

Sustainable Contemplative Practices in Pre-Service Teacher Education for Sustainability

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Abstract

Over the past decade, there has been a significant increase in research studies that introduce contemplative practices – such as mindfulness, compassion, and lovingkindness – into the educational setting. While these programs have shown promising results for both students and teachers, there remains a gap in understanding how to integrate contemplative practices into the curriculum of teacher training education for sustainability. This paper aims to present a conceptual framework of Contemplative Practices (CP) that focuses on lovingkindness-compassion, which has the potential to revolutionize teaching practices towards sustainability. By advocating for the urgent integration of CP within the curriculum of teacher training education for sustainability, this paper asserts that nurturing the lovingkindness-compassion competency can pave the way for a sustainable curriculum and a curriculum for sustainability.

Keywords: Contemplative practices, lovingkindness-compassion, teacher education for sustainability, teacher training curriculum.

Introduction

Within the context of teacher education for sustainable development, the inquiry into the extent of humanity's intrinsic relationship with the natural world emerges as a pivotal consideration. Is this inquiry overly magnified or inconsequential within this educational framework? A judicious approach to addressing this inquiry involves elucidating sustainability from a broader perspective. This implies a heightened acknowledgement of the Anthropocene era as emblematic of unsustainable developmental trajectories (Salite et al., 2023b).

Building upon the framework established by the 17 Sustainable Development Goals (SDGs) outlined in the 2030 Agenda for Sustainable Development, the concept of sustainability has evolved beyond its initial focus on preserving the natural environment. It now encompasses a comprehensive approach inclusive of economic advancement, societal equity, and ecological integrity. UNESCO has recognized

education as the fundamental catalyst underpinning all 17 SDGs, with educators playing a crucial role as change agents (UNESCO, 2021). The contemporary Anthropocene era, characterized by tendencies towards egocentrism and self-interest, constrains individual sustainable development and the advancement of sustainability within educational paradigms (Salite et al., 2021a).

The Anthropocene era significantly influences individuals' self-conception, fostering a tendency towards disregarding one's authentic self. This true self embodies an ecological dimension since human development is intricately interwoven with nature and embedded within the natural environment (Salite et al., 2021a). This holistic and integrative perspective underscores the importance of personal development for the sustainability of the entire ecosystem, wherein the interplay between humans and the natural world governs the whole system's sustainability (Salite et al., 2023a). This principle, which underscores a comprehensive understanding of sustainability, aligns with the imperative for a shift from anthropocentric to ecocentric education, as advocated by the framework of Transformative Sustainable Pedagogy (TSP), which is grounded in ethical principles and values aimed at guiding the transition towards a sustainable future (Bedford, 2022).

In the realm of sustainable development within education, scholars have underscored the imperative of integrating human sensitivity (Salite et al., 2021a; Salite et al., 2022). The comprehensive and sustainable enhancement of teacher competencies for sustainability in education necessitates the inclusion of dimensions such as emotions and values (Anđić & Mažar, 2023), entailing ethical, moral, and awareness shifts (Salite et al., 2021b). This is essential to address the pivotal role that student teachers play in fostering education for sustainable development as catalysts for constructing a sustainable future (Koskela & Kärkkäinen, 2021). In light of evolving challenges, teachers require resilient inner capacities and competencies to navigate emerging demands effectively. Researchers have emphasized the necessity of equipping educators to respond adeptly to multifaceted professional and social challenges (Hirshberg et al., 2020).

Preparing prospective teachers to cultivate a holistic and integrated understanding of sustainability necessitates confronting the inherent unsustainability within the educational system. The existing system is marked by disconnections rooted in dualisms such as subject-object, mind-body, and intellect-matter (Bai et al., 2010). This disconnection is mirrored in teacher education through instrumentalizing and segmenting pedagogical curricula, prioritizing content mastery and pedagogical skill acquisition. Consequently, the focus on the individual behind the educator, undergoing internal transformation and questing for their identity as a teacher, has been marginalized (Ergas & Ragoonaden, 2020).

