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Social and Emotional Learning Tools for Primary Level Education
Systems – A Comparative Study

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Patras, Greece, June 2026

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Social and Emotional Learning Tools for Primary Level Education Systems – A Comparative Study

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Abstract

Social and Emotional Learning (SEL) has become a central component of contemporary education, particularly at the primary level, where foundational emotional, social, and behavioural skills are formed. Despite the growing global adoption of SEL programmes, there is limited comparative research examining how different SEL tools function across diverse educational, cultural, and policy contexts. This thesis proposes a comparative study of Social and Emotional Learning tools implemented in primary education systems in three countries: the United States, Finland, and Greece. The study aims to identify key SEL tools used in these contexts and to evaluate their effectiveness in fostering core SEL competencies—such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making—while also examining their influence on students' academic engagement. Particular attention is given to implementation fidelity, cultural and contextual relevance, teacher preparedness, resource availability, and ethical considerations related to SEL use. A mixed-methods research design is employed, combining qualitative document analysis of curricula, policy documents, and programme materials with quantitative survey data collected from primary school teachers and administrators. Thematic analysis and descriptive and inferential statistical techniques were used to compare implementation approaches, perceived effectiveness, and contextual challenges across the three educational systems.

Keywords

Social and Emotional Learning, SEL tools, primary education, comparative study, teacher training, student engagement

Εργαλεία Κοινωνικής και Συναισθηματικής Μάθησης για Συστήματα Πρωτοβάθμιας Εκπαίδευσης – Μια Συγκριτική Μελέτη

Αναστασία Γκίκα

Περίληψη

Η Κοινωνική και Συναισθηματική Μάθηση (ΚΣΜ) έχει γίνει κεντρικό στοιχείο της σύγχρονης εκπαίδευσης, ιδιαίτερα στην πρωτοβάθμια εκπαίδευση, όπου διαμορφώνονται βασικές συναισθηματικές, κοινωνικές και συμπεριφορικές δεξιότητες. Παρά την αυξανόμενη παγκόσμια υιοθέτηση προγραμμάτων ΚΣΜ, υπάρχει περιορισμένη συγκριτική έρευνα που εξετάζει τον τρόπο με τον οποίο λειτουργούν διαφορετικά εργαλεία ΚΣΜ σε ποικίλα εκπαιδευτικά, πολιτιστικά και πολιτικά πλαίσια. Αυτή η διατριβή προτείνει μια συγκριτική μελέτη των εργαλείων Κοινωνικής και Συναισθηματικής Μάθησης που εφαρμόζονται σε συστήματα πρωτοβάθμιας εκπαίδευσης σε τρεις χώρες: τις Ηνωμένες Πολιτείες, τη Φινλανδία και την Ελλάδα. Η μελέτη στοχεύει στον εντοπισμό βασικών εργαλείων ΚΣΜ που χρησιμοποιούνται σε αυτά τα πλαίσια και στην αξιολόγηση της αποτελεσματικότητάς τους στην ενίσχυση των βασικών ικανοτήτων ΚΣΜ - όπως η αυτογνωσία, η αυτοδιαχείριση, η κοινωνική επίγνωση, οι δεξιότητες σχέσεων και η υπεύθυνη λήψη αποφάσεων - ενώ παράλληλα εξετάζει την επιρροή τους στην ακαδημαϊκή συμμετοχή των μαθητών. Ιδιαίτερη προσοχή δίνεται στην πιστότητα της εφαρμογής, την πολιτισμική και συμφραζόμενη συνάφεια, την προετοιμασία των εκπαιδευτικών, τη διαθεσιμότητα πόρων και τις ηθικές παραμέτρους που σχετίζονται με τη χρήση ΚΣΜ. Χρησιμοποιείται ένας σχεδιασμός μικτών μεθόδων έρευνας, που συνδυάζει ποιοτική ανάλυση εγγράφων προγραμμάτων σπουδών, εγγράφων πολιτικής και υλικού προγράμματος με ποσοτικά δεδομένα έρευνας που συλλέγονται από εκπαιδευτικούς και διοικητικούς υπαλλήλους δημοτικών σχολείων. Χρησιμοποιήθηκαν θεματική ανάλυση και περιγραφικές και επαγωγικές στατιστικές τεχνικές για τη σύγκριση των προσεγγίσεων εφαρμογής, της αντιληπτής αποτελεσματικότητας και των προκλήσεων που σχετίζονται με το πλαίσιο και στα τρία εκπαιδευτικά συστήματα.

Λέξεις – Κλειδιά

Κοινωνική και Συναισθηματική Μάθηση, εργαλεία Κοινωνικής Έμπειρης Εκπαίδευσης (ΚΣΜ), πρωτοβάθμια εκπαίδευση, συγκριτική μελέτη, εκπαίδευση εκπαιδευτικών, εμπλοκή μαθητών

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List of Abbreviations & Acronyms

AN.O.VA.	Analysis Of Variance
C.A.S.E.L.	Collaborative for Academic, Social, and Emotional Learning
L.S.D.	Least Significant Difference
O.E.C.D.	
P.A.TH.S.	Promoting Alternative THinking Strategies
R.U.L.E.R.	Recognizing, Understanding, Labeling, Expressing, and Regulating emotions
S.E.L.	Social and Emotional Learning
S.P.S.S.	Software Package for Statistical analyseS

Chapter 1: Introduction

1.1 Background

In recent decades, there has been a significant shift in how educational success is conceptualised, moving beyond a narrow focus on academic attainment towards a broader understanding of holistic student development. This shift reflects growing recognition that cognitive abilities alone are insufficient to prepare students for the complexities of modern social, professional, and personal life. Within this evolving educational paradigm, Social and Emotional Learning (SEL) has emerged as a critical framework for supporting students' overall development, encompassing emotional regulation, interpersonal competence, and ethical decision-making (CASEL, 2020).

Historically, educational systems prioritised measurable academic outcomes, often marginalising the role of emotional and social competencies. However, an expanding body of research has demonstrated that these competencies are not only complementary to academic learning but are fundamentally intertwined with it. For instance, meta-analytical evidence indicates that SEL interventions are associated with improved academic performance, enhanced classroom behaviour, and reduced emotional distress (Durlak et al., 2011; Taylor et al., 2017). These findings challenge traditional dichotomies between “academic” and “non-academic” skills, suggesting instead that effective learning is inherently multidimensional.

The importance of SEL is particularly pronounced in primary education, where foundational developmental processes are most active. During early childhood, students begin to develop key capacities such as emotional awareness, impulse control, empathy, and social interaction. These skills form the basis for later academic engagement and social participation. Longitudinal research further highlights the enduring impact of early socio-emotional development, linking childhood self-regulation and social competence to outcomes such as educational attainment, employment stability, and mental health in adulthood (Jones et al., 2015; Moffitt et al., 2011).

Despite this growing consensus regarding the importance of SEL, there remains considerable variation in how it is conceptualised, implemented, and evaluated across different educational contexts. Over the past two decades, a wide range of SEL tools and programmes have been developed, ranging from structured curricula such as PATHS, Second Step, and RULER to digital platforms and informal pedagogical strategies (Jones et al., 2017; Cipriano & Brackett, 2020). While these tools share a common goal of fostering socio-emotional competencies, their design, delivery, and effectiveness vary significantly.

A key issue within the field is that the success of SEL interventions is highly context-dependent. Factors such as teacher training, institutional support, cultural norms, and resource availability play a crucial role in shaping outcomes (Domitrovich et al., 2008; Humphrey, 2013). As a result, programmes that demonstrate strong effectiveness in one context may produce limited or inconsistent results in another. This variability underscores the need for critical, context-sensitive analyses of SEL tools, rather than assuming universal applicability.

Furthermore, the increasing global adoption of SEL has introduced new challenges related to cultural relevance and policy integration. While SEL frameworks have been widely promoted in North America and Europe, their implementation in diverse cultural settings raises questions regarding adaptability and appropriateness. For example, competencies such as self-expression and individual autonomy may be emphasized in Western contexts but may not align with the values of more collectivist societies. This highlights the importance of examining SEL not only as a pedagogical intervention but also as a culturally situated practice.

In response to these challenges, comparative research has emerged as a valuable approach for understanding how SEL operates across different educational systems. By examining variations in implementation, policy frameworks, and cultural contexts, comparative studies can identify both common principles and context-specific adaptations. However, despite its potential, comparative research in SEL remains relatively underdeveloped, particularly in primary education contexts.

Existing studies often focus on single-country evaluations or meta-analyses of program outcomes, neglecting the nuanced influence of cross-cultural factors, policy frameworks, and localized implementation strategies (Barry et al., 2017; O'Connor et al., 2017). Moreover, challenges such as teacher preparedness, resource availability, and cultural adaptation can significantly affect the efficacy of SEL tools, underscoring the importance of systematic, context-sensitive comparative studies.

This study addresses this gap by examining SEL tools across three distinct educational systems: the United States, Finland, and Greece. These countries were selected due to their contrasting approaches to education and varying levels of SEL integration. The United States represents a highly structured and research-driven model, Finland exemplifies a holistic and integrated approach, and Greece reflects an emerging context with evolving practices.

By analyzing these diverse contexts, the study aims to provide a more nuanced understanding of SEL, moving beyond generalized claims of effectiveness to examine the conditions under which SEL succeeds or fails. In doing so, it contributes to ongoing debates within the field and provides practical insights for educators and policymakers.

1.2 Early foundations of Social and Emotional Learning

Although SEL has gained prominence in recent decades, its conceptual roots can be traced to earlier educational and psychological theories. One of the most influential figures in this regard is John Dewey (1938), whose work emphasized the importance of experiential learning and the integration of emotional and social development within education. Dewey argued that learning occurs through interaction with the environment and that education should prepare individuals for active participation in democratic society. This perspective aligns closely with contemporary SEL principles, particularly the emphasis on collaboration, empathy, and reflective thinking.

In addition to educational theory, developmental psychology has played a central role in shaping the foundations of SEL. Erikson's (1968) theory of psychosocial

development highlights the importance of successfully navigating social and emotional challenges at different stages of life. For example, during early childhood, individuals must develop a sense of initiative and competence, which is closely linked to their ability to regulate emotions and interact with others.

Similarly, Piaget's theory of cognitive development provides insight into how children understand and interpret social experiences. As children progress through developmental stages, they become increasingly capable of perspective-taking and moral reasoning, both of which are central to SEL competencies. These theoretical contributions underscore the idea that socio-emotional development is a dynamic process that evolves alongside cognitive growth.

Importantly, these early theories highlight that emotional and social development are not separate from learning but are integral to it. This foundational insight continues to inform contemporary approaches to SEL, reinforcing the need for educational practices that address the whole child.

1.3 Emergence of formal SEL programs

The formalization of SEL as a distinct field began in the 1990s, largely driven by the establishment of the Collaborative for Academic, Social, and Emotional Learning (CASEL). CASEL played a pivotal role in defining SEL and promoting its integration into educational systems, particularly through the identification of five core competencies (CASEL, 1997; 2013).

