

EDUCATION AS A LEVERAGE POINT FOR SUSTAINABILITY: INTEGRATING TRANSFORMATIVE LEARNING AND CONTEMPLATIVE PRACTICES FOR SUSTAINABLE FUTURE

Anna Maria Ranczakowska
Researcher, Tallinn University

Anna Maria Ranczakowska is a cultural anthropologist and action-philosopher with over 10 years of experience in academia and cultural management. She specialises in transformative learning, leadership development, and community engagement, currently serving as a guest lecturer and researcher at various European institutions.

Kristina Kuznetsova-Bogdanovitsh
Researcher, Creativity Lab NGO

Kristina Kuznetsova-Bogdanovitsh is a higher education innovator and arts management researcher specialising in organisational and individual learning and knowledge management, as well as entrepreneurial identity research. With almost 15 years of experience within various higher education institutions Kristina consistently relies on and promotes co-constructing educational experiences as a way to build shared culture and values.

ABSTRACT

In the face of unprecedented socio-ecological challenges, higher arts education must evolve beyond traditional models to foster sustainability. This paper explores an integrative approach combining transformative learning and contemplative practices for a paradigm shift towards sustainable education. By examining 15 Master's programs in the Nordic region, the study identifies the benefits and barriers of incorporating contemplative practices and transformative learning in arts education. Findings highlight the enhancement of student well-being, creativity, and reflection capabilities essential for addressing complex sustainability issues. The proposed educational paradigm advocates for a holistic approach that prepares students not only as skilled artists but also as socially and environmentally conscious adults. This study highlights the need for higher education institutions to adopt innovative, reflective, and participatory learning environments to contribute meaningfully to a sustainable future.

Keywords: Sustainability; Higher Arts Education; Transformative Learning; Contemplative Practices

Introduction

Society is currently grappling with unprecedented challenges, particularly the systematic degradation of socio-ecological systems (Scharmer & Käufer, 2013; Rockström et al., 2009). These challenges, collectively termed as the sustainability challenge, encompass exponential population growth, increasing demand for natural resources, economic inequality, and ecological crises such as ocean acidification, ozone depletion, chemical pollution, biodiversity loss, increasing land use, and climate change. These interconnected issues, often referred to as "wicked problems," lack straightforward solutions and require comprehensive, systemic approaches (Rittel & Webber, 1973; Waddock, 2013).

The Framework for Strategic Sustainable Development (FSSD) uses the metaphor of a funnel to describe the sustainability challenge, where the closing funnel walls symbolise the increasing pressure on natural and societal resources, limiting civilization's capacity to thrive. Addressing these challenges necessitates a strategic mission to eliminate unsustainable structures and behaviours and

foster a sustainable society operating within the planet's carrying capacity. This calls for a paradigm shift in how society approaches problems, solutions, and strategic thinking (Scharmer & Käufer, 2013).

In this context, higher arts education must evolve beyond traditional educational models that prioritise skills acquisition and intellectual development. These models often overlook critical aspects of personal growth, adaptability, and the urgent need for sustainable practices. The United Nations Decade of Education for Sustainable Development (UN DESD) highlights the role of education in fostering processes that challenge existing mindsets towards sustainability. This paper aligns with such global initiatives, proposing a new paradigm integrating transformative learning, and contemplative practices to equip students not only with artistic skills but also with the mindset and inner qualities necessary for effective engagement with sustainability issues.

Significance of the Study

The need for sustainable higher education institutions (HEIs) has been recognized, requiring new mental models that transform how we interpret and respond to the world (Tilbury & Mulà, 2011). However, as Sterling (2004) notes, HEIs are still far from fully orienting themselves towards sustainability. Efforts to integrate sustainability have often been piecemeal, lacking a holistic approach (Ceulemans et al., 2011). Rigid disciplinary structures and content-based learning further limit the potential for comprehensive sustainability education (Wals, 2010). Additionally, the formal curriculum in many HEIs is centred on knowledge transmission rather than facilitating critical, innovative, and creative learning spaces (Corcoran & Wals, 2004; Ranczakowska, 2022).

Our proposed approach in higher arts education responds to the academic and creative needs of students while being deeply rooted in the global movement towards sustainable education. This integrative approach fosters a comprehensive understanding of sustainability and creativity, essential for preparing students to contribute meaningfully to a sustainable future. By incorporating contemplative practices, the proposed paradigm aims to redefine learning in higher arts education, making it more relevant and effective in addressing the complex challenges of the 21st century. Since the backbone of both transformative learning and contemplative practice is introspection, we will further refer to both of these as introspective practices

Structure of the Paper

This paper is structured into several sections: the theoretical background, methodology, findings, discussion, and implications. The theoretical background outlines the foundational concepts of transformative learning and contemplative practices. The methodology details the research design, including program analyses as well as interviews with students, lecturers and data collection. The findings section presents the outcomes and barriers identified through the study. The discussion interprets these findings in the context of higher arts education, and the implications section offers recommendations for future research, policy, and practice.

Theoretical Background

Transformative Learning and Future Skills for the Sustainability Transitions

Amid these crises, education is often the place we turn to for answers on how to prepare future generations for similar challenges. The cardinal goal of adult education is to facilitate autonomous thinking by enabling individuals to understand the meaning of their experiences and make their own interpretations rather than relying on uncritically assimilated explanations from authority figures. (e.g. Mezirow, 1991). As Mezirow stresses:

A defining condition of being human is that we have to understand the meaning of our experience. In contemporary societies, we must learn to make our own interpretations rather than act on the purposes, beliefs, judgments, and feelings of others. (1991)

Transformative learning thus develops autonomous thinking and has been extensively applied across various fields of education and research programmes. Two major elements of transformative learning are critical reflection—or critical self-reflection—on assumptions, and critical discourse, in which the learner validates their best judgement (Dirkx and Mezirow, 2006; Mezirow, 1991). This involves “the process an individual evokes to monitor the epistemic nature of problems and the truth value of alternative solutions” (King & Kitchener, 1994: 12). Arts management has in recent years significantly embraced the principles of transformative learning to foster adaptive, reflective, and innovative leaders capable of navigating the complexities of the cultural sector. Bailey (2006) highlights how museums and other cultural institutions serve as unique environments for experiential learning, enabling transformative educational experiences that challenge traditional pedagogies focusing on roles of educators in the process. Both suggest that engaging with art can catalyse transformative learning by encouraging individuals to question and reframe their assumptions and beliefs.

