Integrating Socio-Emotional and Behavioral Competencies in Education in the Digital Era: A Systematic Literature Review Introducing the EBSCOM Model

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ABSTRACT

This study explores the integration of socio-emotional and behavioural competencies in education during the digital era, where technology-based learning and everyday environments present both opportunities and challenges for student wellbeing. A systematic literature review was conducted following PRISMA 2020 guidelines, synthesizing evidence from 19 peer-reviewed studies identified through searches between 2020 and 2025, with included studies published between 2023 and 2025. The study examines how socio-emotional and behavioural competencies can be embedded through the EBSCOM model within the education system, across four domains: emotional, behavioural, social, and contextual. Findings indicate that digital mental health programs and sleep-focused interventions improve emotional outcomes, while self-regulated learning strategies enhance academic performance when supported by effective course design. Social support reduces psychological stress, although cyberbullying remains a significant risk. Institutional factors such as platform reliability, policy alignment, and AI literacy strongly influence engagement and resilience. The EBSCOM model provides a structured framework to align curriculum, educator development, and institutional support in fostering holistic wellbeing. Implications include the need for proactive policies, integration of self-regulated learning and AI literacy into curricula, and targeted psychological support. Future research should focus on implementation strategies, equity of access, and the role of AI literacy in maintaining academic integrity.

Keywords— Socio-emotional, behavior, education, digital, literature, EBSCOM

INTRODUCTION

The integration of digital technology into daily life has significantly transformed everyday environments and learning scenarios, influencing not only how students access content but also how they interact socially and emotionally in both academic and personal contexts. The shift toward digital learning platforms, mobile devices, and online communication has introduced new dimensions to the student experience, some of which carry serious implications for mental health, emotional stability, and physical psychomotor well-being.

Global studies report an increasing prevalence of psychological stress among students, often linked to excessive screen time, cyberbullying, and the pressure to maintain an online social presence (Nagata et al., 2024; Feng et al., 2024). In the Malaysian context, Ng Hui Yu et al. (2023) found that primary school pupils who frequently use mobile devices exhibit lower emotional regulation and reduced emotional intelligence, indicating a concerning relationship between digital engagement and psychosocial development.

These challenges have prompted educators and policymakers to explore more holistic approaches to student development.

One approach gaining attention is the adoption of socio-emotional learning (SEL), which emphasizes fostering self-awareness, empathy, responsible decision-making, and interpersonal skills. SEL has been recognized for its potential to enhance students' ability to manage stress, build meaningful relationships, and navigate complex emotional situations (Tan & Chua, 2024).

Despite its growing importance, the implementation of SEL in educational institutions, including schools, remains inconsistent. Research by Nor Yuzie Yusuf et al. (2014) highlights that many SEL initiatives are informal and lack a structured framework, often relying on individual educators' discretion without institutional support or policy alignment. This fragmented approach limits the effectiveness of SEL in addressing the broader challenges posed by digitalization.

To address this gap, the present study conducts a Systematic Literature Review (SLR) to critically examine existing research on the intersection of digital technology and student well-being. The researchers introduce the EBSCOM Model (Education, Behaviour, Social, Competency Model) as a conceptual framework specifically designed to integrate socio-emotional competencies into educational practice. This model aims to provide a structured and evidence-based approach to strengthening resilience and emotional well-being among students in today's digitally driven world.

BACKGROUND OF THE STUDY

Student well-being has emerged as a central concern in contemporary education, particularly in the context of rapid digitalization. The current generation of learners is exposed to a range of psychological and behavioral pressures that differ significantly from those faced by previous cohorts. Among these are excessive dependence on digital devices, exposure to cyberbullying, the influence of social media comparisons, and frequent disruptions to concentration during learning activities.

In Malaysia, research by Ng Hui Yu et al. (2023) has highlighted a worrying trend in internet addiction among primary school students. The study found that high levels of digital engagement were associated with diminished emotional intelligence and behavioral challenges, underscoring the urgent need for interventions that address the emotional dimensions of student development.

Traditional educational models that prioritize academic achievement alone are increasingly viewed as inadequate in addressing the holistic needs of learners. There is growing recognition that education must also nurture emotional and social competencies to help students manage stress, cultivate healthy relationships, and make responsible decisions. Evidence from Nor Yuzie Yusuf et al. (2014) supports this perspective, demonstrating a significant correlation between emotional and cognitive engagement in the classroom and academic performance.

To respond to these evolving demands, the EBSCOM Model has been conceptualized as a comprehensive framework for integrating socio-emotional competencies into educational practice. Drawing upon foundational theories such as Emotional Intelligence Theory (Goleman, 1995), Social Learning Theory (Bandura, 1977), and Ecological Development Theory (Bronfenbrenner, 1979), the model emphasizes the development of emotional, behavioral, and social competencies. These elements are designed to work in synergy within the educational system to foster student resilience and support overall well-being.

