure, social isolation, and life transitions. At the same time, employers are increasingly seeking graduates with strong interpersonal and emotional intelligence skills—competencies that traditional academic curricula often overlook. Without deliberate interventions, students may struggle to develop the socio-emotional competencies needed for both personal well-being and professional success. This pressing reality demands immediate attention from higher education institutions, calling for the integration of evidence-based SEL strategies into academic and co-curricular programmes to meet the evolving needs of contemporary learners.

Social-emotional learning offers college students an organized pathway to understand and navigate the various emotions they encounter during their college life. By fostering self-awareness and emotional regulation, SEL equips students with the tools to manage stress, overcome obstacles, and thrive in diverse situations (Carranza et al., 2023). Moreover, SEL empowers students to forge meaningful connections with their peers and mentors, fostering a sense of belonging and community in the university landscape. By employing SEL, students can learn to communicate efficiently, resolve conflicts constructively, and collaborate productively (Corcoran et al., 2018). As a result, it could help students generate skills that are essential not only for academic success but also for personal and professional fulfilment in this interconnected world (Domitrovich et al., 2019). The current systematic literature review conducted an

exploration of SEL implementation among college students to uncover the layers of its influence on personal and academic dimensions. Within this introduction, researchers emphasize the contemporary challenges faced by college students, acknowledging that academic success is linked with emotional well-being and interpersonal competence. The current study regards SEL as an activator for positive change, aiming to unveil its theoretical foundations, the diverse methodologies employed in its application, and the observed outcomes across multiple educational contexts.

In the process of conducting this systematic literature review, it is crucial to recognize that higher education transcends the mere transmission of knowledge; it serves as a critical scenario for the cultivation of well-rounded individuals capable of thriving emotionally, socially, and academically. In the contemporary context, characterized by rapid globalization, technological advancements, and socio-political complexities, the role of higher education institutions extends beyond academic instruction to include the holistic development of students (Devis-Rozental, 2018). By integrating SEL principles into educational frameworks, institutions can equip students with the necessary skills and competencies to navigate the multiple challenges of the 21st century effectively (Barnes & McCallops, 2019).

While SEL has been extensively studied at the primary and secondary education levels, systematic reviews focusing specifically on SEL implementation in tertiary education remain limited. Prior reviews have largely concentrated on SEL's general effectiveness without adequately addressing the distinct challenges and contextual dynamics of higher education environments. This review contributes uniquely to the field by filling that gap, offering a targeted synthesis of SEL programmes in college and university settings. Moreover, it integrates a diversity, equity, and inclusion (DEI) perspective, examining how culturally responsive practices intersect with SEL implementation—a dimension often overlooked in previous reviews. Beyond identifying isolated success factors, this study provides novel insights into the interplay among institutional support, educator readiness, and student engagement, arguing that these elements operate synergistically rather than independently. By highlighting these interconnected mechanisms, this review advances a more systemic and sustainable framework for embedding SEL in tertiary education contexts.

Thus, the present exploration of SEL implementation among college students seeks to contribute academically by shedding light on the theoretical underpinnings, empirical evidence, and practical implications of SEL within higher education, thereby enriching the scholarly dialogue surrounding educational practices and student development. Based on the above-mentioned features, the following research objectives were generated based on the systematic literature review in the context of implementing SEL in tertiary education.

RO1: To explore the key factors that influence the successful implementation of SEL programmes in tertiary education, and how these factors vary across different institutional contexts and student populations.

RO2: To explore how SEL programmes in tertiary education impact students' academic performance, retention rates, and overall well-being, and the mechanisms thereof.

RO3: To explore the best practices for integrating SEL into the curriculum and co-curricular activities in tertiary education, and how these practices can be adapted to address the diverse needs and backgrounds of students in higher education settings.

2. Literature Review

2.1 Theoretical Frameworks in SEL Implementation

Social-emotional learning (SEL) implementation within educational contexts is underpinned by robust theoretical frameworks that clarify the complex interplay between individual attributes, environmental factors, and educational outcomes. Among the prominent theoretical perspectives informing SEL implementation are the socio-ecological model, self-determination theory, social cognitive theory, and ecological systems theory. The socio-ecological model, rooted in the work of Urie Bronfenbrenner (1977), emphasizes the dynamic interactions between individuals and their social environments across multiple nested layers (Donahue-Keegan et al., 2019). This framework posits that individuals' socio-emotional development is influenced by various systems, including the microsystem of immediate relationships, the mesosystem of interactions between microsystems, the ecosystem of external environments indirectly affecting individuals and the macrosystem of broader cultural and societal contexts. In SEL implementation, the socio-ecological model underscores the importance of creating supportive environments that foster positive interpersonal relationships and promote socio-emotional well-being (Dowling & Barry, 2020). However, current SEL research often fails to adequately adapt programmes to the complex and varied ecosystems found in tertiary education. Many SEL initiatives remain overly standardized, neglecting how diverse university environments—such as different academic cultures, peer networks, and societal expectations—shape socio-emotional development. This study addresses this gap by exploring how SEL implementation can be better tailored to fit the institutional structures and student populations unique to higher education settings.