In the drawing below, which represents the transformative learning theory, we can see its constituent levels and elements: reflection, action, and different ways of transformation.

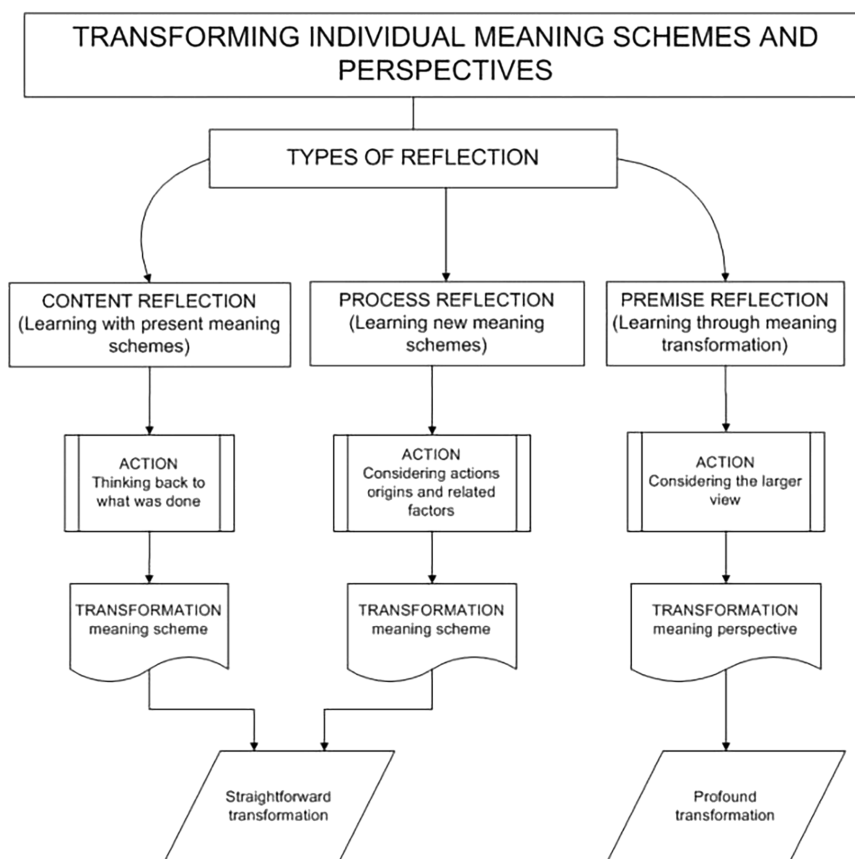


Figure 1: Transformative learning theory developed, Mezirow 1995

Mezirow argues that transformative learning involves changing the frames of reference through which we perceive, think, and feel, a process that is particularly relevant to the dynamic and reflective nature of the arts. Transformative learning aligns meaningfully with the big four of transitions set as a goal for future; social transition, digital transition, personal transition, ecological transition.

In addressing the critical skills for navigating global transitions, as outlined by UNESCO's IESALC framework, our exploration highlights the essential role of higher education in equipping students with the competencies required for the 21st century and beyond. This encompasses not only the

practical application of knowledge but also the cultivation of a mindset geared towards innovation, adaptability, and collaboration. The UNESCO framework identifies key areas of focus that align closely with the tenets of transformative learning and immersive experiences. These include coping with uncertainty, breaking orthodoxies, computational thinking, adaptability, and collaboration. Each of these skills reflects a deeper undercurrent of change impacting various sectors globally—social, digital, personal, and ecological transitions.

Contemplative Practices

The exploration of contemplative practices has drawn interest among scholars and educators due to their potential for inner transformation and promoting sustainable behaviours in society (Papenfus et al., 2019). In academic discourse, terms like meditation, mindfulness, and contemplative practices are often used interchangeably but have distinct definitions. Meditation is understood as attentiveness and concentration (Regner & Wulf, 2013). Contemplative practice involves activities that quiet the mind for insight, maintaining a relaxed yet concentrated presence allowing for intuitive understanding (Working Group on Meditation and Law, 2009; Eaton et al., 2016; McEachern et al., 2020).

Contemplative practices, described in various ways, aim to achieve mindfulness, characterised by heightened awareness (Grossman, 2010). Mindfulness involves developing ethical values, emotional regulation, and a benevolent attitude (Grossman, 2015). In Buddhism, cultivating mindfulness is linked to intentions like kindness, compassion, generosity, and equanimity (Grossman, 2010, 2015). Thus, mindfulness is seen as both a state of mind and an outcome of contemplative practices. These practices have a rich history across spiritual traditions, including Hinduism, Christianity, and Buddhism (Thurman, 2006). Modern interpretations extend beyond religious contexts, including arts, activism, and relational practices like storytelling (Papenfuss et al., 2019). Contemplative education complements rational, implicit, and sensory ways of knowing, nurturing mindful awareness, ethical living, and personal growth (Roeser & Peck, 2009).