Although the systematic review conducted in this study focuses on institution of education contexts, the insights gained are highly relevant to school settings as well. The EBSCOM model is designed to be adaptable across educational levels, including primary and secondary schools, where the integration of socio emotional learning and AI literacy is increasingly important. Given the growing concerns about student wellbeing in schools and the need for structured support systems, this model offers a practical framework for embedding emotional, behavioral, and social competencies into school curricula and teacher development programs (Goleman, 1995; Bandura, 1977; Bronfenbrenner, 1979).

Objectives of the Systematic Literature Review (SLR)

The rapid digitalization of education has transformed how students learn, interact, and manage their wellbeing. While technology offers flexibility and access, it also introduces challenges such as emotional fatigue, reduced social connection, and risks of online harm. These realities have prompted educators and researchers to explore frameworks that can support students holistically. This review responds to that need by systematically examining recent evidence and proposing a structured model for action. The objectives are:

1. To examine the impact of digitalization on student wellbeing.

2. To evaluate the effectiveness of socio emotional learning interventions and related strategies in digital contexts.

3. To identify gaps in current practices and propose a conceptual model (EBSCOM) for integrating emotional, behavioural, social, and contextual competencies.

Problem Statement

Although digital technology has undeniably improved access to knowledge and diversified life experiences, it also brings significant challenges to student well-being. The current generation of learners is increasingly exposed to academic pressure, digital distractions, and reduced opportunities for authentic social interaction. These factors contribute to emotional instability and behavioural issues that may hinder both personal development and academic success. Empirical evidence underscores the severity of this issue. Balt et al. (2023) reported that excessive use of social media among adolescents is strongly associated with addictive behaviours, exposure to cyberbullying, and heightened psychological distress.

Similarly, Twenge et. al (2018) found that prolonged engagement with electronic devices correlates with increased risks of depression and suicidal ideation, particularly among younger students. These findings suggest that digital immersion, when not properly managed, can have profound implications for mental health. The situation becomes more critical when students lack the socio-emotional competencies necessary to navigate these pressures. Without adequate emotional regulation, self-awareness, and interpersonal skills, students are more vulnerable to academic disengagement, behavioural problems, and long-term psychological difficulties.

Despite growing awareness of these issues, many educational systems continue to prioritize cognitive outcomes over emotional development, leaving a gap in holistic student support. To address this gap, there is an urgent need for structured educational interventions that integrate socio-emotional learning into the core curriculum. The EBSCOM Model (Education, Behaviour, Social, Competency Model) is proposed as a comprehensive framework that embeds emotional, behavioural, and social competencies within educational practice. However, its effectiveness must be rigorously evaluated through systematic analysis of existing literature to ensure its relevance and applicability in diverse educational contexts.

METHODOLOGY OF LITERATURE REVIEW

This study employs a structured Systematic Literature Review (SLR) approach to explore the relationship between digital technology and student well-being, as well as to evaluate the effectiveness of integrating socio-emotional competencies through the EBSCOM Model. The SLR method was selected to ensure a comprehensive, transparent, and replicable synthesis of existing research, aligning with best practices in evidence-based educational inquiry.

Review Protocol

This study followed a structured Systematic Literature Review approach guided by PRISMA 2020 to ensure a transparent, reproducible, and comprehensive synthesis of recent evidence on student wellbeing in the digital era and on the integration of socio emotional learning and AI literacy within the EBSCOM model (Page, 2021). Critical appraisal drew on the JBI tools to surface common risks of bias and methodological limits in the included evidence (JBI, 2024).

The review window covered January 2020 through August 2025 and focused on higher education. Databases and sources included ERIC, Frontiers journals, PLOS, and BMC or Springer Open. The search identified 356 records in total, specifically ERIC 168, Frontiers 72, PLOS 41, BMC or Springer Open 75, and manual citation chaining 0, before screening and deduplication steps were applied (refer table 1). The final synthesis included 19 studies.

TABLE I Search Log Summary

Source	Records identified
ERIC	168
Frontiers journals	72
PLOS	41
BMC/Springer Open	75
Manual citation chaining	0
Total	356

Figure 1 summarizes the review pathway from identification to inclusion. It shows the sources searched, the total number of records retrieved, the points at which duplicates, and ineligible records were removed, and the confirmation that fifteen studies were included in the final synthesis. This purpose is to make the selection process transparent and replicable. Although the synthesized studies are from 2023 to 2025, the search scope covered the years 2020 to 2025 to ensure comprehensive coverage of recent literature. Studies from 2020 to 2022 did not meet the final inclusion criteria for synthesis.