Self-determination theory (SDT), developed by Ryan and Deci (2020), emphasizes the importance of intrinsic motivation and the fulfilment of three core psychological needs: autonomy, competence, and relatedness. These needs are foundational to human behaviour and well-being, with autonomy reflecting the desire for self-direction, competence relating to the need to feel effective in one's actions, and relatedness involving the need to connect with others (Poláková & Klímová, 2022). In the context of SEL, SDT offers valuable insight into how educators can create environments that support students' psychological needs. By fostering autonomy through choice, supporting competence through appropriately challenging tasks, and cultivating relatedness by ensuring a sense of belonging, SEL programmes can engage students more deeply and motivate them to participate actively in their socio-emotional development (Elmi, 2020). However, existing SEL interventions in higher education often neglect the alignment between programme design and students' intrinsic psychological

needs. Many programmes are delivered in ways that overlook the importance of autonomy-supportive environments, particularly for culturally diverse student populations who may interpret relatedness and competence through different cultural lenses. This review addresses this under-explored area by investigating how culturally responsive SEL programmes can better fulfil students' autonomy, competence, and relatedness needs, thereby promoting sustainable engagement.

Integrating SDT into SEL practices not only enhances students' emotional and social skills but also contributes to their overall academic success and well-being. Educators who understand and apply the principles of SDT can design SEL programmes that resonate with students' intrinsic motivations, promoting self-directed learning and long-term behavioural change. Research has shown that when students experience autonomy-supportive environments and feel competent and connected, they are more likely to internalize social-emotional skills and apply them across various contexts (Fitzgerald et al., 2022). This multi-level approach to SEL, grounded in SDT, ensures that programmes are not merely externally motivated but are aligned with students' deeper psychological needs, leading to meaningful and sustained engagement in both academic and socio-emotional learning (Gay, 2015).

While these theoretical frameworks provide a robust foundation for understanding SEL implementation in tertiary education, it is important to recognize emerging directions in the literature that complement and challenge traditional models. Recent studies have explored the role of technology-mediated SEL interventions, utilizing digital platforms, virtual simulations, and AI-based tools to foster socio-emotional competencies, particularly in remote and hybrid learning contexts (Mahoney et al., 2018). These innovations expand the reach of SEL but also present challenges related to personalization, accessibility, and cultural sensitivity. Additionally, while much of the established SEL literature is rooted in Western educational paradigms, growing attention has been directed toward non-Western SEL frameworks, particularly in Asian and African contexts, where indigenous cultural values and collective approaches significantly shape socio-emotional development (Hayashi et al., 2022; Newaz, 2023). Although these areas fall beyond the primary focus of this review, they represent critical avenues for future research, emphasizing the need for culturally and technologically adaptive SEL models.

2.2 Methodological Approaches in SEL Research

Methodological approaches in social-emotional learning (SEL) research comprise a diverse array of quantitative, qualitative, and mixed-method designs tailored to comprehensively explore the diverse aspects of SEL implementation and its impacts. Quantitative methodologies, such as experimental designs and surveys, provide researchers with the means to quantify the effects of SEL interventions on various outcomes, including academic performance, emotional well-being, and social competence (Ghamrawi et al., 2023). Experimental designs, such as randomized controlled trials, offer robust means to establish causal relationships between SEL interventions and desired outcomes by systematically manipulating independent variables and measuring changes over time. Surveys, on the other hand, enable researchers to collect large-scale data on students' attitudes,

behaviours, and perceptions related to SEL, facilitating the identification of trends and patterns across diverse populations and settings.

Qualitative methodologies, including interviews, focus groups, and case studies, offer rich insights into the subjective experiences, perspectives, and contexts surrounding SEL implementation. Through qualitative inquiry, researchers can delve into the in-depth aspects of SEL initiatives, uncovering the complexity of programme delivery, participant experiences, and the socio-cultural factors influencing SEL outcomes (Greenberg, 2023). Interviews and focus groups provide platforms for participants to express their views and narratives clearly, shedding light on the underlying mechanisms driving SEL effectiveness and the unique challenges faced in real-world implementation. Additionally, case studies offer in-depth examinations of specific SEL programmes or interventions within their natural contexts, allowing for a deeper understanding of programme intricacies, contextual factors, and potential transferability to other settings (Grunewald & Foley-Nicpon, 2023). Mixed-method approaches in SEL research offer a lens through which researchers can comprehensively explore the complexities of SEL implementation and its effects on students' socio-emotional development. By integrating quantitative and qualitative methods, mixed-method designs provide a holistic understanding of SEL initiatives, capturing both the breadth and depth of their impact (Guillén et al., 2021). Through triangulation of findings from multiple sources, mixed-method approaches enhance the validity and reliability of research findings, leading to a more comprehensive understanding of SEL implementation and its implications for students' socio-emotional development.

2.3 Gaps and Challenges in SEL Research

Despite significant progress in social-emotional learning (SEL) research within higher education, several key gaps and challenges remain that require further academic inquiry. One major gap is the lack of longitudinal studies examining the long-term impact of SEL interventions on students' well-being and academic success (Poláková & Klímová, 2022). While existing research often demonstrates short-term improvements in targeted outcomes such as emotional regulation, academic performance, and interpersonal relationships, there is limited evidence on how these effects persist over time. Longitudinal research is crucial for understanding how SEL interventions influence students' developmental trajectories, especially across critical transition points such as from undergraduate to graduate education, or into the workforce. Such studies would provide insights into the lasting effects of SEL and help determine whether these programmes contribute to sustained personal and academic growth (Hashim et al., 2021).