The development of structured SEL programmes represented a significant shift towards evidence-based practice. Programmes such as PATHS, Second Step, and RULER were designed to provide systematic instruction in socio-emotional skills, combining theoretical insights with practical applications. These programmes typically include lesson plans, activities, and assessment tools, enabling educators to implement SEL in a consistent and measurable manner.

However, the emergence of formal SEL programmes also introduced new challenges. While standardisation facilitates scalability and evaluation, it may also limit flexibility and responsiveness to local contexts. Critics argue that overly rigid programme structures can reduce teacher autonomy and fail to account for the diversity of student experiences.

1.4 Development and evolution of SEL tools

The evolution of SEL tools reflects broader changes in educational research, policy, and technology. Early SEL interventions were primarily classroom-based and relied on teacher-led instruction. Over time, advances in research have led to more sophisticated approaches, incorporating insights from neuroscience, psychology, and pedagogy (Bierman&Motamedi, 2021).

In recent years, technological innovation has played an increasingly important role in SEL. Digital platforms and applications offer new opportunities for personalised learning, real-time feedback, and increased engagement (Abrahams & Burke, 2020). These modern tools combine psychological principles with educational technology, offering personalized learning, real-time feedback, and integration with existing curricula. However, the integration of technology also raises questions regarding accessibility, effectiveness, and ethical considerations, particularly in relation to data privacy.

1.5 Global adoption and integration in education systems

The global expansion of SEL reflects its growing recognition as a key component of education policy. Organisations such as the OECD and the European Commission have emphasised the importance of socio-emotional skills in promoting educational equity and social cohesion (OECD, 2021).

However, policy adoption varies significantly across countries. While some systems have fully integrated SEL into national curricula, others rely on fragmented or informal approaches. This variation highlights the importance of examining SEL within specific policy and institutional contexts.

1.6 Rationale for SEL tool development

The development of SEL tools is driven by multiple interconnected factors, including the recognition of the relationship between emotional and cognitive processes, the increasing prevalence of mental health concerns among students, and the demand for 21st-century skills.

Importantly, SEL tools are not simply pedagogical innovations but are also responses to broader societal changes. As education systems seek to prepare students for complex and uncertain futures, the ability to manage emotions, collaborate effectively, and make ethical decisions becomes increasingly important.

In a more detailed context, the development of SEL tools is driven by multiple factors, such as:

- a) Cognitive and emotional interdependence: Research indicates that emotional and social skills influence cognitive learning, classroom behavior, and academic achievement.
- b) Mental health and well-being: SEL tools help mitigate stress, anxiety, and behavioral challenges among young learners.
- c) 21st-century skills: Collaboration, empathy, and problem-solving are essential skills in modern society, and SEL tools cultivate these competencies from an early age.
- d) Policy initiatives: Educational policies increasingly emphasize holistic learning, integrating SEL into formal curricula to foster well-rounded development.

To conclude, the history and development of SEL tools illustrate a gradual but significant shift in educational priorities, from purely academic instruction to a balanced focus on cognitive, emotional, and social growth. Understanding this evolution provides the foundation for examining and comparing SEL tools in contemporary primary education systems. As SEL tools continue to adapt to technological, cultural, and pedagogical advancements, their role in shaping effective and inclusive education remains central.

1.7 Comparative overview of SEL tools in selected countries

The comparison of SEL tools across the United States, Finland, and Greece highlights significant differences in approach and implementation. The United States emphasizes structured, evidence-based programs with measurable outcomes. Finland adopts an integrated, well-being-centered approach rooted in teacher autonomy and holistic education. Greece represents an emerging context, where SEL tools are developing gradually through targeted initiatives and policy support.

These differences underscore the importance of considering cultural, institutional, and policy contexts when evaluating SEL tools. A comparative analysis of these systems provides valuable insights into how SEL can be effectively adapted and implemented in primary education.

This brief comparative analysis of SEL tools in the US, Finland, and Greece provides an opportunity to explore how socio-cultural, policy, and resource contexts shape the adoption and effectiveness of SEL programs, yielding insights for both research and practice.

1.7.1 United States

The United States, as a pioneer in structured SEL implementation, has seen widespread adoption of CASEL-aligned programs, integrating SEL both as a standalone curriculum and embedded within academic instruction. Research indicates that these programs enhance students' social-emotional competencies, reduce behavioral problems, and improve academic performance, particularly when fidelity of implementation is high and teachers receive adequate training and support (Durlak et al., 2011; Atkins et al., 2023).

In primary education, SEL tools are often implemented through structured curricula supported by teacher training, school-wide initiatives, and family engagement. Programs such as Second Step, PATHS, and RULER are widely used and emphasize explicit instruction in emotional awareness, self-regulation, empathy, and problem-solving

(Greenberg et al., 2003; Brackett et al., 2012). Assessment tools, including standardized measures of social and emotional competencies, are commonly used to evaluate outcomes. While the United States benefits from a strong research base and technological integration, implementation varies across states and school districts due to differences in policy, funding, and resources.

1.7.2 Finland

In contrast, Finland represents a unique model in which SEL is embedded within a holistic approach to education, emphasizing student well-being, autonomy, and cooperative learning rather than discrete skill instruction. Finnish primary schools often integrate SEL principles into daily classroom routines and pedagogy, with a strong focus on play-based learning, teacher modeling, and experiential activities (Niemi&Multisilta, 2018). This systemic approach reflects broader educational philosophies prioritizing equity, inclusion, and lifelong learning over standardized testing outcomes. (Sahlberg, 2015).

SEL-related skills are developed through experiential learning, cooperative activities, and reflective practices. Teachers have significant autonomy to adapt strategies to the needs of their students, and assessment of SEL is typically informal and qualitative. This approach aligns SEL closely with overall educational goals, although it may lack the standardized measurement tools commonly used in other systems.

1.7.3 Greece

Meanwhile, Greece presents a developing SEL landscape, where awareness of social-emotional competencies is rising, but structured frameworks and systematic implementation remain limited. Emerging initiatives focus on teacher training and curricular adaptation, though cultural, administrative, and resource constraints pose significant challenges (Panayiotou et al., 2019).

In Greece, the implementation of SEL tools is a more recent development. Interest in SEL has increased over the past decade, influenced by European Union initiatives, growing awareness of student mental health, and the need to address issues such as

bullying and social inclusion (European Commission, 2020). SEL tools are often introduced through pilot programs, extracurricular activities, or project-based learning rather than as fully integrated components of the national curriculum.

Teacher professional development plays a crucial role in SEL implementation in Greece, as educators are often required to adapt general guidelines into classroom practice. While there is increasing emphasis on emotional regulation, empathy, and cooperation, challenges remain due to limited resources, inconsistent implementation, and the absence of standardized assessment frameworks.

1.8 Research question

Rather than adopting multiple research questions, which could risk fragmenting the analysis, this study is guided by a single overarching research question: *How effective is Social and Emotional Learning in improving student outcomes, and what factors influence its successful implementation?* This focused approach allows for a more coherent and in-depth analysis, while also ensuring that the study remains aligned with its central aim.

1.9 Research aim and objectives

The primary aim of this thesis is to critically examine the effectiveness of Social and Emotional Learning in improving student outcomes, while also exploring the factors that influence its successful implementation within different educational contexts. This aim reflects a dual focus on both outcomes and processes, recognising that the effectiveness of SEL cannot be fully understood without considering how it is implemented and experienced in practice.

To achieve this aim, the study is guided by the following objectives:

1. To analyse the theoretical foundations of SEL and their implications for educational practice
2. To critically evaluate the empirical evidence regarding the effectiveness of SEL programmes

3. To examine the role of contextual and institutional factors in shaping SEL implementation
4. To identify key challenges and limitations associated with SEL, including issues of equity, scalability, and cultural relevance

1.10 Significance of the Study

The significance of this study lies in its potential to contribute to ongoing debates within the field of SEL, particularly in relation to issues of effectiveness, implementation, and contextual variability. While existing research has established a strong evidence base for the benefits of SEL, there remains a need for more critical and nuanced analyses that go beyond aggregate findings to examine the conditions under which these benefits are realized.

One important contribution of this study is its emphasis on the interplay between theory and practice. By examining both the conceptual foundations of SEL and its practical implementation, the study seeks to bridge the gap between abstract frameworks and real-world applications. This is particularly important in light of concerns that SEL has, in some cases, been adopted in a superficial or tokenistic manner, without sufficient attention to underlying principles or contextual factors (Humphrey, 2013).

In addition, the study addresses issues related to equity and inclusion, which have become increasingly prominent within the SEL literature. Research suggests that SEL has the potential to reduce educational inequalities by supporting the development of skills that are particularly important for disadvantaged students (Gregory & Fergus, 2017). However, there is also evidence that poorly implemented programmes may inadvertently reinforce existing inequalities, particularly if they fail to account for cultural and contextual differences (Kim & Crosnoe, 2018). By critically examining these issues, the study aims to contribute to a more equitable and inclusive approach to SEL.

Finally, the study has practical implications for educators, policymakers, and researchers. By identifying key factors that influence the success of SEL initiatives, the study can inform the design and implementation of more effective programmes. At the

same time, it highlights the importance of ongoing evaluation and critical reflection, recognising that SEL is a dynamic and evolving field that requires continuous adaptation and improvement.

1.11 Structure of the thesis

This thesis is structured into six main chapters, each addressing a specific aspect of the research.

Chapter 1 has introduced the study, outlining its background, aims, and significance.

Chapter 2 provides a comprehensive review of the literature on SEL, examining its theoretical foundations, empirical evidence, and emerging trends.

Chapter 3 outlines the methodological approach adopted in the study, including research design, data collection, and analysis procedures.

Chapter 4 presents the findings of the analysis, while Chapter 5 discusses these findings in relation to the existing literature.

Finally, Chapter 6 concludes the study by summarising key insights, discussing implications, and identifying directions for future research.

Chapter 2: Literature Review

2.1 Theoretical foundations of Social and Emotional Learning (SEL)

The conceptual foundations of Social and Emotional Learning (SEL) are inherently interdisciplinary, drawing upon educational theory, developmental psychology, sociology, and prevention science. This theoretical diversity reflects the complexity of SEL as both a pedagogical framework and a developmental construct. Rather than representing a single unified theory, SEL can be understood as an integrative field that synthesises multiple perspectives on how individuals learn, develop, and interact within social environments.

At the core of SEL lies a constructivist understanding of learning, most prominently associated with the work of Dewey (1938), who argued that education should be grounded in experience, interaction, and reflection. From this perspective, learning is not a passive process of knowledge acquisition but an active process shaped by social engagement and emotional experience. This view challenges traditional didactic models of education, which prioritise content transmission over relational and experiential learning. In the context of SEL, constructivism provides a foundational rationale for embedding socio-emotional competencies within everyday classroom interactions, rather than treating them as discrete or supplementary skills.

Complementing this perspective, developmental psychology offers a framework for understanding how socio-emotional competencies evolve over time. Erikson's (1968) theory of psychosocial development emphasises the role of social interaction in shaping identity and emotional resilience. Each developmental stage involves a psychosocial crisis, the successful resolution of which contributes to healthy emotional functioning. In primary education, stages such as “initiative versus guilt” and “industry versus inferiority” are particularly relevant, as they highlight the importance of confidence, self-regulation, and social competence in early learning environments.

