The Impact of Social-Emotional Learning Interventions in Teacher Education

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Abstract: Social-emotional learning (SEL) plays a vital role in the realm of daily teaching and learning. As a significant pedagogical approach, it profoundly influences the teaching methods and philosophies employed by educators. This article delves into a comprehensive examination of the various forms of SEL intervention in teacher education and their resulting outcomes. Drawing upon a meticulous review of 16 previous scholarly articles, this research identifies two primary types of SEL interventions: lecture-based learning and participatory learning. The study demonstrates that SEL interventions effectively enhance teachers' Social and Emotional Competence (SEC) development, foster robust teacher-student relationships, promote teachers' professional growth, and contribute to overall teacher well-being. Nonetheless, it is noteworthy that the article highlights the potential influence of teachers' and pre-service teachers' ethnicity or racial backgrounds, as well as the prevailing school climate, on the effectiveness of SEL interventions, thus potentially hindering these interventions from achieving optimal results. This article presents an insightful and comprehensive overview of the association between SEL interventions and teacher education. The findings underscore the importance of encouraging educators to actively engage in SEL intervention programs while emphasizing the need for interventions to be tailored to accommodate the unique personal teaching experiences and individual backgrounds of teachers.

Keywords: social-emotional learning, social and emotional competence, teacher education, social-emotional learning intervention

1. Introduction

According to the Collaborative for Academic, Social, and Emotional Learning (CASEL), social-emotional learning (SEL) encompasses five interrelated areas: self-management, social awareness, relationship skills, and responsible decision-making. These five core competencies form the basis of the CASEL framework, often referred to as the "CASEL wheel." At its core lie the essential social and emotional competencies, surrounded by four critical contexts for students: school, family, and community. These settings work in concert to support and facilitate SEL practices. Notably, the school environment, particularly the relationships between teachers and students, plays a pivotal role in SEL implementation. Research from the Social and Emotional Learning in Schools Nationally and the Collaborating Districts Initiative by CASEL reveals the widespread adoption of SEL interventions,

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with 90% of principals and 75% of teachers reporting regular utilization of SEL programs or approaches. SEL is emerging as a vital teaching methodology, profoundly impacting teachers' instructional processes and educational philosophies.

As awareness of the importance of SEL in the classroom grows among educators and schools, many colleges and universities are integrating SEL courses into their pre-teacher programs. For instance, the University of Minnesota mandates that education majors complete an SEL course as part of their teacher licensure process. Additionally, various training programs are available for both inservice teachers and K-12 educators to enhance their SEL skills and purposefully integrate SEL into their teaching practices and curricula. Numerous SEL intervention programs and organizations, such as PATHs, Positive Action, and RULER, offer teachers a wealth of SEL curriculum resources to support the development of children's social and emotional skills. Many universities also offer SEL certificate programs for educators, such as the University of Pennsylvania and Northwestern University, enabling them to bolster their teaching capacity through SEL integration. Consequently, there is a growing recognition of the significance of SEL training in teacher education within the realm of practice and intervention.

While previous research has predominantly focused on the impact of SEL at the child level, examining its influence on students' academic, social, personal, and professional success,[1] more recent studies are beginning to acknowledge the importance of teacher education interventions. Some research has explored the effects of SEL interventions on teachers' burnout symptoms and the outcomes of SEL interventions designed for teachers. However, there is ongoing debate about the effectiveness of current interventions in the field of teacher education. For example, research by Thierry et al. suggests that "SEL programs may have varying impacts within classrooms of diverse ethnic and racial backgrounds; Latinx/Hispanic teachers were less likely than White, non-Hispanic teachers to adhere to the SEL curriculum schedule." [2]As a result, the academic landscape lacks a comprehensive review that systematically investigates the forms and effects of these interventions.

This article seeks to address these gaps by conducting a literature review on the characteristics and impact of the relationship between SEL and teacher education. By compiling existing research on the interplay between SEL and teacher education, this article aims to explore practices that promote the development of teachers' SEL competencies and offer support for teachers utilizing SEL methods in their pedagogy. The research methodology employed keywords such as SEL, SEC, SEL programs, teacher education, and the relationship between SEL and teacher education to identify and analyze 17 research articles, seeking to answer questions regarding the forms and effects of SEL interventions within the realm of teacher education.

2. Varieties of SEL Interventions in Teacher Education

In order to investigate the diverse forms of Social and Emotional Learning (SEL) interventions in teacher education, this article conducted a thorough analysis of 16 research articles. The exploration unveiled two distinct categories of SEL interventions: lecture-based learning (n = 10) and participatory learning (n = 6) (refer to Table 1).

