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REVIEW ARTICLE

Evermore Wellbeing for Teens: A Scoping Review of Stand-alone and Brief Positive Psychology Interventions for Potential Use in Educational Settings

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Abstract

As adolescent mental health crises intensify across Western, Educated, Industrialised, Rich, and Democratic (WEIRD) countries, schools face mounting pressure to support student wellbeing without sacrificing academic priorities. This tension presents an urgent challenge: how can evidence-based psychological interventions be realistically integrated into time-constrained educational settings? This scoping review systematically identified evidence-based, stand-alone, and brief PPIs that could be explored for potential classroom integration, while highlighting the need for future research. Through an analysis of Carr et al.'s (2023) PPI mega-analysis, comprising 198 meta-analyses, we screened 1367 interventions for educational compatibility. Sixty-four interventions met our criteria for brevity (5–10 min), stand-alone implementation, and evidence-based effectiveness. These interventions span diverse domains including gratitude practices, Best Possible Self exercises, movement-based activities, and positive reminiscence, all potentially adaptable to standard lesson timeframes. The selected PPIs were evaluated using the ACTIONS framework (Activity, Calming, Thinking, Identity, Optimism, Nourishing, Social) (Boniwell, 2017) to support careful consideration in future implementation. This review offers two key contributions: (1) identification of promising evidence-based interventions that warrant further research and (2) a theoretical framework. The Positive Education Toolbox Approach (PoETA) aims to understanding how brief psychological interventions could be integrated into educational practice. The framework draws on theories of motivation, self-regulated learning, and adolescent development, suggesting potential mechanisms through which these interventions might influence both psychological wellbeing and academic engagement processes. These findings could support both teachers in integrating wellbeing practices into daily routines and researchers in developing focused interventions for educational settings.

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Introduction

Today's educational systems face a critical challenge that extends beyond academic instruction—supporting the psychological wellbeing of students while maintaining academic excellence. This dual necessity has become increasingly evident as declining adolescent mental health directly undermines learning capacity, motivation, and academic achievement (Curren et al., 2024; Helliwell et al., 2024). The compelling relationship between psychological wellbeing and learning processes is bidirectional: enhanced psychosocial competencies directly support the cognitive functions essential for academic success, while improved academic engagement positively influences psychological wellbeing (Shankland & Rosset, 2017; Tejada-Gallardo et al., 2020).

Research consistently demonstrates that students with stronger psychosocial skills demonstrate improved attention regulation, better classroom engagement, higher academic motivation, and ultimately superior academic performance (Cipriano et al., 2023; Durlak et al., 2022). When educators support students' psychological needs, they simultaneously create the cognitive and emotional conditions necessary for effective learning. This relationship is particularly critical during adolescence, when academic motivation typically declines while psychological vulnerabilities increase (Eccles, 2004; Yeager et al., 2018).

The mental health of teenagers' students, especially in Western, Educated, Industrialised, Rich, and Democratic (WEIRD) countries, has become a critical concern, with increasing reports of stress, anxiety, and other mental health issues described in the World Happiness Report (Helliwell et al., 2024). Although regions like sub-Saharan Africa have seen improvements in youth wellbeing (Helliwell et al., 2024), adolescence remains a critical developmental stage universally, marked by significant physical, emotional, and social changes. Declining wellbeing during this period can lead to long-term consequences, diminished academic achievement, impaired cognitive functioning, reduced attention regulation, lower classroom engagement, and poorer life satisfaction in adulthood (Curren et al., 2024; Gotlib et al., 2022).

An increasing number of scholars along with the UNESCO, the World Health Organisation, and the Organisation for Economic Co-operation and Development advocate for the development of psychosocial skills and the implementation of universal psychosocial interventions in schools (e.g. Boniwell & Ryan, 2012; Bressoud, 2023; Duraiappah et al., 2022; Gotlib et al., 2022; OCDE, 2024; World Health Organisation, 2022) to reach all adolescents, including those without supportive home environments. This emphasis on school-based implementation is grounded in the well-established bidirectional relationship between psychological wellbeing and learning processes where enhanced psychosocial competencies directly support cognitive functions essential for academic success, while improved academic engagement positively influences psychological wellbeing (Shankland & Rosset,

2017; Tejada-Gallardo et al., 2020). Universal positive psychology interventions (PPIs) have demonstrated significant potential in school settings, improving mental health (Alam, 2022; Hayes et al., 2025; Shankland & Rosset, 2017; Waters & Loton, 2019), enhancing academic outcomes through improved self-regulation and attention management, and fostering positive classroom climates (Cipriano et al., 2023; Durlak et al., 2022). By developing essential self-regulatory skills and creating positive emotional experiences, these interventions support the psychological resources necessary for sustained academic engagement and motivation, particularly important during adolescence when academic motivation often declines (Eccles, 2004; Yeager et al., 2018).

Evidence-Based Interventions

There are different definitions of evidence-based interventions. Generally, they refer to practices, programmes, or policies that integrate the best available evidence from systematic research with professional expertise. They also consider stakeholder values, including patient and public involvement, to inform decision-making and improve outcomes (Sackett, 1997, p. 71). To be considered evidence-based, an intervention must have undergone rigorous testing in controlled settings, preferably by independent researchers, and the results should be subjected to critical peer review (Small et al., 2009). The evidence supporting the effectiveness of an intervention should be based on a continuum of research designs, including randomised controlled trials, quasi-experimental studies, and observational studies (Puddy & Wilkins, 2011). Finally, in order to be considered evidence-based, studies must have been replicated and confirm the impact of the intervention as proposed by numerous scholars amongst which the What Works Clearinghouse (2020).

Psychosocial Skills and Academic Skills

Research shows that happier students learn more effectively, and happier teachers are more capable educators (Kuyken et al., 2022; Shankland & Rosset, 2017). In a review of meta-analyses of interventions driven in educational contexts, Durlak et al. (2022) highlight that socio-emotional skills can be taught, and that learning them significantly enhances various aspects of school climate and academic success. Their research demonstrates notable improvements in attitudes ($d = 0.07$ to $d = 0.93$), self-regulation ($d = 0.00$ to $d = 0.46$), prosocial behaviour ($d = 0.11$ to $d = 0.39$), conduct problems ($d = 0.07$ to $d = 0.45$), emotional distress ($d = 0.10$ to $d = 0.42$), behavioural and emotional difficulties ($d = 0.19$ to $d = 0.31$), emotional skills ($d = 0.23$ to $d = 0.54$), academic performance ($d = 0.18$ to $d = 0.46$), and reduced drug use ($d = 0.09$ to $d = 0.18$). These improvements in psychosocial skills create cognitive and emotional conditions conducive to learning: when students can better regulate their emotions and attention, they can more effectively engage with academic content, sustain motivation for challenging tasks, and develop positive relationships that support classroom participation (Greenberg, 2023). However, the authors also note considerable heterogeneity in these

findings, which can be attributed to several key factors, including methodological differences between studies, implementation quality, programme characteristics, sample characteristics, and measurement approaches. Despite this variability, the overall evidence suggests that SEL interventions are generally effective in promoting positive outcomes for students, and that the success of these programmes likely depends on careful attention to implementation, measurement, and contextual factors.

While these effect sizes may appear modest by conventional standards, Kraft's framework (2020) for interpreting effect sizes in education research emphasises that even seemingly small effects can be meaningful in education contexts, especially if interventions are low-cost and scalable. Thus, teaching these skills seems not only to enhance immediate educational outcomes but also to equip children with the emotional tools to lead happier and more successful lives in the long term (e.g. Goodman et al., 2015).

Psychosocial Skills Development

Scientific literature highlights the importance of developing psychosocial skills; however, determining the most effective environment for fostering these skills requires careful analysis. Both schools and homes are often referred to as suitable contexts for this development.

Studies indicate that teachers often face high levels of stress, burnout, and even depression (e.g. Agyapong et al., 2022, 2023; Raciala et al., 2021), making it particularly challenging to require them to take on the responsibility of promoting well-being. Scholars have even argued that teaching psychosocial skills should primarily occur at home and is not the responsibility of teachers (Kim, 2023).

Homes, supported by parents and caregivers, can indeed play a vital role in fostering children's social and emotional development (Istianti et al., 2023). Activities within the home that encourage emotional understanding and regulation can significantly enhance children's ability to navigate social interactions. Research has shown that such parental involvement supports the development of strong social-emotional competencies (e.g. Borelli et al., 2021; Chapman, 2024).

However, the extent to which parents and carers can fulfil this role varies widely, as not all families have the time, resources, or knowledge to provide consistent support. This variability underscores the need for schools to serve as a universal and equitable platform for developing psychosocial skills, ensuring that all children, regardless of their home circumstances, have access to these essential learning opportunities (Yeager et al., 2018).

Psychosocial Skills Development in School Context

One way to view the development of psychosocial skills in schools is through the lens of implicit methods, explicit methods, or a combination of the two (whole school approaches).

Whole School Approaches

Organisations like the Collaborative for Academic, Social, and Emotional Learning (CASEL) promote comprehensive, whole-school approaches to these skills, which involve all stakeholders in creating cohesive wellbeing strategies (Norrish et al., 2013; Waters & Loton, 2019).

Notable examples include the CASEL framework (Collaborative for Academic, Social, and Emotional Learning, 2023), which focuses on fostering core competencies such as self-awareness, relationship skills, and responsible decision-making through a coordinated approach involving schools, families, and communities. At Geelong Grammar School in Australia, positive education principles are embedded into everyday practices, promoting wellbeing through a whole-school strategy that actively involves staff, students, and parents (Norrish et al., 2013). Similarly, Tecmilenio University in Mexico incorporates wellbeing into its educational model by aligning curricula, campus culture, and institutional practices with the science of positive psychology (Chaves et al., 2023).

Implicit Approach

Implicit instruction relies on teachers' emotional intelligence and mindset to influence students' psychosocial skills (Curci et al., 2014; Sharma & Joshi, 2023), supported by theories like mirror neurons (Rizzolatti et al., 1996), co-regulation (Immordino-Yang et al., 2019), and vicarious learning (Bandura, 1965). These theories suggest that observing positive behaviours or emotional responses activates corresponding brain regions in students, facilitating their own psychosocial skill development. Recent research highlights how teachers' mindsets can have a positive impact on students' learning engagement and emotional wellbeing (Mesler et al., 2021; Seaton, 2018; Wang et al., 2024). However, scholars (Curren et al., 2024; Durlak et al., 2011; Morris, 2015; Schonert-Reichl, 2017; Wood, 2020) argue that while implicit instruction is highly important, it alone may not be sufficient.

Explicit Approach

Explicit instruction involves direct teaching of wellbeing skills through school-subject material (e.g. The Jubilee Centre for Character and Virtues, n.d.) or structured programmes, lessons, or activities, such as movement, emotional intelligence training, or problem-solving strategies. Frameworks like the SAFE model (Durlak et al., 2011), which emphasises Sequenced, Active, Focused, and Explicit instruction, have demonstrated significant positive impacts on student outcomes, including self-regulation, attitudes, and academic performance (e.g. Cipriano et al., 2023; Durlak et al., 2022). Despite their effectiveness, explicit approaches are often challenging to implement in real-world school settings. Structured wellbeing programmes, such as those described by Eades (2008) or the dot.be for introducing mindfulness in schools (Mindfulness in Schools Project, n.d.), require considerable time and resources, making them impractical for schools with tight schedules and limited budgets. Additionally, teachers also frequently report a lack of time for the

training required to deliver such programmes effectively. Finally, these programmes are often rigid, requiring strict adherence to scripts and prescribed methods, leaving little room for flexibility. For educators who prefer to adapt and rephrase content to suit their teaching style or students' needs, such rigidity can make these programmes particularly challenging to implement.

Even though there is a large body of literature in favour of the implementation of these skills in school contexts, one main challenge can be identified. Fostering psychosocial skills is already considered part of teachers' responsibilities in many countries like the USA (Kim, 2023), England, Wales (Emery, 2016), or Switzerland (CIIP, 2011). However, most teachers lack training, time, evidence-based material, and flexibility to integrate these skills explicitly into their classes (e.g. Jamil et al., 2024; Nqabeni & Cishe, 2023).

The Positive Education Toolbox Approach (PoETA)

To address the challenges of integrating wellbeing practices into schools, the Positive Education Toolbox Approach (PoETA) (Lucciarini & Boniwell, 2023) offers a practical, evidence-informed solution tailored to the realities of modern classrooms. The PoETA aims at providing short (5 to 10 min), stand-alone, explicit, and flexible interventions that require minimal or no specialised training. Recognising that teachers face significant time pressures and often lack access to extensive training opportunities, the PoETA aims to prioritise hands-on activities that can potentially fit seamlessly into existing curricula and schedules, pending further validation in real-world educational settings. Unlike traditional programs that assume direct transferability from controlled research settings to classrooms, the PoETA aims at ensuring that interventions are validated in real-world educational contexts. By bridging the gap between research and practice, the PoETA's objective is to empower teachers to implement activities that address their classroom's specific needs. Students, in turn, are encouraged to choose how and which activities they engage with, fostering intrinsic motivation and meaningful participation.

After setting out the general principles of the PoETA approach (Lucciarini & Boniwell, 2023), this scoping review marks the next step in the PoETA's development, focusing on identifying evidence-based interventions with demonstrated positive effects that could be adapted in educational settings. It lays the foundations for the next stage of the programme's operationalisation for classroom use, which will measure its significant impacts and conditions of effectiveness through dedicated scientific studies.

Positioning the PoETA Within Existing Educational Frameworks

To understand the contribution of the PoETA framework, it is important to position it within the landscape of existing approaches to psychosocial skill development in educational settings. PoETA does not replace established frameworks such as CASEL (Collaborative for Academic, Social, and Emotional Learning) or SAFE

(Sequenced, Active, Focused, and Explicit); rather, it complements them by addressing specific implementation challenges.

CASEL (like the Learning Compass by the OECD for example) offers a comprehensive framework that defines the target competencies for social and emotional learning (self-awareness, social awareness, relationship skills, responsible decision-making, and self-management) and advocates for whole-school approaches involving all stakeholders (Collaborative for Academic, Social, and Emotional Learning, 2023). While CASEL provides valuable guidance on objectives and systemic implementation, its comprehensive nature often requires substantial organisational commitment and resources that may be challenging for many schools to fully implement. Moreover, although CASEL establishes clear objectives, it does not specify the means or tools to operationalise.

The SAFE model (Durlak et al., 2011) addresses implementation quality by identifying four key principles that effective interventions should follow: activities should be *sequenced* in a coordinated manner, use *active* forms of learning, *focus* sufficient time on skill development, and include *explicit* learning goals. Research consistently demonstrates that interventions adhering to these principles yield stronger outcomes (Durlak et al., 2022). While highly valuable as a set of guidelines, SAFE primarily provides implementation principles rather than specific classroom practices, leaving educators to determine how to translate these principles into day-to-day activities.

The PoETA framework aims to address this implementation gap by identifying evidence-based interventions that could potentially be adapted for educational settings while adhering to SAFE principles and supporting CASEL competencies. What distinguishes PoETA from these existing frameworks is its theoretical focus on addressing commonly reported barriers to implementation: time constraints, limited teacher training opportunities, and the need for flexibility within existing curricula.

While CASEL provides a comprehensive approach that often involves whole-school implementation, the PoETA proposes a more targeted, classroom-level approach that, if validated, could potentially be adopted by individual teachers with minimal disruption to existing practices. The PoETA framework represents a theoretical basis for identifying interventions that might bridge the gap between established principles and practical classroom application, though substantial research is still needed to confirm its effectiveness in educational contexts.

This positioning enables the PoETA to build upon the theoretical strengths of established frameworks while addressing practical implementation challenges. Future research will systematically examine how interventions identified through the PoETA framework align with CASEL competencies and SAFE principles in real-world educational settings.

Grounding the PoETA in Education-Based Practice

The PoETA is grounded in the principles of education-based practice (Curren et al., 2024; Gotlib et al., 2022), which, like evidence-based medicine (Sackett, 1997), incorporates three critical components:

1. The best available scientific evidence
2. Educational expertise
3. The needs and preferences of students and teachers

The Best Available Scientific Evidence Given the complexities of integrating psychosocial skills in educational settings, there is a recognised need to select interventions grounded in robust evidence (e.g. Curren et al., 2024; Durlak et al., 2011; Gentaz & Richard, 2022; Kern et al., 2024). Meta-analyses provide a powerful framework for synthesising findings across multiple studies, making the evidence more robust. By pooling data from multiple studies, meta-analyses increase statistical power, assess generalisability across various contexts (Gurevitch et al., 2018), mitigate limitations of individual studies, explore moderators influencing the effect, and reconcile conflicting results (Borenstein et al., 2021). Indeed, numerous disciplines within the scientific community propose that the optimal epistemological approach is represented by randomised controlled trials within meta-analyses, which are considered the pinnacle of evidence in the hierarchy of research methodologies (Moher, 1995). Within meta-analyses, "the decisions are transparent, and statistical analysis yields an objective measure of the integrative quantitative evidence" (Lee, 2019, p. 391). Therefore, the Toolbox only includes interventions that have been validated through meta-analyses, ensuring that the selected interventions are supported by the best available scientific evidence.