A notable framework is the "Tree of Contemplative Practices" from the Center for Contemplative Mind in Society (CMind). This framework categorises practices into roots and branches, symbolising foundational intentions (awareness, communion, connection) and various practice groupings (stillness, generative, creative, activist, relational, movement, ritual/cyclical) (CMind, n.d.). Although not exhaustive, this framework helps conceptualise the diverse applications of contemplative practices in

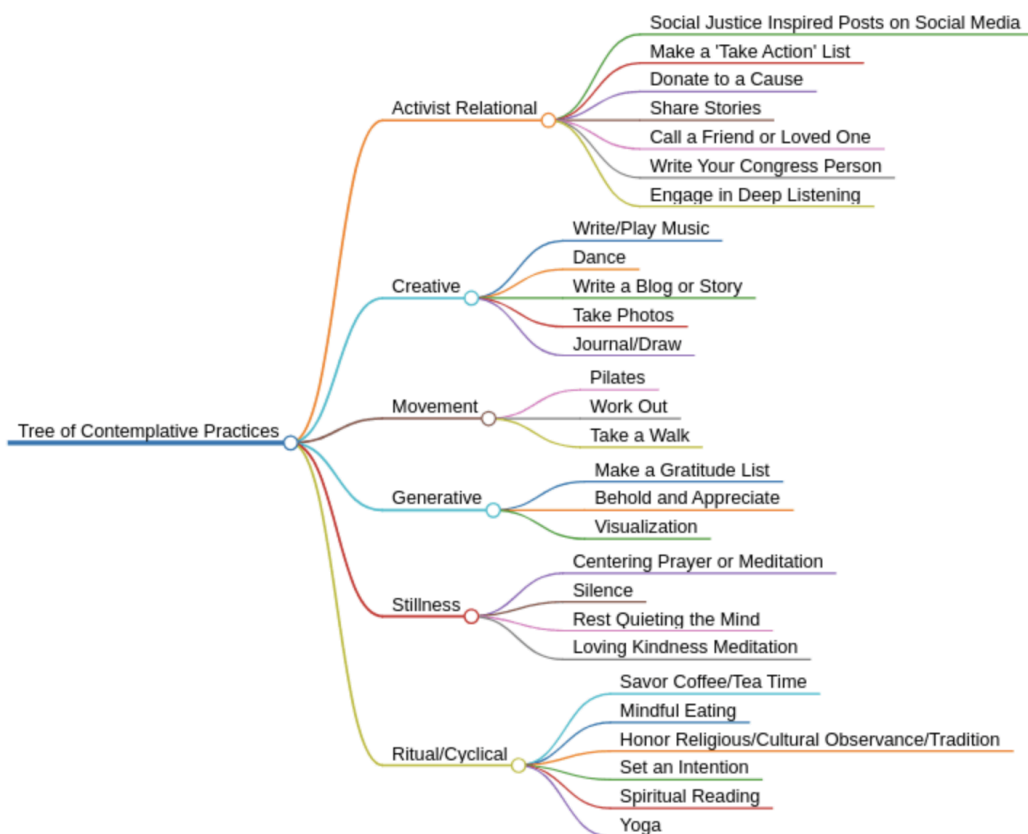


Figure 2: Tree of contemplative practices, adopted from Center for Contemplative Mind in Society

Means Towards Sustainability

Since the 1970s, contemplative practices have become a significant focus of research, particularly in medicine and psychology. These fields have explored the effects of contemplation on the brain, psychological therapy, education, and management, especially within the context of learning organisations (AMRA, 2018; Van Dam et al., 2018;). Research has demonstrated numerous benefits of contemplative practices such as meditation. These benefits include stress reduction, enhanced subjective well-being, improved cognitive and socio-affective functioning, and increased brain plasticity (Mayhew & Gilbert, 2008; Moyer et al., 2011). Additionally, meditation and yoga have shown positive effects on emotional regulation (Hill & Updegraff, 2012), memory (Subramanya & Telles, 2009), attention and concentration (Jain et al., 2007; Eberth & Sedlmeier, 2012; Zenner et al., 2014), interpersonal qualities, and prosocial behaviours (Luberto et al., 2018). More recently, these practices have been linked to the development of ethical values and virtues (Grossman, 2015; Wamsler, 2019a, 2019b).

A growing body of sustainability research supports the positive effects of contemplative practices on cognitive, emotional, and relational capacities, which can transform individuals' values, beliefs, and worldviews (Wamsler, 2018; Brundiers & Wiek, 2017). Thus, these practices play a crucial role in fostering inner transformation, a key element in promoting sustainability. The "Framework for Contemplative Scientific Inquiry, Practice, and Education in Sustainability" illustrates how individual-level mindfulness can lead to global sustainability. This framework, developed through extensive literature reviews and experiential learning labs on mindfulness, highlights several key aspects of mindful inquiry, practice, and education in sustainability (Wamsler et al., 2018). These aspects include:

- Promoting Sustainable Consumption and Behavior: Encouraging sustainable consumption patterns and behaviours (Amel et al., 2009).
- Strengthening Human-Nature Connections: Deepening the connection between humans and nature (Anthony, 2013).
- Enhancing Adaptive Responses to Sustainability Challenges: Supporting flexible and adaptive responses to sustainability issues (Siqueira & Pitassi, 2016).
- Improving Behavioural Regulation: Contributing to better behavioural regulation (Hill & Updegraff, 2012).
- Increasing Subjective Well-Being: Linked to higher subjective well-being (Brown et al., 2007).
- Activating Core Values: Helping activate intrinsic, non-materialistic values (Brown et al., 2007).
- Fostering a Sense of Equity: Enhancing individuals' sense of equity and fairness (Brown et al., 2007).
- Encouraging Social Activism: Inspiring greater social activism (Brown et al., 2007)