There is also growing recognition of the need for more culturally responsive and contextually grounded approaches to SEL implementation. As higher education institutions become increasingly diverse, it is essential that SEL practices are adapted to reflect and respect students' varied cultural backgrounds, identities, and lived experiences (Ramirez et al., 2021). Current SEL models, which are often based on Western-centric frameworks, may not fully capture the nuances of students from different cultural and social contexts. Culturally relevant SEL interventions that consider factors such as ethnicity, socio-economic status, and

personal experiences can improve engagement and outcomes by ensuring that all students feel seen, understood, and supported (Richards et al., 2023). Addressing these gaps in SEL research would not only deepen our understanding of students' social and emotional development but also lead to more equitable and inclusive interventions that promote positive outcomes for all students in higher education settings (Jagers et al., 2019).

Building on the theoretical frameworks and identified research gaps, Figure 1 presents a conceptual model illustrating the dynamic interplay among institutional support, educator readiness, and student engagement as critical factors influencing successful SEL implementation in tertiary education contexts.

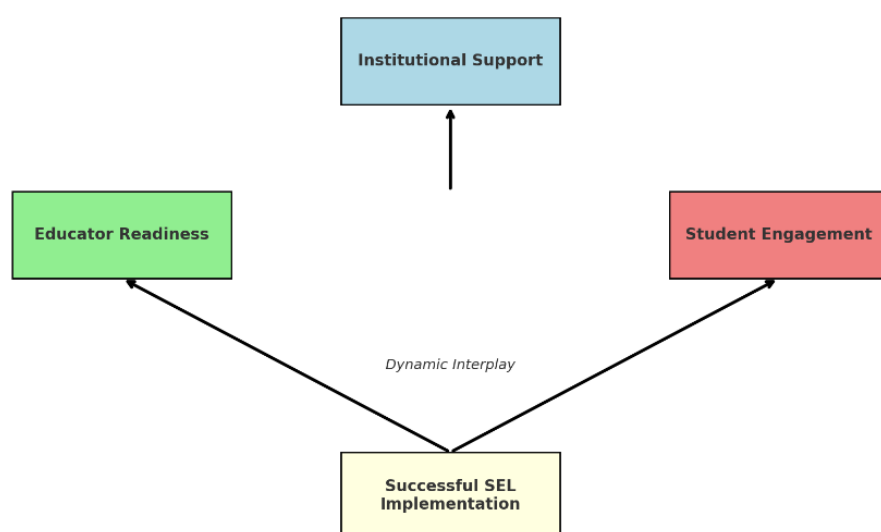


Figure 1: Conceptual Model of SEL Implementation Factors

3. Methods

3.1 Procedure

For this investigation, the researchers used the methodology proposed by Petticrew and Roberts (2008) to conduct a systematic review, a widely employed approach in social science research. Systematic reviews are designed to mitigate systematic errors or biases by identifying, assessing, and synthesizing all pertinent research concerning a specific research issue or set of issues. Following the framework delineated by Petticrew and Roberts (2008), this study encompassed seven stages: formulating research inquiries or hypotheses, delineating the types of studies to incorporate, executing a comprehensive literature search, scrutinizing the search outcomes, evaluating the studies meeting the inclusion criteria, amalgamating the findings, and evaluating the heterogeneity among the incorporated studies.

3.2 Search Criteria

The study employed rigorous selection criteria to determine the inclusion of relevant literature. Specifically, the scope of the review was delimited to scholarly articles published in English-language peer-reviewed journals. This approach,

consistent with established practices in systematic reviews, aimed to uphold standards of quality, relevance, and accessibility. Consequently, publications such as book reviews and conference papers were excluded from consideration. To focus on recent developments in the field, the timeframe for inclusion was constrained to articles published between 2012 and 2024. The application of both inclusive and exclusive criteria facilitated the systematic screening and selection of eligible articles. These criteria are delineated and presented in Table 1 to illustrate the parameters guiding the selection process.

3.3 Search Process

To ensure consistency and comprehensiveness, the following keywords were used across ERIC, Scopus, and Google Scholar during the literature search process. The following terms guided the search: "social emotional learning" OR "SEL" combined with "higher education" OR "tertiary education" OR "college students" and "implementation" OR "integration" OR "programme delivery." These keywords were selected based on prior literature and aligned with the study's objectives to identify research focused on the implementation of SEL in university settings. Using consistent search strings across all databases allowed for comprehensive coverage of relevant studies while accounting for variations in indexing, terminology, and database scope.

3.4 Screening Process

The screening process comprised Stages 4 through 7, as illustrated in Figure 2. A total of 178 articles were initially identified through systematic searches across three databases: ERIC ($n = 57$), Scopus ($n = 43$), and Google Scholar ($n = 78$). To ensure accuracy and remove redundancies, all retrieved records were imported into Zotero reference management software, which automatically flagged exact duplicates based on metadata such as title, author, and publication year. Subsequently, a manual verification process was conducted to detect near-duplicates resulting from minor discrepancies in metadata (e.g., author initials, title variations). Through this combined procedure, 35 duplicate records were removed, resulting in 143 unique articles retained for initial title and abstract screening. This phase aimed to ensure conceptual relevance and methodological clarity. To reduce publication bias, the researchers did not filter studies by journal ranking or citation count, allowing for a broader and more representative sample of peer-reviewed literature. Studies reporting both significant and non-significant outcomes were considered to avoid outcome reporting bias. Furthermore, diverse geographic and institutional contexts were included to enhance the comprehensiveness and cross-cultural relevance of the findings.

In Stage 5, 42 full-text articles were appraised for eligibility, with particular attention given to research design, theoretical alignment, sample characteristics, and reporting transparency. Sixteen articles were excluded due to methodological shortcomings or insufficient relevance to SEL implementation in higher education. In Stages 6 and 7, the remaining 26 studies were synthesized, and heterogeneity in context, population, and intervention design was assessed to address external validity and ensure consistency across findings. To further minimize external selection bias, a snowballing strategy was employed by reviewing the reference lists of the included studies. While this process yielded three additional articles,

they were identified as duplicates and excluded. The final synthesis, therefore, included 26 rigorously selected studies forming the foundation of this review (see Appendix 1).

