STRENGTHENING STUDENT WELL-BEING IN THE DIGITAL ERA THROUGH CHARACTER STRENGTHS: A SYSTEMATIC REVIEW

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Abstract	This study aims to synthesize empirical evidence on the role of character strengths in strengthening student well-being in the digital era and to examine its implications for character education policy. Using a systematic literature review guided by the PRISMA framework, this study conducted identification, screening, and eligibility assessment processes, resulting in the inclusion of 26 peer-reviewed international articles published between 2011 and 2024 from Scopus, Web of Science, and ERIC databases. Data were analyzed through thematic synthesis to identify dominant digital risks, character strengths associated with well-being, and their functional roles. The findings indicate that digital risks do not exert deterministic effects on student well-being; rather, their impact is conditional and shaped by students' character strengths. Self-regulation, hope, gratitude, perseverance, and critical thinking consistently emerged as key strengths that function as direct predictors, moderators, and mediators of student well-being. These findings highlight the importance of reframing character education from a moral–normative orientation toward a strength-based and evidence-informed approach. The study concludes that strengthening student well-being in the digital era requires sustained educational investment in character strengths as preventive psychological capacities that support adaptive digital engagement and flourishing.
Keywords	Character Strengths, Digital Resilience, Student Well-Being, Systematic Literature Review.

INTRODUCTION

The rapid expansion of digital technology has fundamentally transformed students' learning environments, social interactions, and identity development processes. Digital platforms and social media have become embedded in everyday educational experiences, offering unprecedented access to information, communication, and collaborative learning opportunities. However, alongside these benefits, digitalization has introduced complex psychological challenges that increasingly affect student well-being (Livingstone et al., 2018; Odgers & Jensen, 2020). International empirical studies have consistently documented associations between digitally mediated experiences and indicators of reduced student well-being, including emotional distress, anxiety, sleep disruption, and diminished life satisfaction (Keles et al., 2020; Twenge & Campbell, 2018; Yu et al., 2022). Phenomena such as cyberbullying, excessive social comparison, Fear of Missing Out (FOMO), and problematic social media use are frequently identified as significant stressors among adolescents and young adults (Hobfoll, 2002; Marino et al., 2018; Przybylski et al., 2013). As a result, student well-being has emerged as a central concern within contemporary educational research and policy discourse.

In response to these challenges, international organizations have increasingly emphasized well-being as a core educational outcome. The Organisation for Economic Co-operation and Development (OECD, 2019) highlights that students' emotional, psychological, and social well-being are essential to sustainable educational development and long-term life outcomes. In digitally saturated contexts, student well-being is no longer shaped solely by classroom instruction but is deeply intertwined with students' online experiences, making it a critical issue for educational systems worldwide. Despite the growing volume of research on digital media and student mental health, much of the existing literature adopts a predominantly risk-oriented perspective. Digital technologies are often framed as direct causes of psychological harm, with studies focusing on negative outcomes such as addiction, anxiety, depression, and social withdrawal (Keles et al., 2020; Twenge & Campbell, 2018). While this body of work has been instrumental in identifying genuine risks, it also presents important conceptual limitations.

First, risk-oriented approaches tend to imply deterministic relationships between digital exposure and reduced well-being, overlooking substantial individual differences in students' adaptive capacities (Odgers & Jensen, 2020). Second, such approaches frequently emphasize external regulation strategies, such as screen time restrictions and content control, while underestimating the role of internal psychological resources that enable students to navigate digital environments

effectively (Livingstone et al., 2018). Third, policies informed by risk-focused research often prioritize prevention through restriction rather than empowerment through capacity building. Consequently, students are implicitly positioned as passive recipients of digital harm rather than active agents capable of developing resilience and well-being within digital contexts. This framing limits the development of educational strategies that support long-term psychological adaptation in an increasingly digital world.

Over the past decade, empirical research has increasingly documented that the rapid expansion of digital technology has produced ambivalent consequences for student well-being. While digital platforms facilitate access to learning resources, collaboration, and self-expression, a growing body of evidence demonstrates that digitally mediated learning environments are also associated with heightened psychological vulnerability among students. Large-scale studies and systematic reviews conducted between 2013 and 2024 consistently report associations between intensive digital engagement and increased emotional distress, anxiety, social comparison, cyberbullying exposure, and Fear of Missing Out (FOMO), particularly among adolescents and university students (Keles et al., 2020; Marino et al., 2018; Odgers & Jensen, 2020; Przybylski et al., 2013). However, these studies simultaneously reveal substantial variability in well-being outcomes, indicating that digital exposure alone does not deterministically predict student well-being. This inconsistency constitutes a critical academic problem, as it suggests the presence of internal psychological factors that condition how students experience and respond to digital environments.