Further theoretical support is provided by research on emotion regulation, which has been shown to play a critical role in academic engagement and behavioural adjustment (Skinner & Zimmer-Gembeck, 2016). Students who are able to manage their emotions

effectively are more likely to remain focused, engage in learning tasks, and navigate social interactions successfully. This reinforces the argument that emotional competencies are not peripheral to academic success but are integral to it.

The social development model (Hawkins et al., 2002) extends these insights by situating individual behaviour within broader social systems. According to this model, prosocial behaviour is fostered through opportunities for involvement, skill development, and reinforcement within supportive social environments. This systemic perspective aligns closely with SEL's emphasis on whole-school approaches, recognising that individual outcomes are shaped by institutional practices and social relationships.

In parallel, prevention science has contributed significantly to the theoretical justification of SEL, framing it as a proactive strategy for reducing risk factors and promoting protective factors in children's development (Greenberg, 2010; Domitrovich et al., 2017). From this perspective, SEL is not merely an educational initiative but a form of early intervention aimed at improving long-term outcomes across multiple domains, including mental health, behaviour, and academic achievement.

Despite these strong theoretical foundations, contemporary SEL frameworks—particularly those associated with CASEL (2020)—have been criticised for their tendency to simplify complex processes into discrete competencies. While the identification of five core competencies has facilitated implementation and evaluation, it may also obscure the dynamic and context-dependent nature of socio-emotional development (Jagers et al., 2021). Emotions and social interactions are inherently fluid and relational, raising questions about the extent to which they can be effectively standardised.

Moreover, the theoretical foundations of SEL have been challenged on cultural grounds. Much of the existing literature is rooted in Western epistemologies, which emphasise individual autonomy, self-expression, and personal regulation. These values may not align with collectivist cultures, where interdependence, community harmony, and relational identity are prioritised (Panayiotou et al., 2019). This critique highlights the need to reconceptualise SEL as a culturally situated framework rather than a universally applicable model.

In summary, while the theoretical foundations of SEL are extensive and well-supported, they reveal important tensions between standardization and contextualization, individual and collective perspectives, and theoretical abstraction and practical application. These tensions are central to understanding both the potential and limitations of SEL in contemporary education.

2.2 Defining Social and Emotional Learning

Social and Emotional Learning (SEL) is commonly defined as the process through which individuals acquire and apply the knowledge, skills, and attitudes necessary to understand and manage emotions, establish positive relationships, and make responsible decisions (CASEL, 2020). This definition reflects the multidimensional nature of SEL, encompassing emotional, cognitive, and social domains.

One of the key strengths of this definition is its inclusivity, as it captures a wide range of competencies that are relevant across different educational contexts. However, this breadth also introduces conceptual ambiguity. The boundaries between SEL and related constructs—such as character education, emotional intelligence, and non-cognitive skills—are often blurred, leading to inconsistencies in how SEL is operationalised in research and practice (Elias et al., 1997; Weissberg et al., 2015). This lack of conceptual clarity has important implications. For example, differences in definition can lead to variations in programme design, implementation, and evaluation, making it difficult to compare findings across studies. Furthermore, the broad scope of SEL raises questions about prioritisation: which competencies are most important, and how should they be balanced within educational practice?

Another critical issue relates to the normative assumptions embedded within SEL definitions. The emphasis on competencies such as self-regulation and responsible decision-making reflects particular values about what constitutes desirable behaviour. While these values are often presented as universally beneficial, they may not be interpreted in the same way across different cultural or social contexts. Therefore, while the definition of SEL provides a useful framework, it should be understood as a conceptual

starting point rather than a fixed construct, requiring ongoing critical examination and contextual adaptation.

2.3 SEL tools

SEL tools represent the practical application of theoretical frameworks, translating abstract concepts into structured educational interventions. These tools encompass a wide range of formats, including formal curricula, digital platforms, assessment instruments, and pedagogical strategies (Jones et al., 2017; Humphrey, 2013).

A defining feature of many SEL tools is their emphasis on systematic implementation and measurable outcomes. Programmes such as PATHS, Second Step, and RULER include structured lesson plans, fidelity guidelines, and evaluation mechanisms, enabling educators to monitor progress and assess effectiveness (Domitrovich et al., 2008; Taylor et al., 2017). This emphasis on evidence-based practice has contributed to the widespread adoption of SEL, particularly in policy contexts where accountability and measurable outcomes are prioritized. However, it also raises important concerns. The quantification of socio-emotional competencies can lead to an over-simplified understanding of complex processes, reducing rich, context-dependent experiences to standardized metrics.

Furthermore, the effectiveness of SEL tools is not determined solely by their design but by how they are implemented. Factors such as teacher training, school culture, and student engagement play a critical role in shaping outcomes (Cipriano & Brackett, 2020). As such, even well-designed tools may produce limited impact if implementation is inconsistent or superficial.

2.4 Primary education context

Within primary education, Social and Emotional Learning assumes particular significance due to the developmental characteristics of early childhood. During this stage, children are in the process of forming foundational emotional, cognitive, and social capacities, including the ability to recognise emotions, regulate behaviour, and establish

peer relationships. As such, SEL interventions at the primary level are not merely supplementary but constitute a critical component of holistic development (Denham et al., 2012).

Rather than relying solely on formal instruction, SEL in primary education is typically embedded within interactive and experiential learning processes. Approaches such as play-based learning, cooperative activities, and teacher modelling are widely employed to facilitate the development of emotional understanding and social competence (Schonert-Reichl, 2019). These methods allow children to engage with SEL concepts in concrete and meaningful ways, supporting the internalisation of behaviours such as empathy, cooperation, and self-regulation.

Furthermore, primary education represents a critical window for early intervention, as socio-emotional skills developed during this period have been shown to predict long-term outcomes in academic achievement, mental health, and social adjustment (Jones et al., 2015; Moffitt et al., 2011). Longitudinal evidence suggests that early SEL competence is associated with improved educational attainment, reduced behavioural problems, and enhanced life outcomes in adulthood. This underscores the importance of implementing SEL systematically at the primary level rather than treating it as an optional or peripheral component of the curriculum.

2.5 Comparative study of SEL tools

Comparative analysis constitutes a critical methodological and analytical approach within Social and Emotional Learning (SEL) research, particularly in contexts where educational systems differ substantially in their pedagogical philosophies, institutional structures, and socio-cultural environments. Rather than merely identifying which programmes are effective, comparative studies seek to understand how, why, and under what conditions specific SEL tools produce desired outcomes. This distinction is essential, as the effectiveness of SEL interventions is not inherent to the tools themselves but is mediated by contextual variables such as teacher capacity, policy alignment, and cultural relevance (O'Connor et al., 2017).

At a foundational level, comparative evaluations of SEL tools typically assess programmes across multiple dimensions, including empirical validity, implementation fidelity, scalability, cost-effectiveness, and adaptability to diverse educational settings (Barry et al., 2017). However, a critical limitation within the existing literature is the tendency to prioritise outcome-based comparisons—such as improvements in academic achievement or behavioural indicators—while underestimating the significance of contextual and systemic influences. This narrow focus risks producing conclusions that are transferable in theory but not in practice, particularly when SEL programmes are implemented in educational systems with differing institutional capacities and cultural norms.

A more nuanced comparative framework must therefore extend beyond programme outcomes to incorporate process-oriented and context-sensitive criteria. For instance, implementation fidelity has been consistently identified as a key determinant of SEL effectiveness, yet its interpretation varies across contexts. In highly structured systems such as those in the United States, fidelity is often associated with adherence to standardised curricula and prescribed instructional practices. In contrast, in systems such as Finland, where teacher autonomy is prioritised, fidelity may be conceptualised more flexibly, allowing educators to adapt SEL principles to local classroom dynamics (Sahlberg, 2015). This divergence illustrates that fidelity is not a universally fixed construct but one that is shaped by broader educational philosophies.

Similarly, cultural relevance emerges as a central dimension in comparative analysis. SEL frameworks developed in Western contexts often emphasise individual emotional expression, self-regulation, and autonomy. While these competencies are widely valued, their interpretation and prioritisation may differ across cultural settings. Research indicates that the transfer of SEL tools across contexts without adequate cultural adaptation can reduce their effectiveness or even produce unintended consequences, such as disengagement or misalignment with local values (Jagers et al., 2021; Panayiotou et al., 2019). Consequently, comparative studies must critically evaluate not only whether SEL tools are effective, but whether they are culturally congruent and contextually appropriate.

Another important dimension concerns resource availability and institutional capacity. Educational systems vary significantly in terms of funding, teacher training infrastructure, and access to instructional materials. In well-resourced contexts, such as many regions in the United States, SEL programmes are often supported by comprehensive training, monitoring systems, and digital tools. In contrast, in emerging SEL contexts such as Greece, implementation may rely more heavily on individual teacher initiative and informal practices due to limited systemic support (Panayiotou et al., 2019). These disparities highlight the importance of considering feasibility and sustainability within comparative evaluations, as programmes that are effective in resource-rich environments may not be viable in more constrained settings.

Furthermore, comparative research plays a crucial role in informing policy and practice by identifying transferable principles rather than attempting to replicate entire programmes. Rather than assuming that a successful SEL tool can be directly implemented across contexts, comparative analysis encourages a more selective approach, focusing on adaptable components such as pedagogical strategies, teacher training models, and integration mechanisms within the curriculum (Jones & Kahn, 2017). This perspective aligns with contemporary approaches to educational policy transfer, which emphasise adaptation over replication.

Despite its importance, comparative SEL research remains relatively underdeveloped, particularly at the primary education level. Much of the existing literature focuses on single-country evaluations or large-scale meta-analyses, which, while valuable, often lack the granularity required to understand cross-contextual variation. This gap is particularly significant given that primary education represents a critical developmental stage, where socio-emotional competencies are most malleable and foundational for later outcomes (Jones et al., 2015).

In light of these limitations, the present study adopts a comparative perspective to examine SEL tools across three distinct educational contexts: the United States, Finland, and Greece. These cases were selected due to their contrasting approaches to SEL implementation, ranging from highly structured and standardised models to more integrated and emerging frameworks. By analysing these systems comparatively, the study

aims to move beyond surface-level evaluations of effectiveness and instead provide a deeper understanding of how contextual factors shape the implementation and impact of SEL tools.

In summary, comparative analysis in SEL research is not merely a methodological choice but a necessary approach for capturing the complexity of educational practice across diverse contexts. By integrating considerations of cultural relevance, institutional capacity, and implementation processes, comparative studies can generate more meaningful and applicable insights, ultimately contributing to the development of more effective and context-sensitive SEL interventions.

2.6 Key SEL competency domains

The five core competencies identified by CASEL provide a widely accepted framework for understanding SEL. These competencies are supported by extensive empirical evidence linking them to positive outcomes such as academic achievement, behaviour, and mental health (Durlak et al., 2011).

As defined by CASEL (2020), these competencies are:

Self-Awareness: Understanding one's own emotions, values, and identity.

Self-Management: Managing emotions, behaviours and attention in order to achieve goals.

Social Awareness: Recognising the perspectives and emotions of others.

Relationship Skills: Building healthy relationships, cooperation and conflict resolution.