Table 1: Literature review selection criteria

Inclusion criteria	Exclusion criteria
Published in English and from 2012 to 2024	Published in other languages and outside of 2012 to 2024
Studies exploring the implementation of SEL in the tertiary education	Studies outside of tertiary education
Published in peer-reviewed journals	Conference papers, book reviews, theses
Full texts are available	Inadequate information on research design and data analysis

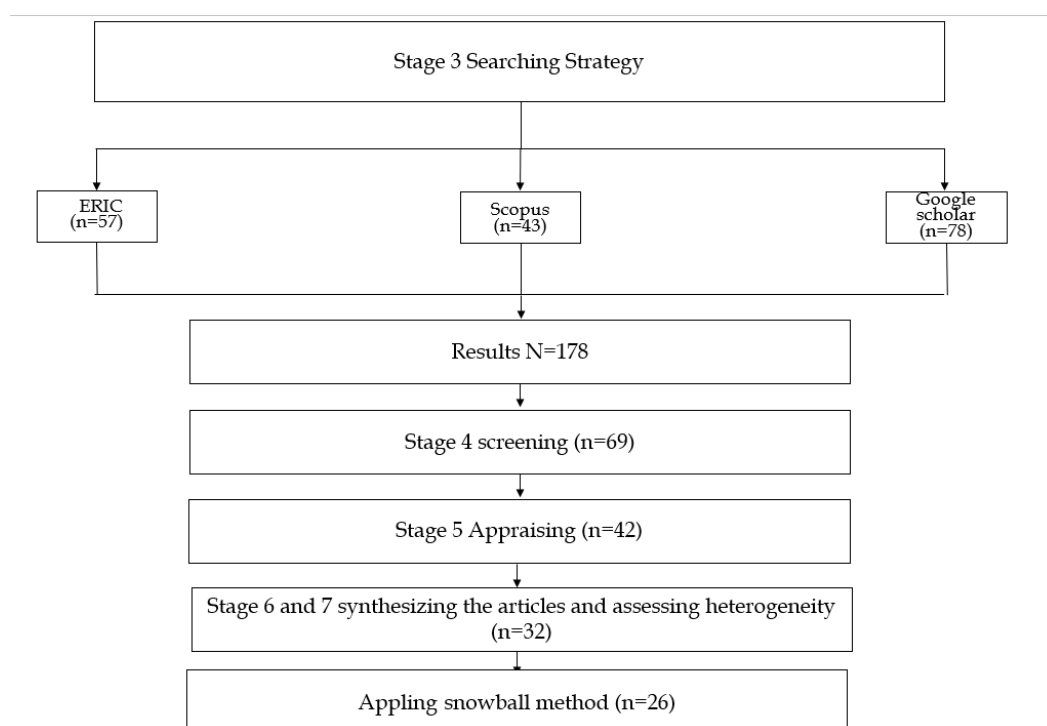


Figure 2: Searching and Screening Processes

3.5 Quality Assessment of Included Studies

To ensure the validity and credibility of the review findings, a systematic quality appraisal of the 26 included studies was conducted using the Mixed Methods Appraisal Tool (MMAT, 2018 version). The MMAT is specifically designed to appraise a variety of empirical study designs, including qualitative, quantitative, and mixed-methods research, making it suitable for the diverse methodologies represented in the selected articles.

Each study was evaluated across five MMAT criteria, assessing components such as the appropriateness of the research design, the adequacy of data collection methods, the transparency of analysis, and the coherence between data, interpretation, and conclusions. Studies were categorized based on the proportion of criteria met: high quality (meeting 80–100% of criteria), moderate quality (meeting 60–79%), and low quality (meeting below 60%).

Of the 26 studies assessed, 18 were rated as high quality, seven as moderate quality, and one as low quality. Common strengths among the studies included clear articulation of research objectives, appropriate methodological alignment, and robust data collection procedures. However, some studies lacked detailed reporting of sampling strategies or omitted discussion of potential biases, particularly in mixed-methods designs. Overall, the quality assessment affirmed the methodological robustness of the included studies, supporting the validity of the synthesized findings. A summary of the MMAT appraisal results is presented in Table 2.

Table 2: MMAT Assessment Summary

Quality Rating	Number of Studies	Percentage
High Quality (80–100%)	18	69%
Moderate Quality (60–79%)	7	27%
Low Quality (<60%)	1	4%

4. Results and Discussion

This section presents the findings and discussions derived from the systematic exploration of social-emotional learning (SEL) implementation in tertiary education, addressing the research questions described in the current study. Through a comprehensive analysis of relevant literature, key factors influencing successful implementation, the impact of SEL programmes on academic performance and well-being, and best practices for integration into tertiary education are examined.

4.1 To Explore the Key Factors that Influence the Successful Implementation of SEL Programmes in Tertiary Education, and how these Factors Vary Across Different Institutional Contexts and Student Populations

This study explores the factors influencing the effective implementation of SEL programmes in tertiary education, with a particular focus on institutional support, educator readiness, and student engagement. Although previous research has examined various determinants of SEL success, such as administrative endorsement and resource allocation, there is a limited understanding of how these factors interact within diverse institutional contexts and among various student demographics. This gap is particularly relevant given the need for scalable, sustainable SEL frameworks that can adapt to different cultural and institutional settings.