Fig. 1 PRISMA 2020 flow diagram (n included = 19)
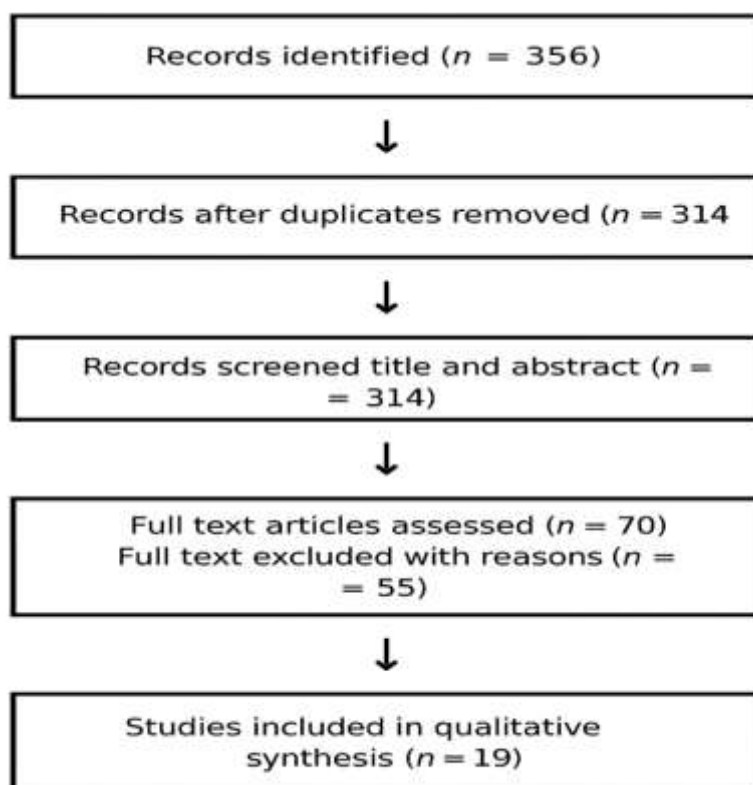
This EBSCOM conceptual map in Figure 2 visualizes the EBSCOM framework as four interacting domains inside the education system. Emotional focuses on regulation and coping. Behavioral covers self-regulation and strategic learning. Social concerns belonging, support, and safety. Context, organization, and management include platforms, policy, services, and AI literacy. Arrows indicate how curriculum design, educator development, and student services feed these domains and how all four contribute to wellbeing, engagement, achievement, and resilience. The map is intended to guide alignment across policy, programs, and classroom practice.
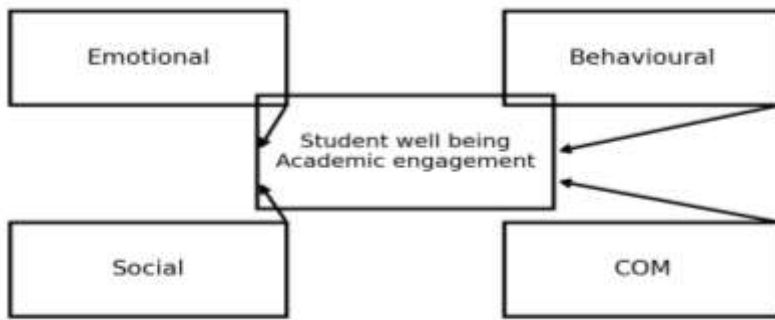
Figure 2. EBSCOM conceptual map

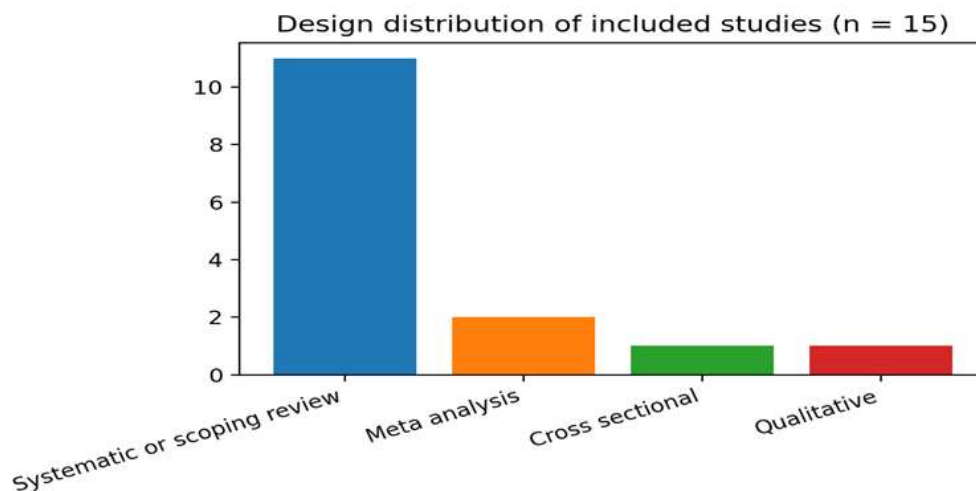Figure 3. Design distribution of included studies

Figure 3 displays the mix of methods across the fifteen included studies, such as systematic reviews, meta-analyses, cross sectional work, qualitative case studies, and trials. The meaning behind the figure is to show that the synthesis rests on diverse but complementary designs, with reviews and meta-analyses providing broad conclusions and primary studies adding context and mechanism.

Figure 4 shows that the studies included are concentrated from 2023 to 2025 with a small number from 2020 to 2022. The intention is to demonstrate recency, which matters because digital platforms and learning environments evolve quickly, and conclusions need to reflect current conditions.