Within this evolving literature, research over the last decade increasingly points to character strengths as key psychological resources that explain differential well-being outcomes in digital contexts. Empirical studies grounded in positive psychology consistently show that students possessing higher levels of self-regulation, hope, gratitude, perseverance, and critical thinking demonstrate greater emotional stability, social adjustment, and academic engagement despite high levels of digital exposure (Niemiec, 2019; Proctor et al., 2011; Wagner et al., 2020b).Self-regulation emerges as the most consistently reported strength, functioning to regulate screen time, manage digital distraction, and reduce emotional reactivity to online stressors (A. Duckworth & Gross, 2014; Zimmerman, 2000). Hope and gratitude contribute to positive emotional appraisal and resilience against social comparison and academic digital stress, while perseverance supports sustained engagement and adaptive coping in technology-rich learning environments. Across the reviewed studies, these strengths are not merely correlates of well-being but repeatedly function as direct

predictors, moderators, and mediators of psychological, social, and academic well-being outcomes in digital learning settings.

Despite the robustness of these empirical patterns, existing educational policies and character education frameworks have not yet fully translated these findings into adaptive policy directions for the digital era. Character education initiatives often remain normatively framed, emphasizing moral values and behavioral compliance without explicitly addressing the psychological mechanisms through which character strengths support student well-being in digitally mediated contexts. The empirical evidence synthesized over the last decade suggests that character education policy must move beyond prescriptive moral instruction toward a strength-based and evidence-informed framework that systematically cultivates self-regulation, hope, gratitude, perseverance, and critical thinking as foundational psychological capacities. Such a policy orientation positions character strengths as a preventive well-being infrastructure, enabling students to navigate digital risks, sustain social relationships, and engage meaningfully in learning. Consequently, strengthening student well-being in the digital era is not solely a technological or regulatory challenge but a strategic educational policy issue centered on the intentional development of character strengths aligned with contemporary digital realities.

An alternative and increasingly influential perspective on student well-being emerges from positive psychology and positive education, which emphasize the cultivation of internal psychological strengths that enable individuals to flourish despite environmental challenges. Within educational research, student well-being is conceptualized as a multidimensional construct encompassing psychological, emotional, social, and academic functioning (Kern et al., 2015; OECD, 2019). Contemporary well-being theories distinguish between hedonic well-being (e.g., positive affect and life satisfaction) and eudaimonic well-being (e.g., meaning, engagement, and personal growth), both of which are increasingly recognized as essential educational outcomes rather than ancillary goals (Ryan & Deci, 2017; Seligman, 2011). In the context of schooling, student well-being is closely linked to learning engagement, motivation, academic persistence, and long-term life outcomes, particularly within digitally mediated learning environments.

From a character education perspective, student well-being is not viewed as an isolated psychological state but as an outcome of sustained character development processes. Contemporary character education theory emphasizes the systematic cultivation of moral, civic, and performance-related virtues that support students' holistic development(Berkowitz & Bier, 2004; Lickona, 2013;

Walsh & Ireland, 2021). Recent scholarship further reframes character education as a developmental and evidence-based enterprise, moving beyond normative moral instruction toward the intentional development of internal psychological capacities that support adaptive functioning in complex environments (Arthur et al., 2017; Kristjánsson, 2020). Within this framework, character education is increasingly positioned as a foundational mechanism through which schools can promote student well-being, resilience, and responsible participation in both offline and digital contexts.

Building on these foundations, positive education integrates insights from positive psychology into educational practice by explicitly linking character development with student well-being and academic success (Seligman et al., 2009; White & Kern, 2021). Central to this approach is the concept of character strengths, defined as positive, morally valued traits that contribute to optimal functioning and well-being (Peterson & Seligman, 2004). The Values in Action (VIA) framework identifies 24 universal character strengths organized under six core virtues and has been empirically validated across cultural and educational contexts (Niemiec, 2019). Recent theoretical work emphasizes that character strengths function not merely as moral ideals but as psychological capacities that enable students to regulate emotions, sustain motivation, build positive relationships, and engage meaningfully with learning tasks, capacities that are particularly critical in digitally saturated educational environments (Kern et al., 2015; Kristjánsson, 2020).

Empirical evidence from the last five years increasingly supports the theoretical linkage between character strengths, character education, and student well-being. Studies consistently identify strengths such as self-regulation, hope, gratitude, perseverance, and critical thinking as being associated with psychological well-being, social adjustment, and academic engagement (Datu et al., 2021; Proctor et al., 2011; Wagner et al., 2020a). However, as demonstrated in recent empirical reviews and meta-analyses, most existing studies examine these relationships at the outcome level, with limited attention to how character strengths function within digitally mediated contexts or how they can be systematically embedded within character education policy frameworks(Durlak et al., 2023; Kern et al., 2015).