Our findings highlight that institutional support is a primary enabler of successful SEL implementation, with strong leadership commitment and adequate financial backing correlating with higher rates of SEL programme adoption and sustainability. Institutions that allocate resources specifically for SEL initiatives – such as training and infrastructure – demonstrate a seamless integration of SEL into their educational frameworks. Educator readiness also plays a crucial role, as faculty members with comprehensive SEL training exhibit greater confidence and effectiveness in delivering SEL programmes. Additionally, student engagement emerges as essential for SEL success, as programmes that foster student ownership and agency tend to achieve higher levels of impact and uptake. To further support educator readiness, specific SEL training models have been developed and shown to be effective in preparing faculty members. Effective educator preparation is crucial for successful SEL implementation. Specific models, such as CASEL's SEL professional learning framework, emphasize building educators' self-awareness, relationship skills, and capacity for modeling SEL competencies within academic contexts. Another relevant framework, the Teaching Personal and Social Responsibility (TPSR) model, originally developed for physical education, has been adapted to promote socio-emotional competencies across disciplines in higher education. Incorporating such structured training models can better equip faculty members to integrate SEL into both curricular and co-curricular settings.

Our study supports findings from Hulvershorn and Mulholland (2018) regarding the importance of institutional support for SEL implementation, which is consistent with earlier work emphasizing the role of administrative commitment and resource availability. Additionally, this study aligns with the work of Jagers et al. (2019, 2021), which underscores the necessity of educator readiness through targeted training to improve programme efficacy. Moreover, findings by Kurdi et al. (2021) regarding student engagement reveal a nuanced picture: while active participation enhances programme outcomes, differences in cultural backgrounds may shape students' receptivity to SEL interventions. Unlike previous research, however, our study indicates that addressing these three factors simultaneously, rather than in isolation, may optimize SEL programme success across varying educational contexts.

This study investigated SEL implementation across a range of institutional settings, focusing on general indicators of success such as administrative support, educator readiness, and student engagement. However, the research is limited by its cross-sectional design, which restricts insights into the long-term effects of SEL programmes. Furthermore, variability in institutional size, location, and resources may have influenced the findings, as the data do not account for each institution's unique operational characteristics. In-depth longitudinal studies are needed to validate these findings across more diverse educational settings, particularly to understand how SEL programmes adapt over time to evolving institutional demands.

Our study emphasizes that sustained institutional support, educator readiness, and culturally responsive student engagement strategies are critical to SEL

programme success in higher education. Future research could further explore the longitudinal effects of SEL interventions to assess long-term outcomes, such as students' career readiness and psychological well-being. Studies should also investigate how SEL frameworks can be tailored to specific cultural contexts, ensuring the development of inclusive, adaptable SEL programmes that resonate across diverse student populations. Exploring these dimensions may yield practical strategies for educators and administrators aiming to embed SEL more deeply into their educational systems.

In conclusion, this study underscores the importance of institutional support, educator readiness, and student engagement in facilitating effective SEL programme implementation within higher education. Our findings provide substantial evidence that a robust combination of these factors can foster a sustainable SEL environment, thereby enhancing student socio-emotional and academic outcomes. The study's insights pave the way for future research aimed at creating more resilient, contextually adaptable SEL programmes that support the holistic development of students across various educational landscapes.

4.2 To Explore how SEL Programmes in Tertiary Education Impact Students' Academic Performance, Retention Rates, and Overall Well-being, and the Mechanisms Thereof

This study investigates the impact of social-emotional learning (SEL) programmes on tertiary students' academic performance, retention rates, and overall well-being. While previous research has explored SEL's role in promoting academic success and enhancing socio-emotional skills, limited studies have addressed its broader influence on retention rates and long-term well-being. This investigation aims to fill this gap by examining how SEL participation shapes multiple educational outcomes, particularly within the context of higher education.

Our findings indicate that SEL interventions are positively correlated with academic performance, as students involved in SEL programmes demonstrate higher grades, enhanced learning outcomes, and greater participation in academic activities. This study also reveals a significant link between SEL engagement and improved retention rates, with students showing increased commitment to their educational journey and reduced dropout rates. Furthermore, SEL programmes contribute positively to students' overall well-being by fostering emotional resilience, reducing stress and anxiety, and promoting self-esteem.

The findings align with previous research, such as Leyva et al. (2021), which reported academic benefits for students engaged in SEL, including improved grades and participation. Similarly, Martela and Sheldon (2019) found that SEL programmes correlate with increased retention rates, supporting our observation that SEL can reduce dropout rates and enhance students' persistence. Beyond academic metrics, McCall et al. (2022) emphasize SEL's role in improving mental health outcomes, which our study corroborates through its positive impact on stress management, self-esteem, and resilience. By addressing academic and well-being aspects, our study reinforces SEL's holistic influence on student success, showing that socio-emotional skills play a critical role in retention and academic achievement.

This study focused on the immediate and observable impacts of SEL programmes on academic performance, retention rates, and well-being within a limited number of tertiary institutions. However, the findings may not account for variations in programme implementation or differences in student demographics. To fully capture the long-term effects of SEL participation, future studies should consider longitudinal designs that evaluate these outcomes across diverse institutional and cultural settings.