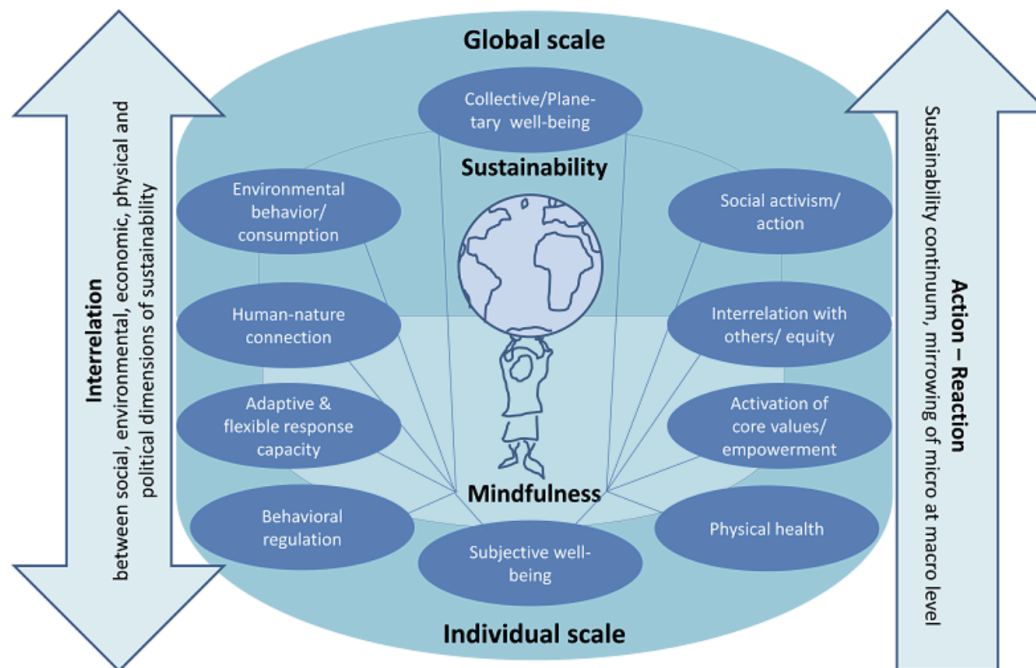


Figure 3: Framework for Contemplative Scientific Inquiry, Practice, and Education in Sustainability" "The integration of contemplative pedagogies in sustainability education," by C. Wamsler et al., 2017, Journal of Sustainability Education. Retrieved from Journal of Sustainability Education.

The Role of Mindfulness

Although the connection between inner transformation and sustainable development is complex, research highlights its significance at both individual and societal levels (Brown et al., 2007). Scholars have noted that the relationship between individual well-being and social sustainability is underexplored (Rinne et al., 2013; Fabbri et al., 2016). Mindfulness, an important outcome of contemplative practices, helps bridge this gap by addressing both personal and societal aspects of sustainability challenges.

Recent advances in neuroscience and neuroplasticity suggest that mindfulness can rewire the brain, enhancing perception and problem-solving (Tang et al., 2012; Vestergaard-Poulsen et al., 2009). Mindfulness promotes "clear-eyed solution thinking" and increases tolerance for uncertainty, crucial for addressing sustainability challenges (Barbezat & Bush, 2014). This attentiveness and patience help individuals tackle complex problems, making mindfulness vital for sustainability transitions (Hensley, 2018). By cultivating these mindful qualities, the next generation of leaders can develop the skills needed to address complex sustainability issues. Instead of seeking quick fixes, mindful individuals can navigate and solve sustainability challenges with a more profound and patient approach.

Education as a Leverage Point for Sustainability

Education has long been recognized as a fundamental human right and a powerful driver of societal change. Its ability to cultivate skilled individuals capable of leading sustainability transitions makes education a critical leverage point for advancing society towards sustainability (Wiek et al., 2015). In systems theory, leverage points are strategic places within a complex system where a small shift can lead to significant changes (Meadows, 1999). Education shapes the knowledge, skills, attitudes, and values necessary to address complex global challenges.

The concept of Education for Sustainable Development (ESD) was formally introduced by the United Nations at the 1992 Earth Summit. ESD aims to empower people across generations to create a

sustainable future, involving the acquisition of knowledge and skills to address "wicked problems" threatening planetary sustainability (UNESCO, 2002). ESD promotes reflective thinking and interdisciplinary, participatory methods to foster behaviour change (Bodinet, 2016).

Higher Education for Sustainable Development (HESD) extends these principles to universities and colleges, focusing on research and the generation of new knowledge (Barth, 2014). HESD seeks to embed sustainability as a transformative learning practice aimed at fostering social change. However, the educational system has evolved slowly compared to rapid societal changes. Critics argue that current frameworks prepare students for an outdated world, relying on rote memorization and isolated knowledge (Freire, 2018). Traditional education methods are insufficient for developing the critical thinking required by sustainability leaders.

For sustainability education to reach its full potential, it must enhance learners' cognitive, socioemotional, and decision-making capacities, shifting away from traditional growth-oriented structures (Waddock, 2013). A new learning paradigm should embrace open-minded, reflective, and participatory processes that envision a sustainable future. Students need experiential, interactive methods that foster deep understanding and critical thinking (Bodinet, 2016). Collaborations among stakeholders can diversify perspectives and expertise, enhancing the educational experience.

Large-scale problem-solving approaches must include systems thinking, value-laden deliberation, and robust collaboration across sectors (Wiek, 2011). Developing these capacities is crucial for addressing sustainability issues. Transformational learning experiences should be central to rethinking education and reorganising learning to achieve these goals (Burns, 2015; Daviet, 2016; UNESCO, 2015). Hence, more clarity about the purpose of education is needed to unlock its potential for driving societal transformation (UNESCO, 2015). Education must evolve to support sustainability, requiring innovative pedagogical approaches that foster deep, systemic understanding and critical thinking, essential for preparing future leaders in higher arts education.

Skills for Sustainability

Addressing sustainability challenges requires individuals who possess the skills and capabilities to manage complex issues effectively. This necessitates a transformation at the individual level to ensure the success of sustainable development initiatives (Brown, 2012). Consequently, the educational system must focus on developing these individual skills, preparing students to engage actively in sustainability efforts.