In this study, the concept of sustainability is construed within a broader framework characterized by holistic, integrative, systemic and dynamic attributes (Salite et al., 2021b; Trusina et al., 2023). It focuses on the objectives of education for sustainable development (ESD) aimed at fostering competencies conducive to a sustainable future. Such endeavors necessitate a fundamental shift in values, attitudes, and cognitive paradigms, which concurrently support mental well-being and psychological equilibrium (Martinsone et al., 2023). This endeavor resonates with the educational mandates delineated in Sustainable Development Goal 4 – Quality Education, mainly Target 4.7. This goal underscores the importance of equipping learners with the requisite knowledge and skills for advancing sustainability agendas.

Consequently, a recalibration of teacher education programs to embrace sustainability becomes imperative.

This study focuses on enhancing the competencies of student teachers in comprehensively addressing the concept of sustainability while also attending to the mental state and well-being of teachers. Central to this investigation is exploring the significance of contemplative practices within teacher education programs. Studies have shown that inner transformation through contemplative practices correlates to more sustainable human actions and behaviors towards oneself, others and the whole ecosystem (Eaton et al., 2017). Contemplative practices cultivating kindness, compassion, and inner awareness as a form of pedagogical and environmental inquiry are essential for the holistic approach to sustainability and teacher education. This is so because the issues that need to be addressed in both fields are so complex and dynamic that the solutions do not fit into a linear schema with a tangible endpoint (Trusina et al., 2023). It follows a circular reciprocal and elusive pattern, requiring changes and transformations of deep-seated beliefs, emotions, and behavior (Eaton et al., 2017). This paper aims to be part of this solution promoting contemplation as a pedagogical practice within the teacher education curriculum, arguing that cultivating lovingkindness-compassion is sustainable and indirectly enhances social and environmental sustainability.

Literature Review

This section aims to elucidate the contemplative turn in education, the quiet revolution (Zajonc, 2013), which recently gained a much louder voice within the context of higher education (Barbezat & Bush, 2014; Benefiel & Lee, 2019; Fritzsche, 2022). This paper examines previous studies on contemplative practices within the context of teacher and sustainability education.

Contemplative Education

Contemplative practices, rooted in the broader framework of Contemplative Education (CE), embody a holistic paradigm in teaching and learning. CE prioritizes the individual as a whole entity, recognizing the indispensability of subjective, first-person experiences in the educational journey. By embracing a heightened focus on first-person perspective (1PP) inquiries, pedagogy stands poised to enrich its methodologies by deepening its understanding of individual experiences (Salite et al., 2021b). Embedded within the CE framework, students self-reflect to gain insights into their identities, cognitive processes, emotional states, and capacities for cultivating kindness and compassion towards themselves, others, and the global community.

CE champions self-awareness, contrary to the prevailing neoliberal educational model of the Anthropocene era, characterized by competition, neoeconomic rationalism, and a materialistic focus on cost-benefit analysis. It serves as a conduit for fostering purpose and mindfulness (Ergas, 2019) and nurturing collaborative efforts directed towards the betterment of humanity and the planet as a whole.

Contemplative Practices in Teacher Education

Since the onset of the new millennium, contemplative practices have garnered recognition as subjects of inquiry within diverse educational contexts. Various courses centered on contemplative practices have been developed within higher education institutions spanning multiple disciplines (Barbezat & Bush, 2014; Lemon &

McDonough, 2018). Additionally, contemplative practices are gaining traction within public educational establishments (Schonert-Reichl & Roeser, 2016).

Research on contemplative practices within teacher education predominantly targets in-service teachers to enhance their socio-emotional competencies, well-being, or instructional methodologies (Jennings et al., 2017). Despite the myriad advantages associated with integrating contemplative practices into educational settings, there exists a dearth of research on contemplative practices within pre-service teacher education programs, particularly emphasizing first-person scientific inquiry as a contemplation of the self as a teacher (Ergas & Ragoonaden, 2020; Hulburt et al., 2020).