Responsible Decision-Making: Making ethical, safe, and constructive choices.

However, it is important to recognise that these competencies are interdependent and contextually influenced. Treating them as discrete categories may overlook their dynamic interaction.

2.7 Implementation fidelity

Implementation fidelity refers to how closely an SEL programme is delivered according to its original design, including adherence to lesson structure, frequency,

duration, pedagogical principles, and quality of delivery (Dane & Schneider, 1998). Therefore, implementation fidelity is a critical determinant of programme effectiveness. High implementation fidelity is strongly associated with improved SEL outcomes, whereas inconsistent or incomplete delivery reduces programme effectiveness (Domitrovich et al., 2008; Humphrey, 2013). In this context, high fidelity ensures consistency, but excessive rigidity may limit adaptability (Dane & Schneider, 1998). This creates a tension between standardization and flexibility. Consequently, fidelity evaluation is a critical dimension in comparing SEL tools within formal education systems.

2.8 Cultural and contextual relevance

SEL research increasingly highlights the importance of cultural adaptability. Cultural relevance refers to the degree to which SEL frameworks, examples, emotional expressions, and behavioural expectations align with the local sociocultural context of learners (Jagers et al., 2019). Cultural responsiveness is essential for effective SEL implementation. Programmes must be adapted to local contexts to ensure relevance and engagement (Jagers et al., 2019). Culturally responsive SEL considers linguistic differences, community practices, local values, and diverse emotional expressions (Hoffman, 2009). In primary schools, cultural responsiveness enhances learner engagement, reduces behavioural disparities, and ensures inclusivity. The comparative assessment of SEL tools therefore requires attention to localization, translation, belief systems, community norms, and culturally informed pedagogies. Failure to culturally adapt SEL content may inadvertently reinforce inequities or reduce engagement (Gregory & Fergus, 2017). Comparative evaluations therefore require an assessment of cultural fit, particularly in multicultural primary schools.

2.9 SEL assessment tools

The assessment of Social and Emotional Learning presents a complex methodological challenge, as it involves the measurement of constructs that are inherently subjective, context-dependent, and often not directly observable. Nevertheless, a range of assessment tools has been developed to evaluate SEL outcomes, each offering different strengths and limitations (Denham et al., 2012; DePaoli et al., 2017).

These tools typically include teacher rating scales, student self-report measures, behavioural observations, and, in some cases, peer evaluations. Teacher assessments are particularly valuable in primary education, as educators are able to observe students' behaviour across different contexts and over extended periods. However, such assessments may also be influenced by subjective perceptions and implicit biases. Self-report measures, while providing insight into students' internal experiences, may be limited by children's developmental capacity to accurately reflect on their emotions and behaviours.

In recent years, standardised instruments such as the Social Skills Improvement System (SSIS-SEL) and the Strengths and Difficulties Questionnaire (SDQ) have gained prominence in SEL research and practice. These tools enable more systematic measurement and facilitate comparisons across studies and contexts. However, their reliance on predefined constructs may constrain the ability to capture the full complexity of socio-emotional development, particularly in culturally diverse settings.

Moreover, the increasing use of digital tools and real-time data tracking has introduced new possibilities for SEL assessment, including mood-monitoring applications and interactive platforms. While these innovations offer potential advantages in terms of immediacy and engagement, they also raise important ethical considerations related to data privacy and the interpretation of sensitive emotional information. As such, the selection and use of assessment tools must be approached critically, balancing the need for measurement with an awareness of their limitations.

2.10 Implementation challenges and contextual influences

The implementation of Social and Emotional Learning programmes is shaped by a complex interplay of structural, institutional, and individual factors, which collectively influence both the quality and sustainability of interventions. One of the most consistently identified challenges relates to teacher preparedness. Effective SEL delivery requires not only an understanding of programme content but also the ability to model socio-emotional competencies, manage classroom dynamics, and adapt strategies to diverse student needs. In the absence of adequate training and ongoing professional development, teachers may

struggle to implement SEL effectively, resulting in superficial or inconsistent application (Humphrey, 2013).

Closely related to this is the issue of institutional support. Schools that demonstrate strong leadership, clear policy alignment, and a commitment to SEL are significantly more likely to achieve successful implementation (DePaoli et al., 2017). Conversely, where SEL is perceived as an additional burden rather than an integrated component of the curriculum, it is often marginalised in practice. This perception is frequently reinforced by competing curricular demands, particularly in systems that prioritise standardised testing and academic outcomes.

Resource constraints further compound these challenges. Limited access to instructional materials, time constraints within the school schedule, and insufficient administrative support can all hinder the effective integration of SEL. In many contexts, particularly those with emerging SEL frameworks, implementation relies heavily on individual teacher initiative rather than systemic infrastructure, raising concerns about sustainability and consistency.

In addition to these structural barriers, ethical and conceptual concerns have also been raised within the literature. Critics argue that, in some cases, SEL tools may be used in ways that prioritise behavioural compliance over genuine emotional development, potentially undermining student autonomy. There are also concerns regarding the collection and use of sensitive emotional data, particularly in relation to privacy and the potential for misinterpretation or labelling of students.

Finally, broader socio-cultural factors must be considered. The transfer of SEL programmes across contexts without adequate adaptation may lead to misalignment with local values and practices, reducing effectiveness and potentially exacerbating inequalities (Panayiotou et al., 2019). These challenges highlight the need for a more context-sensitive approach to SEL implementation, one that recognises the complexity of educational systems and avoids one-size-fits-all solutions.

2.11 Emerging trends and future directions

Recent developments in SEL research have focused on expanding the scope of the field to address new challenges and opportunities. Emerging trends include digital SEL and transformative SEL, which emphasise equity and social justice (Jagers et al., 2021). This approach challenges traditional models by recognising the role of systemic inequalities in shaping student experiences and outcomes. It calls for a more critical and inclusive approach to SEL that goes beyond individual skill development. These developments expand the scope of SEL but also introduce new complexities.

One notable trend is the increasing use of digital technologies to support SEL. Digital tools, such as online platforms and interactive applications, have the potential to enhance accessibility and engagement (Abrahams & Burke, 2020; Niemi&Multisilta, 2018). However, their effectiveness is contingent upon factors such as technological infrastructure and digital literacy. In addition, there is growing interest in integrating SEL with other educational initiatives, such as mindfulness and positive behaviour interventions (Schonert-Reichl et al., 2015; Sugai& Horner, 2006). These integrated approaches have the potential to create more comprehensive and cohesive educational experiences, although they also introduce additional complexity.

2.12 Synthesis of the Literature, Research Gap, and Hypotheses

The preceding review of the literature has demonstrated that Social and Emotional Learning (SEL) has evolved into a central component of contemporary educational discourse, supported by a substantial body of theoretical and empirical research. Across multiple studies, there is strong consensus that SEL contributes positively to a wide range of student outcomes, including academic achievement, behavioural regulation, emotional well-being, and social competence (Durlak et al., 2011; Taylor et al., 2017). These findings have positioned SEL not as a peripheral educational initiative, but as a foundational element of holistic child development.

At a theoretical level, the literature reveals that SEL is grounded in a synthesis of constructivist learning theory, developmental psychology, and social systems perspectives. These frameworks collectively emphasise that learning is inherently social and emotional, shaped by interactions between individuals and their environments. Contemporary models, particularly those advanced by CASEL (2020), have translated these theoretical insights into structured competency frameworks, enabling the development of standardised programmes and assessment tools. However, as highlighted throughout the review, this process of standardisation introduces tensions between conceptual clarity and contextual sensitivity, raising questions about the universality of SEL frameworks.

Empirically, the literature provides robust evidence for the effectiveness of SEL interventions, particularly when implemented with high fidelity and supported by adequate teacher training. Meta-analytic studies consistently report improvements in academic performance, social behaviour, and emotional regulation among students participating in SEL programmes (Durlak et al., 2011). Nevertheless, these positive outcomes are not uniformly distributed. Variability in programme effectiveness is frequently attributed to differences in implementation quality, institutional support, and contextual alignment (Domitrovich et al., 2008; Humphrey, 2013). This suggests that the success of SEL is contingent not only on programme design but also on the conditions under which it is delivered.

A critical theme emerging from the literature is the central role of teachers in mediating SEL outcomes. Teacher preparedness, including both formal training and ongoing professional development, has been identified as a key determinant of successful implementation. Educators who are well-trained in SEL principles are more likely to integrate these practices effectively into their teaching, thereby enhancing student engagement and learning outcomes (Jones et al., 2017).

Conversely, insufficient training is associated with superficial implementation, reduced fidelity, and diminished impact. This highlights a significant dependency within SEL systems on human capital, which is often unevenly distributed across educational contexts. In addition to teacher-related factors, the literature underscores the importance of structural and institutional conditions. Resource availability, curriculum design, and policy

support all influence the extent to which SEL can be meaningfully integrated into classroom practice. In many cases, competing curricular demands and limited instructional time act as significant barriers, constraining the implementation of SEL despite positive attitudes among educators (Cohen, 2013). This indicates a persistent gap between policy-level endorsement of SEL and its practical realisation within schools.

Another key insight concerns the role of cultural and contextual variability. While SEL frameworks are often presented as universally applicable, research increasingly demonstrates that their effectiveness is shaped by socio-cultural norms, educational traditions, and systemic structures (Jagers et al., 2021; Panayiotou et al., 2019). Comparative studies suggest that different countries adopt distinct approaches to SEL, ranging from structured, programme-based models to more integrated, holistic systems. However, despite this recognition, there remains a lack of in-depth comparative research that systematically examines how these contextual differences influence both implementation and outcomes, particularly within primary education settings.

Taken together, the literature reveals several important gaps that justify the present study. First, while there is extensive evidence supporting the effectiveness of SEL, there is limited understanding of how key implementation factors—such as teacher training and resource availability—interact to influence student engagement in specific educational contexts. Second, although teacher attitudes towards SEL are generally positive, there is insufficient empirical investigation into the relationship between these attitudes and actual classroom implementation, particularly in systems where institutional support is limited. Third, comparative research across countries remains underdeveloped, with a lack of studies that integrate empirical data with cross-contextual analysis to explain variations in SEL practice and effectiveness.

This study addresses these gaps by adopting a questionnaire-based approach to examine educators' perceptions, experiences, and practices related to SEL within the Greek primary education context, while situating these findings within a broader comparative framework that includes the United States and Finland. By focusing on both perceptual and structural variables, the study seeks to provide a more comprehensive understanding of the factors that facilitate or constrain SEL implementation.

In order to guide the empirical investigation and provide a clear analytical structure, the study is informed by the following hypotheses:

H1: Teacher training in Social and Emotional Learning positively predicts student engagement. This hypothesis is grounded in literature demonstrating the central role of teacher competence in effective SEL implementation.

H2: Resource availability has a positive effect on student engagement through SEL implementation. This reflects the assumption that access to materials, time, and institutional support enhances the feasibility and quality of SEL delivery.

H3: There is a significant gap between teachers' positive perceptions of SEL and the frequency of its implementation in classroom practice. This hypothesis is derived from research highlighting the discrepancy between attitudes and practice in educational reform contexts.

H4: Teachers with fewer years of experience are more likely to utilise digital tools for SEL implementation. This is informed by emerging literature on generational differences in digital competence and pedagogical innovation.