Among these categories, lecture-based learning emerged as the dominant mode, encompassing 10 of the articles. Lecture-based learning is described as a conventional classroom teaching approach where instructors deliver verbal lectures, often supported by visual aids through projectors. [3] This mode enables teachers to swiftly and comprehensively grasp SEL knowledge, including different SEL terminology and practical examples of SEL application in the classroom. Within this article, lecture-based learning is further subcategorized into two sections: a hybrid of online and in-person learning and in-person lecture-based learning. Approximately two studies are associated with the hybrid approach. For example, Moazami-Goodarzi et al. stipulated that participating teachers were

required to engage with online videos via the Roundies online portal in addition to attending regular face-to-face meetings for program implementation. [4]

The more frequently encountered variation of lecture-based learning is the in-person format, featured in 8 of the research articles. In this context, in-person lecture-based learning entails teachers physically attending SEL training programs or lessons. For instance, in the study by Sandilos, participating teachers received SEL-focused professional development (PD) by attending various SEL program training sessions, including PATHS, Tools of the Mind, and Incredible Years. [5] Furthermore, in the research conducted by de Carvalho et al., participants were randomly assigned to distinct training groups, with all sessions taking place within school training centers. [6]

On the other hand, participatory learning is marked by active engagement, with individuals drawing upon their personal experiences and skills to address issues, using real-life examples and situations. [7] This research categorizes the six participatory learning studies into three distinct groups: educational seminars, workshops, and practical activities.

Among these, two articles revolve around educational seminars, where teachers attend classes or meetings to discuss the implementation of SEL interventions and how to integrate SEL into their professional development. For instance, in the research conducted by Thierry, [8] consultants led two full-day professional development seminars to introduce teachers to the SEL curriculum.

In contrast to educational seminars, workshops feature a more structured and academically oriented format. Workshops enable teachers to convene to discuss specific topics and provide training opportunities by inviting expert presenters. Attendees have the chance to acquire new skills and apply them in their teaching. For example, in the study conducted by Morris, their SEL intervention consists of four components, with the first component focusing on teacher training. Lead and assistant teachers were invited to attend five 6-hour Saturday training sessions in a workshop format, adapted from the Incredible Years curriculum. [9]

The final facet of participatory learning comprises practical activities, discussed in three articles. Practical activities involve tangible tasks or methodologies that teachers can directly implement in their classrooms. These studies primarily focus on offering guidance and instructions to empower teachers to integrate SEL into their teaching practices. For instance, in the research conducted by Hunter et al., teachers participate in the Social Skills Improvement System SEL Edition Classwide Intervention Program, receiving SEL intervention while simultaneously incorporating SEL scripted lesson plans into their instructional practice. [10]

Form of intervention	Specific type	Number of literatures
Lecture-based learning(10)	In-person lecture-based learning and a hybrid of online	2
	In-person learning.	8
Participatory learning (6)	Educational seminars	2
	Workshops	1
	Practical activities	3

Table 1: Forms of SEL Intervention in Teacher Education.

Following a comprehensive examination of 16 academic papers focusing on Social and Emotional Learning (SEL) interventions within teacher education, the analysis revealed a nuanced impact consisting of both positive outcomes (n=12) and negative effects (n=4).

Within the spectrum of these impacts, four articles delve into the adverse effects of SEL interventions in teacher education, which can be categorized into two distinct types. The first type pertains to how the impact of SEL interventions in teacher education may be intertwined with external factors, such as school support and climate. For instance, as highlighted in Domitrovich's research, teachers from schools with a more positive SEL culture rated the quality of their SEL program

PATHS delivery more positively compared to teachers from schools lacking a robust SEL culture. Furthermore, they reported a higher frequency of supplemental material use. [11]

Another subsection underscores the influence of teachers' or pre-service teachers' ethnicity/racial backgrounds and their personal attitudes toward SEL intervention. As exemplified by a study conducted by Thierry, factors such as years of teaching experience and teacher ethnicity/race significantly affected adherence to the SEL curriculum schedule. Specifically, educators with more teaching experience demonstrated a stronger commitment to dosage adherence. Moreover, Latinx/Hispanic teachers exhibited a lower likelihood of adhering to the SEL curriculum schedule compared to their White, non-Hispanic counterparts. [12]

The predominant focus of the research centers on the positive outcomes of SEL interventions in teacher education, as evidenced by 12 articles. These positive impacts can be categorized into four distinct subsections, and certain articles might be associated with various positive outcomes (refer to Table 2).

Impact of intervention	Specific type	Number of literatures
	Enhancing teachers' Social and Emotional Competence (SEC) development	5
Positive outcomes (12)	Fostering strong teacher-student relationships	4
	Promoting teachers' professional development	7
	Promoting the well-being of teachers	1

Table 2: Positive Outcomes of SEL Intervention in Teacher Education.