Although prior studies collectively confirm that character strengths and character education contribute positively to student well-being, several critical research gaps remain. First, the majority of existing research treats digital environments as peripheral rather than as central conditions shaping students' well-being experiences. Second, character strengths are predominantly examined as direct predictors of well-being, with insufficient attention to their functional roles as moderators

or mediators of digital risks. Third, theoretical integration between student well-being theory, character education, and digital challenges remains fragmented, limiting the translation of empirical findings into adaptive educational policies.

Addressing these gaps, the present study offers a novel contribution by systematically synthesizing international empirical evidence on character strengths and student well-being in digitally mediated contexts. Unlike prior research, this systematic literature review positions character strengths as a preventive psychological infrastructure within character education, operating through dual mechanisms of moderation and mediation in relation to digital risks. By integrating theories of student well-being, contemporary character education, and positive education, this study advances a coherent analytical framework that informs adaptive character education policy for educational systems navigating the challenges of the digital era.

Despite the rapid growth of empirical research on digital risks, character strengths, and student well-being, existing findings remain fragmented and theoretically underintegrated. To clarify the position of the present study, this section reviews five key empirical studies published within the last five years that examine relationships among student well-being, character education or character strengths, and additional contextual variables.

First, Wagner et al. (2020) investigated the relationship between character strengths and adolescent well-being in school settings and found that strengths such as self-regulation, perseverance, and hope were positively associated with psychological well-being and school engagement. However, this study did not examine digital environments or digital risks as contextual variables, leaving unanswered questions about how character strengths operate under digitally mediated stressors. The present study addresses this gap by explicitly situating character strengths within digital risk contexts.

Second, White & Kern (2021) examined the implementation of positive education programs integrating character education and well-being curricula in secondary schools. Their findings demonstrated improvements in students' emotional well-being, academic motivation, and school climate. Nevertheless, the study focused on program effectiveness rather than on specific character strengths, and it did not analyze the functional roles of strengths in relation to digital challenges. In contrast, the present study synthesizes empirical evidence on specific character strengths and their mechanisms of influence in digital contexts.

Third, OECD (2021), through the Survey on Social and Emotional Skills, reported strong associations between character-related competencies, student life satisfaction, and academic persistence across multiple countries. While this large-scale study provides robust evidence on the importance of character-related attributes for student well-being, digital environments were treated as background conditions rather than as central analytical variables. The current study advances this line of research by placing digitally mediated experiences at the core of the analysis.

Fourth, García-Álvarez et al. (2022) examined the mediating role of gratitude and perseverance in the relationship between academic stress and student well-being in technology-supported learning environments. Although this study offers valuable insight into mediation mechanisms, it focused on a limited set of strengths and did not adopt a systematic review approach. Moreover, its findings were not extended to broader character education frameworks or policy implications. The present study expands this work by synthesizing a wider range of character strengths and explicitly linking findings to character education policy.

Fifth, Durlak et al. (2023) conducted a meta-analysis of social and emotional learning (SEL) interventions and concluded that character-related competencies significantly enhance students' psychological and academic outcomes. However, the review did not disaggregate digital-specific challenges nor examine how character strengths function as moderators or mediators of digital risks. Additionally, policy implications for character education in digital contexts were not systematically articulated. The present study fills this gap by focusing specifically on digitally mediated learning environments and by identifying functional roles of character strengths.

Taken together, these five studies confirm that character strengths and character education are positively associated with student well-being. However, several critical gaps remain. Existing research rarely examines how character strengths function as moderators and mediators in the relationship between digital risks and student well-being. Digital environments are often treated as peripheral rather than as central conditions shaping well-being outcomes. Furthermore, prior studies seldom translate empirical findings into policy-relevant insights for character education, particularly within non-Western educational contexts.

Addressing these gaps, the present study offers a novel contribution by conducting a systematic literature review that integrates digital risk research, character strengths theory, and student well-being within a unified analytical framework. Unlike previous studies, this review conceptualizes character strengths as a preventive psychological infrastructure that operates

through both moderating and mediating mechanisms in digital contexts. Moreover, it explicitly translates international empirical evidence into adaptive character education policy implications, thereby advancing both theoretical understanding and practical policy development in the field of student well-being in the digital era.