Figure 4. Year of publication for included studies
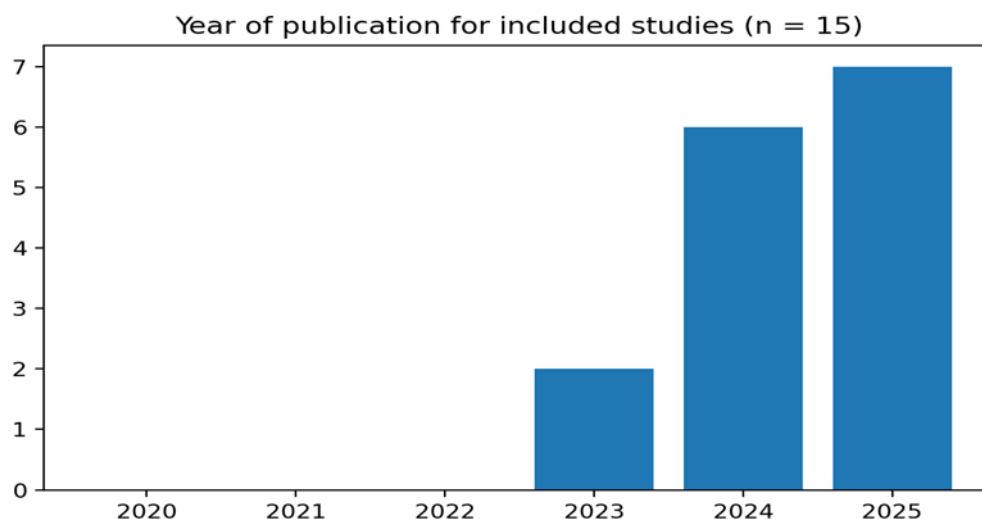
Search Strategy

Limits applied across sources were year 2020 to 2025, English language, and population in higher education, with a pre specified cap of fifteen studies to enable focused synthesis.

For inclusion criteria, studies were included if they examined student wellbeing, mental health, engagement, belonging, resilience, or learning performance in digital or online contexts within higher education. Eligible studies reported primary or secondary evidence suitable for synthesis, such as randomized controlled trials, cross sectional studies, systematic reviews, meta-analyses, or scoping reviews. In addition, studies needed to provide outcomes or insights that could be mapped to any domain of the EBSCOM model and were published in English between 2020 and 2025. Meanwhile for exclusion criteria, Studies were excluded if they focused on pre tertiary populations, did not report empirical or review based findings, lacked relevance to the EBSCOM domains or to socio emotional learning and AI literacy in education, or were opinion pieces without a defined methodology.

Specifically for screening process and PRISMA flow, all records were exported and deduplicated, then screened in two stages. Stage one screened titles and abstracts against the eligibility criteria. Stage two examined the full text of provisional inclusions to confirm relevance, quality, and extractable outcomes. Quality appraisal used the JBI checklists appropriate to each design, and disagreements were resolved by discussion. Figure 1 shows the PRISMA 2020 flow from identification through screening and eligibility to inclusion, with fifteen studies meeting criteria for synthesis.

For each included study we extracted bibliographic data, design, sample or scope, outcomes, and key findings in data extraction and synthesis phase. Findings were coded into four EBSCOM domains, namely Emotional, Behavioral, Social, and Context Organization and Management, which together are positioned within the educational ecosystem. Codes were then grouped into themes and sub themes. Where multiple reviews addressed the same topic, we preferred higher quality syntheses and reconciled any overlap by comparing inclusion sets and conclusions. The qualitative thematic synthesis was complemented by descriptive mapping of designs and publication years, as presented in Figures 3 and 4.

Limitations of the Review

The methodological designs of the 19 included studies varied considerably, offering both strengths and limitations to the synthesis. A notable proportion of studies employed cross-sectional surveys and self-report instruments to assess emotional and behavioral outcomes (e.g., Cheng, 2023; Sy, 2024). While these methods are efficient and scalable, they are susceptible to social desirability bias and may not capture the complexity of emotional regulation over time. Several studies, such as Tadros et al. (2025) and Hayes et al. (2025) used randomized controlled trials and meta-analyses, which provide stronger internal validity and allow for causal inferences. These designs are particularly valuable in evaluating the effectiveness of SEL interventions. However, even among these high-quality studies, limitations were noted in terms of implementation fidelity and reporting of contextual variables.

Moreover, implementation of fidelity was inconsistently reported. Taylor et al. (2024) noted that while digital mental health programs showed promising outcomes, many studies failed to document adherence rates, dropout patterns, or contextual barriers to uptake. This omission limits the ability to assess the true effectiveness of interventions. Similarly, Meng et al. (2024) highlighted that infrastructure and platform reliability were often underexplored, despite being critical moderators of student engagement and learning outcomes. Sample size and diversity also varied. Studies like Arif et al. (2024) and Muser et al. (2025) included large, multi-site samples, enhancing generalizability. In contrast, smaller qualitative studies such as Dulfer et al. (2025) offered rich contextual insights but limited external validity. Furthermore, few studies incorporated longitudinal follow-up, which restricts the ability to assess sustained impact of SEL programs over time.

The use of JBI critical appraisal tools helped identify common risks of bias, such as lack of blinding, incomplete outcome data, and selective reporting. Future reviews should consider stratifying findings by methodological quality and design type to better understand how evidence strength influences conclusions. A mixed-methods synthesis may also be beneficial to integrate statistical robustness with contextual depth. Such analysis would

strengthen the interpretive clarity of the EBSCOM model and guide more targeted applications in diverse educational settings.