Building upon the strengths of meta-analyses, mega-analyses offer an even more comprehensive and robust approach to synthesising evidence. Mega-analyses, such as the one conducted by Carr et al. (2023), aggregate data from multiple meta-analyses, providing a higher-order synthesis of available evidence. This approach offers several advantages over traditional meta-analyses. For example, by combining data from multiple meta-analyses, mega-analyses can detect smaller effect sizes and provide more precise estimates (Boedhoe et al., 2019). Moreover, mega-analyses can mitigate the impact of publication bias by including a wider range of studies and meta-analyses, potentially capturing unpublished or overlooked findings (Coburn & Vevea, 2015). Another strength is that the larger dataset in mega-analyses enables more robust subgroup analyses, allowing for the identification of moderating factors that may not be apparent in individual meta-analyses (Riley et al., 2010).

Given these advantages, the use of Carr et al.'s (2023) mega-analysis as the foundation for our Toolbox selection process ensures that we are drawing from the most comprehensive and rigorous synthesis of evidence available in the field of psychology.

While meta-analyses and mega-analyses provide a robust foundation for identifying effective interventions, it is also essential to examine the methodological quality of individual studies within these analyses. The best available evidence should be considered for the PoETA. Thus, only PPIs that have been evaluated in high-quality, well-designed studies and subsequently included in meta-analyses are taken into consideration. Meta-analyses can sometimes include studies of varying methodological rigour, and the presence of a study within a meta-analysis does not

automatically guarantee its quality (Coburn & Vevea, 2015). Therefore, beyond the meta-analytic validation, the strength of evidence for each PPI is assessed based on the methodological quality of the original studies, rather than solely on their inclusion in meta-analyses. This dual-level assessment—considering both meta-analytic evidence and individual study quality—provides a more comprehensive evaluation of intervention efficacy and ensures that our toolbox comprises PPIs supported by the highest quality evidence available in the field (Gentaz & Richard, 2022).

This thorough approach aligns with best practices in evidence-based interventions and strengthens the credibility of the PoETA framework. Scrutinising both the broader synthetic evidence and the quality of individual source studies enhances confidence in the robustness of the selected interventions for educational implementation.

Educational Expertise The educational expertise component of the PoETA recognises teachers' critical role in implementing psychosocial interventions within school settings. This expertise encompasses classroom management skills for creating supportive learning environments (Sabornie & Espelage, 2023), pedagogical adaptability to integrate brief interventions, as routines, for example (Gaudreau, 2019), and strategies for engaging adolescents effectively (Yeager et al., 2018). Drawing from research in coaching psychology, the PoETA promotes flexible, adaptive practices and horizontal leadership structures (Grant, 2017; Green & Norrish, 2013) moving away from prescriptive approaches towards more personalised interventions. This multifaceted expertise, combined with reflexive practice (Schön, 2017), forms a crucial bridge between PPI research and practical application.

Students and Teachers' Needs Finally, the PoETA framework places significant emphasis on the needs and preferences of both students and teachers. Recognising that each classroom is unique, the PoETA encourages a participatory approach, where students and teachers are given agency in selecting and engaging with interventions that resonate with their interests and learning styles. This student-centred approach not only enhances engagement and motivation but also aligns with contemporary educational motivational theories that value student voice and choice (Deci & Ryan, 2015). Thus, short, stand-alone PPIs align with both student and teacher needs, offering agility and flexibility in implementation. These interventions also complement existing classroom management techniques, allowing for seamless integration into various educational settings.

Short PPIs

Central to the PoETA's design is its focus on brief, targeted PPIs that can be seamlessly incorporated into a typical 45-min lesson structure. By capitalising on research suggesting the effectiveness of short interventions (e.g. Gorman & Green, 2016; Müller et al., 2021; Phang et al., 2015), such as *three good things* (Gander et al., 2016), the PoETA should enable teachers to embed wellbeing education into their existing lesson plans without requiring significant additional time or resources.

These brief interventions align with educational psychology research on attentional cycles in classroom settings. Studies by Bunce et al. (2010) demonstrate that student attention during lectures fluctuates in ever-shortening cycles, with attention lapses occurring at increasingly shorter intervals throughout a class period. Importantly, their research shows that incorporating student-centred pedagogical approaches and changing activities throughout a lesson significantly improve student attention both during the activity and in subsequent lecture segments. The diverse array of interventions offered in the PoETA framework could serve this exact function—providing student-centred "attention reset" opportunities that may help maintain engagement throughout learning activities.

Longer interventions, while valuable, often face practical barriers in school contexts due to time constraints and competing curricular demands. Additionally, brief PPIs may be particularly beneficial during developmental periods like adolescence when students are increasingly sensitive to how their time is directed and may resist lengthier prescribed activities (Yeager et al., 2018). The PoETA's emphasis on short PPIs is likely to provide a realistic and scalable approach to wellbeing education.

Stand-alone PPIs The PoETA offers a flexible approach by including both guided and self-directed stand-alone interventions. It emphasises the importance of autonomy and self-selection, allowing teachers to choose interventions that best suit their classroom's specific climate and needs. This adaptability should enable educators to respond to the unique challenges of each learning environment without being constrained by a predetermined sequence. Teachers have the flexibility to select different PPIs as classroom dynamics shift, prioritising real-time responsiveness over potentially more effective but less situationally appropriate interventions. Because research has consistently shown that self-selected interventions tend to yield stronger effects on motivation and overall efficacy (Deci & Ryan, 2012; Giannopoulos & Vella-Brodrick, 2011; Kalisch et al., 2022), it also encourages teachers to let students choose from a selection of evidence-based activities. This versatility suggests that, pending future research in educational contexts, the PoETA has the potential to be effectively implemented across diverse educational settings, regardless of the available resources or specific curricula in place.

Adapted to Teenagers Adolescence is widely recognised as a period marked by significant growth in autonomous functioning. The development of autonomy represents a core developmental task during this stage, closely linked to the cognitive, emotional, and social changes of the period. This increasing autonomy is believed to support adolescents' psychosocial functioning by fostering wellbeing, identity formation, and adaptive capacities (Beyers et al., 2025). The PoETA framework seems particularly relevant for adolescents, a period characterised by rapid changes where motivation plays a crucial role in achieving goals, fulfilling responsibilities, and experiencing healthy development (Çelik, 2024). The PPIs identified in our research will need to be adapted to resonate with teenagers' experiences and worldviews, ensuring relevance and potential effectiveness in their school environment and outside of it (Brannick O'Cillin, 2022). PPIs tailored for teenagers require engaging

content and presentation that acknowledges their developmental stage and need for autonomy (Yeager et al., 2018).

Instructions should be concise and clear, with age-appropriate vocabulary (Grant, 2017), as adolescents are particularly sensitive to overly simplistic or patronising language. Teachers should also have the flexibility to adjust the vocabulary (while maintaining the core intervention) to better suit the specific needs of their student population. To enhance engagement and adherence, it is crucial to include novel and dynamic materials that capture teenagers' and teachers' interest and prevent boredom (Hartley, 2021; Lakicevic et al., 2020; Sylvester et al., 2016). This adaptation process must balance developmental appropriateness with maintaining the core mechanisms that make these interventions effective.

As explained by Immordino-Yang and colleagues (2019), adolescents develop optimally when they are given opportunities to deeply explore and grow their personal interests and technical skills through engaging coursework, the arts, sports, and other meaningful activities. Well-designed experiences support them in forming constructive and prosocial connections by encouraging community involvement, perspective-taking, and reflection on what gives life meaning. Their sense of efficacy, agency, and purpose is strengthened when they are safely and supportively able to explore different social identities, interests, beliefs, and values and to build close relationships with family, peers, and trusted adults such as teachers, mentors, spiritual guides, and coaches. Physical activity, social connection, good nutrition, and sufficient sleep are especially important during adolescence, as they help protect the brain from stress and enhance wellbeing, emotional regulation, cognitive function, and decision-making (Immordino-Yang et al., 2019). The PoETA framework supports this developmental trajectory by providing structured opportunities for adolescents to engage with emotionally and socially meaningful content.

The Present Study

Methodology

Inclusion and Exclusion Criteria

Given these theoretical foundations and practical considerations, we developed a systematic approach to identify and evaluate interventions suitable for the PoETA framework. Our selection process was designed to balance the three core components of education-based practice (Gentaz & Richard, 2022): scientific rigor, educational expertise, and user needs. Specifically, we sought interventions that were both empirically validated and practically implementable in school settings, while remaining adaptable to different teaching styles and student needs. To achieve this, we conducted a two-stage screening process to identify appropriate studies and interventions, first examining study-level characteristics and then evaluating specific intervention features.

At the study level, we included research that met several key criteria: studies needed to focus on non-clinical or mixed samples, describe non-therapeutic interventions, and

demonstrate compatibility with school settings. Additionally, studies were required to describe interventions that could be implemented without specialised expertise or technological platforms. We excluded studies that primarily targeted clinical populations, involved settings with limited relevance to educational contexts, were published before 2000, or required clinical expertise for implementation.

For individual interventions within selected studies, we prioritised practical applicability in educational settings. To be considered, interventions needed to be brief (or adaptable to shorter timeframes) and capable of being implemented as stand-alone activities. While group-based activities are common in schools, we found that interventions designed specifically for groups requiring extended time periods, such as full-class periods, posed significant implementation challenges within typical lesson constraints. Therefore, these were excluded, though we retained brief activities that could optionally be conducted in groups.

In order to understand the effectiveness of interventions, it is important to examine null and negative findings as well as follow-up effects. However, as our main focus was on identifying interventions with practical potential for schools, we here chose to exclude those that showed negative effects consistently. In addition, we will address the limitations of sustained effectiveness across follow-up periods in the discussion section.

To ensure rigorous selection, two independent authors screened all studies and interventions against these criteria. When disagreements arose, they were resolved through discussion or consultation with a third reviewer. Studies or interventions with inaccessible full texts were excluded as we could not evaluate their complete protocols.

Search Strategy

Guided by the findings that led to the PoETA, we chose to take as a basis the first ever mega-analysis on PPIs by Carr and colleagues (2023). This mega-analysis was chosen due to its comprehensive scope, robustness, and large sample size. It includes 198 meta-analyses encompassing 4063 studies, with 70.2% being randomised controlled trials and a total of 501,335 participants. Carr et al. used Schueller's definition of PPIs (2014), which aim to develop wellbeing through affective, behavioural, cognitive, or motivational pathways. This broad definition allowed for the inclusion of various interventions such as mindfulness, mind–body exercises, and creativity. Post-intervention effect sizes were the following:

- Strengths, $g = 0.42$ [0.39, 0.45]
- Depression, $g = 0.42$ [0.37, 0.47]
- Stress, $g = 0.42$ [0.36, 0.48]
- Quality of life, $g = 0.41$ [0.37, 0.45]
- Anxiety, $g = 0.41$ [0.34, 0.48]
- Wellbeing, $g = 0.34$ [0.29, 0.39]

Heterogeneity and publication bias were significant, but effect sizes remained within the small–to–medium range even after adjustments.

Selection Process

Our methodology followed a systematic four-phase approach to identify and evaluate interventions suitable for the PoETA framework (Fig. 1). Beginning with Carr et al.'s (2023) mega-analysis, we first screened meta-analyses for relevance to educational settings. We then examined individual interventions from these meta-analyses for compatibility with PoETA's criteria. The third phase involved categorising and evaluating these compatible interventions for redundancy and practical implementation. Finally, we assessed the methodological quality of source studies to ensure robust evidence support.

To enhance methodological rigor throughout this process, the first and last authors—each with substantial classroom teaching experience (20 and 23 years respectively)—independently assessed interventions against the established criteria.

For evaluating brevity, interventions were coded as suitable if they could be completed within approximately 5–10 min, a timeframe identified as practically manageable within standard lesson structures without significantly disrupting instructional flow. Feasibility assessment considered whether interventions could be implemented without specialised equipment, extensive teacher training, or significant modification of classroom environments. When disagreements arose regarding an intervention's compatibility with these criteria, particularly concerning duration or classroom practicality, the researchers tested the interventions in their respective school contexts to empirically determine feasibility.

This practical testing approach allowed for real-world validation of interventions about which there was uncertainty. Additionally, subsequent pilot testing of selected interventions (Lucciarini et al., in prep) has provided preliminary confirmation that these types of activities can be successfully implemented within classroom settings, though comprehensive validation remains an important direction for future research.

This dual-assessment process with structured resolution of disagreements and practical testing helped ensure that selection decisions incorporated multiple perspectives grounded in classroom experience.

Phase 1: Meta-analyses Selection

In total, 198 meta-analyses were initially identified and screened for inclusion in this scoping review (Fig. 2). After a screening process and reading of abstracts, 179 meta-analyses were excluded for the following main reasons: clinical samples ($k = 123$), where most studies focused on specific clinical populations such as those with cancer, chronic pain, mental health issues, or other medical conditions, which were not relevant to the universal educational settings targeted in this review. Samples of low relevance ($k = 26$) included populations such as the elderly, caregivers, medical professionals, or non-Western samples. Settings of low relevance ($k = 8$) encompassed studies set in environments like prisons or workplaces, which do not align with the educational-friendly settings of interest. Interventions requiring expertise ($k = 12$) involved certain interventions, such as Yoga, Qigong, or specific programmes like acceptance and commitment therapies that required specialised training and were not considered brief or stand-alone. Lastly, technology-based

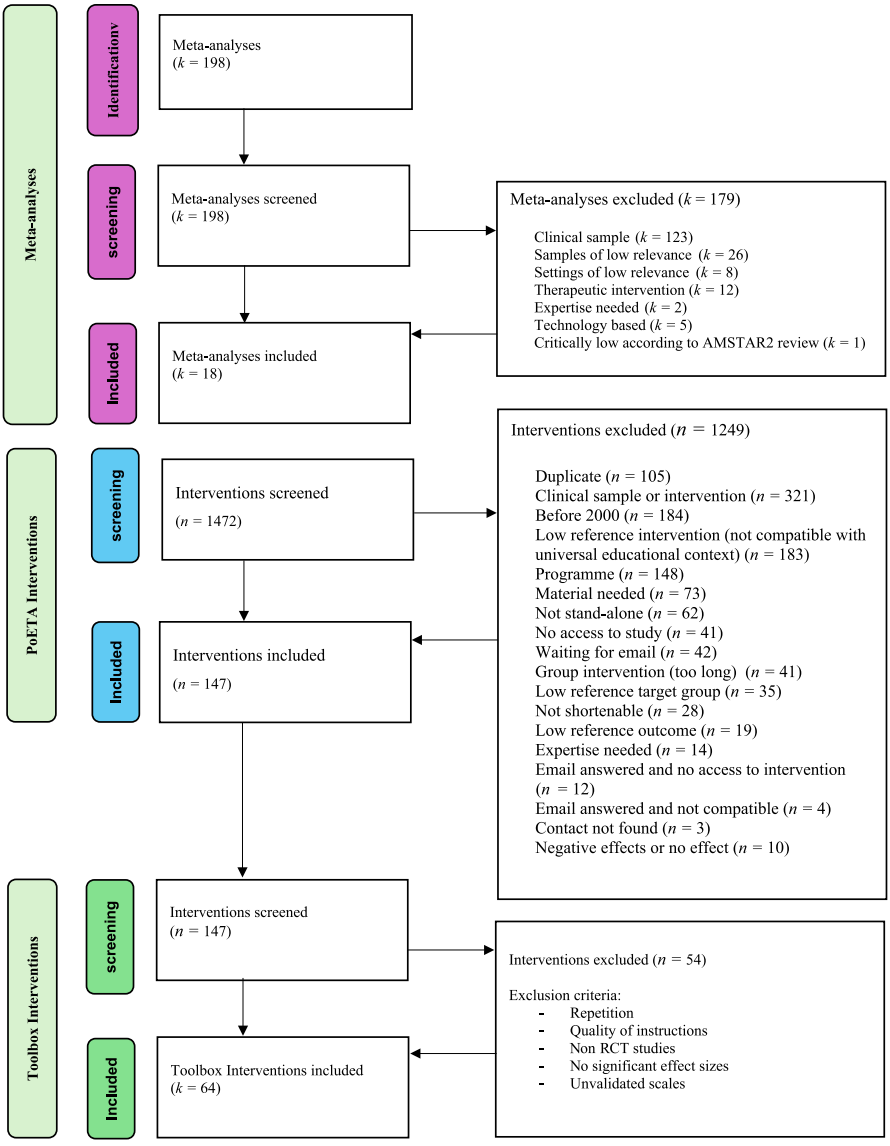

Fig. 1 Summary of methodology

interventions ($k = 5$) included app-based or web-based interventions that did not fit the criteria of interventions that could be easily implemented in educational settings.