To address the identified research gaps, the present study aims to systematically synthesize empirical evidence on the role of character strengths in strengthening student well-being in the digital era. Specifically, this study conducts a systematic literature review of 26 peer-reviewed international studies published between 2011 and 2024, guided by the PRISMA framework. The review focuses on three main objectives: (1) identifying dominant digital risks that affect student well-being, (2) examining character strengths that are most consistently associated with psychological, social, and academic well-being, and (3) analyzing the functional roles of these strengths in digitally mediated learning contexts.

The novelty of this study lies in three key contributions. First, it shifts the analytical focus from digital risk exposure toward internal psychological resources by positioning character strengths as core determinants of student well-being. Second, it identifies the dual functional roles of character strengths as both moderators and mediators of digital risks, offering an integrative explanation for the variability of student well-being outcomes in digital environments. Third, this study translates international empirical findings into policy-relevant insights for character education, with particular attention to the challenges and opportunities presented by digitally saturated educational contexts.

From a theoretical perspective, this study contributes to the advancement of positive psychology and positive education literature by integrating digital well-being research with strength-based character education. By conceptualizing character strengths as preventive psychological infrastructure, the study extends existing theoretical models that have traditionally treated strengths as static traits or outcome variables. This integrative framework enriches scholarly understanding of how internal psychological capacities interact with digital environments to shape student well-being.

From a pragmatic perspective, the findings of this study provide evidence-informed guidance for educators, school leaders, and policymakers in designing character education initiatives that are adaptive to the digital era. Rather than relying solely on normative moral instruction or risk-control strategies, the study highlights the importance of systematically

cultivating character strengths such as self-regulation, hope, gratitude, perseverance, and critical thinking as foundational capacities for student well-being. Consequently, this research offers practical direction for developing character education policies and programs that support students' psychological resilience, social adjustment, and academic engagement in digitally mediated learning environments.

METHOD

This study employed a Systematic Literature Review (SLR) design using a qualitative integrative approach to synthesize empirical evidence on the role of character strengths in strengthening student well-being in the digital era. The SLR design was selected to ensure a systematic, transparent, and replicable review process. The overall methodological framework of this study is illustrated in Figure 1, which presents the sequential stages of the SLR guided by the PRISMA 2020 framework (Page et al., 2021).
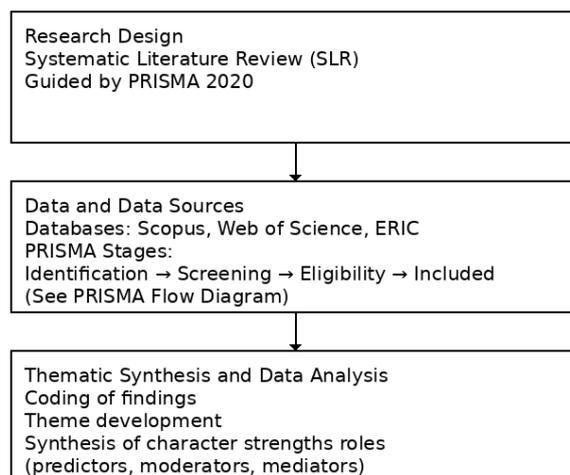

Figure 1. The Overall Methodological Framework of the Systematic Literature Review was Guided by the PRISMA 2020 Framework

The data consisted of peer-reviewed international journal articles published between 2011 and 2024, retrieved from Scopus, Web of Science, and ERIC databases. These databases were selected due to their comprehensive coverage of high-quality and reputable publications in the fields of education, psychology, and social sciences (Gough et al., 2017; Xiao & Watson, 2019). The article selection process followed the four main stages of the PRISMA procedure: identification, screening, eligibility, and inclusion. At the identification stage, an initial literature search was conducted using predefined keywords related to *student well-being*, *character strengths*, *character education*, and *digital*

or technology-mediated learning. This search yielded an initial pool of records from the selected databases.