Ergas and Ragoonaden (2020) delineate between teacher identity and self, advocating for utilizing contemplative practices as a conduit for self-awareness. This would enable educators to delve into their fundamental essence as individuals and foster the capacity to access their intrinsic wisdom in their professional endeavors.

A recent investigation uncovered that implementing a 9-week mindfulness-based intervention, incorporating practices centered on lovingkindness and compassion, within pre-service teacher education has been correlated with enhanced efficacy in classroom instructional techniques (Hirshberg et al., 2020).

Contemplative practices enable pre-service teachers to understand themselves as educators better, establishing an authentic equilibrium between pedagogical theory and practical teaching methodologies. By nurturing self-awareness, lovingkindness, and compassion, pre-service teachers embark on self-discovery within their professional identity, preparing themselves for personal and vocational growth (Ergas & Ragoonaden, 2020; Farrell et al., 2020). Subsequently, educators have the opportunity to cultivate competencies throughout their educational training, enabling them to confront the contemporary and forthcoming challenges within their profession effectively.

Contemplative Practices in Education for Sustainability

Scholars and practitioners have acknowledged the imperative of addressing sustainability within education through a transformative and elusive approach (Eaton et al., 2017). Similarly, within teacher education, much of the research and practice in sustainability education has predominantly focused on the external natural environment, advocating for technical and systematic solutions (Ives et al., 2020). However, a critical aspect has been overlooked: the inner dimension of individuals (Eaton et al., 2017; Hensley, 2020). Recognizing the essential role of sensitivity and sensibility in facilitating human adaptation to the environment carries significant implications (Salite et al., 2021b). This is further underscored by the substantial correlation between individuals' emotional connection with ecosystems and their mental well-being, emotional disposition, and pro-environmental tendencies (Ameli, 2022; Andić & Mažar, 2023).

A recent reflexive case study examining the development of a master program course titled "Environmental Studies and Sustainability Science" provides evidence supporting the beneficial impact of contemplative practices across several dimensions of sustainability: the interconnectedness of human and natural systems, attitudes towards consumerism, environmental behaviors, adaptive strategies in response to climate change, and the promotion of a sustainable approach to equity and social activism (Wamsler, 2020).

Contemporary research in sustainability education increasingly acknowledges and incorporates diverse forms of contemplative practices (Fritzsche, 2022; Walsh et al., 2020) to address a critical component missing from the sustainability discourse: “Working on ourselves or pursuing inner growth is not simply a New Age exercise in indulgence but an act of responsible ecological citizenship” (Wapner, 2017, p. 124).

Subsequently, cultivating inner awareness and lovingkindness-compassion as a form of pedagogical and environmental inquiry is essential in promoting holistic, meaningful, and effective teaching within sustainable education.

Methodology

As a conceptual paper, the methodology is underpinned by curriculum inquiry, with the objective of informing subsequent curriculum development and enactment. This methodological approach is congruent with the primary aim of this paper, which is to introduce a conceptual framework for Contemplative Practices (CP) that emphasizes lovingkindness and compassion. Therefore, this paper employs the theoretical investigation to explore the benefits of introducing lovingkindness-compassion into the pre-service teacher education curriculum. Drawing on the purpose of this paper, the theoretical inquiry in the curriculum is appropriate since it “create[s] and critique[s] conceptual schemes by which the essential nature and structure of the curricular phenomena and process can be made intelligible” (Grove & Short, 1991, p. 211).