The remaining 19 meta-analyses underwent quality assessment using AMSTAR 2 criteria, building upon Carr et al.'s (2023) analysis. One meta-analysis was excluded due to critically low methodological quality (Mazzucchelli et al., 2010), resulting in 18 meta-analyses collectively analysing 1370 unique studies involving 290,630 participants, for further analysis (Table 1).

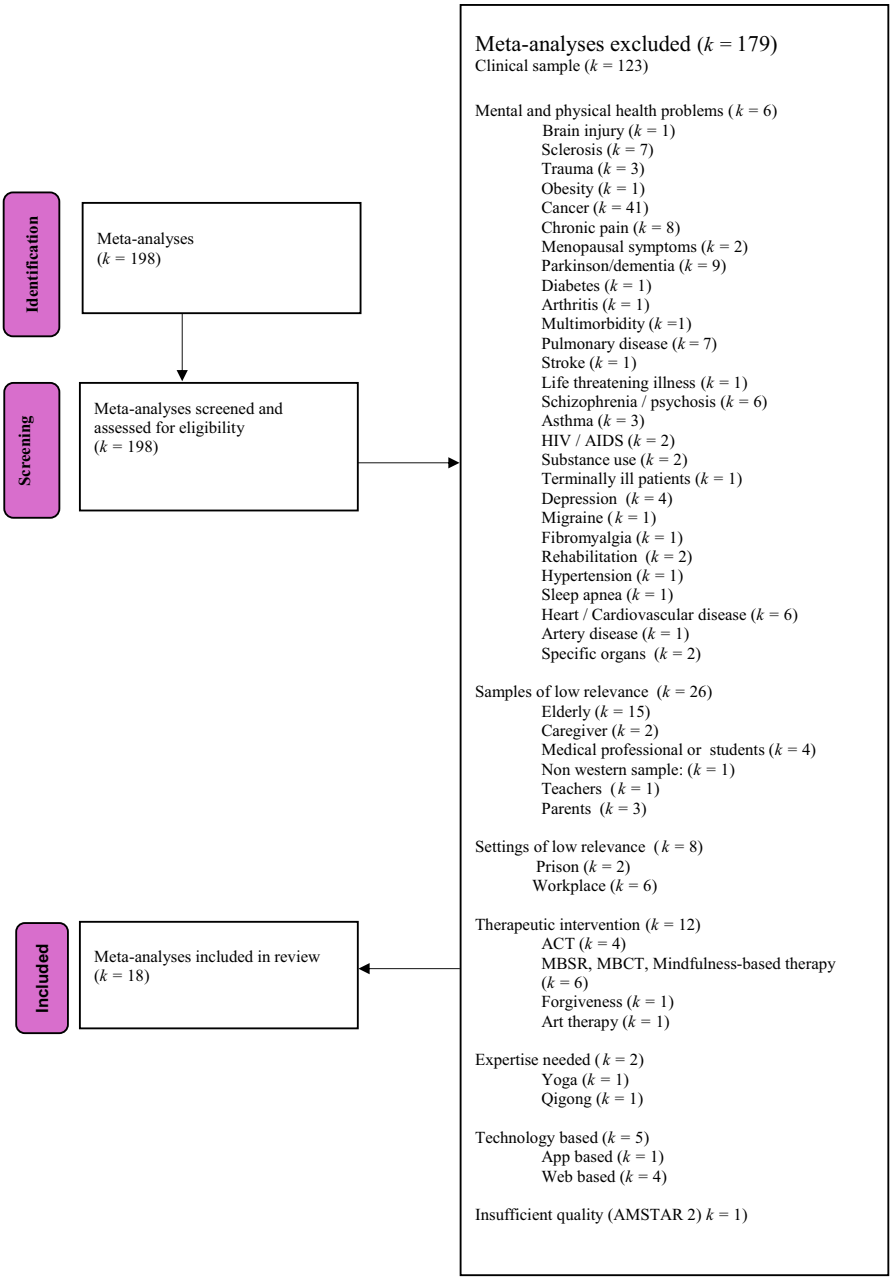

Fig. 2 Flow diagram of the screening and selection process for meta-analyses

Phase 2: Initial PoETA PPI Screening

From the 18 meta-analyses, we identified 1472 interventions. Following the removal of 105 duplicates, 1367 interventions proceeded to further screening as illustrated in Fig. 3. To ensure methodological rigour in this screening phase, the first author reviewed each intervention against predefined inclusion and exclusion criteria. When disagreements arose regarding an intervention's eligibility, the first and last authors discussed the specific considerations until reaching consensus.

A total of 1249 interventions were subsequently excluded for various reasons, the primary being that they involved clinical samples or therapeutic interventions ($n=$ 321). Given that positive psychology was officially launched in 1999 (Seligman, 1999), studies conducted before the year 2000 were excluded ($n=$ 184). Additionally, some PPIs were not compatible with a universal educational context ($n=$ 183); for example, interventions based on volunteering (Yuen et al., 2008) or specific programs like dErasmus (Trench & Minervino, 2017). PPIs that necessitated specific material ($n=$ 73) or expertise ($n=$ 14) as well as those that were part of a broader program ($n=$ 148), were designed specifically for groups ($n=$ 41), were not stand-alone ($n=$ 62) and not-shortenable ($n=$ 28), or showed negative or no effect ($n=$ 10) were also discarded. Thirty-five studies were not relevant due to the specificity of the target group (e.g. religious-based gratitude strategy (Al-Seheel & Noor, 2016), ethnically at risk teenagers (Bluth et al., 2016)) and 19 for their low reference outcomes (e.g. improving dance video game (Gao & Podlog, 2012) or fixing a broken heart after a break-up (Lewandowski, 2009)). Forty-one studies were not accessible through the different databases. Moreover, the first author sent emails to the authors of the PoETA-compatible PPIs. For three interventions, no contact was traceable. She did not receive email responses ($n=$ 42) and thus could not access the interventions. In 12 instances, the contacted authors either did not or could not provide access to the original intervention; in four, their answer led to incompatibility.

Ultimately, 147 interventions were deemed compatible, with 3 interventions becoming compatible after receiving author responses, 121 being toolbox compatible and having independent effect sizes, and 24 having non-independent effect sizes. The decision to retain the 24 interventions with non-independent effect sizes was based on the comprehensive evaluation of their methodological rigor and relevance to the PoETA framework. These interventions, despite their non-independent effect sizes, demonstrated significant potential in contributing valuable insights and empirical support to the overarching goals of the PoETA framework. They were retained because they provided unique data that was not otherwise captured by the interventions with independent effect sizes. Consequently, their inclusion was justified by their ability to enhance the breadth of the findings, providing practitioners with a richer selection of interventions to choose from.

Phase 3: Selection for Diversity, Impact, and Clarity

For the 147 identified interventions, we applied additional exclusion criteria to ensure a diverse, impactful, and practical set of interventions for the PoETA

Table 1 Included meta-analyses taken directly from Carr's 2023 meta-analyses

Meta-analysis	*k*	*N*	Effect
1. Bolier et al. (2013)	39	6139	Wellbeing: *SMD* = 0.34 Subjective wellbeing: *SMD* = 0.20 Depression: *SMD* = 0.23
2. Carr et al. (2021)	347	72,356	Wellbeing: $g = 0.39$ Strengths: $g = 0.46$ Quality of life: $g = 0.48$ Depression: $g = -0.39$ Anxiety: $g = -0.62$ Stress: $g = -0.58$ Gains were maintained at 3 months follow-up
3. Carrillo et al. (2019)	26	2909	Optimism: $d = 0.334$ WB: $d = 0.325$ Positive affect: $d = 0.511$ Depression: $d = 0.115$ Negative affect: $d = 0.192$
4. Carsley et al. (2018)	24	3977	Mental health wellbeing outcomes: $g = 0.23$, 95% CI [0.12, 0.34], $p < 0.001$
5. Chu et al. (2020)	9	912	MBI on meaning: $g = 0.53$
6. Dunning et al. (2018)	33	3666	MBIs have an effect on: Mindfulness: $d = 0.42$ Depression: $d = 0.47$ Anxiety/Stress: $d = 0.18$
7. Epton et al. (2015)	141	5564	Goal setting had statistically significant effects on behaviour: $d = 0.34$ (CI = 0.28 to 0.41)
8. Goyal et al. (2014)	47	3320	Anxiety: $d = 0.38$ (CI 0.12 to 0.64) at 8 weeks; $d = 0.22$ (0.02 to 0.43) at 3–6 months Depression: $d = 0.30$ (0.00 to 0.59) at 8 weeks; $d = 0.23$ (0.05 to 0.42) at 3–6 months Pain: $d = 0.33$ (0.03 to 0.62) Low evidence to improve stress/distress and mental health-related quality of life
9. Haase et al. (2023)	84	4557	Creativity: $g = 0.53$, 95% CI [0.44, 0.61]
10. Heekerens and Eid (2021)	34	1840	Positive affect: $g = 0.28$, 95% CI [0.16, 0.41] Optimism: $g = 0.21$, 95% CI [0.04, 0.38]

Table 1 (continued)

Meta-analysis	*k*	*N*	Effect
11. Hodzic et al. (2018)	24	1986	Emotional Intelligence: SMC pre–post = 0.51 with a 95% CI [0.41, 0.60]
12. Kirby et al. (2017)	21	1285	Compassion: $d = 0.55$, $k = 4$, 95% CI [0.33–0.78] Self-compassion: $d = 0.70$, $k = 13$, 95% CI [0.59–0.87] Mindfulness: $d = 0.54$, $k = 6$, 95% CI [0.38–0.71] Depression: $d = 0.64$, $k = 9$, 95% CI [0.45–0.82] Anxiety: $d = 0.49$, $k = 9$, 95% CI [0.30–0.68] Psychological distress: $d = 0.47$, $k = 14$, 95% CI [0.19–0.56] Wellbeing: $d = 0.51$, $k = 8$, 95% CI [0.30–0.63]
13. Leyland et al. (2019)	27	2179	A mindfulness induction was superior to comparison groups in enhancing the regulation of negative affect: $d = -0.28$ Regulation of negative affect was SMD weighted = −0.28, 95% CI = [− 0.44, − 0.11], $Z = 3.24$, $p = 0.001$ Emotion regulation: from 0.40 to − 2.09. The effect was not conclusive when compared to other adaptive regulation instructions (e.g. problem-solving) and was equal to the effects of distraction
14. Lupsa et al. (2020)	41	3911	PsyCap variables: $d = 0.34$, $k = 41$, $Z = 6.74$, $p < 0.001$ Developing PsyCap: $d = 0.26$, $k = 9$, $Z = 4.37$, $p < 0.001$ Hope: $d = 0.22$, $k = 5$, $Z = 2.26$, $p < 0.05$ Self-efficacy: $d = 0.37$, $k = 18$, $Z = 4.11$, $p < 0.001$ Optimism: $d = 0.36$, $k = 12$, $Z = 2.52$, $p < 0.05$ Resilience: $d = 0.49$, $k = 12$, $Z = 3.61$, $p < 0.001$
15. Marker et al. (2018)	33	9449	Health related quality of life: $g = 0.279$ Parent-proxy reports $g = 0.522$, $p = 0.012$
16. Rodriguez-Ayllon et al. (2019)	114	2140	Mental health: $d = 0.173$, 95% CI = [0.106, 0.239], $p < 0.001$, percentage of total variability attributed to between-study heterogeneity [I^2] = 11.3%). No evidence on pre-schooler (but teenagers and children yes)

Table 1 (continued)

Meta-analysis	*k*	*N*	Effect
17. Salazar et al. (2021)	276	159,508	Mental health literacy: $g = 0.685$, $p < 0.001$) Emotions: $g = 0.541$, $p < 0.001$) Self-perceptions and values: $g = 0.49$, $p < 0.001$) Quality of life: $g = 0.457$, $p = 0.001$) Cognitive skills: $g = 0.428$, $p < 0.001$) Social skills: $g = 0.371$, $p < 0.001$) Physical health: $g = 0.285$, $p < 0.001$) Sexual health: $g = 0.257$, $p = 0.017$) Academic/occupational performance: $g = 0.211$, $p < 0.001$) Attitude towards mental disorders: $g = 0.177$, $p = 0.006$ Mental health literacy: $g = 0.774$, $p < 0.001$ Cognitive skills: $g = 1.153$, $p = 0.03$ Physical therapy, exercise and relaxation were more effective than psychoeducation: $g = 0.498$, $p < 0.001$)
18. Weiss et al. (2016)	27	3579	Quality of life: SMD, −0.75; 95% CI −1.26 to −0.24; $p = 0.004$ Sleep quality: SMD, −0.55; 95% CI −0.97 to −0.12; $p = 0.010$ Balance: SMD, −0.94; 95% CI −1.59 to 0.30; $p = 0.004$ Handgrip strength: SMD, −0.69; 95% CI −1.2 to −0.19; $p = 0.007$ Trunk flexibility: SMD, −0.66; 95% CI −1.13 to −0.19; $p = 0.006$ Systolic: SMD, −0.60; 95% CI −0.94 to −0.27; $p = 0.0004$ Diastolic blood pressure: SMD, −0.46; 95% CI −0.73 to −0.20; $p = 0.0005$ Resting heart rate: SMD, −0.87; 95% CI −1.47 to −0.27; $p = 0.005$

The effect sizes were taken directly from the studies, which explains the heterogeneity in the number of decimal places and the types of effect sizes reported

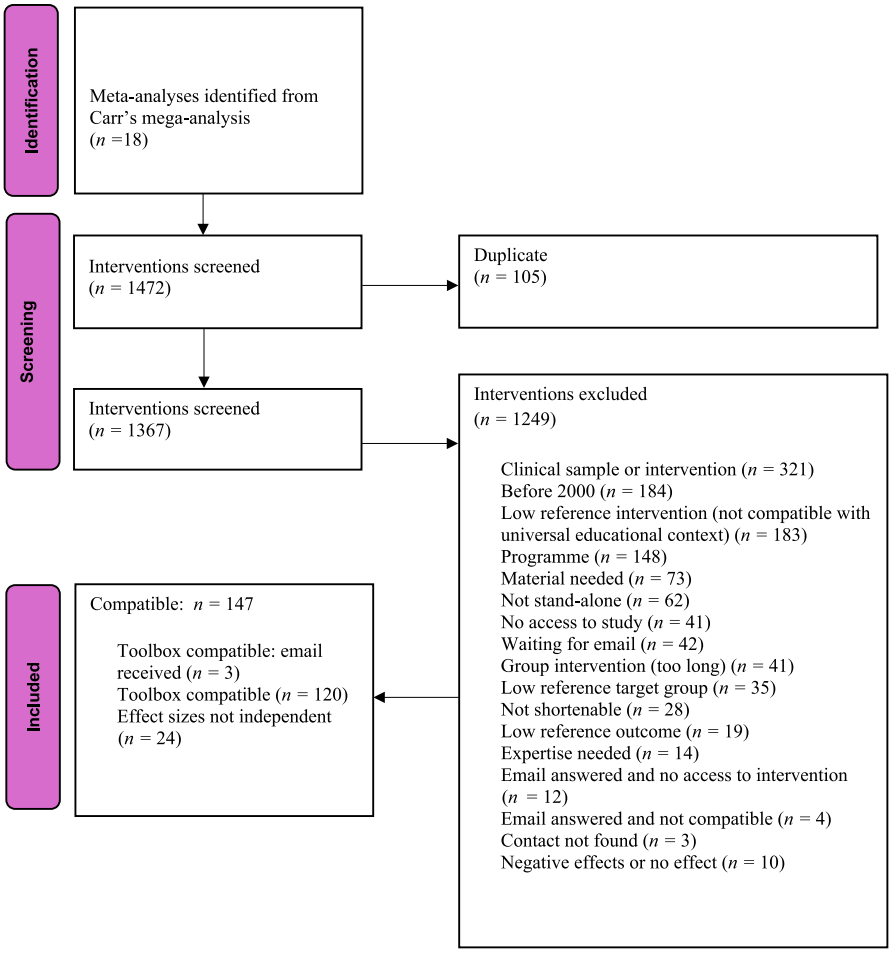

Fig. 3 Flow diagram of the screening and selection of PPIs

framework. By prioritising interventions that have shown promise in other settings but have not yet been widely applied in schools, we aim to provide teachers with novel and potentially effective strategies for promoting student wellbeing. In addition to diversity, we carefully considered the impact of each intervention, giving preference to those with the most significant effect sizes. This approach should increase the likelihood of positive outcomes when implemented in the classroom. However, we also recognise that effect sizes should be interpreted cautiously, as they may vary depending on the specific context and population studied.