FINDING AND THEMATIC SYNTHESIS

Results of the Review Mapped to EBSCOM Model

The review process was guided by the PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), which provides a rigorous protocol for identifying, screening, and selecting relevant studies.

Emotional Domain

There is consistent evidence that well-being improves when emotional regulation is supported by psychological programs and campus oriented digital mental health initiatives. A systematic review reports positive or partially positive effects with attention to reach and adherence (Taylor, 2024). A meta-analysis among university students shows moderate improvements in sleep quality with larger effects for cognitive behaviour therapy for insomnia than mindfulness programs (Tadros, 2025). Cross sectional evidence links higher social screen time and loneliness with insomnia symptoms (Sy, 2024). Three converging messages emerge.

First, digital mental health programs can improve anxiety, depression, and general wellbeing when implementation quality is adequate and when institutions address reach and adherence. Second, sleep is a tractable target with clear benefits for wellbeing and learning, and cognitive behavior therapy for insomnia outperforms generic mindfulness approaches among university students. Third, extended social screen time relates to insomnia and this association is stronger for students who experience loneliness. Together these results justify an institutional focus on emotional regulation, sleep health, and targeted psychological support for students who are heavy users of social platforms (Taylor, 2024; Tadros, 2025; Sy, 2024).

The emotional domain of the EBSCOM model focuses on students' ability to regulate emotions, cope with stress, and maintain psychological wellbeing. Several recent studies involving school aged children have reinforced the importance of this domain. Beaumont et al. (2023) conducted a longitudinal study with 2,365 secondary school students in the United Kingdom. The findings showed that students who practiced cognitive reappraisal, a strategy where negative thoughts are reframed into more constructive ones, experienced higher levels of school related wellbeing. In contrast, those who relied on emotional suppression did not show significant improvements. This study highlights the need for proactive emotional regulation strategies to be taught in schools as part of SEL programs.

Hayes et al. (2025) synthesized 71 studies involving over 63,000 students aged 8 to 18. Their meta-analysis confirmed that universal school-based interventions led to small but statistically significant reductions in anxiety and depression. These findings support the implementation of SEL programs at scale, showing that even modest interventions can positively impact emotional wellbeing across diverse school populations. Together, these studies affirm that emotional regulation is a foundational competency that can be cultivated through structured SEL programs. The emotional domain of EBSCOM is therefore essential for promoting resilience, mental health, and engagement in both primary and secondary education settings.

Behavioral Domain:

A meta-analytic synthesis shows a small positive association between self-regulated strategies and online performance in higher education (Cheng, 2023). Systematic reviews highlight that design quality, timely feedback, and sustained instructor presence support stronger engagement while weak infrastructure and limited interaction undermine effectiveness (Meng, 2024; Akpen, 2024). Across reviews and meta-analyses, self-regulated learning strategies show a positive, if modest, association with performance in online courses, with metacognitive planning, monitoring, and reflection standing out. Design choices that encourage timely feedback, regular instructor presence, and interactive tasks strengthen engagement behavior and academic outcomes. Institutions therefore need to teach self-regulation explicitly and align course design with these behavioral

supports (Cheng, 2023; Akpen, 2024; Meng, 2024).

Social Domain:

Social support and belonging reduce distress and support persistence in higher education (Vicary et al., 2024; Dulfer, 2025). Cyberbullying and cyberstalking elevate risks of depression, anxiety, stress, and suicidal behaviour and require proactive policies and rapid support (Arif, 2024; Bussu, 2025). Belonging and social support protect against distress and may sustain persistence, yet opportunity and access to support services are uneven. At the same time, cyberbullying and cyberstalking are consistently linked to depression, anxiety, stress, and suicidal behavior, which raises the importance of clear policy, reporting pathways, and rapid response protocols in universities. Purposeful community building in courses complements these policies by strengthening connection and inclusion (Vicary et al., 2024; Arif, 2024; Bussu, 2025; Dulfer, 2025). The social domain of EBSCOM emphasizes students' sense of belonging, peer relationships, and safety within the learning environment.

Recent evidence from school-based studies demonstrates the effectiveness of SEL programs in strengthening these social competencies. Muser et al. (2025) reviewed 35 studies involving primary and secondary school students and found that 77 percent of universal SEL programs were effective in reducing antisocial behaviours such as aggression and conduct problems. The programs produced moderate effects, indicating that structured social learning environments can significantly improve peer interactions and reduce behavioural risks. Tan and Chua (2024) examined 18 SEL programs implemented in Southeast Asian schools. Their study found that when SEL content was culturally adapted to local values and norms, students showed notable improvements in empathy and emotional awareness. This suggests that cultural sensitivity enhances the effectiveness of SEL programs, particularly in promoting inclusive and respectful peer relationships.

These findings support the social domain of EBSCOM by demonstrating that SEL interventions can foster safer, more connected school communities. When students feel supported and understood, they are more likely to engage positively with peers and participate actively in learning. The social domain is therefore critical for building emotionally safe and inclusive educational environments.