In this study, we devised and examined a conceptual framework within the broader context of sustainable education, explicitly targeting the curriculum of teacher training programs. Our inquiry focuses on delineating how the cultivation of self-awareness through the nurturing of warmth towards oneself and others (e.g., lovingkindness) and the deliberate fostering of the aspiration to alleviate others’ suffering (e.g., compassion) contributes to the development of lovingkindness-compassion competency (LKCC) among educators. We delve into how the integration of lovingkindness-compassion principles engenders sustainable teaching practices at the body, speech and action levels. In addition to scrutinizing the constituent elements and interrelations within the proposed conceptual framework, the subsequent section will elucidate the rationale behind acknowledging the contemplative practice of lovingkindness-compassion as an indispensable component of both a sustainable curriculum in teacher education and a curriculum designed to foster sustainability.

Conceptual Model

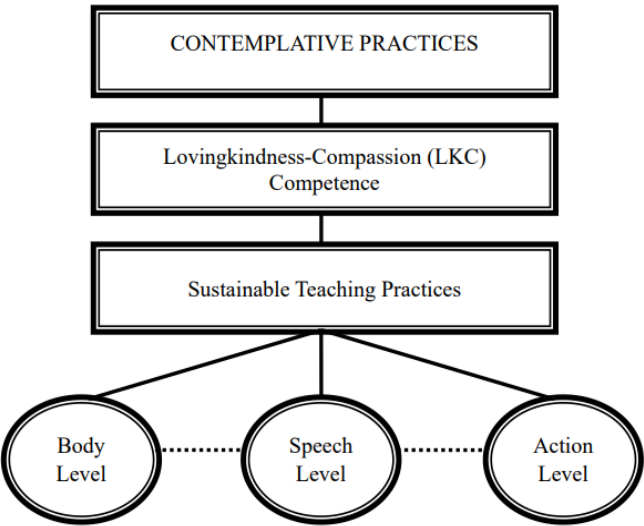
This paper’s conceptualization of lovingkindness-compassion (LKC) draws from Buddhist teachings. However, it is essential to note that both lovingkindness and compassion are perceived as inherent universal ethical and moral principles that can be nurtured through practice and experience (Jinpa, 2015). Consequently, cultivating LKC within education transcends rigid dogmas or doctrines. Lovingkindness and compassion are intricately intertwined and signify nearly identical mental states (Cho et al., 2018). Nonetheless, each concept emphasizes distinct focal points: lovingkindness primarily relates to feelings of care and warmth, expressed through the desire for the happiness of oneself and others, intending to foster happiness and well-being. Conversely, compassion entails understanding others’ suffering and the intention to alleviate that suffering, with the ultimate objective of mitigating distress (Cho et al., 2018).

Engaging in the practice of LKC empowers educators to recognize the shared human experience that we all share (Jinpa, 2015). Teachers cultivate a profound sense of interconnectedness by recognizing our shared humanity. Consequently, the contemplative pursuit of LKC is not an isolated pedagogical achievement; rather, it represents an ongoing educational endeavor wherein each teaching encounter offers opportunities for enhancing and refining LKC competency. Within this process, educators develop self-awareness at the body, speech and action level. As such, the cultivation of LKC transcends mere moments of formal practice or mindfulness; it can be seamlessly integrated into everyday teaching interactions within the classroom setting. Hanh and Weare (2017) provide a range of suitable contemplative practices to nurture mindful self-awareness, lovingkindness, and compassion among educators, advocating for incorporating these straightforward yet impactful practices into teaching practices. However, it is imperative not to view these practices solely as a means to an end. Instead, contemplative practices serve as a means of returning to the present moment, as articulated by Hanh and Weare (2017): “True mindfulness is not only a path leading to happiness; it is a path of happiness” (p. 266).

Sustainable Teaching Practices – Body, Speech and Action Level

Contemplative practices facilitate inner transformation through first-person experience, leading to shifts in attitudes, beliefs, and behaviors through critical self-reflection (Ergas, 2019; Saari, 2020). Pre-service teachers must cultivate self-awareness regarding their underlying cognitive patterns to apply acquired sustainable knowledge in their instructional practice effectively.