Finally, we prioritised interventions with clear, concise, and accessible instructions to ensure that teachers can easily understand and implement them in their

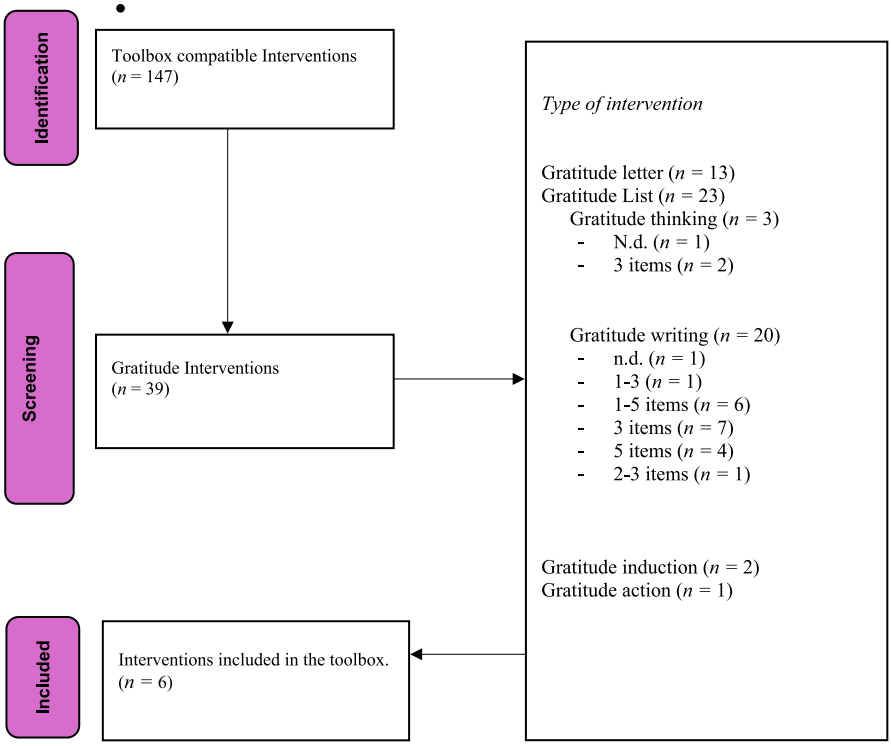

Fig. 4 Flow diagram of the screening and selection of gratitude PPIs

classrooms. This emphasis on clarity and usability is crucial for the successful adoption and sustained use of the PoETA framework by educators.

Data were analysed by two researchers to select the most effective interventions for overrepresented categories like gratitude ($n = 39$), Best Possible Self ($n = 22$), and mindfulness ($n = 22$), based on variety, effect sizes, and relevance to school contexts.

The process for gratitude interventions exemplifies this approach (Fig. 4). The 39 gratitude interventions were further subcategorised into letters ($n = 12$), lists ($n = 24$), induction ($n = 2$), and action ($n = 1$). The final toolbox included six gratitude PPIs: one from each subcategory plus education-focused ones. This captured gratitude's diversity while avoiding over-representation.

Phase 4: Quality Assessment of Source Studies

The final phase involved evaluating the methodological quality of the source studies using the Critical Appraisal Tool for Cross-Sectional Studies (Downes et al., 2016), a validated 20-item tool developed through a Delphi method with 18 researchers (see supplementary material S2).

To enhance methodological rigor and efficiency, we implemented a human-AI collaborative assessment process similar to recent innovations in systematic review

methodology (Lai et al., 2024) and showing scientific rigour (De La Torre-López et al., 2023). This approach combines human expertise with the analytical capabilities of large language models (LLMs), which have demonstrated substantial accuracy in methodological quality assessment tasks when guided by structured prompts.

The first author conducted the initial assessment and compared the results with two large language models (Claude and ChatGPT). Prompts used with Claude and ChatGPT are provided in the supplementary material, along with the complete AXIS Critical Appraisal Tool for cross-sectional studies. These prompts instructed the LLMs to systematically evaluate each study according to the established quality criteria. Similar to findings by Lai et al. (2024), who reported correct assessment rates of 84.5–89.5% when using LLMs for risk of bias evaluation in randomised trials, our approach revealed general alignment between human and LLM assessments.

While there were a few discrepancies between the first author and the AI models, as well as occasional inaccuracies, these were resolved through discussion and agreement between the first and last authors. This process ensured that final decisions maintained human oversight while benefiting from the efficiency and systematic approach of LLM assistance.

This assessment led to the exclusion of 12 interventions from studies with significant methodological limitations, including non-randomised controlled trials (Byrge & Hansen, 2013; Byrge & Tang, 2015) and those showing no significant effects (Britton et al., 2014; DeGregory, 2014; Feldman et al., 2010; O' Leary & Dockray, 2015; Rizzato, 2014), or using non-validated scales (Schueller, 2012).

Classifying the PPIs

Once identified, it is crucial—particularly within the applied field of positive psychology and in practical contexts such as schools—to adopt a rigorous classification system for PPIs. To achieve this, various existing PPI classification frameworks were examined.

The SEARCH

The SEARCH framework (Waters & Loton, 2019), developed through a large-scale review of global studies involving 35,888 students and informed by action research, highlights six key pathways to wellbeing: strengths, emotional management, attention and awareness, relationships, coping, and habits and goals. The framework promotes an embedded approach to fostering wellbeing across schools rather than relying on stand-alone interventions.

The 3 × 3 Matrix

The 3 × 3 matrix proposed by Owens and Waters (2020) emerges from their work in classifying PPIs for children and adolescents. It was developed as part of their review of 280

PPIs (212 school-based and 68 clinically based). Their framework categorises PPIs based on two dimensions: the outcomes they target (e.g. reducing negative outcomes, enhancing positive outcomes, or combining both) and the processes and content they employ (e.g. addressing deficits or disorders, promoting positive functioning, or integrating both).

Carr et al.'s Categories

Carr et al. (2023) categorised PPIs into four types based on 198 meta-analyses. Exercise-based PPIs (n= 58 meta-analyses) focused on physical activities like aerobic training, while mindfulness-based PPIs (n= 54) included practices such as mindfulness-based stress reduction. Mind–body PPIs (n= 44) involved activities like yoga or tai chi, and cognitive PPIs (n= 42) included interventions like gratitude, optimism, and relationship building. The authors argue that interventions within the same category share similar cognitive,

Table 2 ACTIONS framework key elements

	Name	Key elements
A	Activity	Movement Physical activity Indoor and outdoor sport
C	Calming	Stillness Mindfulness Nature Breathing Meditation
T	Thinking	Interventions about the past Assimilating past events or behaviours Reflecting, making sense of the past Adopting a kind attitude towards our past Acceptance of what happened Resilience
I	Identity	Character strengths Skills Values
O	Optimising	Interventions about future Fixing goals Looking positively towards the future Developing optimism Eudaimonic wellbeing
N	Nourishing	Savouring Arts and crafts Reading Taking care of ourselves Soothing
S	Social	Positive relationships (friends, family) Prosocial behaviour Teamwork Communication Enhancing social skills Developing self-compassion and kindness

affective, and behavioural processes, making the framework coherent and meaningful. Additionally, the large number of meta-analyses available for each category enables moderator analyses, allowing researchers to compare the effectiveness of different PPI types.

ACTIONS

This model by Boniwell (Boniwell, 2017; Boniwell & Ryan, 2012) emerged from a review of 12 meta-analyses encompassing over 60 distinct PPIs. Through systematic analysis, Boniwell developed seven distinct categories that better reflected the diversity of the PPIs as detailed in Table 2:

- Activity: physical movement and engagement
- Calming: stress reduction and emotional regulation
- Thinking: cognitive strategies and mental processes
- Identity: self-awareness and personal development
- Optimism: future-oriented positive thinking
- Nourishing: self-care and wellbeing practices
- Social: interpersonal relationships and communication

Results

Ultimately, 64 of the 147 compatible interventions were retained for the final Positive Education Toolbox (Fig. 5). The comprehensive screening and categorisation process yielded a diverse array of evidence-based, brief, and stand-alone interventions that show promise for potential implementation in educational settings with teenagers. These interventions were systematically analysed across four dimensions: (1) intervention characteristics, (2) adaptation process, (3) classification framework, and (4) educational implementation.

The quality of the PPIs was evaluated using two complementary methods. First, the quality of the meta-analyses from which the PPIs were derived was assessed using the AMSTAR2 tool (Shea et al., 2017) according to Carr and colleagues' findings. Second, the methodological quality of the 40 individual studies underpinning these meta-analyses was examined using the Critical Appraisal Tool (Downes et al., 2016). In Table 3, their quality is presented using a star rating system, providing a clear visual summary of the assessments.

Intervention Characteristics

The selected interventions represent diverse approaches to wellbeing enhancement, each supported by empirical evidence. The identified PPIs vary in their focus and intended outcomes. Some aim to enhance positive emotions; others work on

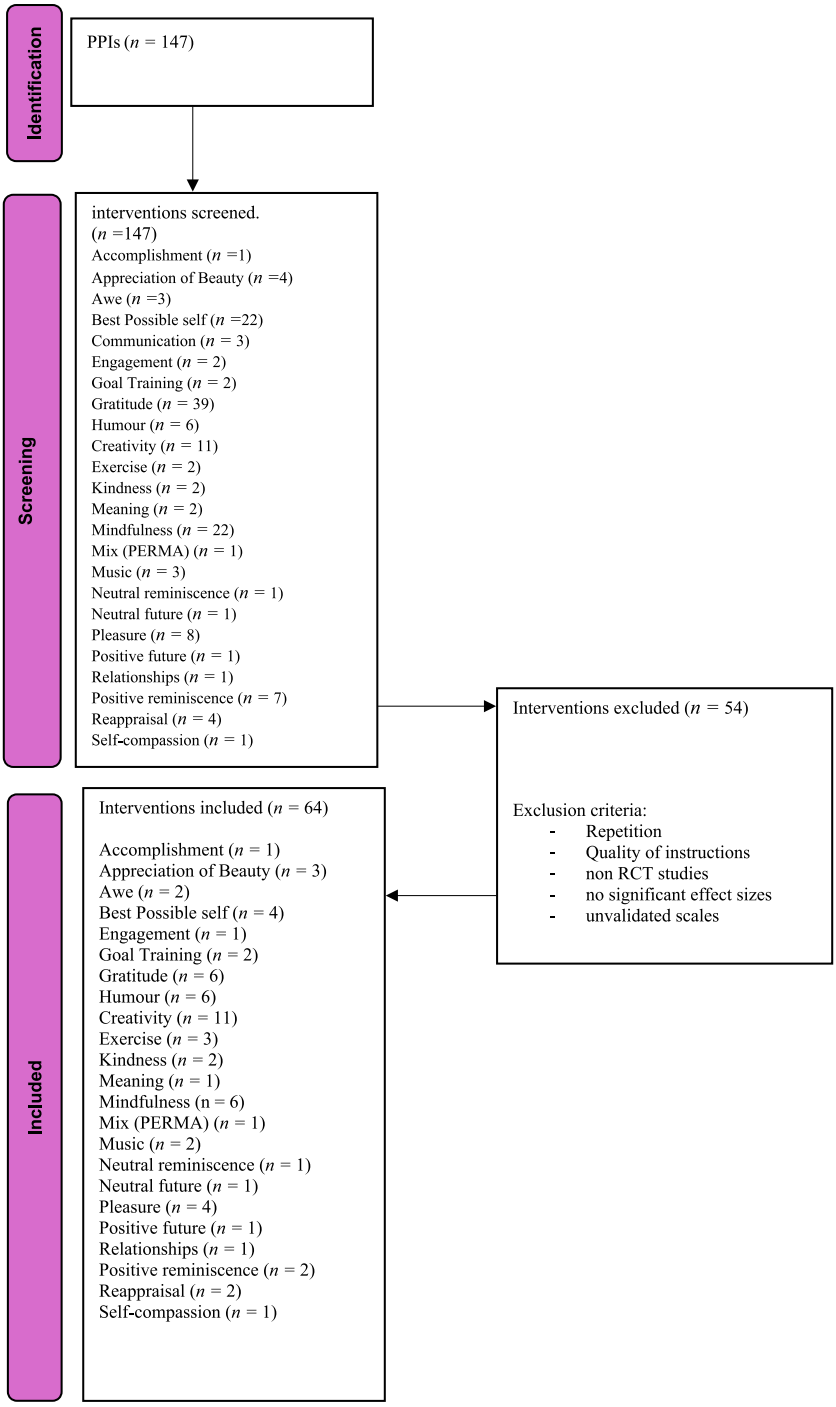

Fig. 5 Flow diagram of the screening and selection of final set of PPIs

building resilience or improving social relationships. There are also interventions that target personal growth, creativity, mindfulness, and optimism.

Gratitude-focused interventions, such as the *Gratitude List* (Mongrain & Anselmo-Matthews, 2012), *Extra Mile Gratitude* (Lambert et al., 2010), and *Nine Beautiful Things* (Proyer et al., 2016), have been associated with increased positive affect, enhanced life satisfaction, and reduced depressive symptoms (Carr et al., 2021) Mindfulness practices, exemplified by *Focused Breathing* (Mrazek et al., 2012), seek to enhance present-moment awareness, reduce stress, and mitigate internalisation problems (Carr et al., 2021; Leyland et al., 2019).

Goal-setting activities, including *Goal Training* (Dello Russo & Stoykova, 2015) and the *Best* Possible *Self* exercise (Peters et al., 2013), enhance many outcomes like positive affect, flourishing, positive mood, and life satisfaction, while reducing depressive symptoms, negative affect, and self-criticism (Carrillo et al., 2019). Similarly, problem-solving exercises like *King and Queen* and *Guide* have demonstrated improvements in creativity and representation changes (Patrick & Ahmed, 2014).

Physical exercise interventions, including *HIIT Exercise* (Costigan et al., 2016) and *Dancing* (Campion & Levita, 2014), ameliorate executive functions, psychological wellbeing, and perceived appearance (Haase et al., 2023). Cognitive reappraisal strategies, such as *Perspective* (Keng et al., 2013) and *Trigger* (Watkins et al., 2008), have shown effects on closure, positive affect, physical health, attention, and emotional control (Carr et al., 2021; Leyland et al., 2019). Humour PPIs, such as *Solving with Humour*, *One Funny Thing*, and *Apply Humour* (Wellenzohn et al., 2016), have demonstrated effects on happiness and depressive symptoms (Carr et al., 2021).

Adaptation Process

The primary objective was to utilise only the original instructions of tested exercises to accurately reproduce the impact of the evidence. When these instructions were not available in published papers or supplementary materials, the first author contacted the study authors, sending a total of 61 emails and receiving 19 responses, from which three sets of instructions were deemed compatible with the PoETA framework.

The instructions were adapted and categorised into three subcategories: original, quasi-original, and modified. If an intervention could be used as such or that minimal changes were undertaken, it falls into the "original" category (Table 4).

Original Instructions

Original instructions refer to those that are identical to the original source or have undergone only very minimal modifications, amounting to less than 10% change. These instructions required little to no alteration to ensure applicability in the new context.