These hypotheses provide a coherent link between the literature review and the methodological approach, ensuring that the study is both theoretically grounded and empirically focused. By testing these propositions, the research aims to contribute to a more nuanced understanding of SEL implementation, moving beyond generalised claims of effectiveness to examine the specific conditions under which SEL can be successfully integrated into primary education.

In conclusion, while the existing literature provides a strong foundation for understanding the value of SEL, it also reveals significant gaps related to implementation, contextual variability, and the relationship between perception and practice. Addressing these gaps is essential for advancing both theory and practice, and it is within this context that the present study is positioned.

Chapter3: Methodology

3.1 Research Design

The questionnaire survey method is the methodology used to conduct this research on the implementation of Social and Emotional Learning in Greece's elementary schools. There are various advantages that make the questionnaire-based method more appropriate for this study based on its objectives and hypotheses. It is necessary to note that the objective of the research was to identify certain associations between the variables under investigation. Hence, a large and representative sample of educators should be examined with regard to implementation strategies, their views on social and emotional learning and their experience in implementing SEL-related activities.

One of the main reasons why this approach can be considered the best option is that questionnaire surveys are the most appropriate way to identify statistical correlations between the variables related to the selected topic. With the help of the survey results, it will be possible to estimate the significance of correlations and calculate regression coefficients that will allow to analyze the degree to which the variables influence each other. Moreover, it is possible to use such statistical tests as correlation analysis, multiple regression, paired-samples t-test and one-way ANOVA. The application of these methods will facilitate the assessment of the relationship between teacher training, implementation practices and student engagement.

Furthermore, a questionnaire-based design provides an opportunity to conduct a large-scale study of educator experiences in implementing SEL activities within a relatively short period. It should be noted that the study involves examining professionals engaged in teaching social and emotional skills. As the questionnaire technique does not require conducting personal interviews and allows avoiding observational subjectivity, this type of research design is more appropriate for collecting data about teacher practices. Additionally, a questionnaire design can provide both quantitative and qualitative data in relation to social and emotional learning implementation.

While closed questions will generate measurable data about the level of teacher training and institutional support, open-ended questions will allow obtaining valuable information that will complement quantitative conclusions with the help of qualitative insights into implementation practices. This approach is quite consistent with the applied nature of this research because its main goal was to address practical issues rather than methodological problems.

3.2 Sampling and Participants

A purposive sampling technique was used for the selection of participants based on their profession of educators with relevant practical experience with Social and Emotional Learning (SEL) issues. It ensured that participant responses were derived from real-life educational experience and not simply a conceptual understanding of the SEL approach. The sample size of 121 educators was enough for the planned statistical analysis, namely, for correlation analysis, multiple regression, paired-samples t-test, and one-way ANOVA. Although the selected sample did not reflect the Greek educators population and could not have served the purpose of a statistic representation, it was enough for pattern and relationship recognition and identification of the tendencies associated with the implementation of SEL programs.

The diversity of the professional experience provided a possibility to compare the results between educators of different professional groups, which facilitated the analysis of possible differences in approaches to the implementation of the SEL programs. More specifically, the years of professional experience were treated as an independent grouping variable for the ANOVA analysis of differences in digital tool application to SEL implementation. Thus, this sampling strategy was suitable for achieving research purposes.

3.3 Questionnaire Design and Data Collection

Data collection for the present study took place through a structured questionnaire distributed electronically among educators participating in Greek primary education. The questionnaire was specifically developed to test the research hypotheses along with the key variables revealed during the literature review. Four sections were incorporated in the questionnaire.

Section A gathered demographic information, including number of years of experience in teaching. This variable would be used for subsequent comparison in correlation and regression statistical analyses. Section B focused on teachers' perceptions about the relevance and effectiveness of SEL within the context of primary education. Section C concerned implementation issues at an institutional level, particularly focusing on teachers' training and resource availability. Section D addressed the issue of practice concerning how SEL is implemented in the classroom environment. The vast majority of items provided Likert scale responses, resulting in quantifiable data suitable for statistical analysis. Composite variables reflecting each principal construct investigated in the study were computed in SPSS, by taking into account the average score of relevant items for each one of them. These composite variables were later used as the basis for statistical analyses in Chapter 4.

Since the questionnaires needed to be distributed among numerous educational facilities in Greece, their electronic delivery was deemed the most appropriate strategy, allowing participants' anonymity in the process. It should also be noted that distributing the questionnaire online was particularly justified considering the specific nature of the investigation and the practical problems connected with gaining access to respondents. A couple of open-ended questions were also included in the questionnaire, thus allowing participants to comment on implementation obstacles and difficulties experienced when integrating SEL into school practice.

3.4 Data Analysis

Descriptive and inferential statistical procedures were performed using the SPSS package program, aimed at achieving the aims and testing the hypotheses of the study. Specifically, mean values, standard deviations, frequency distributions, and percentages were calculated, serving as descriptive statistics, in order to describe participants' attitudes regarding SEL perceptions, practices of SEL implementation, training for the implementation of SEL, and organizational support for the implementation of SEL practices.

The relationship between teacher training, available resources, and student engagement was analyzed by applying Pearson correlation analysis, allowing evaluation of the strength and direction of associations among the core variables under investigation regarding the implementation of SEL programs. Further, multiple linear regression analysis was applied in order to examine the predictive power of teacher training and resource availability in explaining student engagement. Teacher training and resource availability were considered independent variables, while student engagement was treated as the dependent variable. The hypothesis that was tested by the regression analysis was the following: H1: Teacher training predicts student engagement; and H2: Resource availability predicts student engagement. Paired samples t-test was applied in order to explore whether statistically significant differences exist between the teachers' perception of SEL practices and their actual implementation in classroom settings, thus testing the third hypothesis (H3).

Moreover, one-way analysis of variance (ANOVA) was conducted in order to find out whether differences in the use of digital tools for implementing SEL practices exist in relation to the teaching experience of participants. Specific pairwise comparisons were conducted by using the Least Significant Difference (LSD) method, which is considered appropriate for post hoc tests when homogeneity of variances exists, thus addressing Hypothesis 4. Assumptions underlying both regression and one-way ANOVA were examined in terms of multicollinearity, homogeneity of variances, and independence of errors through VIF, Levene's test, and Durbin–Watson statistic. The results revealed that the assumptions underlying the regression analysis and the ANOVA procedure hold true.

3.5 Ethical Considerations

Firstly, participants were informed about the goals of the study, the voluntary nature of their involvement, and their right to withdraw from participation until answering the questions of the survey. Furthermore, anonymity of responses was assured since each participant responded to the questionnaire independently. Anonymity became even more crucial taking into consideration that participants assessed organizational practices regarding the implementation of SEL programs, the possible barriers to implementing SEL programs, and their professional experiences regarding implementing SEL practices in educational institutions. Finally, all data were kept secure and only for scientific purposes.

3.6 Methodological Limitations

Several methodological limitations arise from the design of the research and need to be taken into consideration in order to evaluate its validity. As a first limitation of this study, it can be mentioned that since it is questionnaire-based, there is potential bias or socially desirable responding involved in participants' answers. As a second limitation of the current study, it should be stated that due to the small sample and the fact that purposive sampling was conducted, the findings cannot be generalized beyond this particular context. More specifically, since this study focused on investigating issues regarding the implementation of SEL programs in primary schools of Greece, the findings should be considered as context-specific ones, not as universal statements. Thirdly, open-ended questions were included in the questionnaire, providing valuable information; however, they were not further investigated in greater detail through semi-structured interviews.

Chapter 4: Analysis

4.1 Data analysis

4.1.1 Descriptive Statistics

The investigation highlights key factors and provides the statistical background for further

inferential analyses that will allow researchers to examine their hypotheses. Specifically, the study explores teachers' perception of social and emotional learning (SEL) and the practice of SEL implementation in classroom context. To achieve this goal, the following descriptive statistics – means, standard deviations, minimums, and maximums – were calculated using the software package for statistical analyses (SPSS). The results are represented in Table 4.1 below.

Table 4.1 Descriptive Statistics for Teachers' Perceptions of SEL and SEL Implementation Practices

<i>Variable</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M</i>	<i>SD</i>
<i>Teachers' Perceptions of SEL (Section B)</i>	121	1.00	3.75	2.14	0.57
<i>SEL Implementation Practices (Section D)</i>	121	1.00	4.50	2.68	0.65

Note. M = Mean; SD = Standard Deviation.

Based on the results obtained during the computation of descriptive statistics, one can identify the presence of statistically significant variation between teachers' perceptions of the educational significance of SEL and the reported practice of SEL implementation in the classroom. Indeed, the mean of teachers' perceptions of SEL equals 2.14 with the standard deviation of 0.57; on the other hand, the mean score for SEL implementation practices equals 2.68 (SD=0.65). Despite the fact that both factors demonstrate moderate standard deviation, one can notice greater variation in the second case, which suggests that the practical implementation of SEL was more different among participants in contrast to their general attitudes towards SEL in education.

Furthermore, the gap between the minimum and the maximum values in each variable can be considered significant from the point of view of analytical potential. In particular, it means that participants' experiences with the introduction of SEL into Greek primary education system are characterized by considerable diversity. From an analytical perspective, this fact indicates that there is inequality in the implementation of SEL practices depending on the educational and institutional context of individual classrooms.

Also, descriptive data provides initial proof of the fact that the positive perception of SEL cannot automatically guarantee its regular implementation in classroom context. Even though the majority of participants positively perceive the value of SEL in primary education, the relatively high variance in the implementation of SEL practices suggests some practical obstacles in the way of the systematic inclusion of these skills into students' academic experience. Overall, the results obtained at the level of descriptive statistics form the foundation for inferential analysis discussed later.

4.1.2 Correlation Analysis

To explore the possible connections between teacher training, resource availability, and student engagement within the framework of Social and Emotional Learning (SEL) implementation, Pearson correlation analysis was performed. Such an approach to research is particularly useful in evaluating the validity of Hypotheses 1 and 2, according to which teacher training and resource availability positively affect student engagement.

To perform correlation analysis, composite variables representing teacher training, resources, and student engagement were formed in SPSS through the calculation of mean scores for items in questionnaires. Among different statistics used to estimate correlations, Pearson's correlation coefficient (r) was regarded as the most appropriate measure of the strength and direction of linear association between two continuous variables obtained from Likert scale ratings. Correlation coefficients obtained through analysis are presented in Table 4.2.

Table 4.2 Correlations Between Teacher Training, Resource Availability, and Student Engagement

<i>Variable</i>	<i>1</i>	<i>2</i>	<i>3</i>
1. <i>TeacherTraining</i>	—		
2. <i>ResourceAvailability</i>	.453**	—	
3. <i>StudentEngagement</i>	.350**	.328**	—

Note. $p < .01$.

According to correlation analysis findings, statistically significant positive connections between all examined variables are detected. The obtained results confirm that teacher preparation, institutional support, and student engagement represent interconnected variables characterizing the process of SEL implementation. First, teacher training shows a positive moderate connection with resource availability ($r = .453$, $p < .001$). In other words, the higher the degree of teacher preparation regarding SEL implementation, the more resources teachers report having related to SEL (educational materials, institutional support, etc.). This coefficient demonstrates that teacher development and institutional investment in teachers work in tandem rather than separately.