COM Domain:

The digital and institutional context shapes outcomes. Reviews show mixed academic effects but converging lessons about infrastructure, platform reliability, assessment design, and student support (Meng, 2024). Reviews of engagement identify environmental enablers and recommend explicit strategies for self-direction and motivation (Hu, 2025; Akpen, 2024). A scoping review positions digital resilience as personal, cognitive, emotional, and social skills that can be developed through curriculum and policy (Naeem and Mushibwe, 2025). Environmental conditions such as platform reliability, assessment design, and institutional learner support shape outcomes and can explain mixed effectiveness findings in literature. Reviews recommend explicit strategies for motivation and self-direction, and scoping work on digital resilience shows that these skills can be cultivated through curriculum and policy. In practice this domain also includes structured development in AI literacy, so that students can use intelligent tools responsibly, manage cognitive load, and preserve academic integrity in digitally saturated learning spaces (Meng, 2024; Hu, 2025; Naeem and Mushibwe, 2025; Rangel de Lázaro, 2023).

AI literacy plays a dual role in shaping both behavioral and emotional competencies. Intelligent tools such as adaptive learning platforms and AI-driven feedback systems influence how students regulate their learning, manage stress, and interact socially. Naeem and Mushibwe (2025) emphasized that digital resilience includes emotional and cognitive skills that can be cultivated through curriculum and policy. Therefore, AI literacy should be embedded not only as a technical skill but also as a socio-emotional enabler.

Sample of Included Studies

The list below (Table 2) corresponds to the 19 records retained at the inclusion stage and mapped to EBSCOM.

**TABLE 2** Detailed summary of the 19 included studies with EBSCOM mapping

No	Study	Scope or sample	Primary outcomes	Key findings
1	Taylor et al. (2024)	N=95 studies (2019–2024)	Anxiety, depression, well-being, adherence	Most programs effective or partially effective; adoption modest; adherence high; implementation reporting limited
2	Meng et al. (2024)	N=25 studies	Online learning effectiveness, engagement	Mixed achievement results: design, interaction, and infrastructure are key moderators
3	Akpen et al. (2024)	N=18 studies	Engagement and performance	Interactive activities and instructor presence improve engagement and performance
4	Cheng et al. (2023)	Multiple studies	Academic performance	Small positive association overall; metacognitive, behavioral, environmental strategies relate to performance
5	Vicary et al. (2024)	N=10 studies; 3,669 sample	Depression, anxiety, distress	Higher social support mitigates negative mental health outcomes; access barriers noted
6	Hu and Xiao (2025)	N=55 empirical studies (2020–2023)	Engagement factors	Motivation, digital literacy, emotion regulation, and environment shape engagement; strategies recommended
7	Tu et al. (2025)	N=32 studies	Emotional engagement in synchronous online learning	Strategies span accountability, supportive environment, and activity design
8	Arif et al. (2024)	N=32 studies; 29,593 students	Depression, anxiety, stress, suicidality	Cyberbullying consistently linked with adverse mental health; campus policies recommended
9	Bussu et al. (2025)	N=61 eligible from 7,518 screened	Cyberbullying and cyberstalking	Risk and protective factors summarized; call for evidence-based university programs
10	Sy et al. (2024)	N=1,001 undergraduates	Insomnia, screen time, loneliness	Insomnia associated with social and total screen time; loneliness moderate's risk; >8 hours raise risk
11	Tadros et al. (2025)	N=22 RCTs; 6,179 participants	Sleep quality	Psychological treatments improve sleep; CBT for insomnia shows larger effects than mindfulness
12	Dulfer et al. (2025)	N=20 postgraduate students	Belonging, engagement	Relationship centered design strengthens belonging and engagement
13	Naeem and Mushi-bwe (2025)	Scope across multiple settings	Digital resilience skills and strategies	Personal, cognitive, emotional, and social skills and strategies identified; institutional levers outlined
14	Faza and Lestari (2025)	Scope across digital education contexts	SRL strategies and technologies	Holistic synthesis of strategies and enabling technologies; benefits and challenges described
15	Rangel de Lázaro and	Scope across mobile learning	Interaction, learning effectiveness	Mobile learning enhances interaction and effectiveness when aligned with

	Duart (2023)	contexts		pedagogy and student needs
16	Beau-mont et al. (2023)	2,365 secondary school students (UK), longitudinal study	Emotion regulation, school wellbeing	Cognitive reappraisal was positively linked with school wellbeing. Suppression had no significant effect.
17	Hayes et al. (2025)	71 studies, 63,041 students aged 8–18	Anxiety, depression, internalizing symptoms	Universal school-based interventions led to small but significant improvements in emotional wellbeing.
18	Muser et al. (2025)	35 studies, primary and secondary students	Aggression, conduct problems	77% of SEL programs reduced antisocial behaviour. Moderate effects were found for aggression and conduct.
19	Tan & Chua (2024)	18 SEL programs in Southeast Asian schools	Empathy, emotional awareness, cultural adaptation	SEL programs enhanced empathy and emotional awareness, especially when adapted to local cultural contexts.