Table 3 PPIs table and quality rating

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
1. Daily happiness	Gander et al. (2016)	P (Positive Emotion) Happiness: $f^2 = 0.02$ (overall); $f^2 = 0.01$ (post); $f^2 = 0.01$ (1 M); $f^2 = 0.02$ (3 M); $f^2 = 0.00$ (6 M); depressive symptoms: $f^2 = 0.01$ (overall); $f^2 = 0.01$ (post); $f^2 = 0.00$ (1 M); $f^2 = 0.00$ (3 M); $f^2 = 0.00$ (6 M)	★★	Carr et al., 2021	★★★
2. Success story	Gander et al. (2016)	P (Positive Emotion) Happiness: $f^2 = 0.01$ (overall); $f^2 = 0.01$ (post); $f^2 = 0.00$ (1 M); $f^2 = 0.01$ (3 M); $f^2 = 0.01$ (6 M). Depressive symptoms: $f^2 = 0.00$ (overall); $f^2 = 0.01$ (post); $f^2 = 0.00$ (1 M); $f^2 = 0.00$ (3 M); $f^2 = 0.01$ (6 M)	★★	Carr et al.,2021	★★★
3. Childhood memory	Summerfield (2016)	Life Satisfaction: $t(14) = -3.87$, $p < 0.01$; Pre-Post: $M = 23.40$ ($SD = 6.10$) vs. $M = 19.13$ ($SD = 6.65$)	***	Carrillo et al., 2019; Heekerens & Eid, 2021	★★
4. HIIT (high-intensity interval training)	Costigan et al. (2016)	Aerobic: $d = -0.32$ (executive function); $d = 0.34$ (psychological wellbeing) Combined: $d = -0.51$ (executive function); $d = 0.36$ (wellbeing); $d = 0.35$ (perceived appearance)	★★	Rodriguez-Ayllon et al., 2019	★
5. Your goal	Dello Russo and Stoykova (2015)	Figural: $d = 2.00$ (fluency); $d = 0.56$ (originality); $d = 0.96$ (elaboration); $d = 1.57$ (resistance to closure). Verbal: $d = 1.08$ (originality); $d = 0.39$ (flexibility); $d = 0.33$ (fluency)	★	Lupsa et al., 2019	★★
6. Go further	Lambert et al. (2010)	Communal Strength: $d = 0.48$	★★★	Carr et al., 2021	★★★
7. The art of savouring	Hurley and Kwon (2012)	Affect: $d = 0.14$ (positive); $d = 0.29$ (negative). Depressive symptoms: $d = 0.41$	★★	Carr et al., 2021	★★★
8. Nine pretty things	Proyer et al. (2016)	Happiness: $\eta^2 = 0.04$ (overall); $\eta^2 = 0.07$ (1 week); $\eta^2 = 0.03$ (1 month) depressive symptoms: $\eta^2 = 0.04$ (overall); $\eta^2 = 0.04$ (1 week)	★★	Carr et al., 2021	★★★
9. A funny thing	Wellenzohn (2016)	Happiness: $R^2 = 0.11$. Depressive symptoms: $R^2 = 0.07$	★★	Carr et al., 2021	★★★
10. Applied humour	Wellenzohn et al. (2016)	Happiness: $R^2 = 0.12$. Depressive symptoms: $R^2 = 0.09$	★★	Carr et al., 2021	★★★
11. With humour	Wellenzohn et al. (2016)	Happiness: $R^2 = 0.06$. Depressive symptoms: $R^2 = 0.09$	★★	Carr et al., 2021	★★★
12. Three funny things	Gander et al. (2013)	Happiness: $F(4, 216) = 4.62$, $p = 0.001$, $\eta^2 = 0.08$. Depressive symptoms: $F(4, 216) = 9.45$, $p < 0.001$, $\eta^2 = 0.15$	★★	Bolier et al., 2013; Carr et al., 2021	★★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
13. Collecting funny things	Wellenzohn et al. (2016)	Happiness: $R^2 = 0.04$. Depressive symptoms: $R^2 = 0.08$	★★	Carr et al., 2021	★★★
14. Counting funny events	Wellenzohn et al. (2016)	Wellbeing Measures: Happiness: $R^2 = 0.04$. Depressive symptoms: $R^2 = 0.08$	★★	Carr et al., 2021	★★★
15. Counting kindness	Gander et al. (2013)	Happiness: $F(4, 244) = 3.44$, $p = 0.009$, $\eta^2 = 0.05$. Depressive symptoms: $F(4, 244) = 2.84$, $p = 0.025$, $\eta^2 = 0.05$	★★	Bolier et al., 2013; Carr et al., 2021	★★★
16. A little of your time	Gander et al. (2013)	Happiness: $F(4, 412) = 4.46$, $p < 0.002$, $\eta^2 = 0.04$. Depressive Symptoms: $F(4, 412) = 4.49$, $p < 0.002$, $\eta^2 = 0.04$	★★	Bolier et al., 2013; Carr et al., 2021	★★★
17. Focused on breathing	Mrazek et al. (2012)	Eelaxation: $F(2, 57) = 6.74$, $p = 0.01$; SART errors: $F(2, 57) = 3.80$, $p < 0.05$; response time CV: $F(2, 57) = 3.10$, $p < 0.05$	★★	Leyland et al., 2019	★
18. Right here, and now	Carlin and Ahrens (2014)	Persistence Effects: Treatment group: OR = 3.86, $\beta = 1.35$, $SE = 0.60$, $p = 0.025$ Control group: OR = 0.85, $\beta = -0.16$, $SE = 0.57$, $p = 0.777$	★★	Leyland et al., 2019	★
19. Within me	Keng et al. (2013)	Negative thoughts: $F(1, 96) = 5.67$, $p = 0.02$, $\eta^2 p = 0.06$;response rates: $F(1, 28) = 7.52$, $p < 0.05$	★★★	Leyland et al., 2019	★
20. Open	McHugh et al.(2012)	Response rate: $F(1, 28) = 7.52$, $p < 0.05$	★	Leyland et al., 2019	★
21. Counting breaths	Ricarte et al. (2015)	Digit Span: Time × Group Interaction: $\eta p^2 = 0.11$; Improvement: $\eta p^2 = 0.12$ Forward Digit Span: Time × Group Interaction: $\eta p^2 = 0.11$; Improvement: $\eta p^2 = 0.13$; TMT Performance: Time Effect: $\eta^2 p = 0.19$ (TMTa); $\eta p^2 = 0.11$ (TMTb) Faces-R: Time Effect: $\eta p^2 = 0.28$; Anxiety: Time × Group Interaction: $\eta p^2 = 0.06$; Improvement: $\eta p^2 = 0.14$ Anger-Sadness: Time × Group Interaction: $\eta p^2 = 0.05$; Improvement: $\eta p^2 = 0.12$ STAI-C (Worry): Time × Group Interaction: $\eta p^2 = 0.05$; Improvement: $\eta p^2 = 0.12$	★	Dunning et al., 2018	★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
22. Sounds	Ricarte et al. (2015)	Digit Span *Time*×*Group Interaction*: $\eta p^2 = 0.11$ *Post-hoc Experimental Group Improvement*: $\eta p^2 = 0.12$–0.13 Forward Digit Span *Time*×*Group Interaction*: $\eta p^2 = 0.11$ *Post-hoc Experimental Group Improvement*: $\eta p^2 = 0.13$ TMTa *Time Effect*: $\eta p^2 = 0.19$ TMTb *Time Effect*: $\eta p^2 = 0.11$ Faces-R *Time Effect*: $\eta p^2 = 0.28$ Anxiety (Total) *Time*×*Group Interaction*: $\eta p^2 = 0.06$ *Post-hoc Experimental Group Improvement*: $\eta p^2 = 0.14$ Anger-Sadness *Time*×*Group Interaction*: $\eta p^2 = 0.05$ *Post-hoc Experimental Group Improvement*: $\eta p^2 = 0.12$ STAI-C (Worry) *Time*×*Group Interaction*: $\eta p^2 = 0.05$ *Post-hoc Experimental Group Improvement*: $\eta p^2 = 0.12$	★	Dunning et al., 2018	★★
23. SMART (Specific, Measurable, Achievable, Relevant, Time-bound)	Dello Russo and Stoykova (2015)	PsyCap: $d = 0.34$; Self-efficacy: $d = 0.02$ Hope: $d = 0.41$ Resilience: $d = 0.19$ Optimism: $d = 0.38$	★	Lupsa et al., 2019	★★
24. Planning for beauty	Martínez-Martí et al. (2010)	Awareness of how beauty influences us: ($d = 1.08$, $p < 0.001$). Awareness of beauty in our environment: ($d = 0.81$). Aesthetic attitude in front of beauty: ($d = 0.96$, $p < 0.001$). Subjective feelings and wellbeing: ($d = 0.84$, $p < 0.001$)	★★	Carr et al., 2021	★★★
25. Pleasure	Gander et al. (2016)	P (Positive Emotion) Happiness Overall: $f^2 = 0.013$ Post: $f^2 = 0.009$ 1 M: $f^2 = 0.004$ 3 M: $f^2 = 0.017$ 6 M: $f^2 = 0.008$ Depressive Symptoms: P (Positive Emotion) Overall: $f^2 = 0.014$ Post: $f^2 = 0.006$ 1 M: $f^2 = 0$ 3 M: $f^2 = 0.007$ 6 M: $f^2 = 0.001$	★★	Carr et al., 2021	★★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
26. Playlist	Sergeant and Mongrain (2011)	Steen Happiness Index (SHI): Music vs control: $b = -0.004$, t-score $= -0.29$, $p = 0.771$. Music vs gratitude: $b = -0.027$, t-score $= -2.24$, $p = 0.025$ Depressive symptoms (CES-D): Music vs control: $b = -0.019$, t-score $= -0.54$, $p = 0.588$; Music vs gratitude: $b = 0.014$, t-score $= 0.43$, $p = 0.670$ Self-esteem (RSE): Music vs control: $b = 0.026$, t-score $= 1.80$, $p = 0.072$; Music vs gratitude: $b = 0.002$, t-score $= 0.13$, $p = 0.896$ Time × SC for: Gratitude vs control: $b = -0.015$, t-score $= -3.45$, $p = 0.001$ Time × neediness for: Gratitude vs control: $b = 0.016$, t-score $= 2.93$, $p = 0.003$ Gratitude vs music: $b = 0.000$, t-score $= 0.02$, $p = 0.982$ P (Positive Emotion) Happiness Overall: $f^2 = 0.016$ Post: $f^2 = 0.006$ 1 M: $f^2 = 0.016$ 3 M: $f^2 = 0.02$ 6 M: $f^2 = 0.002$	★★	Bolier et al., 2013; Carr et al., 2021	★★★
27. Connections	Gander et al. (2016)	Happiness Overall: $f^2 = 0.016$ Post: $f^2 = 0.006$ 1 M: $f^2 = 0.016$ 3 M: $f^2 = 0.02$ 6 M: $f^2 = 0.002$ Depressive Symptoms: P (Positive Emotion). Overall: $f^2 = 0.036$. Post: $f^2 = 0.005$. 1 M: $f^2 = 0.018$ 3 M: $f^2 = 0.013$ 6 M: $f^2 = 0.008$	★★	Carr et al., 2021	★★★
28. Letter to myself	Shapira and Mongrain (2010)	Happiness: 3 months, $t(180) = 2.45$, $p = 0.02$. 6 months, $t(180) = 3.20$, $p < 0.001$ Depressive symptoms: 3 months, p $t(186) = -2.60$, $p = 0.01$	★★★	Bolier et al., 2013; Heekerens & Eid, 2021	★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
29. Pleasant memory	Gander et al. (2018)	ECF (Emotional and Cognitive Focus)—Depressive Symptoms. Overall: $F(1, 259) = 6.30^*$, $\eta^2 = 0.02$. Post: $F = 5.29^*$, $\eta^2 = 0.02$. 2 Weeks: $F = 3.61^*$, $\eta^2 = 0.01$. 1 Month: $F = 4.41^*$, $\eta^2 = 0.02$. 3 Months: $F = 5.55^{**}$, $\eta^2 = 0.02$ ECF (Emotional and Cognitive Focus)—Wellbeing; Overall: $F(1, 259) = 3.04^*$, $\eta^2 = 0.01$; Post: $F = 4.20^*$, $\eta^2 = 0.02$; 2 Weeks: $F = 0.58$, $\eta^2 = –$; 1 Month: $F = 1.66^†$, $\eta^2 = 0.01$; 3 Months: $F = 1.46$, $\eta^2 = –$	★★★	Carr et al., 2021	★★★
30. Comfort zone	Gander et al. (2018)	EF (Emotional Focus); Overall: $F(1, 264) = 0.28$, $\eta^2 = –$. Post: $F = 0.77$, $\eta^2 = –$. 2 Weeks: $F = 0.00$, $\eta^2 = –$. 1 Month: $F = 0.05$, $\eta^2 = –$. 3 Months: $F = 1.17$, $\eta^2 = –$ Depressive Symptoms- EF (Emotional Focus). Overall: $F(1, 264) = 2.30^†$, $\eta^2 = 0.01$. Post: $F = 6.58^{**}$, $\eta^2 = 0.02$. 2 Weeks: $F = 0.30$, $\eta^2 = –$. 1 Month: $F = 0.07$, $\eta^2 = –$. 3 Months: $F = 1.34$, $\eta^2 = –3$	★★★	Carr et al., 2021	★★★
31. Flow	Gander et al. (2016)	P (Positive Emotion) Happiness Overall: $f^2 = 0.007$ Post: $f^2 = 0.009$ 1 M: $f^2 = 0.004$ 3 M: $f^2 = 0.017$ 6 M: $f^2 = 0.008$ Depressive Symptoms: P (Positive Emotion) Overall: $f^2 = 0.007$ Post: $f^2 = 0.006$ 1 M: $f^2 = 0.006$ 3 M: $f^2 = 0.007$ 6 M: $f^2 = 0.001$	★★	Carr et al., 2021	★★★
32. Meaning	Gander et al. (2016)	P (Positive Emotion) Happiness Overall: $f^2 = 0.017$ Post: $f^2 = 0.011$ 1 M: $f^2 = 0.015$ 3 M: $f^2 = 0.011$ 6 M: $f^2 = 0$ Depressive Symptoms: P (Positive Emotion) Overall: $f^2 = 0.01$ Post: $f^2 = 0$ 1 M: $f^2 = 0$ 3 M: $f^2 = 0$ 6 M: $f^2 = 0$	★★	Carr et al., 2021	★★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
33. Wonder	Burton and King (2004)	Health: IPE fewer illness visits than control ($F(1, 83) = 3.35$, $p < 0.04$). Positive Emotion Words: Higher IPE ($M = 4.55$) than control ($M = 1.71$), $t(85) = 13.88$, $p < 0.001$. Negative Emotion Words: Lower IPE ($M = 1.31$) than control ($M = 0.38$), $t(85) = 8.56$, $p < 0.001$. Cognitive Mechanism Words: Higher IPE ($M = 6.5$) than control ($M = 2.55$), $t(85) = 14.91$, $p < 0.001$	★★★	Bolier et al., 2013	★★
34. Music	Campion and Levita (2014)	Positive affect: $T = 4$, $Z = -2.936$, $p = 0.003$. Negative affect: $T = 0.00$, $Z = -2.555$, $p = 0.011$. Fatigue: $T = 0.00$, $Z = -2.952$, $p = 0.003$. Creativity: $T = 7$, $Z = -2.546$, $p = 0.011$	★★	Haase et al., 2023	★
35. Dance	Campion and Levita (2014)	Positive affect: $T = 6$, $Z = -3.085$, $p = 0.002$. Negative affect: $T = 2.5$, $Z = -2.736$, $p = 0.006$. Fatigue: $T = 13$, $Z = -2.678$, $p = 0.007$. Heart rate: $T = 0$, $Z = -3.408$, $p = 0.001$	★★	Haase et al., 2023	★
36. Travel	Chiu (2015) (study 2)	creativity ($\eta^2 = 0.28$) + higher number of hypotheses were given when trained to solve problems functional fixedness problems $\eta^2 = 0.26$	★★	Haase et al., 2023	★
37. Married (riddle)	Patrick and Ahmed (2014)	Creativity (Solutions' Creativity): Solutions were more creative in the self-enhancement condition ($M = 2.22$, $SD = 0.26$) than in the control condition ($M = 2.03$, $SD = 0.25$), $F(1, 79) = 6.64$, $p = 0.0118$, $d = 0.75$, 95% CI [0.20, 1.29] Number of Solutions: Participants in the self-enhancement condition ($M = 25.04$, $SD = 11.14$) generated significantly more solutions than those in the control condition ($M = 20.48$, $SD = 7.99$), $\chi^2(1, N = 85) = 12.53$, $p = 0.0004$, $d = 0.83$, 95% CI [0.37, 1.29], and the self-effacement condition ($M = 20.03$, $SD = 6.66$), $\chi^2(1, N = 85) = 15.54$, $p = 0.0001$, $d = 0.95$, 95% CI [0.48, 1.42]	★★	Haase et al., 2023	★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
38. Guide (riddle)	Patrick and Ahmed (2014)	Creativity (Solutions' Creativity): Solutions were more creative in the self-enhancement condition ($M = 2.22$, $SD = 0.26$) than in the control condition ($M = 2.03$, $SD = 0.25$), $F(1, 79) = 6.64$, $p = 0.0118$, $d = 0.75$, 95% CI [0.20, 1.29] Number of Solutions: Participants in the self-enhancement condition ($M = 25.04$, $SD = 11.14$) generated significantly more solutions than those in the control condition ($M = 20.48$, $SD = 7.99$), $\chi^2(1, N = 85) = 12.53$, $p = 0.0004$, $d = 0.83$, 95% CI [0.37, 1.29], and the self-effacement condition ($M = 20.03$, $SD = 6.66$), $\chi^2(1, N = 85) = 15.54$, $p = 0.0001$, $d = 0.95$, 95% CI [0.48, 1.42]	★★	Haase et al., 2023	★
39. King and Queen (riddle)	Patrick and Ahmed (2014)	Creativity (Solutions' Creativity): Solutions were more creative in the self-enhancement condition ($M = 2.22$, $SD = 0.26$) than in the control condition ($M = 2.03$, $SD = 0.25$), $F(1, 79) = 6.64$, $p = 0.0118$, $d = 0.75$, 95% CI [0.20, 1.29] Number of Solutions: Participants in the self-enhancement condition ($M = 25.04$, $SD = 11.14$) generated significantly more solutions than those in the control condition ($M = 20.48$, $SD = 7.99$), $\chi^2(1, N = 85) = 12.53$, $p = 0.0004$, $d = 0.83$, 95% CI [0.37, 1.29], and the self-effacement condition ($M = 20.03$, $SD = 6.66$), $\chi^2(1, N = 85) = 15.54$, $p = 0.0001$, $d = 0.95$, 95% CI [0.48, 1.42]	★★	Haase et al., 2023	★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
40. Cleopatra (riddle)	Patrick and Ahmed (2014)	Creativity (Solutions' Creativity): Solutions were more creative in the self-enhancement condition ($M = 2.22$, $SD = 0.26$) than in the control condition ($M = 2.03$, $SD = 0.25$), $F(1, 79) = 6.64$, $p = 0.0118$, $d = 0.75$, 95% CI [0.20, 1.29] Number of Solutions: Participants in the self-enhancement condition ($M = 25.04$, $SD = 11.14$) generated significantly more solutions than those in the control condition ($M = 20.48$, $SD = 7.99$), $\chi^2(1, N = 85) = 12.53$, $p = 0.0004$, $d = 0.83$, 95% CI [0.37, 1.29], and the self-effacement condition ($M = 20.03$, $SD = 6.66$), $\chi^2(1, N = 85) = 15.54$, $p = 0.0001$, $d = 0.95$, 95% CI [0.48, 1.42]	★★	Haase et al., 2023	★
41. Son (riddle)	Patrick and Ahmed (2014)	Creativity (Solutions' Creativity): Solutions were more creative in the self-enhancement condition ($M = 2.22$, $SD = 0.26$) than in the control condition ($M = 2.03$, $SD = 0.25$), $F(1, 79) = 6.64$, $p = 0.0118$, $d = 0.75$, 95% CI [0.20, 1.29] Number of Solutions: Participants in the self-enhancement condition ($M = 25.04$, $SD = 11.14$) generated significantly more solutions than those in the control condition ($M = 20.48$, $SD = 7.99$), $\chi^2(1, N = 85) = 12.53$, $p = 0.0004$, $d = 0.83$, 95% CI [0.37, 1.29], and the self-effacement condition ($M = 20.03$, $SD = 6.66$), $\chi^2(1, N = 85) = 15.54$, $p = 0.0001$, $d = 0.95$, 95% CI [0.48, 1.42]	★★	Haase et al., 2023	★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
42. Coin (riddle)	Patrick and Ahmed (2014)	Creativity (Solutions' Creativity): Solutions were more creative in the self-enhancement condition ($M = 2.22$, $SD = 0.26$) than in the control condition ($M = 2.03$, $SD = 0.25$), $F(1, 79) = 6.64$, $p = 0.0118$, $d = 0.75$, 95% CI [0.20, 1.29] Number of Solutions: Participants in the self-enhancement condition ($M = 25.04$, $SD = 11.14$) generated significantly more solutions than those in the control condition ($M = 20.48$, $SD = 7.99$), $\chi^2(1, N = 85) = 12.53$, $p = 0.0004$, $d = 0.83$, 95% CI [0.37, 1.29], and the self-effacement condition ($M = 20.03$, $SD = 6.66$), $\chi^2(1, N = 85) = 15.54$, $p = 0.0001$, $d = 0.95$, 95% CI [0.48, 1.42]	★★	Haase et al., 2023	★
43. Who I am	Lyubomirsky et al. (2006) (study 3)	Long-term Positive Affect: Think-replay vs other groups: $F(1, 107) = 2.22$, $p = 0.07$, $\eta = 0.14$ Personal Growth: Write-analyse vs other groups: $F(1, 107) = 4.59$, $p = 0.02$, $\eta = 0.20$, Write-analyse vs think-replay: $F(1, 107) = 4.22$, $p = 0.02$, $\eta = 0.19$ Self-acceptance: Write-analyse vs other groups: $F(1, 107) = 4.76$, $p = 0.02$, $\eta = 0.21$ Overall Health: Write-analyse vs other groups: $F(1, 107) = 2.90$, $p = 0.05$, $\eta = 0.16$, Write-analyse vs think-replay: $F(1, 107) = 2.32$, $p = 0.07$, $\eta = 0.15$ Physical Functioning: Write-analyse vs other groups: $F(1, 107) = 3.90$, $p = 0.03$, $\eta = 0.19$; Write-analyse vs think-replay: $F(1, 107) = 3.26$, $p = 0.04$, $\eta = 0.17$ Pain: Write-analyse vs other groups: $F(1, 107) = 5.90$, $p = 0.01$, $\eta = 0.23$; Write-analyse vs think-replay: $F(1, 107) = 5.42$, $p = 0.01$, $\eta = 0.22$	★★★	Bolier et al., 2013	★★
44. Evaluate	Lyubomirsky et al. (2006) (study 2)	Life Satisfaction Changes: Thinking vs Writing: $F(1, 107) = 2.26$, $p = 0.07$, $\eta = 0.14$; Thinking vs Talking: $F(1, 107) = 7.02$, $p = 0.01$, $\eta = 0.25$; Thinking vs Combined Writing/Talking: $F(1, 107) = 5.79$, $p = 0.009$, $\eta = 0.23$	★★★	Bolier et al., 2013	★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
45. Again	Wing et al. (2006)	Emotional intelligence: $t(57) = 2.69$, $p = 0.01$, Cohen's $d = 0.18$ Life satisfaction: $t(57) = 2.00$, $p = 0.05$, Cohen's $d = 0.16$, 2-week follow-up, $t(54) = 2.54$, $p = 0.01$, $d = 0.18$	★	Bolier et al., 2013	★★
46. Perspective	Keng et al. (2013)	Stroop interference: Small to medium effect size ($d = -0.27$; Estimate $= -0.01$, $SE = 0.004$, $t(115) = -2.02$, $p = 0.045$)	★★★	Leyland et al., 2019	★
47. Trigger	Watkins et al. (2008)	Closure: Grateful writing more closure than other conditions at follow-up (($F(2, 124) = 5.12$, $p = 0.007$)) Emotional impact (negative emotions): Covariate significant (($F(1, 124) = 46.62$, $p < 0.001$)). Writing condition × time interaction significant at posttest (($F(1, 124) = 34.89$, $p < 0.001$)) and follow-up (($F(1, 124) = 60.62$, $p < 0.001$)). Grateful writing showed less emotional impact from recalling memories vs control	★	Carr et al., 2021	★★★
48. The best version of myself	Peters et al. (2013)	PA (Positive Affect) Time effect: $\eta^2 = 0.19$ Time × group effect: $\eta^2 = 0.21$ NA (Negative Affect) Time effect: $\eta^2 = 0.15$ Positive Expectancies Time × group effect: $\eta^2 = 0.07$ Negative Expectancies Time effect: $\eta^2 = 0.45$ Time × group effect: $\eta^2 = 0.04$	★★	Carrillo et al., 2019	★★
49. Optimism	Lyubomirsky et al. (2011)	Optimism decreased wellbeing by 0.02 ($SD = 0.56$) at baseline. At 6-month follow-up, optimism increased wellbeing by 0.03 ($SD = 0.73$)	★★	Heekerens & Eid, 2021; Bolier et al., 2013	★★
50. School	Layous et al. (2013)	Positive affect [$t$contrast (41) $= 2.05$, $p = 0.02$, $r$contrast $= 0.30$] relatedness [$t$contrast (43) $= 1.81$, $p = 0.04$, $r$contrast $= 0.27$], flow [$t$contrast (43) $= 2.26$, $p = 0.01$, $r$contrast $= 0.33$]. need satisfaction [$t$contrast (43) $= 1.59$, $p = 0.06$, $r$contrast $= 0.24$] autonomy [$t$contrast (43) $= 1.25$, $p = 0.11$, $r$contrast $= 0.19$], competence [$t$contrast (43) $= 0.92$, ns]	★★	Bolier et al., 2013	★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
51. Small step	Layous et al. (2013)	Positive affect [*t*contrast (41) = 2.05, $p = 0.02$, *r*contrast = 0.30] relatedness [*t*contrast (43) = 1.81, $p = 0.04$, *r*contrast = 0.27], flow [*t*contrast (43) = 2.26, $p = 0.01$, *r*contrast = 0.33]. need satisfaction [*r*contrast (43) = 1.59, $p = 0.06$, *r*contrast = 0.24] autonomy [*t*contrast (43) = 1.25, $p = 0.11$, *r*contrast = 0.19], competence [*t*contrast (43) = 0.92, *ns*]	★★	Bolier et al., 2013	★★
52. Thank you	Layous et al. (2017)	Guilt: $r = 0.05$ Competence: $r = 0.06$ Small effect sizes ($0.10 \leq r < 0.30$): Negative affect: $r = 0.08$ Confidence: $r = 0.08$ General motivation: $r = 0.10$ Positive affect: $r = 0.12$ Efficacy: $r = 0.14$ Improvement motivation: $r = 0.15$ Gratitude: $r = 0.17$ Connectedness: $r = 0.21$ Identified motivation: $r = 0.22$ Intrinsic motivation: $r = 0.24$ Intended Effort: $r = 0.34$ Elevation: $r = 0.35$ Indebtedness: $r = 0.36$	★	Carr et al., 2021	★★★
53. List of thanks	Mongrain and Anselmo-Matthews (2012)	Happiness: Steen Happiness Index one week: $p = 0.004$, $d = 0.15$). 3-month ($p = 0.001$, $d = 0.22$). 6-month ($p = 0.02$, $d = 0.16$)	★★★	Bolier et al., 2013; Carr et al., 2021; Lupsa et al., 2020	★★★
54. At school	Diebel et al. (2016)	Gratitude: $F(1, 96) = 15.94$, $p < 0.001$, $\eta p2 = 0.14$ sense of school belonging: ($F(1, 96) = 28.30$, $p < 0.001$, $\eta p2 = 0.23$), increase in SoSB over time ($F(1, 96) = 29.41$, $p < 0.001$, $\eta p2 = 0.235$), control group non-significant decrease ($F(1, 96) = 4.19$, $p = 0.043$, $\eta p2 = 0.042$)	★★	Carr et al., 2021	★★★
55. Creative	O'Mara and Gaertner (2017)	Focus performance: $d = 0.48$	★★★	Haase et al., 2023	★
56. Thanks	Rash et al. (2011)	Life Satisfaction: $F(1, 43) = 4.53$, $p < 0.05$, $\eta^2 = 0.10$ Self-esteem: $F(1, 43) = 5.00$, $p < 0.05$, $\eta^2 = 0.10$	★★	Carr et al., 2021	★★★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
57. Beautiful	Martínez-Martí et al. (2010)	Awareness of how beauty influences us: $d = 1.08$, $p < 0.001$, 95% *CI* [0.65, 1.51] Awareness of beauty in our environment: $d = 0.81$, 95% *CI* [0.40, 1.22] Aesthetic attitude in front of beauty: $d = 0.96$, $p < 0.001$, 95% *CI* [0.54, 1.39] Subjective feelings and wellbeing: $d = 0.84$, $p < 0.001$, 95% *CI* [0.42, 1.26]	★★★	Carr et al., 2021	★★★
58. Tomorrow	Quoidbach et al. (2009)	Happiness: $F(1, 102) = 8.13$, $p < 0.01$. No significant changes negative MTT ($p = 0.11$), neutral MTT ($p = 0.45$), or control ($p = 0.67$)	★★	Bolier et al., 2013; Carr et al., 2021	★★★
59. Neutral	Quoidbach et al. (2009)	Significant anxiety reduction after 2-weeks, two-way repeated measures ANOVA: $F(1, 102) = 5.64$, $p < 0.02$. No significant changes positive MTT ($p = 0.75$), negative MTT ($p = 0.71$), or control ($p = 0.09$)	★★	Bolier et al., 2013; Carr et al., 2021	★★★
60. Squats (discreet)	Costigan et al.(2016)	Happiness: $F(1, 102) = 8.13$, $p < 0.01$ No significant changes negative MTT ($p = 0.11$), neutral MTT ($p = 0.45$), or control ($p = 0.67$)	★★	Rodriguez-Ayllon et al., 2019	★
61. My primary school classes	Ouweneel et al.(2014) (study 1)	Positive emotions: $F(7, 42) = 1.92$, $p = 0.09$, $\eta^2 = 0.24$. No result time on academic engagement, $F(1.77, 84.73) = 0.85$, $p = 0.42$, no condition effect, $F(1, 48) = 2.44$, $p = 0.13$, no time × condition interaction $F(1.77, 84.73) = 2.03$, $p = 0.14$. No time × condition interaction on negative emotions	★	Carr, 2021	★★★
62. Circle (improv)	Lewis and Lovatt (2013) (study 1)	Fluency: Significant improvisation improvement ($F(1, 38) = 6.8$, $p < 0.05$, $\eta^2 = 0.27$). Originality: Significant improvisation improvement ($F(1, 38) = 10.61$, $p < 0.01$, $\eta^2 = 0.36$). Elaboration: No significant difference ($F(1, 38) = 1.21$). Flexibility: Significant improvisation improvement ($F(1, 38) = 4.51$, $p < 0.05$, $\eta^2 = 0.25$)	★	Haase et al., 2023	★