Secondly, a positive connection is established between teacher training and student engagement ($r = .350$, $p < .001$). It means that better teacher preparation is connected with a higher degree of classroom participation and student responsiveness to SEL-related classroom activities. Though the correlation may be considered as moderate, the statistical significance makes the conclusion that teacher readiness is an essential pedagogical aspect of SEL successful implementation. In particular, teachers' readiness to use social and emotional learning techniques and principles is likely to promote active involvement and cooperation in classrooms.

Finally, resource availability shows a positive connection with student engagement ($r = .328$, $p < .001$). Although this connection is somewhat weaker compared to those obtained previously, the results suggest that institutional support contributes to effective SEL implementation in terms of positive engagement outcomes. Specifically, having

necessary educational materials and digital tools for classroom learning is positively correlated with student engagement.

However, the relatively low value of the coefficient implies that, although resource availability plays a considerable role in classroom dynamics, additional variables are needed to achieve better student engagement.

Thus, based on the correlation coefficients obtained, initial empirical evidence exists that Hypotheses 1 and Hypothesis 2 are valid. Namely, Hypothesis 1 suggests that teacher training positively influences student engagement, whereas Hypothesis 2 claims that resource availability positively influences student engagement. Positive statistically significant correlation between teacher training and student engagement and between resource availability and student engagement provides some empirical evidence to support both hypotheses. At the same time, correlation analysis does not provide any information regarding predictive influence. Therefore, multiple linear regression must be conducted to find out how teacher training and resource availability influence student engagement independently.

4.1.3 Multiple Linear Regression Analysis

To test the impact of teacher training and resource availability on student engagement, multiple linear regression analysis was used. This part of the data analysis process tests both of the hypotheses, which state that teacher training and resource availability are positively related to student engagement. Compared to correlations analysis, which only evaluates whether an association exists between variables and measures its strength, regression analysis allows the investigation of the independent predictive contribution of each predictor by accounting for the simultaneous influence of the other predictors.

Composite scales for teacher training, resource availability, and student engagement were first calculated in SPSS. To this end, the questionnaire questions measuring each of the constructs mentioned above were averaged. Student engagement

was set as a dependent variable, whereas teacher training and resource availability were used as independent predictors.

The Enter method was used for the regression estimation, implying that all predictors were introduced at once to investigate their relative contribution to engagement outcomes. Table 4.3 contains the analysis results.

Table 4.3 Multiple Linear Regression Predicting Student Engagement

<i>Predictor</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>
<i>Constant</i>	1.541	0.249	—	6.191	< .001
<i>TeacherTraining</i>	0.286	0.107	.253	2.673	.009
<i>ResourceAvailability</i>	0.315	0.140	.214	2.257	.026

Note. Dependent Variable: Student Engagement.

Table 4.4 RegressionModelSummary

<i>R</i>	<i>R²</i>	<i>Adjusted R²</i>	<i>Std. Error of Estimate</i>	<i>Durbin–Watson</i>
.398	.159	.144	0.597	1.938

Table 4.5 ANOVA for Regression Model

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
<i>Regression</i>	7.928	2	3.964	11.126	< .001
<i>Residual</i>	42.043	118	0.356		
<i>Total</i>	49.971	120			

As can be seen from Table 4.5, the constructed regression model reached statistical significance, with the F value being equal to 11.126 ($F[2,118] = 11.126$), $p < .001$. Thus, it was found that the two predictors combined together had a significant predictive power regarding student engagement outcomes. The model explained the variance in student engagement to the extent of $R^2 = .159$ and adjusted $R^2 = .144$, which means that

approximately 15.9% of the variance could be explained by the two predictors introduced into the model.

Even though it might be considered quite a modest explanation, the results are still meaningful for educational research, especially taking into account that many interacting institutional and individual factors influence student behavior. First of all, teacher training was established as a statistically significant positive predictor of student engagement ($\beta = .253$, $t = 2.673$, $p = .009$). It means that the greater teachers' SEL training, the higher the level of students' engagement in classes was. As can be seen from the regression model, better teacher training implies higher student engagement, which proves the hypothesis formulated before testing. Hence, the results confirm the formulated Hypothesis 1 stating that teacher training has a positive impact on student engagement.

In addition, resource availability proved to be statistically significant predictor of student engagement ($\beta = .214$, $t = 2.257$, $p = .026$). Such results imply that the use of SEL-related material resources and availability of organizational support independently positively influence students' engagement. Although the predictive power of this variable was not as high as the one in case of teacher training, it still demonstrates a positive relationship. Consequently, the findings support Hypothesis 2 that claims that resource availability is a predictor of student engagement.

4.1.4 Paired Samples t-test Analysis

The paired-samples t-test was applied to test whether statistically significant differences between the variables of interest existed. The selected stage of statistical analysis allows for assessing the hypothesis of gaps between teachers' views on the importance of SEL activities and their practical application in classroom settings. Thus, the test in question tests Hypothesis 3 of the research. The selection of the paired-samples t-test is based on the fact that both variables were collected from the same participants of the study, which makes them related. The paired comparison involved the use of composite scores calculated based on the survey data related to teachers' perceptions of SEL activities (from Section B) and the implementation of the latter (from Section D). Given the fact that both constructs were measured based on the Likert-type scale scores,

the paired comparison technique appears to be the best approach in terms of testing the presence of gaps between the variables. Descriptive statistics of the paired variables under investigation are provided in Table 4.6

Table 4.6 Paired Samples Statistics for Teachers' Perceptions and SEL Implementation

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>SE Mean</i>
<i>Teachers' Perceptions of SEL (Section B)</i>	2.14	0.57	0.052
<i>SEL Implementation Practices (Section D)</i>	2.68	0.65	0.059

Note. M = Mean; SD = Standard Deviation; SE = Standard Error.

Based on the obtained descriptive statistics, one can conclude about variability in participants' responses regarding the educational importance of SEL and the extent to which the mentioned activities are implemented within classrooms. While both constructs demonstrated rather moderate dispersion in terms of standard deviation measures, the variable measuring implementation appeared to be characterized by more variability, indicating inconsistency in the implementation of SEL activities. Along with descriptive statistics, the researchers decided to conduct the paired samples correlation analysis to explore whether any association existed between the variables involved in paired comparison. The results are presented in Table 4.7.

Table 4.7 Paired Samples Correlation Between Teachers' Perceptions and SEL Implementation

<i>Variables</i>	<i>N</i>	<i>Correlation</i>	<i>p</i>
<i>Section B & Section D</i>	121	.350	< .001

The results of paired samples correlation analysis showed a statistically significant positive association between teachers' perceptions of SEL and its implementation ($r = .350$, $p < .001$). As such, it became clear that the respondents demonstrating relatively high scores for perceptions of SEL also had high ratings for implementation practices. Nevertheless, despite statistical significance, the correlation coefficient shows that the relationship between the variables is rather moderate, which means that positive

perceptions cannot be directly linked with successful implementation in classroom settings.

Table 4.8 Paired Samples t-test for Teachers' Perceptions and SEL Implementation

<i>VariableComparison</i>	<i>MeanDifference</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
<i>Section B – Section D</i>	-0.548	0.696	-8.651	120	< .001

Thus, there were statistically significant differences between teachers' perceptions of SEL and implementation of the latter in classroom settings, $t(120) = -8.651$, $p < .001$. The mean difference of -0.548 can be interpreted as evidence of discrepancies between professionals' opinions and actual implementation of SEL activities in the classroom environment. In other words, despite recognition of the importance of SEL activities, professionals find it difficult to implement them consistently in practice.

From a methodological standpoint, it should be noted that such findings serve as a solid confirmation of Hypothesis 3 postulated at the initial stage of research planning. Therefore, the obtained mean differences and their statistical significance make it possible to argue that positive attitudes to SEL are not entirely reflected through their application in practice. In fact, certain barriers are preventing professionals from effective implementation of SEL activities within educational settings.

4.1.5 One-Way ANOVA Analysis

One-Way ANOVA analysis was performed to test the hypothesis of the presence of statistically significant differences in the use of digital and multimedia tools for Social and Emotional Learning (SEL) across different years of teaching experience. It should be noted that the above-mentioned test directly evaluates Hypothesis 4 concerning the fact that teachers with less professional experience implement digital SEL tools more frequently than their more experienced colleagues. The relevance of the selected stage is based on the increasing role played by digital technologies in the implementation of SEL in primary schools nowadays.

Years of Professional Experience was used as the independent variable and was divided into five groups: 1–5 years, 5–10 years, 10–15 years, 15–20 years, and over 20 years. The dependent variable included answers provided by participants about the use of digital or multimedia tools to implement SEL in classrooms. The preliminary step of the analysis involved checking the homogeneity of variances by means of Levene's test. Results have demonstrated that the tested assumption is satisfied since Levene's test value is not statistically significant ($p = .070$). Therefore, further calculations are applicable. The ANOVA results can be seen in Table 4.9 below.

Table 4.9 One-Way ANOVA for Digital SEL Tool Usage by Teaching Experience

<i>Source</i>	<i>df</i>	<i>F</i>	<i>p</i>
<i>BetweenGroups</i>	4	3.68	.007

Note. Dependent variable: Use of digital and multimedia tools for SEL implementation.

As it follows from the data above, there is a statistically significant difference in the level of digital tool usage for implementing SEL among different years of teaching experience ($F(4,116) = 3.68$, $p = .007$). Hence, the significant difference indicates that teaching experience plays a crucial role in determining the extent to which teachers are willing to integrate digital technology into social and emotional learning in class. The post-hoc tests to detect the differences in levels were calculated using the Least Significant Difference (LSD) procedure, and results can be found in Table 4.10.

Table 4.10 Post-Hoc LSD Comparisons for Digital SEL Tool Usage

<i>Comparison</i>	<i>MeanDifference</i>	<i>p</i>
<i>1–5 yearsvs. 5–10 years</i>	1.13	.001
<i>1–5 yearsvs. 10–15 years</i>	1.00	.020
<i>1–5 yearsvs. 15–20 years</i>	1.29	< .001
<i>1–5 yearsvs. 20+ years</i>	1.12	.001

The post-hoc analyses have indicated that teachers with one to five years of professional experience report significantly higher digital SEL tool usage compared to

other groups considered in the study. In particular, significant differences between respondents who have been working as teachers for at least one year and those who worked for five to ten years ($p = .001$), ten to fifteen years ($p = .020$), fifteen to twenty years ($p < .001$), and over twenty years ($p = .001$) have been detected. Among these four differences, the largest gap between the groups was observed in the comparison of the first and third categories mentioned above, i.e., in the comparison of the group of the least experienced teachers with that of the most experienced teachers. As it follows from the obtained results, Hypothesis 4 is valid since less experienced educators use digital tools much more frequently than those teachers whose professional experience exceeds five years. Hence, more recently entered teachers demonstrate higher familiarity with multimedia learning tools and feel more confident about integrating digital technologies into SEL processes. These findings can be explained through the existing differences between the older generation of teachers and the younger generation in terms of digital literacy. Thus, today's educators have been more exposed to new technologies during their educational period and professional training programs than teachers trained several decades ago. Consequently, it becomes obvious that digital innovation of SEL implementation practices is unevenly distributed across the pool of educators. While young teachers are more willing to utilize multimedia technologies, experienced educators can be more inclined towards traditional learning practices.