Figure 1
Conceptual Framework



In a manner akin to Bai et al. (2010), who proposed a tripartite awareness program addressing three dimensions of disconnection within teacher education—namely, the bodily, the sensible, and the interpersonal—this study examines the nexus between LKC

and sustainable teaching practices. Educators who nurture LKC can implement this competency across three dimensions: body, speech, and action. This integration restores a holistic approach to sustainable teacher education, harmonizing sustainable knowledge with insights from personal experience and introspection.

Educators can maintain mindfulness regarding their physical presence, vocal delivery, linguistic expression, and intentional action selection by intentionally engendering feelings of warmth and compassion through contemplative practices. Figure 1 depicts the proposed framework of LKC competence within contemplative practices for teacher training curricula.

Body Level

Body-conscious philosophies such as Buddhism underscore the importance of embodiment, recognizing the body as a fundamental aspect of existence (Bai et al., 2010). Within Buddhist teachings, the concept of being fully alive is closely linked to the degree of integration between the mind and the body: "When we bring our mind home to our body, our mind becomes one with our body. Our body becomes a mindful body, and our mind becomes an embodied mind" (Hanh & Weare, 2017, p. 134). As advocated by Bai et al. (2010), bodily awareness promotes educators' mental and physical well-being. Anchoring the mind in the body entails cultivating compassion and tending to the body with kindness. Thich Nhat Hanh proposes three embodiment contemplative practices that educators can employ in the classroom setting or as part of formal contemplative exercises: Awareness of the Breath in the Body, Mindful Movements, and Deep Relaxation (Hanh & Weare, 2017). The breath is a conduit linking the body and mind throughout these practices. Research has indicated a positive correlation between tonic respiratory sinus arrhythmia (RSA) and heart-rate deceleration with compassionate responses (Goetz et al., 2010). Consequently, it is unsurprising that Buddhist teachings highlight the substantial role of mind-body harmony in alleviating human dissatisfaction. As articulated by Thich Nhat Hanh, contented educators cultivate compassionate and empathetic connections with their physical selves, conscientiously attend to their bodily requirements, and possess proficiency in achieving bodily relaxation (Hanh & Weare, 2017).

Speech Level

Effective communication is a cornerstone of the teaching profession, facilitating the establishment of rapport and conducive teacher-student relationships. Within this study, communication skills encompass contemplative practices that focus on applying lovingkindness-compassion at the level of verbal interaction. Compassionate communication entails the practice of "loving speech and deep listening" (Hanh & Weare, 2017, p. 230), wherein the latter involves receptivity to others' perspectives and narratives, while the former entails articulating one's emotions mindfully and creating a supportive environment for others to express themselves. Educators acquire the capacity to communicate and listen with compassion, responding with kindness to facilitate resolution when necessary.

Mindful speech is grounded in first-person experience, with compassionate listening focusing on attentive receptivity without the inclination to offer advice, propose solutions, or interject opinions. The absence of judgment is palpable in the tone of voice. Empirical investigations have revealed that compassion can be conveyed through vocal cues, as evidenced by respondents' ability to identify prosocial vocal expressions as compassionate in experimental settings (Goetz et al., 2010).

Educators can cultivate compassionate listening and speaking practices to authentically relate to themselves and support students in feeling understood, acknowledged, heard, and valued. Experimental research has indicated that lovingkindness meditation enhances feelings of connectedness and promotes prosocial behavior (Fredrickson et al., 2008) while reducing biases and judgment (Kang et al., 2014). To rejuvenate teacher education, Bai et al. (2010) underscore the importance of training educators in dialogical awareness, enabling them to communicate and resonate with students in a manner that fosters relationship-building through effective communication.

Action Level

From a morphological standpoint, compassion is identified as a noun, but pragmatically, it operates as a verb, signifying action; its intrinsic nature demands active engagement. The Compassionate Education Foundation defines compassion as “love in action”, suggesting that the attributes of a compassionate individual are encapsulated in mnemonic acts for love (Coles, 2015). In the context of teaching, teaching becomes an expression of kindness or love in action, potentially yielding ripple effects throughout society. This endeavor aligns with the prevailing characteristic among the younger generation in their quest for practical significance and meaningful purpose in education, envisioning it as a means to contribute to a more “liveable place” (Barbezat & Bush, 2014, p. 175).