The Conceptual of EBSCOM Model

EBSCOM is an original model created and introduced by the authors in this study to provide a structured approach for embedding socio-emotional and behavioral competencies into education in the digital era. EBSCOM positions four interacting domains within the educational ecosystem. Emotional refers to regulation, coping, and psychological skills. Behavioral refers to self-regulation of learning and participation. Social refers to belonging, connection, and safety in communities. Context, organization, and management refers to the enabling environment, technology, policy, and the capacity of institutions to support learners. The core theories that motivate EBSCOM are Social Learning Theory, the Ecology of Human Development, and Emotional Intelligence. These theories together explain why personal skills, social environments, and institutional contexts interact to shape learning and wellbeing (Bandura, 1977; Bronfenbrenner, 1979; Goleman, 1995). Program design should align learning outcomes and assessment with practice in self-regulation, build emotional skills through supported psychological programs and sleep health education, invest in community building to strengthen belonging, and ensure that technology, policy, and services are reliable and easy to access (refer Figure 5). AI literacy sits across the context and behavioral domains because it is both a competence that students enact and a capability that institutions must scaffold.

Figure 5. Model Structure Diagram of EBSCOM Model
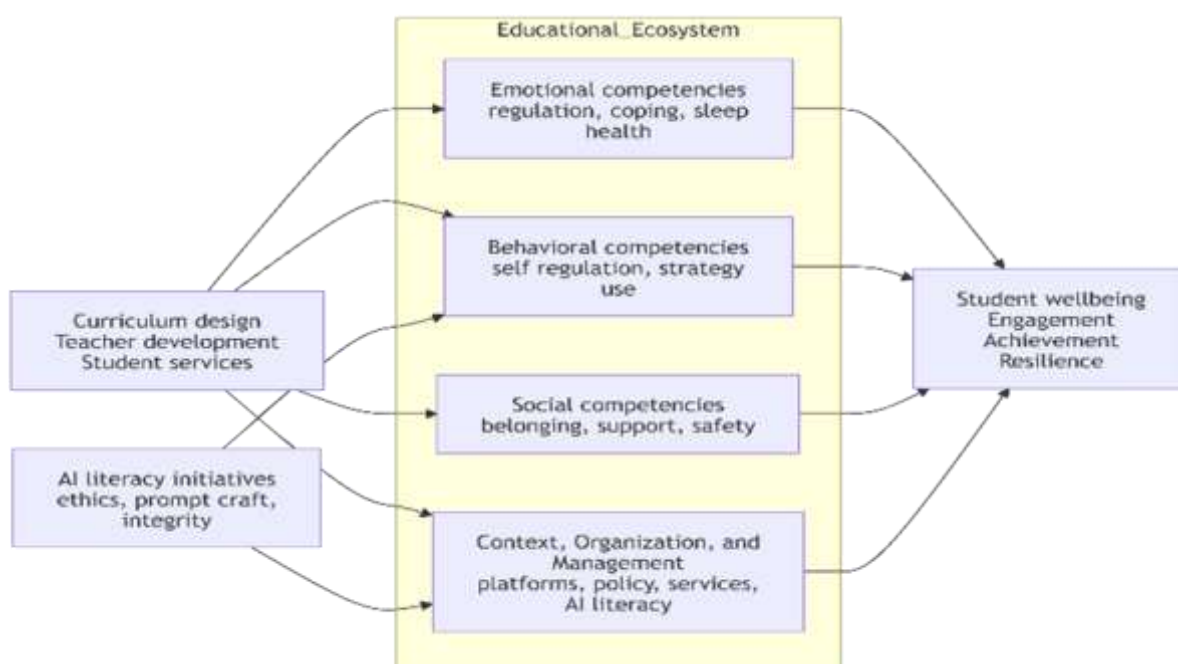
DISCUSSION

Across the 19 studies, four patterns align with the EBSCOM model. Emotional outcomes improve with structured psychological support and targeted sleep interventions (Taylor, 2024; Tadros, 2025). Behavioral competencies, especially self-regulation, are associated with performance and can be taught through design and feedback practices (Cheng, 2023; Akpen, 2024). Social support and belonging protect students while online harms require clear policy and rapid support (Vicary et al., 2024; Arif, 2024; Bussu, 2025; Dulfer, 2025). The COM domain highlights the importance of coordinated design, platform reliability, and institutional support to achieve sustained impact (Meng, 2024; Hu, 2025; Naeem, 2025; Rangel de Lázaro, 2023).

Recent additions to the synthesis further reinforce the emotional and social dimensions of the EBSCOM model, particularly within school-level contexts. Beaumont et al. (2023) found that secondary school students who practiced cognitive reappraisal experienced higher levels of school-related wellbeing, while emotional suppression showed no significant benefit. This suggests that emotional regulation strategies must be explicitly taught and embedded into school routines to foster resilience. Hayes et al. (2025) confirmed through a meta-analysis that universal SEL programs led to measurable reductions in anxiety and depression among students aged 8 to 18. These findings support the emotional domain by demonstrating that structured emotional support can benefit all students, regardless of risk level.