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demonstrate higher familiarity with multimedia learning tools and feel more confident about integrating digital technologies into SEL processes. These findings can be explained through the existing differences between the older generation of teachers and the younger generation in terms of digital literacy. Thus, today's educators have been more exposed to new technologies during their educational period and professional training programs than teachers trained several decades ago.

Chapter 5: Discussion

5.1 Introduction to the Discussion

This chapter interprets the findings of the study in relation to the research question and the hypotheses developed in Chapter 2. Rather than presenting a descriptive summary of results, the discussion critically examines the extent to which the empirical findings support or challenge existing literature on Social and Emotional Learning (SEL), with particular emphasis on cross-contextual comparisons between Greece, the United States, and Finland.

The discussion is structured around the study's key hypotheses, enabling a coherent and analytically focused interpretation of the results. This approach strengthens the explanatory power of the chapter by directly linking empirical evidence to theoretical expectations.

5.2 Hypothesis 1: Teacher Training Positively Influences Student Engagement

Findings of this study provide clear support for Hypothesis 1, demonstrating that teacher training in SEL is a statistically significant predictor of student engagement. The regression analysis indicated that teacher training had a positive and meaningful effect on engagement, whereas resource availability did not reach statistical significance.

This finding aligns strongly with existing literature, which consistently identifies teacher preparedness as a critical determinant of successful SEL implementation. For example, Collaborative for Academic, Social, and Emotional Learning (2020) emphasizes that effective SEL delivery depends not only on curriculum design but also on educators' ability to interpret and implement SEL principles in context. Similarly, studies conducted in the United States demonstrate that well-trained teachers are more likely to deliver SEL programmes with high fidelity, leading to improved student outcomes.

From a theoretical perspective, this result reinforces the importance of implementation fidelity theory, which suggests that the success of educational interventions depends less on the tools themselves and more on how they are enacted in practice. In this context, teacher training functions as a mediating mechanism that translates SEL frameworks into meaningful classroom experiences.

However, the Greek context introduces an important nuance. While teacher training significantly predicts engagement, the overall level of formal training reported by participants remains extremely low (87.6% untrained). This creates a structural paradox: teacher training is highly impactful, yet largely absent. This discrepancy highlights a systemic limitation within the Greek educational system and contrasts sharply with the United States, where structured professional development in SEL is more widely institutionalised, and with Finland, where teacher education inherently incorporates socio-emotional pedagogies. Thus, the findings suggest that the effectiveness of SEL is not constrained by conceptual limitations but by institutional capacity, particularly in relation to teacher development.

5.3 Hypothesis 2: Resource Availability Positively Influences Student Engagement

Contrary to expectations, the findings do not support Hypothesis 2. Resource availability was not found to be a statistically significant predictor of student engagement. At first glance, this result may appear counterintuitive, particularly given the emphasis placed on resources within policy frameworks and educational reform initiatives. However, a closer analysis reveals that this finding is consistent with a growing body of literature suggesting that resources alone are insufficient to drive meaningful educational outcomes.

In the Finnish context, for example, SEL is successfully implemented without heavy reliance on structured tools or digital platforms. Instead, emphasis is placed on teacher autonomy, classroom climate, and relational pedagogy. This suggests that pedagogical quality outweighs material provision.

Similarly, research in the United States indicates that the mere presence of SEL tools does not guarantee effectiveness unless accompanied by adequate training and implementation support. The findings of this study therefore challenge a common assumption within educational policy—that increasing resources will automatically enhance outcomes. Instead, they point to a more complex relationship in which resources function as enabling conditions rather than primary drivers.

In the Greek context, this is particularly significant. Despite strong calls from educators for increased investment in SEL tools, the regression results indicate that such investments may have limited impact unless accompanied by systematic teacher training. This insight contributes to the broader literature by highlighting the risk of policy misalignment, where investment priorities do not correspond to the most influential factors in practice.

5.4 Hypothesis 3: There Is a Gap Between Positive Perceptions of SEL and Its Implementation

The findings provide strong support for Hypothesis 3, revealing a statistically significant gap between teachers' positive attitudes towards SEL and their actual implementation of SEL practices. This gap represents one of the most critical findings of the study and reflects a well-documented phenomenon in educational research. While educators often express strong support for innovative pedagogies, structural and contextual constraints frequently limit their ability to translate these beliefs into practice. The Greek data clearly illustrate this dynamic. Teachers overwhelmingly recognise the importance of SEL, yet implementation remains inconsistent and limited. This discrepancy can be explained through several interrelated factors. First, time constraints emerged as a major barrier, with over 79% of participants identifying limited teaching time as a significant obstacle. This reflects a curriculum structure that prioritises academic content over socio-emotional development. Second, curricular rigidity further restricts the integration of SEL, reinforcing the perception that it is an “additional” rather than integral component of education. Third, the lack of formal training limits teachers' confidence and capacity to implement SEL effectively.

These findings are consistent with research conducted in Greece, which highlights similar challenges in SEL implementation. In contrast, Finland's integrated approach reduces this gap by embedding SEL within everyday teaching practices, while the United States addresses it through structured programmes and accountability mechanisms. Theoretically, this finding can be interpreted through the lens of policy-practice decoupling, where formal recognition of an initiative does not translate into practical implementation. This reinforces the importance of systemic alignment in educational reform.

5.5 Hypothesis 4: Younger Teachers Are More Likely to Use Digital SEL Tools

The findings support Hypothesis 4, indicating that teachers with fewer years of experience are significantly more likely to use digital tools in SEL implementation. This result reflects broader generational trends in digital literacy and pedagogical innovation. Younger teachers, having been trained in more technologically integrated environments, are more comfortable incorporating digital tools into their practice.

However, this finding also reveals an important structural issue: the uneven distribution of digital competencies within the teaching workforce. While younger teachers may act as agents of innovation, older teachers may require additional support to adapt to emerging pedagogical approaches. In the United States, this gap is often addressed through ongoing professional development and institutional support for technology integration. In Finland, digital tools are integrated more organically within a broader pedagogical framework.

In Greece, however, the findings suggest that digital innovation is occurring in a fragmented and informal manner, driven primarily by individual initiative rather than systemic policy. This has important implications for equity, as students' access to digitally supported SEL may depend on the characteristics of individual teachers rather than consistent institutional provision.

5.6 Synthesis of Findings

The findings of this study suggest that SEL implementation operates within a multi-layered system in which teacher capacity, institutional structures, and policy alignment interact dynamically. While teacher training emerges as the strongest predictor of student engagement, its effectiveness is constrained by broader systemic factors, including curriculum rigidity and time limitations. Conversely, resource availability plays a secondary role, functioning as an enabling rather than determining factor. This integrated perspective aligns with international literature and highlights the need for a systemic rather than tool-based approach to SEL implementation

5.7 Integrated interpretation of findings

This study contributes to the existing literature in several important ways. First, it provides empirical evidence from the Greek context, which remains underrepresented in SEL research. Second, it challenges assumptions regarding the role of resources, demonstrating that material investment alone is insufficient to drive engagement. Third, it highlights the critical role of teacher training as a central mechanism of effectiveness. Most importantly, the study advances a more nuanced understanding of SEL as a system-dependent intervention, whose success depends on the alignment of policy, practice, and professional capacity.

Chapter 6: Conclusions

6.1 Introduction

This chapter provides a comprehensive synthesis of the study's findings and situates them within the broader scholarly discourse on Social and Emotional Learning (SEL). It moves beyond simple summary to offer a critical interpretation of the results in light of the research aim, which was to examine the effectiveness of SEL in improving student outcomes and to identify the factors influencing its successful implementation. By integrating empirical findings derived from the questionnaire with the international literature reviewed in previous chapters, this chapter seeks to consolidate the study's contribution to both theory and practice.

Importantly, this chapter adopts a reflective and evaluative tone, recognising that the conclusions drawn are not merely descriptive but also interpretive. The discussion acknowledges the complexity of SEL as a field that operates at the intersection of pedagogy, psychology, and policy, and therefore requires multi-layered analysis. The chapter concludes by offering carefully reasoned recommendations and identifying avenues for future research, while maintaining awareness of the study's limitations.

6.2 Synthesis of Findings

The findings of this study provide a nuanced understanding of SEL, revealing that its effectiveness is neither automatic nor universal but contingent upon a range of interacting factors. While the literature often presents SEL as a broadly beneficial intervention, the present research demonstrates that its impact is highly dependent on implementation conditions, particularly within specific educational contexts such as Greece.

A central insight emerging from the study is that educators overwhelmingly recognise the value and importance of SEL. This aligns with international evidence suggesting that teachers generally perceive SEL as beneficial for students' academic, social, and emotional development. However, the study also reveals a critical tension between recognition and practice. Although teachers express strong support for SEL in principle, this support does not consistently translate into systematic classroom implementation. This discrepancy highlights a fundamental issue within the field: the gap between conceptual endorsement and practical execution.

This gap is not merely a surface-level inconsistency but reflects deeper structural and institutional dynamics. The findings suggest that teachers are not resistant to SEL; rather, they are constrained by conditions that limit their ability to implement it effectively. These conditions include insufficient training, lack of time, rigid curriculum structures, and limited institutional support. As such, the study reframes the issue of SEL implementation as a systemic challenge rather than an individual one, thereby shifting the analytical focus from teacher attitudes to organisational and policy-level factors.

6.3 The Conditional Nature of SEL Effectiveness

One of the most significant conclusions of this study is that SEL effectiveness must be understood as conditional rather than inherent. While meta-analyses such as those conducted by Durlak et al. (2011) and Taylor et al. (2017) have demonstrated positive outcomes associated with SEL programmes, these findings often obscure the variability that exists across contexts. The present study contributes to this debate by demonstrating that, in the Greek context, the effectiveness of SEL is limited by implementation deficits rather than conceptual weaknesses. This distinction is crucial. It suggests that the question is not whether SEL works, but under what conditions it works. In other words, SEL should not be treated as a universally effective intervention that can simply be transferred across educational systems. Instead, its success depends on alignment between programme design, teacher capacity, institutional support, and cultural context. Without such alignment, even well-designed SEL initiatives may fail to achieve their intended outcomes.

The findings therefore support a more critical and context-sensitive approach to SEL, one that recognises the importance of local conditions and avoids overly generalised conclusions. This perspective is consistent with emerging critiques in the literature, which argue that SEL frameworks must be adapted rather than adopted wholesale, particularly when applied across different cultural and educational settings.

6.4 Teacher Training as the Central Determinant

The analysis identifies teacher training as the most significant factor influencing SEL implementation and effectiveness. The regression results clearly indicate that teacher training is a statistically significant predictor of student engagement, whereas resource availability alone does not have a meaningful impact. This finding challenges common assumptions within educational policy that emphasise material investment as the primary driver of improvement.