Table 3 (continued)

PPI title	Study	Effect sizes	Study quality rating	Meta-analyses sources	AMSTAR quality rating of meta-analyses
63. What's the connection? (improv)	Lewis and Lovatt (2013) (study 1)	Fluency: Significant improvisation improvement ($F(1, 38) = 6.8$, $p < 0.05$, $\eta^2 = 0.27$). Originality: Significant improvisation improvement ($F(1, 38) = 10.61$, $p < 0.01$, $\eta^2 = 0.36$). Elaboration: No significant difference ($F(1, 38) = 1.21$). Flexibility: Significant improvisation improvement ($F(1, 38) = 4.51$, $p < 0.05$, $\eta^2 = 0.25$)	★	Haase et al., 2023	★
64. Three words (improv)	Lewis and Lovatt (2013) (study 1)	Fluency: Significant improvisation improvement ($F(1, 38) = 6.8$, $p < 0.05$, $\eta^2 = 0.27$). Originality: Significant improvisation improvement ($F(1, 38) = 10.61$, $p < 0.01$, $\eta^2 = 0.36$). Elaboration: No significant difference ($F(1, 38) = 1.21$). Flexibility: Significant improvisation improvement ($F(1, 38) = 4.51$, $p < 0.05$, $\eta^2 = 0.25$)	★	Haase et al., 2023	★

PPIs titles: We used titles that were identical, or closely matched, to those provided in the studies. In cases where no titles were available, we generated titles based on the content and focus of the interventions described

Note. *Effect sizes*: The effect sizes were taken directly from the studies, which explains the heterogeneity in the number of decimal places and the types of effect sizes reported

Note. *Ratings*: We applied star ratings separately for studies and meta-analyses to evaluate their quality. For individual studies, the STAR ratings were based on the Critical Appraisal Tool for Cross-Sectional Studies (Downes et al., 2016). Studies rated as very good (≥ 85%) meet nearly all key criteria, showing robust design and clear reporting, and are indicated by three stars (★★★). Studies rated as good (70–84%) meet most criteria but may have minor weaknesses in design, reporting, or bias, and are indicated by two stars (★★). Studies rated as average (50–69%) have significant gaps in meeting the criteria but are still usable with caution, and are indicated by one star (★). Studies rated as poor (< 50%) fail to meet most criteria and are not reliable for evidence synthesis. For meta-analyses, the STAR ratings correspond to the AMSTAR 2 analyses. High-quality meta-analyses (28–32 points) are indicated by three stars (★★★), moderate quality (22–27 points) by two stars (★★), and low quality (16–21 points) by one star (★). In cases where multiple sources were available, the source with the highest score was retained

Notes: Interventions 50–51 represent a single intervention divided into two components (Best Possible Self in school and academia, and corresponding action plan); interventions 62–64 comprise three improvisation exercises tested as a single unit

Notes: *DS*, Digit Span; *FDS*, Forward Digit Span; *Faces-R*, Recognition Memory for Faces; *IPE*, Illness-Prevention Exercise; *MTT*, Mental Time Travel; *ns*, non-significant; *PsyCap*, Psychological Capital; *RT CV*, Response Time Coefficient of Variation; *SART*, Sustained Attention to Response Task; *STAI-C*, State-Trait Anxiety Inventory for Children; *TMTa*, Trail Making Test Part A; *TMTb*, Trail Making Test Part B)

Quasi-original Instructions

Quasi-original instructions maintain the essence of the original exercise but include minor modifications for clarification or contextual adaptation. Acceptable changes include simplification of language to ensure comprehensibility for the target group, formatting changes that do not alter the content, and contextual adaptation of examples or cultural references to better align with the target group without changing the nature of the exercise.

Modified Instructions

Modified instructions involve interventions that are incomplete or require significant changes to make them applicable in the intended context. These modifications are made when the original instructions are insufficiently detailed or not directly usable. Reasons for modification include the original intervention, not being an instruction but a summary of what was done, being too vague, the need for significant clarifications to ensure participants understand what is expected of them, and necessary adaptations to make the exercise applicable in a school or non-clinical context.