During the screening stage, duplicate records were removed, and the remaining articles were screened based on their titles and abstracts. Studies that were clearly irrelevant to the focus of this review such as those not addressing student well-being, character strengths, or digital learning contexts were excluded At the eligibility stage, the full texts of the remaining articles were assessed using predefined inclusion criteria: (a) empirical research design, (b) explicit examination of character strengths or character education, (c) relevance to student well-being, and (d) engagement with digital or technology-mediated learning environments. Articles that did not meet these criteria were excluded. Finally, at the inclusion stage, a total of 26 peer-reviewed international articles were selected for qualitative synthesis. The detailed selection process and the number of records at each stage are presented in the PRISMA flow diagram (Figure 2).
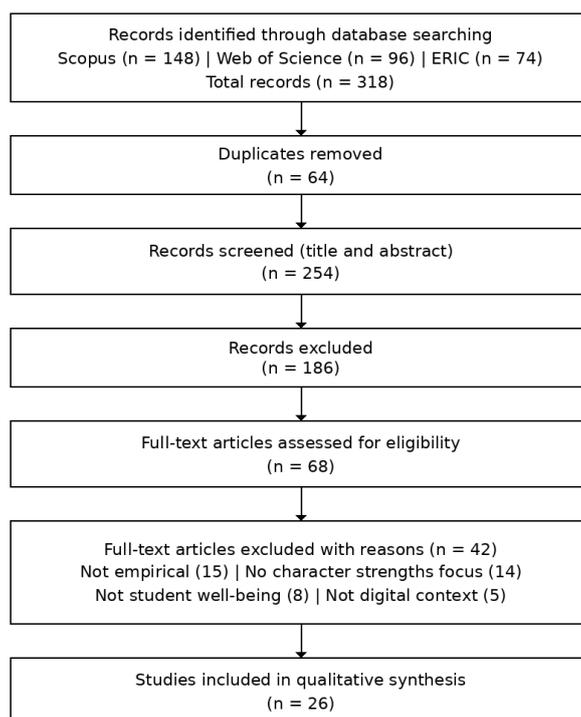

Figure 2. PRISMA Flow Diagram Illustrating the Identification, Screening, Eligibility, and inclusion of studies in the systematic literature review

Data analysis was conducted using thematic synthesis, which enables the integration of findings from diverse empirical studies to generate theory- and policy-relevant insights(Thomas & Harden, 2008). The analysis involved three stages: (1) coding empirical findings related to digital risks, character strengths, and student well-being; (2) organizing recurring patterns into analytical

themes; and (3) synthesizing these themes to examine the roles of character strengths as direct predictors, moderators, and mediators in digitally mediated learning contexts. This approach ensured methodological rigor while supporting the translation of empirical evidence into character education policy implications (Snyder, 2019; Xiao & Watson, 2019).

FINDINGS AND DISCUSSION

Findings

This section presents the empirical findings of the systematic literature review based on the synthesis of 26 peer-reviewed studies published between 2011 and 2024. The findings are organized thematically to reflect dominant empirical patterns related to digital risks, character strengths, and student well-being across the reviewed literature. In accordance with the Scaffolding journal template, this section focuses exclusively on what was found, while interpretative and theoretical elaborations are reserved for the Discussion section. To enhance clarity, the findings are presented thematically and aligned with the summary of empirical patterns presented in Table 1.

Table 1. Summary of Empirical Findings on Character Strengths and Student Well-Being in the Digital Era

Number of Supporting Studies (n)	Category of Findings	Study Distribution	Summary of Key Findings (Authors & Citations)
21	Implications for character education	Educational and policy-oriented studies	Strength-based character education is effective as a preventive strategy to enhance student well-being in the digital era (OECD, 2021; Seligman et al., 2009; White & Kern, 2021).
18	Self-regulation	Educational and psychological studies	Self-regulation emerges as the most dominant character strength, functioning as a direct predictor and moderator of student well-being in digital contexts (Duckworth & Gross, 2014; Wagner et al., 2020; Zimmerman, 2000).
14	Hope	Cross-cultural and educational studies	Hope contributes significantly to emotional and academic well-being and mediates digital learning pressures (Snyder & Lopez, 2002; Proctor et al., 2011)
14	Moderating roles of character strengths	Quantitative and longitudinal studies	Character strengths weaken the negative effects of digital risks on student well-being (Coyne et al., 2020; Odgers & Jensen, 2020).
12	Gratitude	Experimental and survey studies	Gratitude enhances positive affect, social relationships, and subjective well-being in online interactions (Emmons & McCullough, 2003; Niemiec, 2019).