Our study suggests that SEL programmes provide benefits beyond traditional academic support, enhancing both retention and psychological well-being. Future research could investigate the longitudinal impact of SEL on students' career readiness and overall life satisfaction. Additionally, studies could explore contextually tailored SEL programmes to ensure cultural responsiveness and inclusivity, enabling a broader range of students to benefit from these initiatives. In conclusion, SEL programmes in tertiary education positively influence students' academic performance, retention rates, and overall well-being by promoting essential socio-emotional competencies. Our findings highlight SEL's potential as a comprehensive educational approach that not only supports academic success but also nurtures students' emotional resilience and psychological well-being, preparing them for lifelong personal and professional success.

Implementation of SEL varies significantly across different educational systems, academic disciplines, and student demographics. Institutions with strong traditions of holistic education or community engagement tend to integrate SEL more seamlessly than those with highly rigid, discipline-centred curricula. Disciplines such as education, social sciences, and health sciences may adopt SEL practices more readily than fields traditionally focused on technical skills, such as engineering or business. Furthermore, student demographics—including international students, first-generation college students, and students from diverse cultural or linguistic backgrounds—require tailored SEL approaches that consider varying emotional expression norms, communication styles, and community expectations. These contextual differences must be accounted for to ensure the equitable and effective application of SEL programmes in tertiary education settings.

Differences in the effectiveness of SEL models across tertiary education settings were observed. Programmes that integrate cultural responsiveness, such as adaptations of CASEL's five core competencies model, tend to show stronger positive impacts on student engagement, emotional well-being, and academic outcomes than standardized SEL frameworks. Those SEL initiatives that explicitly align with institutional values and student cultural backgrounds appear more adaptable and sustainable in college contexts, whereas generic models without contextual tailoring demonstrate limited effectiveness.

Despite the demonstrated benefits of SEL programmes in tertiary education, several significant challenges hinder their widespread adoption. First, limited institutional support and fragmented leadership commitment often prevent SEL

initiatives from being sustainably embedded into higher education curricula. Second, many faculty members lack formal training in socio-emotional competencies, which undermines their ability to model and facilitate SEL practices effectively. Third, cultural resistance, particularly in academic environments emphasizing competition and individual achievement, can impede efforts to foster collaborative and emotionally supportive learning climates. Finally, competing academic priorities and resource constraints frequently push SEL initiatives to the periphery of institutional agendas. Addressing these challenges requires a systemic approach involving faculty development, administrative leadership, and culturally responsive adaptation of SEL frameworks.

Measuring the outcomes of SEL programmes in higher education typically involves a combination of quantitative and qualitative approaches. Quantitative measures often include self-report surveys assessing SEL competencies (e.g., self-awareness, emotional regulation, social skills) using validated instruments such as the Social Emotional Learning Self-Assessment (SELSA-S). Academic performance metrics, including Grade Point Average (GPA) and course completion rates, serve as indirect indicators of SEL impact on academic engagement. Retention rates and student persistence data are also commonly used to evaluate programme effectiveness. Additionally, psychological well-being scales, such as measures of stress, resilience, and life satisfaction, provide important insights into the broader emotional impacts of SEL interventions.

4.3 To Explore the Best Practices for Integrating SEL into the Curriculum and Co-curricular Activities in Tertiary Education, and how these Practices can be Adapted to Address the Diverse Needs and Backgrounds of Students in Higher Education Settings

This study investigates optimal strategies for embedding social-emotional learning (SEL) into tertiary education curriculum and co-curricular activities to support students' socio-emotional development across various backgrounds. Previous studies have primarily focused on SEL in primary and secondary education, leaving a gap in understanding how best to implement SEL principles in higher education environments. This research addresses that gap by examining how SEL can be effectively integrated into both classroom and extracurricular activities in ways that align with students' diverse needs and cultural backgrounds.

Our findings suggest that embedding SEL content into existing courses across disciplines is a promising strategy for promoting socio-emotional skills within higher education. Specifically, SEL topics such as emotional regulation, interpersonal skills, and conflict resolution, when incorporated into the curriculum, allow students to practise and apply these competencies in real-life contexts, contributing to holistic development and academic success. Additionally, incorporating SEL into co-curricular activities, such as leadership programmes and service-learning, offers students experiential learning opportunities that foster skills like empathy, teamwork, and civic responsibility.

These findings align with previous research on the benefits of SEL for promoting emotional and social competencies. For instance, McCormick et al. (2019) found that incorporating SEL into academic courses supports students' development in areas such as emotional regulation and conflict management. Similarly, McCormick et al. (2020) observed that co-curricular activities enhance social and civic competencies, helping students develop interpersonal connections and leadership skills. Our study extends these findings by highlighting the unique role of SEL in higher education settings, where experiential learning and cross-disciplinary integration offer distinct benefits for students' personal and professional growth.

This study's approach may be limited by variability in institutional resources and educator training across different universities, which can impact the consistency of SEL integration. Additionally, as SEL initiatives require alignment with students' cultural backgrounds, it is challenging to develop a universally effective approach across diverse tertiary education settings. Further research that explores tailored SEL approaches for various cultural and institutional contexts would provide a more comprehensive understanding of how best to support student engagement and well-being.

Our study demonstrates the importance of culturally responsive SEL programming in higher education. However, future studies could investigate long-term impacts of SEL integration on student outcomes, such as career readiness and social adaptability. Additionally, research on how institutions can best support faculty and staff in implementing SEL principles could further refine SEL delivery, ensuring its benefits are accessible to all students.

In summary, integrating SEL into tertiary education requires a multi-faceted approach, encompassing curriculum integration, co-curricular programming, and culturally inclusive practices. Our findings suggest that embedding SEL into both academic and extracurricular contexts effectively supports socio-emotional growth and fosters a culture of equity and engagement. By adopting these evidence-based strategies, higher education institutions can help students develop the skills they need for success in both academia and life beyond university settings.