Final Organisation and Translation Process

At the conclusion of this grouping process, 19 instructions were classified as original, 43 as quasi-original, and 14 as modified. Following this, instructions were translated into French by the first author. AI tools were used to double-check translations and perform back translation to ensure accuracy. Any discrepancies identified during back translation were addressed and resolved by co-authors. The vocabulary was tailored to align with the developmental stage and language preferences of teenagers.

Table 4 provides examples of how the authors adapted the instructions, translated them into French, and tailored the vocabulary to resonate with teenagers. This approach aimed to maintain the evidence-based foundation of the interventions while making them more accessible and practical for potential implementation in educational settings, pending further research to establish their effectiveness and feasibility in real-world classrooms.

Frameworks for PPIs To organise the identified interventions systematically and guide further research on their potential educational applications, we reviewed the literature on the recognised PPI framework and evaluated them for the PoETA: the SEARCH framework (Waters & Loton, 2019), the 3 × 3 matrix (Owens & Waters, 2020), Carr et al.'s (2023) categorisation system, and the ACTIONS (Boniwell & Ryan, 2012). This comparative analysis led us to adopt the ACTIONS framework as the organising structure for the PoETA, while extending its application beyond categorisation to create an integrated theoretical model that addresses the practical challenges of educational implementation, providing both a taxonomy of interventions and a roadmap for their systematic application in classroom settings.

The SEARCH

While comprehensive in addressing wellbeing through capability development and emotion management, the SEARCH (Waters & Loton, 2019) presented two main limitations. Firstly, our identified interventions did not predominantly focus on character strengths, which form a central component of SEARCH. Secondly, the framework lacks explicit categorisation for physical movement interventions, which emerged as a significant element in our findings.

The 3 × 3 Matrix

The PPI matrix (Owens & Waters, 2020) provides a valuable framework for organising interventions and aligning them with targeted outcomes. However, its practical application in educational settings may be limited due to its complexity. For instance, the framework's detailed categorisation of interventions based on dual processes and outcomes can be difficult to navigate in the fast-paced, resource-constrained environment of classrooms. Teachers and students often require straightforward, easily adaptable tools that can be seamlessly integrated into daily routines. This underscores the need for frameworks that balance theoretical depth with practical usability.

Carr et al.'s Classification

Carr et al.'s classification system proved too narrow for our purposes. Most of our interventions would fall under the cognitive PPI category, which lacks the granularity needed to differentiate between distinct types of interventions within this group. For example, interventions focused on gratitude, optimism, and relationship building are categorised together, despite the fact that each targets unique psychological processes and outcomes. This oversimplification risks overlooking the specific mechanisms and contextual relevance of each intervention type, making it less suitable for nuanced analyses or tailored applications.

The ACTIONS

The ACTIONS framework (Boniwell & Ryan, 2012) was identified as the most suitable model for our purposes, as it effectively accommodates the diverse range of PPIs used in educational settings. Similar to our approach, Boniwell conducted a review of meta-analyses focusing on universal practices, ensuring that the framework is grounded in evidence-based strategies applicable across a variety of contexts. This comprehensive and flexible design allows the ACTIONS model to address the limitations of narrower classification systems by incorporating more granularity within cognitive interventions, making it a

Table 4 Adaptation examples of the Interventions

Reference	Intervention	Toolbox intervention adaptation	French translation
source instruction. Gander et al. (2016) meta-analysed by Carr et al. (2021)	Please recall one experience for each of the following topics from your day: 1. Pleasure: Think of something that brought you fun, amusement, joy, or pleasure today. 2. Engagement: Reflect on a moment when your attention was fully focused, and you were unaware of your surroundings. 3. Meaning: Consider an experience that held personal significance and meaning for you today. 4. Positive relationships: Recall a positive interaction or experience you had with other people today. 5. Accomplishment: Remember a moment where you felt successful or had the impression that you did something really well. Write down these five experiences and describe how they made you feel."	Reflect on today (or last week). Remember an experience for each of the following themes. Identify the emotions you felt during each experience. (joy, satisfaction, pride, serenity, hope, inspiration, love, curiosity, gratitude). If there are any blanks, that's okay! You can think about them next week. Pleasure: something that brought you joy or pleasure. Motivation: a moment when your attention was totally focused and you lost track of time. Meaning: an experience that had special significance for you. Positive Relationships: a positive interaction or experience you had with other people. Success: a moment when you felt you did something really well.	Repense à aujourd'hui (ou la semaine dernière). Rappelle-toi d'une expérience pour chacun des thèmes suivants. Trouve les émotions que tu as ressenties pour chaque expérience. (joie, satisfaction, fierté, sérénité, espoir, inspiration, amour, curiosité, gratitude). S'il y a des éléments qui restent vides, ce n'est pas grave! Tu peux y penser la semaine prochaine. Plaisir : quelque chose qui t'a apporté de la joie ou du plaisir. Motivation : un moment où ton attention était totalement concentrée et où tu as perdu la notion du temps. Sens : une expérience qui avait une signification particulière pour toi. Relations positives : une interaction positive ou une expérience que tu as eue avec d'autres personnes. Réussite : un moment où tu as eu l'impression d'avoir vraiment bien fait quelque chose.

Table 4 (continued)

Reference	Intervention	Toolbox intervention adaptation	French translation
Costigan et al. (2016) meta-analysed by Rodriguez Ayllon (2019)	Aerobic Exercise Programme: Participants completed HIIT sessions primarily involving gross motor cardiorespiratory exercises (e.g., shuttle runs, jumping jacks, and skipping). Resistance and aerobic programme: Participants completed HIIT sessions that included a combination of cardiorespiratory and body weight resistance training exercises (e.g., shuttle runs, jumping jacks, skipping, combined with body weight squats, and push-ups). For example, one RAP work phase included the following sequence of cardiorespiratory and resistance exercises (four walking lunges, 10-m sprint, and three push-ups) repeated as many times as possible in a 30-s period. The RAP treatment did not include a separate resistance training component with a prespecified number of sets and repetitions.	Choose between these exercises for the duration of the activity: running, jumping jacks, push-ups, squats, jumping squats, burpees, dancing, walking lunges	Choisis parmi ces exercices pour la durée de l'activité: Courir, faire des jumping jacks, faire des pompes, faire des squats, faire des squats sautés, faire des burpees, danser, faire des fentes

Table 4 (continued)

Reference	Intervention	Toolbox intervention adaptation	French translation
Lambert et al. (2010) meta-analysed by Carr et al. (2021)	For the next 3 weeks I would like you to focus on trying to go the extra mile to think about things that you appreciate about your friend. Between now and Thursday, please think about something you appreciate about your friend. Make sure to record or remember what you thought so you can report about it on Thursday.	Go the extra mile to express gratitude to one of your friend, teacher, family member. Please do something you wouldn't normally do to express this gratitude verbally or through writing. For example, you can write a text, an e-mail, a kind note, tell him/her how much you appreciate something specific that he/she does and how it is beneficial for you.	Fais un petit truc en plus pour dire merci et exprimer votre gratitude envers un·e ami·e, un·e enseignant·e ou un membre de votre famille. Fais quelque chose que tu ne ferais pas normalement pour leur dire merci, que ce soit en leur disant de vive voix ou par écrit. Par exemple, vous pouvez écrire un message, un message, lui faire un vocal, un petit mot, etc. pour lui dire combien vous appréciez quelque chose de spécifique qu'il/elle fait et en quoi cela vous fait du bien.

promising framework for guiding further research on the potential educational applications of the identified interventions.

When we applied the ACTIONS framework to our 64 interventions (Table 5), the first author and the last author independently categorised them, with some interventions serving multiple purposes, resulting in 103 total categorisations. In cases where concordance was not achieved, a third researcher was consulted to resolve discrepancies and ensure consensus. The distribution showed a predominance of Thinking ($n = 29$) and Optimism ($n = 26$) interventions, followed by Social ($n = 15$), Calming ($n = 10$), Nourishing ($n = 10$), Activity ($n = 8$), and Identity ($n = 5$). This pattern aligns with Boniwell's original findings while reflecting our focus on educational applications.

Discussion

This review offers two key contributions: (1) a curated toolbox of evidence-based interventions for potential classroom use and (2) a theoretical framework. The Toolbox proposed 64 evidence-based PPIs suitable for educational settings, categorised through the ACTIONS framework. While these interventions represent a promising toolbox for supporting adolescent wellbeing in schools, their practical implementation warrants careful consideration of both strengths and limitations.

Null, Mixed, or Inconsistent Impacts and Follow-ups of PPIs

While PPIs have shown promise in enhancing wellbeing, a critical examination of their limitations is essential for understanding their efficacy and potential risks. Our review highlights several interventions with mixed or inconsistent results, underscoring the need for cautious implementation and further validation.

Gratitude interventions demonstrate variable effectiveness. For instance, Martinez-Marti et al. (2010) found initial improvements in positive affect post-intervention, but these benefits were not sustained at follow-up. Similarly, Hurley and Kwon (2012) reported no significant differences between gratitude and control groups in positive affect, negative affect, or depressive symptoms. These findings suggest that while gratitude interventions may yield short-term gains, their long-term impact remains uncertain, potentially due to factors such as participant engagement or intervention design.

Some Best Possible Selves interventions also show limited sustainability. Sheldon and Lyubomirsky (2006) observed an initial increase in positive affect, but this effect diminished at follow-up. Lyubomirsky et al. (2011) reported minimal changes in optimism from baseline to post-intervention and only slight improvement at 6-month follow-up. These PPIs may not be sufficiently intense or long lasting to generate enduring effects, particularly for non-self-selected participants, who showed decreases in wellbeing in Lyubomirsky's study.

Mindfulness interventions reveal equally complex outcomes. Keng et al. (2013) found that while mindfulness and reappraisal interventions reduced sad mood,

reappraisal led to higher cognitive interference scores, suggesting greater resource depletion. O'Leary and Dockray (2015) looked at mindfulness and gratitude. They reported trends in stress reduction, depression decrease, and happiness increase, but none reached statistical significance. Dunning's (2018) meta-analysis further highlighted the modest effects of mindfulness-based interventions on internalising problems, externalising problems, and positive affect, with no improvement in mindfulness measures. These findings raise questions about the mechanisms underlying mindfulness interventions and their suitability for diverse populations, as underlined by the Myriad study (Kuyken et al., 2022) but also the INSPIRE study (Deighton et al., 2025a, b).

Random Acts of Kindness interventions show promise but have certain limitations. Gander et al. (Deighton et al., 2025a, b) found that "gift of time" interventions significantly increased happiness, but had no effect on depressive symptoms. Similarly, Gander et al. (2018) study on positive reminiscence showed wellbeing improvements at 3 months, but no impact on depressive symptoms. Still on positive reminiscence, Hurley and Kwon (2012) study revealed an unexpected pattern: participants who completed only one session reported higher positive affect than those who completed both sessions, suggesting that intervention dosage may influence outcomes in counter-intuitive ways.

These findings underscore the complexity of PPIs and highlight the importance of individual differences, timing, and context in their application. The variability in outcomes may stem from factors such as participant motivation, intervention design, and measurement tools. For example, Lyubomirsky's et al. (2011) research emphasises the role of self-selection, with non-self-selected participants showing declines in wellbeing. This self-selection component is part of the PoETA. Similarly, the lack of long-term effects across multiple interventions suggests a need for more robust strategies to sustain benefits, such as booster sessions or tailored approaches.

Contribution of the PoETA

To strengthen understanding of how PPIs might function in educational settings, the PoETA framework offers a theoretically informed model that integrates insights from developmental psychology, motivation theory, and self-regulated learning. While still at a conceptual stage, this framework aims to connect psychological mechanisms with practices that are potentially applicable in schools, particularly for adolescents.

Theoretical Foundations in Educational Psychology

The PoETA draws on well-established theoretical models to explore how brief, structured interventions may support adolescent wellbeing, engagement, and learning. The framework aligns with the Stage-Environment Fit Theory (Eccles, 2004), which posits that adolescents are more likely to thrive when there is a strong correspondence between their evolving developmental needs and the opportunities available in their environment. These needs include greater

Table 5 ACTIONS categories in the 64 interventions

Category	Number of interventions
Activity	8
Calming	7
Thinking	29
Identity	5
Optimism	23
Nourishing	10
Social	15
	97

autonomy, identity exploration, and peer connection—domains that are particularly salient during adolescence. The PoETA framework responds to these needs by offering flexible, reflective, and socially embedded activities that adolescents can engage with in personally meaningful ways. For instance, the choice-based nature of the interventions supports autonomy; exercises such as strengths and values spotting foster identity development; and group-based projects or storytelling activities facilitate peer connection. In this way, PoETA may help create classroom conditions that are more developmentally attuned to the psychological and social trajectories of adolescent learners. In addition, the PoETA framework reflects the Four-Phase Model of Interest Development (Hidi & Renninger, 2006) which outlines how interest develops over time through a dynamic progression. According to this model, learning engagement can begin with situational interest, a temporary curiosity triggered by novelty or relevance, and—when supported by meaningful experiences and repeated exposure—may evolve into individual interest, a more enduring and self-regulated form of motivation. By offering a range of varied, emotionally resonant, and contextually adaptable activities, PoETA may help stimulate initial interest and support its development through repeated, purposeful engagement. Although empirical validation is still needed, this approach holds potential for fostering more sustained student involvement in wellbeing practices over time.

Adolescent Development

Adolescence is a period of increased neuroplasticity, especially in brain networks related to identity development, cognitive control, and emotion regulation (Immordino-Yang et al., 2019). The PoETA seeks to align with this developmental sensitivity by proposing activities that are emotionally and socially meaningful—such as gratitude expression, storytelling, values reflection, and collaborative engagement. These types of experiences may activate core neural systems such as the executive control, salience, and default mode networks, which are associated with attention, self-regulation, and reflective thinking. While direct neural impacts of PPIs remain an emerging area of research, existing evidence suggests that emotionally rich, socially embedded learning experiences can contribute to cognitive and emotional development (e.g. D'Argembeau et al., 2010;

Desbordes et al., 2012; Fox et al., 2015; Kini et al., 2016; Klimecki et al., 2014; Moll et al., 2006; Tang et al., 2015).

Motivation

Self-determination theory (Deci & Ryan, 2012) provides a foundation for understanding how interventions that support autonomy, competence, and relatedness could enhance intrinsic motivation. By offering adaptable and choice-based interventions, the framework is intended to support volitional engagement, which is considered central to adolescent motivation (Beyers et al., 2025). Emerging evidence supports the role of perceived choice in fostering engagement. For example, Fridkin and Hurry (2025) conducted a study with 110 third-grade students (aged 8–9), using a crossover design to compare reading comprehension and enjoyment in assigned versus "perceived choice" conditions. Despite both texts being identical, students who believed they had chosen their text showed significantly higher comprehension (Cohen's $d = 0.52$) and enjoyment ($d = 0.23$). These findings suggest that even minimal, perceived autonomy can trigger situational interest and improve learning outcomes—regardless of gender or ability level.

While the generalisability of these results to older students requires further investigation, the underlying mechanisms—such as enhanced attention, a greater sense of agency, and emotional engagement—are consistent with motivational theories applicable to adolescents (e.g. Hidi & Renninger, 2006). In this sense, the PoETA framework's structure—which allows teachers to either select activities or invite students to choose whether and which intervention to engage in—may support these motivational dynamics by creating authentic opportunities for perceived autonomy in the classroom.

Self-Regulated learning

Several interventions within PoETA draw on strategies known to support self-regulated learning. Zimmerman (1990) defines self-regulated learners as *metacognitively, motivationally, and behaviourally active participants in their own learning* (p.5). Specifically, self-regulated learning involves three core features: the strategic use of learning processes (e.g. goal setting, planning, self-monitoring), responsiveness to self-generated feedback on learning effectiveness, and motivational components such as self-efficacy, interest, and volition.

The PoETA framework includes multiple interventions that may activate these three dimensions. For example, *Best Possible Self* exercises support metacognitive planning and motivational engagement by encouraging students to project into a meaningful future and reflect on their personal goals (e.g. Peters et al., 2010). *Goal-setting activities* similarly strengthen students' capacity for strategic planning and persistence toward learning objectives (e.g. Morisano et al., 2010). Additionally, movement-based interventions—such as short bursts of physical activity integrated into classroom routines—may help enhance students' energy levels, focus, and task engagement, supporting the behavioural and motivational dimensions of

self-regulated learning. Research suggests that physical activity can improve executive functioning and self-control, thereby facilitating better regulation of attention and effort in academic contexts (e.g. Donnelly et al., 2016).