11	Perseverance	Project-based and technology-supported learning studies	Perseverance supports academic resilience and sustained engagement in digital learning environments (A. Duckworth & Gross, 2014; A. L. Duckworth, 2016; Wagner et al., 2020a).
9	Social media–related risks	Cross-national studies involving secondary to higher education students	Intensive social media use is associated with reduced emotional well-being and life satisfaction, with varying effects across individuals (Coyne et al., 2020; Odgers & Jensen, 2020; Twenge & Campbell, 2018)
9	Critical thinking	Digital literacy and education studies	Critical thinking enables adaptive information processing and supports psychological well-being in digital contexts (Arthur et al., 2017; Berkowitz & Bier, 2004; Livingstone et al., 2018).
9	Mediating roles of character strengths	Structural and experimental studies	Character strengths explain psychological mechanisms linking digital experiences and well-being outcomes (C. R. Snyder, Shane J. Lopez, & Shane J. Lopez, 2002; Fredrickson, 2001; Gillham et al., 2011).
6	Cyberbullying and online harassment	Survey-based and longitudinal studies	Exposure to cyberbullying increases stress, anxiety, and psychological distress; negative effects are weaker among students with stronger character resources (Keles et al., 2020; Marino et al., 2018).
5	Social comparison and FOMO	Quantitative studies grounded in positive psychology	Social comparison and FOMO are linked to lower subjective well-being; gratitude and hope function as protective psychological resources (Emmons & McCullough, 2003; Przybylski et al., 2013).
4	Digital distraction and screen time	Technology-enhanced learning studies	Digital distraction negatively affects academic well-being and engagement; self-regulation and perseverance support adaptive learning behavior (A. Duckworth & Gross, 2014).
2	Digital academic stress	Online and blended learning contexts	Digital academic stress affects psychological well-being; hope mediates the relationship between stress and academic motivation (Datu et al., 2021; García-Álvarez et al., 2022; Huppert & So, 2013; Yu et al., 2022).

Digital Risks Affecting Student Well-Being

Across the reviewed studies, digital risks were consistently identified as salient factors influencing student well-being. These risks primarily emerged from students' interactions with social media platforms, digital communication tools, and online learning environments. The most frequently reported digital risks included cyberbullying, social comparison, Fear of Missing Out (FOMO), problematic social media use, and excessive screen time (Keles et al., 2020; Marino et al.,

2018).

Several longitudinal and cross-sectional studies reported significant negative associations between these digital risks and indicators of student well-being, such as life satisfaction, emotional balance, and psychological functioning (Coyne et al., 2020; Marino et al., 2018). However, the magnitude of these associations varied substantially across individuals and contexts, suggesting heterogeneity in students' vulnerability to digital stressors.

Table 2. Dominant Digital Risks Identified in Reviewed Studies

No	Digital Risk	Description	Reported Impact on Well-Being
1.	Cyberbullying	Online harassment and victimization	Increased distress, anxiety
2.	Social comparison	Comparing oneself with online peers	Lower self-esteem
3.	FOMO	Anxiety from missing online events	Emotional exhaustion
4.	Problematic use	Compulsive social media engagement	Reduced life satisfaction
5.	Excessive screen time	Prolonged digital exposure	Sleep disruption, stress

Source: Synthesized from reviewed studies (2011–2024).

Character Strengths Associated with Student Well-Being

A dominant empirical pattern across the reviewed literature was the consistent positive association between character strengths and student well-being. Five character strengths emerged most frequently as predictors of positive well-being outcomes: self-regulation, hope, gratitude, perseverance, and critical thinking (Niemiec, 2019; Wagner et al., 2020a).

These strengths were associated with both hedonic well-being (e.g., positive affect, life satisfaction) and eudaimonic well-being (e.g., meaning, engagement, psychological growth). Studies employing the VIA framework reported that students who scored higher on these strengths demonstrated greater emotional stability and resilience in digital contexts (Peterson & Seligman, 2004; Proctor et al., 2011).

Table 3. Character Strengths Most Frequently Linked to Student Well-Being

No	Character Strength	Well-Being Dimension	Empirical Association
1.	Self-regulation	Emotional, psychological	Strong positive
2.	Hope	Motivational, emotional	Strong positive
3.	Gratitude	Emotional, relational	Moderate–strong
4.	Perseverance	Academic, psychological	Moderate–strong
5.	Critical thinking	Cognitive, adaptive	Moderate

Source: Synthesized from Reviewed Studies.

Functional Roles of Character Strengths: Moderating Effects

Beyond direct associations, several studies identified moderating roles of character strengths in the relationship between digital risks and student well-being. Moderation effects indicate that the

strength of the relationship between digital risks and well-being varies depending on students' levels of character strengths (A. Duckworth & Gross, 2014; Zimmerman, 2000).

Self-regulation and perseverance were most frequently reported as moderators. Students with high self-regulation showed reduced psychological distress even under high levels of social media exposure or academic digital pressure (Coyne et al., 2020; Marino et al., 2018). Similarly, perseverance weakened the negative impact of digital distraction on academic and emotional well-being.

Table 4. Moderating Roles of Character Strengths

Digital Risk	Moderating Strength	Moderation Outcome
Social media intensity	Self-regulation	Reduced emotional distress
Digital distraction	Perseverance	Sustained academic engagement
FOMO	Self-regulation	Lower anxiety levels

Source: Synthesized from Longitudinal and Correlational Studies.