To cultivate future-oriented, peaceful, and morally inclined behaviours in graduates, Higher Education for Sustainable Development (HESD) must promote inner transformation that fosters sustainable behaviour. Individuals who embody sustainability skills are those who engage with complex societal issues and aspire to contribute to systemic change at various scales—local, regional, national, or global (Jordan, 2011). Burns (2015) expands on this by defining the cultivation of sustainability as nurturing a way of being and acting rooted in sustainability values, guiding people to collaboratively create visions and take action for a more sustainable and resilient world.

Developing sustainability skills involves fostering relational, non-hierarchical, and contextual approaches that are essential for creating constructive solutions to complex organisational and social problems (Bendell et al., 2017). Scharmer and Käufer (2013) describe a shift from ego-system thinking to eco-system thinking, where individuals change the inner place from which they operate, emphasising the need for a new mindset among a critical mass of people to transform planetary health and tackle sustainability challenges (Scharmer & Käufer, 2013).

To support the development of sustainability skills, education must help students gain a deep understanding of themselves, their abilities, desires, and a profound understanding of their fellow humans and the world they inhabit (Bodinet, 2016). This involves creating learning environments that emphasise observation, awareness creation, deceleration, and interactive learning through seeing,

listening, and sharing (Visser & Courtice, 2011). Such an environment empowers students to discover their personal identity and their role in fostering sustainability (Eriksen, 2009).

To shift mindsets towards sustainability, education should therefore cultivate specific skills, capacities, traits, and inner dimensions within learners. These can be broadly categorised into participatory, personal, and innovative skills, though many of these elements are deeply interwoven.

Towards Contemplative Pedagogy Framework

Contemplative practice differs significantly from contemplative pedagogy. According to theorist Repetti (2010), contemplative practices are "self-reflective practices" that foster a "critical first-person (inner) focus" (Barbezat & Bush, 2014; The Center for Contemplative Mind in Society, 2019). These practices encompass a variety of forms, but their core objective is to cultivate present-moment awareness and inner stillness. The "Tree of Contemplative Practices," developed by the Center for Contemplative Mind in Society, visually represents the diverse types of contemplative practices (see Fig. 2).

In contrast, contemplative pedagogy is an educational philosophy that incorporates contemplative practices as a method of teaching and learning. Ergas (2019) defines contemplative pedagogy through three main elements: (a) a "spatial" inward focus that directs attention towards first-person experiences, (b) a unique engagement with time that emphasises "being" rather than "doing," and (c) an intentional awareness and acceptance of the present moment, coupled with joy and compassion. Essentially, contemplative pedagogies engage the mind, body, heart, and spirit to process information in innovative ways and to fully develop human potential (Anderson et al., 2019).

Hence, by integrating Mezirow's transformative learning with the principles of contemplative practices, we propose a preliminary framework for a pedagogy that promotes sustainability principles. Transformative learning focuses on critical reflection and perspective shifts, empowering learners to question and reframe their assumptions and beliefs. This aligns with contemplative practices that cultivate mindfulness, emotional regulation, and ethical values.

The synthesis of transformative learning and contemplative practices can offer a framework for fostering sustainability in higher arts education. This framework is designed to cultivate deep, systemic understanding and critical thinking among students, preparing them for the complex sustainability challenges of the 21st century. The proposed framework integrates critical reflection, introspective practices, and participatory learning methods to create a holistic educational paradigm. Below are the key components of this framework:

Component	Description	Key Activities
Critical Reflection and Perspective Transformation	Encourage examination of biases and worldview shifts	Reflective journaling, Socratic questioning, case studies, immersive learning
Mindfulness and Emotional Regulation	Promote awareness and emotional balance	Meditation, mindfulness exercises, mindfulness-based stress reduction (MBSR) programs

Interdisciplinary and Integrative Learning	Combine knowledge from various fields to understand sustainability	Interdisciplinary courses, project-based learning, collaborative projects
Participatory and Experiential Learning	Engage in hands-on experiences and teamwork	Fieldwork, internships, community service projects, group projects
Ethical and Value-Consideration	Reflect on personal values and ethical considerations	Values clarification exercises, discussions on environmental, social justice and ethical consumption
Reflective and Contemplative Pedagogies	Foster deep connections and inner qualities through contemplative practices	Deep listening, contemplative reading, mindful art-making, regular practice sessions, retreats

Table 1: Proposed consideration as a starting point for the curriculum transformation.

This proposal offers a starting point for study program managers to integrate transformative learning and contemplative practices into higher arts education. By adopting elements such as critical reflection, mindfulness, interdisciplinary learning, and ethical education, institutions can move towards a curriculum that fosters sustainability. This approach aims to prepare students as both skilled artists and responsible individuals capable of contributing to a more sustainable future.

Methodology

This study involved an examination of 10 Master's programs that partially or fully integrate a sustainable orientation into their studies. These programs were selected based on their innovative approaches to incorporating elements of sustainability, transformative learning, or contemplative practices. The research design included a detailed analysis of program designs, curriculum structures, teaching methodologies, and the integration of sustainability principles. The study gathered reflections from a diverse group of participants, including program designers, managers, school leaders and students. Qualitative data were collected through interviews, focus groups, and reflective journals, offering a rich understanding of the experiences and perspectives of those directly involved in these programs. This approach provided comprehensive insights into the practical implementation and effectiveness of sustainable practices in arts education.

The qualitative data were analysed using thematic analysis, identifying key themes and patterns related to the integration of contemplative practices or transformative learning, the motivations behind their incorporation, and the barriers to their implementation. This method allowed for a nuanced understanding of the complex dynamics at play in higher arts education.

Findings

The study revealed significant outcomes from the integration of contemplative practices in arts and arts management programs. These practices were found to enhance the development of inner dimensions, improve the quality of reflection and learning, support student wellbeing, and foster essential participatory, personal, and innovative capabilities for engaging in sustainability transitions. The incorporation of these practices equips students with the necessary tools to navigate and contribute to complex sustainability processes.