While the majority of studies reviewed reported positive associations between SEL implementation and student outcomes, some inconsistencies emerged, particularly regarding retention rates. For instance, although several quantitative studies found that SEL participation improved student retention, other studies observed no statistically significant effects, suggesting that SEL's influence on retention may be context-dependent or mediated by additional institutional factors. Recognizing such conflicting evidence underscores the need for caution in generalizing findings across diverse higher education environments. Furthermore, heterogeneity in study designs—ranging from qualitative case studies to large-scale quantitative surveys—complicates direct comparisons of outcomes. Qualitative studies often highlighted nuanced, context-specific gains in socio-emotional development, whereas quantitative research tended to focus on

standardized academic metrics, which may not fully capture SEL's broader benefits. This methodological diversity, while enriching the literature, also limits the generalizability of findings, necessitating more integrative mixed-methods approaches in future research. Importantly, while many studies reported positive correlations between SEL interventions and academic performance, few established clear causal relationships. Most existing evidence is correlational, and confounding variables—such as baseline academic ability, institutional support structures, or students' prior socio-emotional competencies—were not consistently controlled across studies. Therefore, future longitudinal and experimental research designs are needed to better ascertain the causal pathways through which SEL influences academic and well-being outcomes in tertiary education settings.

Practical strategies for integrating SEL into campus life include embedding SEL competencies into student leadership training programmes, such as workshops focused on emotional regulation, conflict resolution, and empathic communication. Student organizations can also integrate SEL by providing peer mentoring initiatives that emphasize socio-emotional skills development. Orientation programmes for new students offer another opportunity to cultivate self-awareness and interpersonal competencies early in the academic journey. Additionally, campus-wide wellness campaigns and mental health initiatives that explicitly incorporate SEL principles can further normalize and promote emotional growth throughout the university community.

A multi-disciplinary perspective provides a richer understanding of SEL implementation in tertiary education. From psychology, SEL development is framed around emotional regulation, self-awareness, and interpersonal skills as key components of mental health and well-being. Educational research emphasizes SEL's role in fostering academic engagement, motivation, and classroom dynamics. In the business discipline, SEL competencies such as leadership, empathy, and teamwork are increasingly recognized as essential for career readiness and organizational effectiveness. Drawing from these varied fields enables a more holistic integration of SEL principles across curricular and co-curricular domains in higher education.

5. Implications

The findings of this review highlight several critical implications for advancing the effective implementation of social-emotional learning (SEL) in tertiary education. Recommendations are prioritized based on their urgency and feasibility to guide actionable future research and institutional practices.

First, there is an urgent need for longitudinal studies that examine the sustained impacts of SEL programmes on academic performance, emotional well-being, and career readiness. Most existing research relies on cross-sectional designs, limiting understanding of how SEL benefits evolve over time. Longitudinal research would provide stronger evidence of causality and inform more strategic, long-term programme development.

Second, the integration of diversity, equity, and inclusion (DEI) frameworks into SEL design must be prioritized to ensure cultural responsiveness. For example, SEL curricula should be adapted to align with different cultural orientations – emphasizing collective well-being, harmony, and interdependence in collectivist contexts (e.g., many Asian or African student populations), versus autonomy, self-expression, and individual achievement in individualist cultures (e.g., North American or Western European contexts). Culturally responsive SEL interventions should incorporate students' community values, linguistic diversity, and culturally specific emotional expressions, thereby enhancing relevance and engagement across diverse student groups.

Third, implications should be targeted to specific stakeholder groups within higher education. For faculty members, there is a need for specialized training modules that equip educators with the skills to integrate SEL strategies into both academic and co-curricular settings. Training should include competencies in culturally responsive teaching, emotional intelligence development, and creating autonomy-supportive learning environments. For university administrators, investment in sustainable funding models is crucial to support SEL programme infrastructure, professional development, and outcome assessment. This includes allocating resources for continuous faculty training, student engagement initiatives, and culturally inclusive programme adaptation.

6. Recommendations for Future Study

Expanding upon the insights generated from this systematic literature review, several avenues for future research can enrich our understanding of social-emotional Learning (SEL) implementation in tertiary education. Firstly, future research should consider employing longitudinal designs to examine the sustained impacts of SEL interventions over time, such as tracking academic, emotional, and career outcomes beyond immediate programme completion. Additionally, mixed-methods approaches, integrating quantitative assessments (e.g., SEL competency measures, academic metrics) with qualitative data (e.g., student interviews, reflective journals), can provide a richer, more holistic understanding of how SEL programmes influence student development in diverse higher education contexts. Such methodologies would strengthen the empirical foundation for SEL practices and support evidence-based adaptation across different institutional settings (O'Connor et al., 2017).

Secondly, comparative studies across different institutional contexts and student populations hold promise for uncovering contextual factors that influence the effectiveness of SEL interventions. By examining variations in SEL implementation strategies, programmatic structures, and student demographics, researchers can identify contextual nuances that shape the outcomes of SEL initiatives. Comparative research can also highlight best practices and tailored approaches that resonate with specific institutional cultures and student needs, informing the development of more contextually relevant and impactful SEL interventions.

Additionally, the integration of technology-mediated interventions in delivering SEL programming presents a promising avenue for future inquiry. With the increase of digital platforms and online learning environments, there is a growing need to explore the efficacy of technology-based SEL interventions in promoting socio-emotional competencies among college students. Future studies could investigate the effectiveness of virtual communities, mobile applications, and online modules in fostering self-awareness, interpersonal skills, and emotional regulation. By leveraging technology to deliver SEL programming, researchers can reach diverse student populations and address barriers to access, enhancing the scalability and inclusivity of SEL initiatives in higher education.