Practical Strengths of the PoETA Framework and the Toolbox

Structured Design

The PoETA framework offers a structured and accessible array of evidence-based PPIs that show promise for potential integration into school curricula. This method could provide educators with practical tools to address wellbeing and mental health without extensive disruption of established schedules. The modular nature of the Toolbox also allows for customisation according to the specific needs of students and educational contexts, making it a potentially valuable resource for educators keen to incorporate wellbeing practices into their classrooms. This adaptability supports the autonomy of teachers and potentially that of pupils, aligning the practical design of the framework with the principles of self-determination theory (Deci & Ryan, 2015).

Flexibility and Agency in Teaching

The potential flexibility and ease of use of these interventions are believed to make them ideal candidates for implementation in diverse educational environments, as they may be adapted for different age groups, allowing for possible applications from primary to secondary school. The framework's sensitivity to contextual factors enhances its practical utility by guiding teachers in selecting appropriate interventions for specific populations (e.g. avoiding travel-themed activities with refugee students). This contextual awareness, combined with the ability to select from a diverse range of evidence-based practices, may foster teachers' sense of agency and professional judgment—empowering them to make informed decisions about which wellbeing practices best suit their unique classroom contexts and student needs. By respecting teachers' expertise and autonomy while providing structured guidance, the PoETA framework aims to balance standardisation with individualisation, potentially enhancing both implementation quality and teacher engagement.

Curriculum Compatibility and Training

The concise format of these interventions may facilitate their integration into regular teaching without requiring teachers to significantly alter their lesson plans. Rather than functioning as stand-alone programmes, the activities can be flexibly embedded within existing curricular content, making them potentially more feasible for educators to use as part of their usual classroom routines. Additionally, they do not require specialised equipment or extensive training, which could facilitate their integration by teachers into daily activities.

Evidence Base

The PPIs selected for the Toolbox demonstrate several noteworthy characteristics. Firstly, they are evidence-based, with each intervention not only scientifically validated by a study from a meta-analysis, but also supported by quality studies for its effectiveness in enhancing various aspects of wellbeing.

Thematic Diversity

Moreover, given the nascent stage of research on brief, stand-alone PPIs in educational settings, we believe that our approach of including diverse interventions, even those with fewer supporting studies, is justified as a means of identifying promising practices. This inclusive strategy aims to provide a broad foundation for future research efforts. The framework introduces less commonly explored themes within positive psychology interventions, such as creativity, movement, and problem-solving. The diversity of interventions, organised according to the ACTIONS framework, allows teachers to systematically address different dimensions of wellbeing. These elements may broaden the scope of wellbeing work in schools beyond more traditional constructs such as gratitude. The Toolbox's flexibility—both in terms of content and format—has the potential to allow teachers to select and adapt activities according to their students' developmental needs, age group, and learning environment.

Limitations

Despite the encouraging theoretical and practical potential of the PoETA framework, several important limitations must be acknowledged. These concern both the current evidence base and the practical considerations surrounding its implementation in real-world educational settings. While the framework has been designed to be flexible, brief, and adaptable, these features alone do not guarantee successful uptake or impact. Key questions remain about feasibility, contextual fit, cultural relevance, long-term effects, and implementation risks. The following sections outline the main areas where further empirical research and careful piloting are needed before broader application can be considered.

Implementation Concerns

Gaps in Evidence for Real-World Educational Settings The PoETA framework represents a systematic approach to identify potentially effective interventions for educational settings, grounded in existing meta-analytic evidence. A fundamental limitation of this review concerns the current state of evidence supporting the effectiveness and feasibility of these interventions when implemented by teachers in educational settings. While the PPIs show promise in controlled research environments, significant research is still needed before advocating for widespread implementation. The transition from controlled research environments to real-world classrooms class presents several critical challenges that still require empirical validation.

Developmental Differences Between Adults and Adolescents Many of the source studies were conducted with adult populations rather than adolescents, raising questions about their effectiveness for younger populations. The cognitive, emotional, and social development of adolescents differs significantly from adults, potentially affecting how they engage with and benefit from these interventions (2025). Although the interventions are evidence-based, they are not always specifically tested on child and adolescent populations, which may affect their relevance or efficacy in these specific age groups. Another weakness lies in the lack of information on student adherence to these practices. Student engagement is crucial for the success of any educational program, and without data on their acceptance or active participation, the impact of the interventions might be limited (Yeager et al., 2018).

Lack of Teacher Expertise and Support The original implementations were typically led by trained practitioners, researchers, or mental health professionals rather than teachers. This presents a significant challenge when considering classroom implementation, as teachers may lack the training, supervision, or support that were present in the original studies. While teachers possess valuable pedagogical expertise, the effectiveness of these interventions when implemented by non-specialists remains largely untested. The expertise of the intervention provider can significantly impact implementation quality and outcomes, as demonstrated in previous educational intervention research. For example, Durlak and DuPre (2008) examined 542 studies and emphasised that successful implementation of programs depends on the expertise of the provider, with well-implemented programs achieving significantly better outcomes. They also highlight the importance of multiple factors, such as organisational capacity, community support, and technical assistance. Additionally, they argue that adapting interventions to local contexts and populations can enhance effectiveness.

Potential Risks and Unintended Consequences Even well-designed interventions can be ineffective when not implemented properly. Our review identified ten interventions with null or negative effects, emphasising the need for rigorous testing in educational settings and careful attention to teacher training, student readiness, and institutional support. Evidence on potential risks is limited, but Britton et al. (2021) found meditation-related adverse effects, with 58% of participants reporting negative experiences and 37% experiencing impaired functioning. Lasting effects (6–14%) were linked to dysregulated arousal, including hyperarousal and dissociation. The MYRIAD trial (Kuyken et al., 2022) illustrates implementation challenges in educational settings. This large-scale randomised study involving over 8000 students (mean age = 12.2) across 84 schools found "no evidence that school-based mindfulness training was superior to treatment as usual at 1 year" (p. 99). Similarly concerning, recent large-scale trials by the Deighton (2025a, b) exposed critical failures in school-based mental health interventions. The AWARE trial (n = 12,166) revealed significant negative outcomes for both Youth Aware of Mental Health (YAM) and The Guide programs in secondary schools. YAM demonstrated an increase in emotional difficulties (effect size = 0.08, 95% CI 0.02, 0.14), while

The Guide exacerbated emotional challenges (effect size = 0.09, 95% CI 0.03, 0.15) but also substantially decreased students' life satisfaction (effect size = − 0.08, 95% CI − 0.13, − 0.02). These findings collectively highlight that wellbeing interventions can potentially cause harm when implemented without adequate preparation, suggesting that thorough evaluation is essential before widespread adoption.

Overwhelming Choice and the Need for Refinement The plethora of choices presented in the PoETA framework may also prove counterproductive, as teachers may feel overwhelmed by the number of options available, potentially hindering their decision to adopt and implement the interventions. This initial limitation is expected to be addressed in upcoming studies through the use of focus groups consisting of teachers and mental wellbeing professionals. By engaging with these groups, we aim to refine our selection of PPIs, reducing the number to a more manageable set of 50.

Contextual and Cultural Limitations

This scoping review has several limitations that must be acknowledged. While our review has identified a range of promising PPIs for educational settings, it is crucial to interpret their efficacy through the lens of "what works, for whom, and under what circumstances." The current evidence base, largely derived from controlled research settings in WEIRD countries, may not fully capture the complexities and nuances of real-world implementation in diverse cultural contexts. Factors such as student characteristics, teacher implementation practices, teachers' psychosocial skills, and contextual variables can significantly influence the effectiveness of these interventions. To truly understand the potential impact of these PPIs, we must move beyond simply asking "what works" and delve deeper into the questions of "for whom" and 'under what circumstances" particularly in non-WEIRD settings.

The focus on interventions tested primarily in WEIRD countries may limit the generalisability of the findings to other cultural contexts. Future research should explore the effectiveness and adaptability of these interventions in diverse cultural settings, as cultural factors may influence the acceptability, engagement, and impact of the interventions. Additionally, relying on effect sizes from a limited number of studies may not fully represent the interventions' true effectiveness across different contexts. As evidence accumulates, future research should examine how effect sizes change and investigate the interventions' performance in varied contexts and populations. This will provide a more comprehensive understanding of the contextual factors that influence the success of these interventions in real-world educational settings.

Outdated Evidence

Fifthly, although Carr et al.'s (2023) mega-analysis provides a robust foundation for identifying PPIs, the most recent meta-analysis in this mega-analysis is by Haase and colleagues (2023), which itself collected studies up to 2019. It is therefore possible that relevant interventions have been published since 2019 and are therefore not considered in our study. Moreover, while we contacted the authors of the original

studies to obtain detailed instructions ($n = 61$), we did not always receive a response ($n = 42$). In these cases, we had to rely on the information available in the articles and adapt the interventions ($n = 19$). Out of all the instructions received by email, only three were compatible with the Toolbox.

Evidence Base Limitation

Although Carr et al.'s (2023) mega-analysis provides a robust foundation, the most recent meta-analysis included studies only up to 2019, potentially missing relevant recent interventions. Since the mega-analysis, other meta-analyses on PPIs got published (e.g. Basurrah et al., 2023; Lim & Tierney, 2023).

Our attempts to contact original study authors ($n = 61$) yielded limited responses ($n = 42$), necessitating adaptation of interventions based on available information. Only three of the received instructions proved compatible with the Toolbox.

Long-Term Impact Understanding

Another potential limitation is that the long-term effects of these brief, stand-alone interventions are not thoroughly examined in this review. While short-term impacts are promising, it would be valuable to investigate whether the benefits are maintained over extended periods and how they compare to the effects of more comprehensive, long-term interventions. Lastly, the heterogeneity in follow-up assessments among the included interventions limits our ability to draw firm conclusions about the long-term effectiveness of the PoETA interventions. While follow-up assessment was not a primary criterion in our initial selection process, we acknowledge its importance in evaluating the retention of intervention effects over time.

Future Research Direction

Implementation Safety and Efficacy Studies

Future research on the PoETA framework must prioritise a systematic validation approach guided by established educational implementation frameworks, particularly the SAFE criteria (Durlak et al., 2011). The SAFE framework, which emphasises Sequenced, Active, Focused, and Explicit instruction, provides essential guidelines for validating educational interventions and should inform the next phase of research. Studies need to examine how these brief interventions can be strategically sequenced within educational contexts, including optimal ordering, skill progression, and cumulative effects. Research should investigate how to maintain active engagement within the brief format, testing various delivery methods that promote hands-on learning while respecting time constraints. The focused aspect requires examination of intervention clarity and target outcome alignment, particularly how to maintain intervention fidelity while allowing necessary flexibility for educational settings. Studies

must also validate methods for explicit skill instruction and modelling within shortened timeframes, ensuring clear learning objectives and effective skill acquisition assessment.

Beyond the SAFE framework validation, several critical research priorities emerge. First, controlled studies with adolescent populations are essential to establish age-appropriate effectiveness. Teacher-led implementation trials with varying levels of training will help determine minimum requirements for effective delivery. Assessment of potential risks and contraindications is crucial, particularly given the varying expertise levels of implementers. Research should also focus on developing appropriate training and support structures that are both effective and feasible within school resource constraints. Long-term follow-up studies are needed to assess sustained impacts and determine optimal reinforcement schedules. Additionally, implementation cost-effectiveness analyses and cultural adaptation studies will help establish the interventions' broader applicability and sustainability.

These research priorities should be approached through a combination of methodologies, including randomised controlled trials in educational settings, mixed-methods implementation studies, and longitudinal impact assessments. Particular attention should be paid to potential moderating factors such as teacher expertise, student characteristics, and school environment variables. This comprehensive research agenda would help establish not just the effectiveness of these interventions, but also their safety, feasibility, and sustainability in educational settings. Only through such systematic investigation could we move from a promising theoretical framework to evidence-based educational practice.

Implementation Research

A critical next step is examining how these interventions would function when implemented by non-specialist teachers in real educational settings. While this review identifies promising interventions based on existing evidence, the crucial question of "what works, for whom and under what circumstances" in school contexts requires empirical investigation. The proposed pilot study will specifically focus on how these interventions perform when delivered by teachers without extensive training, helping to bridge the gap between controlled research settings and practical educational implementation.

Implementation research should also include individual interviews with teachers. These sessions will specifically explore student adherence to the practices and gather insights from teachers regarding their perspectives on student engagement. This dual approach will provide a more comprehensive understanding of how well students accept and actively participate in the interventions.

Future research could explore how these interventions might be adapted for coordinated school-home implementation, while acknowledging current limitations in evidence supporting such approaches. As Durlak et al. (2022) note, key questions remain about "how much of the intervention is extended through these individuals, and how well do these individuals monitor or support student skill practice and mastery" (p. 27–28) when parents are involved.

Target Population Expansion

Another avenue for future research is adapting these interventions for younger children in school contexts, but also for medical contexts. By modifying the instructions and content to suit healthcare settings, doctors could potentially use these brief, effective interventions with patients. Furthermore, these interventions could be adapted for use in other contexts (e.g. companies, hospitals, or prisons) to promote wellbeing and support mental health in a variety of settings.

Effectiveness Mechanisms

The scoping review does not provide a detailed analysis of the specific mechanisms underlying each intervention's effectiveness. Future research should explore the effects of interactions between different PPIs and the multi-level effects between practices and implementation contexts. Key questions include whether limiting practice numbers for repetition is more effective than variation, whether certain PPI combinations prove more effective, and how specific contexts or developmental objectives influence intervention efficacy.

These questions underscore the need for a deeper understanding of how these interventions interact with each other and their contexts, which could significantly enhance their efficacy and applicability in diverse settings.

The What Works Clearinghouse (WWC) provides a tiered system for classifying the strength of evidence supporting an intervention (WWC, 2020):

- Tier 1—strong evidence: supported by one or more well-designed and well-implemented randomised controlled trials
- Tier 2—moderate evidence: supported by one or more well-designed and well-implemented quasi-experimental studies
- Tier 3—promising evidence: supported by at least one well-designed and well-implemented correlational study with statistical controls for selection bias

According to the WWC, only interventions supported by Tier 1 (strong) or Tier 2 (moderate) evidence are considered to be evidence-based and are included in their reports. It is essential to ensure that the interventions being implemented align with evidence-based practices as defined by reputable sources such as the WWC. Since the PoETA PPIs match the criteria for evidence-based interventions, the next step would be to test these interventions in various settings and populations to further strengthen the evidence base.

Long-Term Impact Studies

Future research should prioritise the inclusion of follow-up assessments to establish the long-term effectiveness of these brief, stand-alone interventions in educational settings. While short-term impacts are promising, it would be valuable to investigate whether the benefits are maintained over extended periods and how they compare to the effects of more comprehensive, long-term interventions. This would provide a more comprehensive understanding of their sustained impact on student wellbeing.

Conclusion

This scoping review represents a significant a preliminary but important step in bridging the gap between positive psychology, psychosocial skills research, and educational practice. Through systematic analysis of meta-analytic evidence, we have identified and described 64 brief, stand-alone interventions that show promise for potential integration into educational settings, pending further validation and contextual adaptation in real-world classrooms. The ACTIONS framework (Activity, Calming, Thinking, Identity, Optimism, Nourishing, Social) provides educators with a conceptual tool for selecting and implementing these interventions based on specific classroom needs and educational objectives, serving as a foundation for future research and potential implementation and piloting efforts.

The PoETA framework makes *three major theoretical contributions* to educational psychology. First, it illustrates how evidence-based interventions may potentially be adapted for classroom use without compromising their theoretical foundations or effectiveness. Second, drawing on theories of motivation and self-regulated learning, it provides a flexible starting point for addressing the long-standing challenge of integrating wellbeing support into academic settings within existing time and resource constraints. Third, it offers a systematic approach to matching interventions with specific educational contexts and student needs, which requires empirical confirmation in real-world settings.

The theoretical integration of motivation and self-regulated learning frameworks suggests potential mechanisms through which these interventions might influence both wellbeing and academic engagement. This integration is particularly important given the concerning trends in adolescent mental health documented globally (Helliwell et al., 2024) and the well-established relationship between psychological wellbeing and learning outcomes (e.g. Curren et al., 2024; Shankland & Rosset, 2017). As research consistently demonstrates, students with stronger psychosocial skills show improved attention regulation, better classroom engagement, higher academic motivation, and ultimately superior academic performance (e.g. Cipriano et al., 2023; Durlak et al., 2022). By potentially supporting these foundational capacities, wellbeing interventions may help create both psychological and cognitive conditions necessary for effective learning.

While the evidence base supporting these interventions provides a basis for potential effectiveness, future research must examine their implementation in diverse educational contexts. Particularly crucial is the need to understand how these brief interventions could contribute to students' long-term psychological development and academic success. As education systems globally grapple with supporting student wellbeing, academic achievement, and learning engagement, the PoETA framework offers a promising theoretical pathway for investigating approaches to more psychologically healthy and academically effective learning environments.

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Declarations

Ethical Approval As this study is a literature review, no ethical approval was required.

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