The Need for a Paradigm Shift

The findings from the study highlight an urgent need for a paradigm shift in higher arts education. Traditional models, which often focus predominantly on technical skills and intellectual development, are insufficient for addressing the personal growth, adaptability, and sustainable practices required in today's world. This shift emphasises the integration of sustainability, transformative learning, a paradoxical mindset, and contemplative practices. As one of the interviewed deans explained, "Our specialty is teaching theatre, where 45% of classes during the BA level are done together. The ethos is collective working and how to learn to communicate and be together," exemplifying the shift towards more integrated and holistic education models.

University leaders are increasingly recognizing the importance of integrating contemplative practices to foster sustainability in higher education. These leaders advocate for a holistic educational approach that addresses both cognitive and emotional aspects of learning. For instance, another dean highlighted, "*Nearly all of our students become freelance artists upon graduation. It's crucial they learn human skills and how to lead artistic groups,*" underscoring the need for relational skills alongside traditional artistic training. Another leader stressed: "*We need to create a more collaborative co-creative culture within the School*".

Student Perspectives

Students have shown proficiency in the terminology and methods of contemplative practices and are generally open to incorporating more of these practices into their education. They recognize the benefits but also see the need for greater legitimacy.. One student noted, "*Students seem to see more benefits from them than teachers,*" indicating a disconnect between student and faculty perceptions of these practices.

Students also acknowledge the potential long-term benefits of mindfulness and contemplative practices. As one student stated, "*I think everyone should agree that being more mindful helps you to make more informed, better life decisions.*" This aligns with the broader goals of transformative learning, which aim to equip students with the skills and mindsets necessary for more sustainable living.

Educators perspective:

Educators recognize the potential of contemplative practices but often feel hindered by a lack of formal training and clear guidelines. One lecturer noted, "*I would be using them more often if I knew exactly the terminology and use of it; now it is a bit intimidating,*" highlighting the need for clearer guidance and education on these practices. Many educators feel intimidated because students often know more about these practices than they do, exacerbating the need for proper training. Additionally, there is a call for more empirical research to support the integration of introspective practices. As another educator explained, "*There is a need to research and show evidence of how certain practices are really beneficial. I can see how creative professions and students can benefit from multiple of these, but because it is not researched at all, it doesn't have much legitimacy, especially among the older generation.*"

Challenges in Implementation

Several barriers to the integration of introspective practices in arts and arts management programs were identified. One major challenge is the lack of formalisation within the curriculum. Interviewees noted that contemplative practices are not included in course descriptions or specified in learning outcomes, yet they still use contemplative practices in class and have many thoughts on their intended learning outcomes. As one interviewee emphasised, "*I don't think that we should assume we just apply*

them and we have a sustainability outcome [...] I think that we have to make a thorough work about looking into how they relate to societal and systems change and how we can actually adapt them to the issue of sustainability"

Reputational risk and scepticism are significant obstacles, with some educators and institutions concerned about the perceived legitimacy and academic rigour of introspective practices. This scepticism is exacerbated by a dominant "product-oriented" and neoliberal approach in education, which focuses on measurable outputs and market-driven outcomes, often undermining the adoption of holistic practices. Moreover, there is often no clear understanding of what introspective practices entail and how they can be effectively integrated into the curriculum. Educators and students alike have expressed a need for clearer articulation and structured approaches to these practices. Many educators lack sufficient training in these methods, which contributes to a general hesitance to implement them. This issue is compounded by concerns about teachers unpreparedness and willingness to engage with introspective practices. One dean observed, *"There is a lot of resistance towards top-down implementation of 'alternative' courses, sometimes both from students and professors,"* highlighting the broader resistance to curricular changes.

Unawareness of the possibilities and research base supporting introspective practices further hinders their adoption. Many educators lack sufficient training in these methods, which contributes to a general hesitance to implement them. This issue is compounded by concerns about student unpreparedness and willingness to engage with introspective practices.

Application of Contemplative Practices

Despite the lack of formal inclusion in curricula, contemplative practices are applied in various ways in the classroom. The degree to which they are used varies, as does the intention behind their use. Some programs use them intentionally, while others use them without often realising it. More often than permanent staff of the programs, guest lecturers often bring these practices into their teaching, sometimes without the explicit intention of using.

Commonly used contemplative practices include deep listening, dialogue, journaling, storytelling, reflection, work and volunteering, creativity and contemplative arts, visualisation, meditation, activities outdoors or in nature, and elements of retreats and rituals. For example, one course (bootcamp style retreat) explicitly uses practices such as circles, check - ins, dialogue, deep listening, storytelling, walking meditation, silence, meditation, loving-kindness meditation, visualisation, and journaling. Another program includes a year-long mandatory reflection module where students reflect on their activities and encounters, keeping a learning log as part of their assessment.

Opportunities for Integration

Despite these challenges, the study's findings suggest significant opportunities for integrating introspective practices. Enhanced student well-being and learning are among the most notable benefits. By incorporating these practices, institutions can improve the quality of reflection and personal growth among students, fostering a more supportive and enriching educational environment. The development of inner dimensions and capabilities through introspective practices can significantly enhance students' ability to engage effectively in sustainability transitions. With support from university leaders and students, there is substantial opportunity to implement these practices more widely and effectively. University leaders, like those interviewed, are already pushing for changes that align with these findings, recognizing the importance of a holistic educational approach.

There is also a growing need for research to validate the benefits of introspective practices. Increased empirical support could enhance their legitimacy and acceptance among educators and institutions, particularly among those who are currently sceptical.

Implications for Higher Arts Education

The proposed paradigm shift entails a comprehensive rethinking of curriculum design, teaching methodologies, and institutional priorities. This approach aligns with the theoretical framework of transformative learning, which emphasises critical reflection, creativity, and emotional development. It involves fostering a learning environment that supports these elements, preparing students to effectively engage with the complex challenges of the 21st century.