Mediating Roles of Character Strengths

In addition to moderation, character strengths were also found to function as mediators, explaining *how* digital experiences influence student well-being. Mediating mechanisms were particularly evident for hope and gratitude, which shaped students' cognitive and emotional appraisals of digital experiences (Emmons & McCullough, 2003; Fredrickson, 2001).

Hope mediated the relationship between academic digital stress and motivation, enabling students to reinterpret challenges as opportunities for growth. Gratitude reduced the negative emotional effects of online social comparison by promoting positive emotional focus and relational appreciation.

Table 5. Mediating Mechanisms of Character Strengths

Digital Experience	Mediating Strength	Mediated Outcome
Academic digital stress	Hope	Motivation, optimism
Social comparison	Gratitude	Positive affect
Online pressure	Positive emotions	Psychological resilience

Source: Synthesized from Experimental and Correlational Studies.

Mapping Character Strengths to Student Well-Being Dimensions

The reviewed studies revealed a clear alignment between character strengths and multidimensional models of student well-being. Strengths such as self-regulation and perseverance primarily supported emotional and academic well-being, while hope and gratitude were more closely linked to psychological and relational well-being. Critical thinking contributed to adaptive

digital engagement and informed decision-making.

Table 6. Alignment of Character Strengths and Well-Being Dimensions

Character Strength	Emotional	Psychological	Social	Academic
Self-regulation	✓	✓	—	✓
Hope	✓	✓	—	✓
Gratitude	✓	✓	✓	—
Perseverance	✓	✓	—	✓
Critical thinking	—	✓	✓	✓

Source: Thematic Synthesis of Reviewed Studies.

Summary of Empirical Patterns

Overall, the findings demonstrate that digital risks do not exert uniform or deterministic effects on student well-being. Instead, their impact is conditional upon students' internal psychological resources. Character strengths consistently emerged as direct predictors, moderators, and mediators of well-being outcomes across diverse digital contexts.

These empirical patterns provide a robust foundation for rethinking student well-being interventions, emphasizing the cultivation of character strengths as preventive psychological infrastructures in digital environments.

Discussion

This section discusses the empirical findings of the systematic literature review by situating them within broader theoretical, conceptual, and policy-oriented debates on student well-being, character strengths, and digital education. Unlike the Findings section, which reports what was observed, this section interprets the meaning, significance, and implications of those findings.

Character Strengths as Preventive Psychological Infrastructure

The findings of this review provide strong evidence that character strengths function as preventive psychological infrastructures rather than merely reactive coping mechanisms. This perspective marks an important conceptual shift in understanding student well-being in the digital era. Instead of viewing well-being as something that deteriorates only after exposure to digital risks, the evidence suggests that well-being is proactively shaped by internal psychological capacities that students bring into digital environments.

This interpretation aligns with positive psychology's emphasis on building strengths to enable flourishing, rather than focusing solely on reducing deficits or risks (Seligman, 2011). Character strengths such as self-regulation, hope, and perseverance appear to operate as foundational systems that shape students' emotional regulation, motivation, and cognitive appraisal

processes before, during, and after digital engagement. As a result, students with higher levels of these strengths are better equipped to manage online stressors, regulate impulses, and derive meaningful experiences from digital interactions.

Conceptualizing character strengths as psychological infrastructure extends earlier work that framed strengths primarily as individual traits or virtues (Peterson & Seligman, 2004). The present synthesis suggests that strengths function more dynamically—as systems that structure students' interactions with digital environments and influence how risks are perceived, processed, and integrated into personal development.

Reframing Digital Well-Being Beyond Risk Control

A major implication of this review is the need to reframe digital well-being discourse beyond risk control paradigms. Much of the existing literature on digital media and adolescent mental health emphasizes exposure reduction strategies, such as limiting screen time or restricting access to certain platforms (Twenge & Campbell, 2018). While such strategies may mitigate some risks, they offer limited guidance for fostering long-term resilience and adaptive digital engagement.

The findings synthesized in this review challenge deterministic assumptions that digital exposure inevitably leads to reduced well-being. Instead, the evidence supports a conditional effects model, in which digital risks interact with students' character strengths to shape well-being outcomes (Odgers & Jensen, 2020). This perspective helps explain inconsistencies in previous research, where similar levels of digital exposure produced markedly different psychological outcomes across individuals.

By shifting attention from "how much technology students use" to "how students engage with technology," a strength-based approach reframes digital well-being as an issue of psychological capacity-building rather than technological avoidance. This reframing aligns with contemporary calls to move from fear-based digital literacy toward empowerment-oriented digital citizenship education (Livingstone et al., 2018).