Furthermore, exploring the intersectionality of SEL with diversity, equity, and inclusion (DEI) efforts represents a critical area for future research. By examining how SEL initiatives intersect with DEI frameworks, researchers can uncover synergies and tensions between these two domains and identify strategies for integrating SEL and DEI principles to create more inclusive and equitable learning environments (Ştefan et al., 2022). Future studies could investigate how SEL interventions can be tailored to address the socio-emotional needs of marginalized or under-represented student groups, fostering a sense of belonging and empowerment in higher education settings. By integrating SEL and DEI approaches, researchers can contribute to the cultivation of diverse, equitable, and inclusive campus climates that support the holistic development and success of all students. In summary, future research endeavours should prioritize longitudinal studies, comparative inquiries, technology-mediated interventions, and explorations of SEL-DEI intersections to advance our understanding of SEL in tertiary education. By addressing these research gaps, scholars can contribute to the ongoing refinement of SEL practices and policies, fostering student well-being, success, and equity in higher education.

Looking ahead, future research should prioritize examining how SEL evolves among generations increasingly immersed in digital technologies. As younger cohorts grow up in environments dominated by social media, virtual communication, and AI-mediated interactions, traditional SEL models—rooted primarily in face-to-face, classroom-based experiences—may no longer fully address the complexities of socio-emotional development. Future studies should explore how digital platforms can both enhance and hinder SEL competencies, investigate the role of online emotional expression and regulation, and design interventions that build resilience, empathy, and ethical decision-making in virtual spaces. Longitudinal research is particularly needed to assess how early exposure to technology influences socio-emotional competencies over time and to develop updated SEL frameworks that align with the realities of technology-mediated social ecosystems.

7. Conclusion

In conclusion, this systematic literature review provides a comprehensive exploration of the implementation of social-emotional learning (SEL) among college students in tertiary education settings. Through a meticulous analysis of existing research, key insights have been gleaned regarding the factors

influencing the successful implementation of SEL programmes, the impact of SEL initiatives on students' academic performance and well-being, and best practices for integrating SEL into higher education curricula. Importantly, the review emphasizes that successful SEL implementation requires attention to contextual factors such as cultural responsiveness, disciplinary variations, and demographic diversity. It also notes that existing studies largely employ cross-sectional designs, and future research should prioritize longitudinal approaches to capture the sustained impact of SEL interventions over time.

Practical strategies, including integrating SEL into student leadership programmes, campus organizations, and orientation activities, offer pathways to extend SEL beyond formal curricula. Furthermore, training models such as CASEL's professional learning framework and the Teaching Personal and Social Responsibility (TPSR) model have been identified as effective in preparing educators to deliver SEL in higher education settings. In essence, the implementation of SEL in tertiary education holds immense promise for promoting student flourishing and for cultivating the next generation of engaged, resilient, and socially responsible leaders. By embracing SEL as an integral component of higher education, we can create transformative learning experiences that empower students to thrive academically, personally, and professionally.

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Appendix 1

Summary of Included SEL Studies

Author(s) & Year	Country	Study Design	Sample Size	SEL Focus
Hulvershorn & Mulholland (2018)	USA	Qualitative	N/A	Institutional support
Jagers et al. (2019)	USA	Mixed-method	312	Educator training and DEI
Kurdi et al. (2021)	Canada	Quantitative	218	Student engagement
Leyva et al. (2021)	USA	Quantitative	1,245	Academic performance
Martela & Sheldon (2019)	Finland	Quantitative	430	Retention & engagement
McCall et al. (2022)	USA	Qualitative	100	Mental health
McCormick et al. (2019)	USA	Mixed-method	520	Curriculum integration
McCormick et al. (2020)	USA	Quantitative	800	Co-curricular SEL
Fitzgerald et al. (2022)	USA	Pilot Study	75	Educator well-being
Dowling & Barry (2020)	Ireland	Quantitative	480	Implementation quality
Donahue-Keegan et al. (2019)	USA	Qualitative	24	Cultural responsiveness
Ramirez et al. (2021)	USA	Content Analysis	15 SEL programmes	Equity in SEL programmes
Walker & Weidenbenner (2019)	USA	Conceptual	N/A	Technology & empathy
Elmi (2020)	UK	Case Study	30	Higher ed SEL strategies
Greenberg (2023)	USA	Review	N/A	Evidence for SEL effectiveness
Guillén et al. (2021)	Spain	Quantitative	394	Emotional intelligence
Corcoran et al. (2018)	USA	Meta-analysis	Meta of 213 studies	Academic achievement
Gay (2015)	USA	Theoretical	N/A	Culturally responsive teaching
Paolini (2019)	USA	Review	N/A	College readiness
Hashim et al. (2021)	Malaysia	Survey	398	Digital learning transformation
Todd et al. (2022)	USA	Practitioner Reflection	N/A	Classroom practice
Stark et al. (2021)	USA	Participatory	72	Youth in conflict
Schiepe-Tiska et al. (2021)	Germany	Mixed-method	105 teachers	Teacher attitudes

O'Connor et al. (2017)	UK	Review	N/A	Universal school-based programmes
Zhang & McNamara (2018)	China	Theoretical	Theoretical	Student engagement
Hayashi et al. (2022)	Japan	Comparative Analysis	Cross-country data	Cultural variation