Aligning with global initiatives such as the United Nations Decade of Education for Sustainable Development, this approach emphasises the transformative potential of education in promoting sustainability. By integrating introspective practices, higher arts education can contribute to the development of individuals who are not only skilled artists but also socially and environmentally conscious. This holistic approach ensures that students are equipped with the knowledge, skills, and inner qualities necessary to navigate and address complex sustainability issues. The study revealed significant outcomes from the integration of introspective practices in arts and arts management programs. These practices were found to enhance the development of inner dimensions, improve the quality of reflection and learning, support student wellbeing, and foster essential participatory, personal, and innovative capabilities for engaging in sustainability transitions. The incorporation of these practices into arts and arts management programs equips students with the necessary tools to navigate and contribute to complex sustainability processes.

Future research should explore the long-term impacts of integrating introspective practices in higher arts education, examining how these practices influence students' career trajectories and their contributions to sustainability. Additionally, research should investigate the effectiveness of different pedagogical approaches and their scalability across diverse educational contexts.

Educational policymakers should consider the inclusion of sustainability and introspective practices in curriculum standards and accreditation criteria. Policies that support interdisciplinary learning and the integration of holistic educational approaches can facilitate the adoption of the proposed paradigm shift.

From a community of practice perspective, educators should receive training and support to implement introspective practices effectively. Institutions should create spaces for reflective and contemplative learning, fostering an environment that values personal growth and emotional development alongside technical and intellectual achievements.

Conclusions

The study emphasises the necessity for a paradigm shift in higher arts education, integrating transformative learning and contemplative practices to cultivate sustainability. The findings highlight the significant benefits of introspective practices, such as enhanced student well-being, creativity, and reflection skills, which are crucial for addressing complex sustainability challenges. However, barriers such as lack of formalisation, reputational risk, and insufficient training among educators hinder their widespread adoption. To overcome these challenges, the study advocates for comprehensive reforms in curriculum design and teaching methodologies, supported by empirical research and policy initiatives. By fostering a holistic educational environment, higher arts education can equip students with the knowledge, skills, and inner qualities essential for leading and engaging with sustainability issues. Future research should focus on the long-term impacts of these practices on students' professional trajectories and their contributions to sustainability, providing robust evidence to support their integration into higher education curricula.

References:

- Amel, E., Manning, C., Scott, B., & Koger, S. (2009). Beyond the roots of human inaction: Fostering collective effort toward ecosystem conservation. *Science*, 324(5931), 1237-1238.
- Anthony, W. A. (2013). Recovery-oriented systems of care: Recovery management in healthcare reform. *Behavioral Healthcare*, 33(5), 22-24.
- Barbezat, D. P., & Bush, M. (2014). *Contemplative practices in higher education: Powerful methods to transform teaching and learning*. John Wiley & Sons.
- Barth, M. (2014). *Implementing sustainability in higher education: Learning in an age of transformation*. Routledge.
- Bodinet, J. (2016). Education for a sustainable future: Trends, issues, and practices. *Journal of Education for Sustainable Development*, 10(2), 208-215.
- Brown, K. W., & Kasser, T. (2005). Are psychological and ecological well-being compatible? The role of values, mindfulness, and lifestyle. *Social Indicators Research*, 74(2), 349-368.
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, 18(4), 211-237.
- Bullard, R. D., & Wright, B. H. (2000). Environmental justice: Grassroots activism and its impact on public policy decision making. *Journal of Social Issues*, 56(3), 555-578.
- Burns, H. (2015). Transformative sustainability pedagogy: Learning from ecological systems and indigenous wisdom. *Journal of Transformative Education*, 13(3),
- Caniglia, G., Schöpke, N., Lang, D. J., Abson, D. J., Luederitz, C., Wiek, A., ... & von Wehrden, H. (2017). Experiments and evidence in sustainability science: A typology. *Journal of Cleaner Production*, 169, 39-47.
- Ceulemans, K., Molderez, I., & Van Liedekerke, L. (2011). Sustainability reporting in higher education: A comprehensive review of the recent literature and paths for further research. *Journal of Cleaner Production*, 19(6-7), 531-540.
- Corcoran, P. B., & Wals, A. E. J. (2004). *Higher education and the challenge of sustainability: Problematics, promise, and practice*. Springer.
- Dirkx, J. M., & Mezirow, J. (2006). Musings and reflections on the meaning, context, and process of transformative learning: A dialogue between John M. Dirkx and Jack Mezirow. *Journal of Transformative Education*, 4(2), 123-139.
- Eberth, J., & Sedlmeier, P. (2012). The effects of mindfulness meditation: A meta-analysis. *Mindfulness*, 3(3), 174-189.
- Eriksen, T. H. (2009). *Globalization: The key concepts*. Bloomsbury Academic.
- Fabbrizzi, S., Marone, E., Ferretti, V., & Borrini-Feyerabend, G. (2016). Local solutions for sustainable development: Social innovation through integrated natural resource management. *Sustainability Science*, 11(2), 179-190.
- Fraser, N. (2009). *Scales of justice: Reimagining political space in a globalizing world*. Polity Press.
- Freire, P. (2018). *Pedagogy of the oppressed*. Bloomsbury Publishing USA.
- Gilchrist, A. (2009). *The well-connected community: A networking approach to community development*. Policy Press.
- Goodland, R. (1995). The concept of environmental sustainability. *Annual Review of Ecology and Systematics*, 26(1), 1-24.
- Gosseries, A. (2008). Theories of intergenerational justice: A synopsis. *Sustainability Science*, 3(2), 166-170.
- Grossman, P. (2010). Mindfulness for psychologists: Paying kind attention to the perceptible. *Mindfulness*, 1(2), 87-97.
- Grossman, P. (2015). Mindfulness: Awareness informed by an embodied ethic. *Mindfulness*, 6(1), 17-22.
- Hensley, B. (2018). Mindfulness-based intervention for enhancing the wellbeing of adolescents in secondary schools: The healthy minds program. *Advances in School Mental Health Promotion*, 11(4), 267-281.
- Hill, C. L. M., & Updegraff, J. A. (2012). Mindfulness and its relationship to emotional regulation. *Emotion*, 12(1), 81-90.
- Jain, S., Shapiro, S. L., Swanick, S., Roesch, S. C., Mills, P. J., Bell, I., & Schwartz, G. E. (2007). A randomised controlled trial of mindfulness meditation versus relaxation training: Effects on