Research in positive psychology underscores the advantages of integrating practices such as acts of kindness into daily life (Rowland & Curry, 2019), including educational settings (Datu & Park, 2019). However, educators must prioritize self-awareness and the cultivation of contemplative practices when considering the initiation or execution of such actions. Otherwise, there is a risk that these actions may merely adhere to cultural norms or pursue personal fulfilment or educational outcomes. Reflecting on the shared human condition assists in establishing the appropriate intention for engaging in benevolent actions towards oneself, others, and the environment (Broidy, 2019). Such endeavors should aim to transcend individual interests for the collective good, constituting personal growth within the broader context of interconnectedness and interdependence.

Globally, various organizations, such as the Random Acts of Kindness Foundation, the Human Kindness Revolution, the Human Kindness Foundation, Spread Kindness, and Random Acts, converge in their mission to promote kindness and offer diverse examples of how kindness can be manifested in various social contexts (Broidy, 2019). The framework of this study, influenced by Buddhist teachings and anchored in self-awareness, lovingkindness, and compassion, encompasses actions characterized by the intention to promote happiness while avoiding harm to oneself, others, or the natural environment.

Lovingkindness-Compassion – Sustainable Contemplative Practice for Sustainability

This paper argues that integrating contemplative practices centered on LKC into the teacher education curriculum represents a sustainable pedagogical approach. This argument unfolds along two principal avenues. Firstly, as delineated herein, the conceptualization of LKC is grounded in the Theravada Buddhist framework of sublime abidings. These abidings, including Lovingkindness (metta), Compassion (karuna), Sympathetic Joy (mudita), and Equanimity (upekkha), are alternatively referred to as

Divine Abodes, Boundless States, or Brahmaviharas (Buddhaghosa, 2010). They are depicted as boundless or immeasurable mental states, devoid of constraints regarding their duration or the object of focus (Heim, 2017). These attitudes are characterized as inexhaustible and become ingrained as a state of being through their cultivation. They became a lasting habit and practice in an infinite process. Consequently, nurturing the development and practice of lovingkindness-compassion among pre-service teachers as part of their pedagogical training facilitates the cultivation of renewable inner reservoirs and strengths. Thus, the act of teaching is transmuted into an art of being.

Secondly, contemplative practices do not conform to a singular theory or method; instead, they encompass a spectrum of phenomenological transformations rooted in individual and distinct experiences (Flores, 2017). Therefore, LKC as a contemplative practice is considered sustainable owing to its reliance on self-reflection. Cultivating lovingkindness-compassion is perceived as an ongoing journey throughout one's lifetime rather than a finite pedagogical achievement confined within the parameters of a fixed curriculum.

Contemplative practices inherently offer educators sustainable pathways, equipping them with renewable reservoirs of resources and strengths while concurrently promoting social and environmental sustainability. An expanding body of literature highlights the integration of contemplative practices within sustainability education, positioning them as complementary to technological solutions for addressing ecological challenges (Eaton et al., 2017; Hensley, 2020; Wamsler, 2020). The cultivation of LKC emerges as a potential sustainable pedagogical strategy capable of heightening pre-service teachers' awareness regarding the interconnectedness between humanity and the natural world. Rooted in the principles of interdependence and the universality of the human condition, LKC serves as a conduit for fostering this awareness. How individuals relate to their inner selves mirrors their relationship with the external natural world. This suggests that reevaluating the connection between sustainability and our inner lives holds promise for achieving a more holistic human experience (Eaton et al., 2017).