In the social domain, Muser et al. (2025) reported that 77 percent of SEL programs implemented in primary and secondary schools were effective in reducing antisocial behaviours such as aggression and conduct problems. These outcomes highlight the importance of creating emotionally safe and inclusive peer environments. Tan and Chua (2024) emphasized that cultural adaptation enhances the effectiveness of SEL programs. Their study showed that when SEL content was aligned with local values, students demonstrated stronger empathy and emotional awareness. This reinforces the social domain by showing that belonging and connection are shaped not only by program design but also by cultural relevance.

Together, these four studies strengthen the case for extending the EBSCOM model to school-level settings. They show that emotional and social competencies can be cultivated through universal, culturally responsive, and curriculum-integrated approaches, and that these competencies are essential for wellbeing, engagement, and academic success.

The evidence base offers practical levers for real change. Psychological programs and sleep focused interventions can improve outcomes for many students, but institutions need to address adoption and adherence through design, communication, and service integration. Self-regulated learning strategies matter, yet effects are modest unless course design makes these strategies visible and assessable. Social support and belonging reduce distress, but universities need consistent policies and rapid response mechanisms to address online harm, together with active community building in courses and programs. Mixed findings on academic achievement are understandable once we recognize the strong influence of environmental moderators such as platform reliability, assessment alignment, and institutional support (Taylor, 2024; Tadros, 2025; Cheng, 2023; Akpen, 2024; Vicary et al., 2024; Arif, 2024; Meng, 2024).

Although most of studies support the integration of socio-emotional and behavioral strategies, some findings were mixed or inconclusive. For example, Cheng et al. (2023) reported only a small positive association between self-regulated learning and academic performance, suggesting that design quality and institutional support are critical moderators. These variations underscore the need for contextual sensitivity when applying the EBSCOM model.

While the reviewed studies primarily address higher education, the EBSCOM model holds strong potential for application in school environments as well. Educators play a crucial role in shaping emotional and social learning experiences, and the model's emphasis on curriculum alignment and institutional support can guide school level implementation. Future adaptations should explore how EBSCOM can be embedded into school policies, classroom strategies, and educator training to support student wellbeing from an early age (Nor Yuzie Yusuf et al., 2014; Ng Hui Yu et al., 2023).

The EBSCOM model can be effectively adapted to school contexts as well by aligning its four domains with classroom practices and educator roles. In the emotional domain, schools can integrate structured socio emotional learning programs that teach self-awareness, empathy, and emotional regulation. For the behavioral domain, educators can embed self-regulation strategies into lesson plans and provide feedback that encourages goal setting and reflection.

The social domain requires creating inclusive classroom environments that foster belonging and peer support while implementing clear policies to prevent bullying and online harm. Finally, the context and management domain involve ensuring that school infrastructure supports safe and responsible technology use, including AI literacy education that helps students navigate digital tools ethically and effectively. These adaptations can strengthen resilience and wellbeing from early education stages and prepare students for lifelong learning in a digital society.

Policy and Practices

Institutions should establish clear policies and reporting channels to address cyberbullying and related online harms, ensuring that students receive timely support and follow up when incidents occur (Arif, 2024; Bussu, 2025). Program and course design must integrate self-regulation practices into assessment tasks, encourage reflective planning and monitoring, and maintain strong educator presence with timely feedback to enhance engagement and learning outcomes (Cheng, 2023; Akpen, 2024).

Student services should provide digital mental health programs supported by effective implementation strategies such as outreach, nudging, and progress monitoring, alongside targeted sleep health interventions for students at risk (Taylor, 2024; Tadros, 2025). Building a strong learning community is equally important, which can be achieved through structured peer interaction, relationship rich pedagogy, and accessible support systems for diverse student groups (Vicary et al., 2024; Dulfer, 2025). Finally, institutions need to offer scaffolded development in responsible AI use so that students can leverage digital tools for planning and feedback without compromising academic integrity or self-regulation.

CONCLUSION

This systematic literature review demonstrates that educational institutions can play a vital role in enhancing student well-being in the digital era by acting across four coordinated domains. Institutions can strengthen emotional skills through targeted psychological support and education on the importance of mental health, emotional and physical balance, and achieving well healthy sleep. Self-regulation skills and competencies can be embedded and assessed through course design and periodic emotional intelligence evaluations. Social connections can also be supported to develop in healthy ways. Educators should be equipped to protect students from online risks through relevant policy and program design. A dynamic environment should be fostered in line with principles that support the accountable application of AI literacy.

The EBSCOM model provides a coherent way to connect these strategies within the educational ecosystem so that students experience greater personal well-being and improved learning outcomes. The EBSCOM model also integrates these perspectives into a single framework that aligns curriculum, educator development, and student services. The objectives of this study have been achieved, and the findings offer actionable implications for policy, practice, and future research. Overall, this study successfully synthesizes evidence on digitalization and personal well-being, evaluates socio-emotional and behavioural strategies, and develops the conceptual EBSCOM model. It also identifies gaps such as inconsistent implementation, limited integration of AI literacy, and the need for evolutionary reform in educational policy.

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