- distress, positive states of mind, rumination, and distraction. *Annals of Behavioral Medicine*, 33(1), 11-21.
- Jordan, M. (2011). Moving beyond nature as a 'nice' environment for learning: A report on Green Exercise projects. *Counselling Psychology Review*, 26(4), 65-78.
- King, P. M., & Kitchener, K. S. (1994). Developing reflective judgement: Understanding and promoting intellectual growth and critical thinking in adolescents and adults. Jossey-Bass.
- Luberto, C. M., Shinday, N., Song, R., Philpotts, L. L., Park, E. R., Fricchione, G. L., & Yeh, G. Y. (2018). A systematic review and meta-analysis of the effects of meditation on empathy, compassion, and prosocial behaviours. *Mindfulness*, 9(3), 708-724.
- Mayhew, S. L., & Gilbert, P. (2008). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy*, 15(6), 353-379.
- McEachern, K. M., Arthur, J. E., & Pace, T. W. (2020). Contemplative practices for a secular age: Assessing meditation and mindfulness interventions in education. *Educational Studies*, 56(3), 307-324.
- Meadows, D. H. (1999). Leverage points: Places to intervene in a system. Sustainability Institute.
- Mezirow, J. (1991). Transformative dimensions of adult learning. Jossey-Bass.
- Moyer, C. A., Donnelly, M. P., Anderson, J. C., & Paulsen, A. S. (2011). Mindfulness meditation in pregnancy: A psychosocial intervention to reduce stress and enhance family health and wellbeing. *Journal of Midwifery & Women's Health*, 56(3), 318-327.
- Mulgan, G. (2006). The process of social innovation. *Innovations: Technology, Governance, Globalization*, 1(2), 145-162.
- Papenfus, M. M., Gonzalez-Mena, J., & Shields, P. (2019). The power of mindfulness in the workplace: A guide for managers and employees. Routledge.
- Rawls, J. (1971). A theory of justice. Harvard University Press.
- Rinne, A., Holma, K., & Valtonen, T. (2013). Developing sustainable behavior through ethical reflection and consciousness. *Journal of Education for Sustainable Development*, 7(1), 55-69.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E. F., ... & Foley, J. A. (2009). A safe operating space for humanity. *Nature*, 461(7263), 472-475.
- Roeser, R. W., & Peck, S. C. (2009). An education in awareness: Self, motivation, and self-regulated learning in contemplative perspective. *Educational Psychologist*, 44(2), 119-136.
- Scharmer, C. O., & Käufer, K. (2013). Leading from the emerging future: From ego-system to eco-system economies. Berrett-Koehler Publishers.
- Siqueira, E. S., & Pitassi, C. (2016). Sustainability-oriented innovations: Can mindfulness make a difference? *Journal of Cleaner Production*, 139, 1181-1190.
- Sterling, S. (2004). Higher education, sustainability, and the role of systemic learning. *Global Environmental Change*, 14(4), 338-345.
- Subramanya, P., & Telles, S. (2009). A review of the scientific studies on cyclic meditation. *International Journal of Yoga*, 2(2), 46-48.
- Tang, Y. Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., ... & Posner, M. I. (2012). Short-term meditation induces white matter changes in the anterior cingulate. *Proceedings of the National Academy of Sciences*, 109(26), 10570-10574.
- Thurman, R. A. (2006). Meditation and education: Reflections on the use of Buddhist contemplative practices in higher education. *Religious Education*, 101(1), 170-177.
- UNESCO. (2002). Education for sustainability: From Rio to Johannesburg: Lessons learnt from a decade of commitment. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000120223>
- Van Dam, N. T., van Vugt, M. K., Vago, D. R., Schmalzl, L., Saron, C. D., Olendzki, A., ... & Garrison, K. A. (2018). Mind the hype: A critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspectives on Psychological Science*, 13(1), 36-61.
- Vestergaard-Poulsen, P., van Beek, M., Skewes, J., Bjarkam, C. R., Stubberup, M., Bertelsen, J., & Roepstorff, A. (2009). Long-term meditation is associated with increased gray matter density in the brain stem. *NeuroReport*, 20(2), 170-174.
- Visser, W., & Courtice, P. (2011). Sustainability leadership: Linking theory and practice. *Journal of Global Responsibility*, 2(1), 14-25.

- Waddock, S. (2013). Building the institutional infrastructure for corporate responsibility. Corporate Social Responsibility Initiative Working Paper No. 30. Cambridge, MA: John F. Kennedy School of Government, Harvard University.
- Wals, A. E. J. (2010). Between knowing what is right and knowing what to do: Problematising the role of environmental education in the transition towards sustainability. *Environmental Education Research*, 16(1), 37-41.
- Wamsler, C. (2018). Mind the gap: The role of mindfulness in adapting to increasing risk and climate change. *Sustainable Science*, 13(4), 1121-1135.
- Wamsler, C., Brink, E., & Rivera, C. (2017). The integration of social and environmental factors in sustainability and resilience planning: A learning perspective. *Journal of Environmental Planning and Management*, 60(7), 1124-1140.
- Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: A reference framework for academic program development. *Sustainability Science*, 6(2), 203-218.