Discussion

The principal aim of this study was to delineate a conceptual framework for integrating lovingkindness-compassion practice into the pedagogical curriculum for pre-service teachers. This study argues that enhancing one's inner domain or personal development directly correlates with the well-being of both the natural and social context. A prominent challenge within the discourse on sustainable development pertains to implementing measurements that require ethical values and awareness of intentions preceding the pursuit of sustainable development goals (Salite et al., 2021b).

This paper underscores the significance of understanding and harnessing teachers' mental states, specifically lovingkindness-compassion, to enhance a holistic approach to sustainability. Through the cultivation of LKC, pre-service teachers are equipped to engage in introspection and contemplate their role as educators within the broader ecological framework. This process empowers teachers to foster a profound sense of interconnectedness with themselves, as well as with others (e.g., students, colleagues, parents) and the natural environment. Consequently, this study addresses the increasing demand for additional research, particularly from the domains of Psychology and Arts & Humanities, aimed at instilling values and nurturing ethical ecological practices for future generations (Gavinolla et al., 2022). Recognizing

sustainable development as an ongoing endeavor reliant on sustained efforts and strategic planning, it is imperative to realign teacher education towards sustainable development objectives. The bibliometric analysis of the state of research on teacher education and sustainability performed by Gavinolla et al. (2022) underscores this necessity, illustrating a shift in research focus from environmental education towards teacher training and professional development, emphasizing values and ethical considerations.

This study has significant practical implications, providing a framework for implementing lovingkindness-compassion at the body, speech, and action levels. By learning and cultivating these contemplative practices, pre-service teachers can develop values and ethical reflections that serve the self and the interdependent ecological system. Contemplative practices are deemed valid and essential for addressing interdependent issues that require “systemic solutions and profound cultural shifts” (Eaton et al., 2017, p. 195). They serve to balance the content and pedagogical-based curriculum of teacher education by exploring the more nuanced aspect of the teacher’s self, viewing the teacher as a holistic entity “allowing teachers to attune with who they are as human beings” (Ergas & Ragoonaden, 2020, p. 192) within the holistic and dynamic ecosystem.

Conclusion and Recommendations

This conceptual paper argued that the link between inner transformation and sustainability presents a promising avenue for empirical inquiry within teacher education for sustainable development. Addressing the broader context of sustainability within the Anthropocene era, it becomes imperative to focus on individuals’ experiences, which contribute to the formation of meaning and self-development – arguably the pinnacle pursuit of the human species (Salite et al., 2021b). The cultivation of LKC represents a sustainable practice that enables educators, through first-person experience, to tap into their innate human capacity to connect with the natural environment and contribute to cultivating a holistic and sustainable future.

An emerging area of investigation could involve translating the conceptual framework into practical teaching methods suitable for classroom implementation, thereby integrating contemplative practices alongside teachers’ formal mindfulness exercises conducted outside the classroom. Qualitative research could explore and document teachers’ compassionate behaviors regarding body, speech, and action. Classroom observations might yield insights into whether these contemplative practices assist teachers in managing challenging classroom situations. Additionally, experimental studies could involve teachers participating in contemplative programs to assess the impact of these programs on their levels of self-awareness, lovingkindness-compassion and their own approach to sustainability.

We recommend integrating contemplative practices focusing on lovingkindness-compassion as a fundamental element of formal teacher education. Various practical strategies for integrating contemplative practices could be employed, such as Awareness of the Breath in the Body, Mindful Movements, Deep Relaxation, Loving Speech, and Deep Listening (Hanh & Weare, 2017). Furthermore, pre-service teachers can be trained in contemplative programs to practice Lovingkindness Meditation (metta) formally and to incorporate elements of Lovingkindness practice into the classroom setting. Integrating contemplative practices focusing on lovingkindness and compassion could represent a practical initial step towards advancing the

comprehensive aims of teacher education for sustainable development. This recommendation is underpinned by the acknowledgement that the inseparable interconnection between humans and their environment serves as the cornerstone of our existence and the promotion of integral thinking and action, both of which are indispensable for fostering a sustainable future (Salite et al., 2021b).

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