Among the articles detailing the positive outcomes, a significant majority emphasized the potential of SEL interventions to enhance teachers' Social and Emotional Competence (SEC) development, with five articles addressing this aspect. SEC pertains to teachers' Social and Emotional Competence, enabling them to comprehend and manage the emotional dimensions of their lives in ways that facilitate the effective handling of various tasks, particularly in the realms of relationship formation and adaptation to the multifaceted demands of professional growth, with a specific focus on selfregulation and interpersonal connections. The emotional facet, in this context, relates primarily to self-awareness, focusing on emotions and feelings. [13] For instance, Oliveira et al. found that a notable outcome of Social-Emotional Learning (SEL) interventions for teachers is the enhancement of their self-confidence in managing the demands of their profession, which can be attributed to internal SEC development (self-management). [14] Consequently, SEL interventions, and the ensuing development of SEC, serve as a protective factor through which teachers can reduce their susceptibility to emotional exhaustion. Another instance illustrating how SEL interventions enhance teachers' SEC development is found in Domitrovich et al.'s research. Their study indicates that teachers who underwent SEL interventions reported higher levels of social-emotional competence, displaying increased skill in various social-emotional interactions, with a particular emphasis on selfmanagement. [15]

The second noteworthy outcome of SEL interventions in teacher education concerns the cultivation of robust teacher-student relationships, encompassing four articles. As evidenced by Sandilos et al.'s research, the implementation of the Social Skills Improvement System SEL Edition Classwide Intervention Program (SSIS SEL CIP) can significantly contribute to positive teacher-student interactions. [16] Additionally, SEL-focused professional development (PD) training works to mitigate the adverse effects of burnout on teacher-child interactions. [17]

The third salient outcome of SEL intervention in teacher education pertains to the promotion of teachers' professional development, which can be further divided into three distinct facets: enhancing teaching abilities (n=4), shaping teachers' beliefs (n=2), and improving teachers' understanding of Social and Emotional Learning (SEL) (n=1).

First, SEL interventions play a significant role in improving teaching abilities, a topic addressed in four articles. Moazami-Goodarzi et al.'s research provides compelling evidence of the effectiveness of the SEL program, Roundies, in enhancing teachers' capacity to promote early SEL. The SEL professional development (PD) equips teachers with the skills to perceive the diversity in children's social-emotional competence from a socio-cultural perspective, taking into account the unique needs of each child. [18] Furthermore, another SEL intervention, Foundations of Learning (FOL), demonstrates that it enhances teachers' ability to manage children's behavioral issues, leading to an increase in instructional time. [19]

Additionally, SEL interventions exert a notable influence on teachers' beliefs, a subject supported by two articles. Teachers' beliefs encompass their perspectives on learners, the learning process, and themselves. [20] Domitrovich et al.'s study delves into SEL interventions in teacher education, revealing that SEL interventions can positively shape teachers' beliefs and perceptions, particularly when these programs incorporate a social-emotional component. [21] In another study, conducted by de Carvalho, it is demonstrated that teachers, through SEL interventions, become more adept at recognizing perceptual events that might otherwise go unnoticed by others. [22]

Another significant outcome of SEL intervention in teacher education is the enhancement of teachers' knowledge of Social and Emotional Learning (SEL), with one article focusing on this aspect. The study by Talvio et al. underscores significant progress achieved through the Teacher Effectiveness Training (TET), highlighting its effectiveness in enriching teachers' understanding of SEL. The research findings indicate that TET serves as an effective means for teachers to enhance their SEL knowledge. [23]

The final favorable outcome of SEL intervention in teacher education concerns the promotion of teachers' well-being, as supported by one article. In terms of enhancing teachers' well-being, the study by Talvio et al. also reveals minor positive changes in the overall well-being of participating teachers, as measured after the intervention. [24]

3. Conclusion

This article comprehensively reviews 16 studies investigating the forms and impacts of Social and Emotional Learning (SEL) interventions in teacher education. It discerns two primary methodologies: lecture-based and participatory learning. While lecture-based interventions involve experts instructing teachers in SEL knowledge, participatory learning emphasizes experiential training, enabling teachers to develop or enhance their SEL skills. The research substantiates the advantages of SEL interventions in teacher education, spotlighting improvements in teachers' Social and Emotional Competence (SEC), the cultivation of more robust teacher-student relationships, enhanced professional growth, and improved well-being. Nevertheless, the effectiveness of SEL interventions may be influenced by factors like teachers' ethnicity/racial backgrounds and the school environment, yielding variable outcomes.

Examining the forms and impacts of SEL interventions in teacher education grants people a deeper understanding of the significance of SEL interventions for educators. While the current landscape predominantly favors lecture-based learning interventions, there is a compelling case for expanding the scope to include more participatory learning approaches, where teachers can actively engage in the acquisition of SEL knowledge and skills. Furthermore, given the multifaceted benefits of SEL interventions for teachers, schools should actively encourage and provide opportunities for educators to partake in SEL interventions. However, as this article underscores, it is crucial that interventions

be attuned to the teachers' unique experiences and backgrounds to prevent suboptimal results. In essence, this article furnishes a more intuitive and comprehensive overview of the relationship between SEL interventions and teacher education, addressing critical gaps in the understanding of this connection.

Nonetheless, this research is not without its limitations. Previous SEL studies have predominantly focused on the relationship between SEL and students' success or the integration of SEL in teaching rather than SEL intervention in teacher education. Consequently, the article draws upon only 17 prior research studies, which may impact the depth of the review. Therefore, moving forward, further exploration of SEL interventions in teacher education is imperative. Future research should place greater emphasis on the various variables that can influence the impact of these interventions, thus contributing to a more nuanced understanding of their effects.

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