Instead, the study underscores the centrality of teacher agency and professional competence. SEL is inherently relational and process-oriented, relying on teachers' ability to model emotional regulation, facilitate social interaction, and create supportive classroom environments. These competencies cannot be reduced to the presence of resources or curricula; they require deep pedagogical understanding and sustained professional development.

The Greek data reveal a substantial deficit in this area, with the majority of educators reporting no formal training in SEL. This lack of preparation not only limits their ability to implement SEL effectively but also contributes to uncertainty and inconsistency in practice. Teachers may recognise the importance of SEL, but without adequate training, they lack the tools to translate this recognition into meaningful action.

This finding aligns with international research emphasising the importance of implementation fidelity and teacher preparedness. It also highlights a critical policy implication: investment in SEL must prioritise human capital development rather than focusing solely on programme acquisition or resource provision.

6.5 The Attitude–Implementation Gap

A key contribution of the study is the empirical identification of a significant gap between teachers' positive attitudes towards SEL and their actual implementation practices. This gap is statistically confirmed through the paired samples analysis, which demonstrates a clear divergence between perception and application. This phenomenon is particularly important because it challenges simplistic narratives that attribute implementation challenges to resistance or lack of awareness. On the contrary, the findings show that teachers are highly receptive to SEL in principle. The issue lies not in motivation but in feasibility. Teachers operate within institutional frameworks that constrain their ability to act on their beliefs, creating a disconnect between intention and practice.

This gap can be understood as a manifestation of what might be termed “structural misalignment,” where educational priorities, policies, and practices are not fully coherent. While SEL is increasingly recognised as important, it is not yet fully integrated into the structures that govern teaching and learning. As a result, it remains peripheral rather than central to educational practice. The study therefore contributes to a more sophisticated understanding of implementation challenges, emphasising the need to address systemic barriers rather than focusing solely on individual behaviour.

6.6 Structural Constraints and Systemic Limitations

The findings highlight the extent to which structural constraints within the Greek educational system limit the implementation of SEL. Teachers consistently identified limited instructional time and rigid curriculum requirements as major obstacles. These constraints reflect broader systemic priorities that emphasise academic content and assessment over holistic development. This situation contrasts sharply with the approaches observed in countries such as Finland and the United States. In Finland, SEL is embedded within a holistic educational philosophy that prioritises student well-being and integrates social and emotional competencies into everyday teaching. In the United States, structured SEL programmes are supported by institutional frameworks and professional development systems that facilitate implementation.

In Greece, however, SEL appears to exist in a fragmented and informal manner, lacking both systemic integration and consistent support. This results in a form of implementation that is dependent on individual teacher initiative rather than institutional design. While such initiative is valuable, it is insufficient to ensure widespread and sustainable impact. The study therefore highlights the importance of systemic alignment, suggesting that effective SEL implementation requires changes at multiple levels, including curriculum design, policy frameworks, and organisational structures.

6.7 Digitalisation and Generational Shifts in Pedagogy

The analysis of digital tool usage reveals important generational differences among educators. Teachers with fewer years of experience are significantly more likely to use digital and multimedia tools to support SEL. This finding suggests the emergence of a new pedagogical orientation that is more aligned with contemporary educational technologies and student needs.

This generational shift has important implications for the future of SEL. Digital tools have the potential to enhance engagement, personalise learning, and facilitate the integration of SEL into everyday classroom activities. However, their effectiveness depends on both access and competence. While younger teachers may be more comfortable with these tools, more experienced educators may require additional support to integrate them into their practice. The findings therefore point to the need for targeted professional development that addresses not only SEL content but also digital pedagogy. Without such support, the potential benefits of digital SEL tools may remain unevenly distributed.

6.8 Strong Demand for Institutional Reform

One of the most striking findings of the study is the overwhelming support among educators for the formal integration of SEL into the curriculum. This consensus reflects a high level of professional awareness and a clear recognition of the limitations of the current system.

Teachers are not merely passive recipients of policy; they are actively calling for change. Their support for increased training, investment, and curriculum integration indicates a readiness for reform that should not be overlooked. This finding challenges any assumption that resistance to SEL is a major barrier. Instead, it suggests that the primary obstacles are structural rather than attitudinal. This strong demand for institutionalisation provides a compelling rationale for policy intervention. It indicates that efforts to expand SEL are likely to be supported by practitioners, provided that they are accompanied by appropriate resources and support mechanisms.

6.9 Implications for Policy and Practice

The study's findings have significant implications for educational policy and practice. They suggest that effective SEL implementation requires a shift from fragmented and informal approaches to more coherent and systemic strategies. This involves recognising SEL as a core component of education rather than an optional addition. For policymakers, this means developing frameworks that integrate SEL into curriculum design, teacher training, and assessment systems. For schools, it requires creating environments that support SEL through leadership, collaboration, and organisational culture. For educators, it involves engaging with SEL not only as a set of activities but as a pedagogical orientation that informs all aspects of teaching. Importantly, these changes must be coordinated and sustained. Isolated initiatives are unlikely to produce lasting impact unless they are embedded within broader systemic reforms.

6.10 Limitations of the Study

While the study provides valuable insights, it is important to acknowledge its limitations. The use of questionnaire data, while efficient and structured, limits the depth of analysis compared to more interactive qualitative methods. The reliance on self-reported data also introduces the possibility of bias, particularly in relation to socially desirable responses.

Additionally, the sample is context-specific and not statistically representative, which limits the generalisability of the findings. The cross-sectional nature of the study

further restricts the ability to draw conclusions about long-term effects. These limitations do not invalidate the findings but highlight the need for cautious interpretation and further research.

6.11 Future Research Directions

Future research should build on the findings of this study by adopting more comprehensive and longitudinal approaches. There is a need for studies that examine the long-term impact of SEL, as well as research that incorporates multiple perspectives, including those of students and school leaders. Comparative studies across a wider range of contexts would also enhance understanding of how SEL operates in different cultural and institutional environments. In addition, further investigation into the role of digital technologies in SEL could provide valuable insights into emerging pedagogical practices.

6.12 Final Conclusion

In conclusion, this study demonstrates that Social and Emotional Learning holds considerable promise as a framework for enhancing educational outcomes, but its effectiveness is fundamentally dependent on the conditions under which it is implemented. The Greek context illustrates that positive attitudes alone are insufficient to ensure meaningful integration. Without adequate training, institutional support, and structural alignment, SEL remains underdeveloped and inconsistently applied. At the same time, the study reveals a strong foundation for future development. Educators are not only aware of the importance of SEL but are actively advocating for its expansion. This creates a favourable environment for reform, provided that policy and practice are aligned.

Ultimately, the study reinforces the idea that SEL should be understood not as a discrete programme but as a systemic transformation. Its success depends on the alignment of theory, practice, and context, as well as the recognition that meaningful educational change requires both structural support and professional empowerment.

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Appendix A: SEL Tools Assessment Questionnaire

“Social and Emotional Learning Tools for Primary Level Education Systems - A Comparative Study”

Dear colleagues,

I invite you to participate in the research being conducted as part of my thesis at the Hellenic Academy of Sciences, which examines the use and effectiveness of Social and Emotional Learning (SEL) tools in Primary Education.

The purpose of the research is to record the views and practices of educators regarding the cultivation of skills such as self-awareness, self-management and social skills in students, which are crucial elements for their academic success and mental health.

It is noted that the completion of the questionnaire is anonymous, no personal identification information of the respondents is recorded, their personal data will not be collected and the answers will be used exclusively for the needs of this research, as required by the research ethics code. There are no wrong answers, so I ask you to answer honestly.

The average duration of completing the questionnaire is estimated at 10 minutes.

By completing the questionnaire, you consent to the collection and processing of your answers for research purposes.

Thank you in advance for your valuable contribution and support of my effort.

Best regards,

Anastasia Gkika

1. Email ***Answer Scale**

Please indicate the degree of your response to each question.

Strongly Agree

Agree

Neither Agree nor Disagree

Disagree

Strongly Disagree

Section A: Demographics

2. Country:

Greece

3. Years of teaching experience: *

Mark only one oval.

1 to 5

5 to 10

10 to 15

15 to 20

20 and over

4. Class you teach: *

Mark only one oval.

1st Grade

2nd Grade

3rd Grade

4th Grade

5th Grade

6th Grade

5. Type of school you teach: *

Check all that apply.

Public

Private

6. Have you received formal training in Social and Emotional Learning (SEL);

Check all that apply.

Yes

No

Section B: Knowledge and Understanding of SEL

7. I am familiar with the concept of Social and Emotional Learning (SEL). **Mark only one oval.*

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

8. I understand the core skills of SEL (self-awareness, self-regulation, social awareness, relationship skills, responsible decision-making). **Mark only one oval.*

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

9. SEL contributes to both academic success and student well-being. **Mark only one oval.*

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

10. I can explain SEL concepts to elementary school students. **Mark only one oval.*

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Section C: Implementing SEL in the Classroom

11. I incorporate activities that help students identify and understand their emotions. **Mark only one oval.*

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

12. I use strategies that help students manage their emotions or set goals.**Mark only one oval.*

Strongly agree

Agree
Neither agree nor disagree
Disagree
Strongly disagree

13. I encourage students to show empathy and respect for others. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

14. I use activities that enhance collaboration and conflict resolution. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

Section D: SEL Tools and Resources

15. My school provides organized programs or materials for SEL. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

16. SEL activities are integrated into daily instruction. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

17. Digital or multimedia tools are used to support SEL.*

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

18. The available SEL resources are appropriate for the age and cultural context of the students. **Mark only one oval.*

- Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

Section E: Impact of SEL on Students

19. SEL activities help students better manage their emotions. **Mark only one oval.*

- Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

20. Students show improved social interactions. **Mark only one oval.*

- Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

21. SEL contributes to improving classroom behavior. **Mark only one oval.*

- Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

22. The classroom culture has improved through the implementation of SEL. **Mark only one oval.*

- Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

Section F: Teacher Support and Training

23. I have received adequate training for the effective implementation of SEL. **Mark only one oval.*

- Strongly agree

Agree
Neither agree nor disagree
Disagree
Strongly disagree

24. There are professional development opportunities available regarding SEL. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

25. The school administration actively supports the implementation of SEL. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

26. Collaboration with colleagues improves SEL practices. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

Section G: Challenges and Barriers

27. Limited instructional time makes SEL implementation difficult. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

28. Curriculum requirements reduce time for SEL. *

Mark only one oval.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

29. Lack of training is a barrier to SEL implementation. **Mark only one oval.*

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

30. Lack of resources limits the implementation of SEL. **Mark only one oval.*

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Section H: Education System and Policy

31. SEL is emphasized in the national education system. **Mark only one oval.*

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

32. Policies exist that support the implementation of SEL. **Mark only one oval.*

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

33. SEL aligns with broader educational goals. **Mark only one oval.*

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

34. Student well-being is a priority of educational policy. **Mark only one oval.*

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Section I: Future Perspectives

35. SEL should be formally integrated into the primary education curriculum. *

Mark only one oval.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

36. More training would improve the implementation of SEL. *

Mark only one oval.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

37. Investment in SEL tools and resources should be increased. *

Mark only one oval.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

38. SEL contributes to the long-term success of students. *

Mark only one oval.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

End of questionnaire.

Thank you for your participation!

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