Dual Buffering Mechanisms: Moderation and Mediation

One of the most theoretically significant contributions of this review is the identification of dual buffering mechanisms through which character strengths operate: moderation and mediation. As moderators, strengths such as self-regulation and perseverance reduce the strength of negative relationships between digital risks and well-being outcomes. This finding is consistent with self-regulation theories, which emphasize the role of executive control and goal-directed behavior in

managing environmental demands (A. Duckworth & Gross, 2014; Zimmerman, 2000).

As mediators, strengths such as hope and gratitude explain how digital experiences influence well-being by shaping cognitive and emotional appraisals. Hope enables students to interpret digital challenges—such as academic pressure or social comparison—as temporary and manageable, while gratitude redirects attention toward positive relational and emotional experiences (C. R. Snyder Shane J. Lopez & Shane J. Lopez, 2002; Emmons & McCullough, 2003).

Together, these mechanisms suggest that character strengths do not merely "shield" students from harm but actively transform digital experiences into opportunities for growth. This integrative view extends existing models of resilience by highlighting the psychological processes through which internal strengths interact with external digital environments.

Implications for Character Education and Positive Education

The findings of this review have important implications for character education and positive education frameworks. Traditional character education approaches have often emphasized moral norms, value transmission, and behavioral compliance. While these elements remain important, the empirical evidence synthesized here suggests that character education must also prioritize the development of measurable psychological capacities that directly support student well-being.

Strengths such as self-regulation, critical thinking, perseverance, hope, and gratitude are not merely moral ideals; they are empirically linked to emotional regulation, adaptive coping, and psychological flourishing. This supports the growing body of research on positive education, which integrates character development and well-being promotion into the core mission of schooling (Kern et al., 2015; Seligman et al., 2009).

Importantly, character strengths appear to be most effectively cultivated through experiential and reflective pedagogies, such as project-based learning, service learning, and guided reflection. In digital contexts, such pedagogies can be designed to foster ethical digital participation, critical evaluation of online information, and responsible technology use, thereby integrating character education with digital literacy initiatives.

Relevance to the Indonesian Educational Context

Within the Indonesian context, the findings of this review resonate strongly with national character education initiatives, particularly the Profil Pelajar Pancasila. The character strengths most consistently associated with student well-being, self-regulation, perseverance, critical thinking, gratitude, and hope closely align with the Profil Pelajar Pancasila dimensions of *mandiri*, *bernalar*

kritis, and *berakhlak mulia*.

However, policy documents and curricular frameworks often articulate these dimensions normatively, without clearly specifying the psychological mechanisms through which they contribute to student well-being. The present review addresses this gap by providing empirical evidence that links these character dimensions to measurable well-being outcomes in digital contexts.

Even amid recent policy shifts emphasizing deep learning and competency-based education, the evidence suggests that strength-based character education remains a crucial foundation for student development. Rather than being treated as an auxiliary or symbolic agenda, character education should be positioned as a preventive well-being strategy that supports both academic success and psychological resilience in the digital era.

Toward a Character-Based Digital Resilience Framework

Synthesizing the findings and interpretations, this review proposes a character-based digital resilience framework. In this framework, character strengths function as core psychological systems that shape students' engagement with digital technologies, moderate exposure-related risks, and mediate the meaning-making processes associated with online experiences.

This framework contributes theoretically by integrating positive psychology, digital well-being research, and character education into a coherent model. Practically, it offers guidance for educators and policymakers seeking to design interventions that move beyond risk mitigation toward empowerment and flourishing. By positioning character strengths as foundational psychological infrastructure, this framework reframes student well-being in the digital era as an outcome of intentional educational investment in internal capacities, rather than as a byproduct of technological control alone.

CONCLUSION

This systematic literature review synthesizes empirical evidence on the role of character strengths in supporting student well-being in the digital era and highlights its implications for character education policy. Drawing on 26 peer-reviewed studies, the findings show that digital risks, such as cyberbullying, social comparison, Fear of Missing Out, problematic social media use, and excessive screen time, do not have uniform or deterministic effects on student well-being. Rather, their influence is shaped by students' internal psychological resources. Character strengths,

particularly self-regulation, hope, gratitude, perseverance, and critical thinking, consistently emerge as central resources that support psychological, social, and academic well-being across digital contexts, functioning as direct predictors as well as moderators and mediators. These results emphasize the need to move beyond risk-control approaches toward a strength-based framework that positions character education as a preventive and strategic foundation. Accordingly, character education policies should prioritize the systematic development of character strengths as core capacities that enable adaptive digital engagement and sustained student well-being.

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