Inner transitions in higher education in Sweden: incorporating intra-personal skills in education for sustainable development

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Received 15 December 2022
Revised 6 March 2023
21 April 2023
Accepted 24 April 2023

Abstract

Purpose – Humanity is facing an unprecedented challenge of climate crises. Rapid changes to the physical environment and living conditions will be accompanied by challenges to mental health and well-being. Consequently, education for sustainable development should also include coping strategies for stress and anxiety. Adding intra-personal skills to the curriculum, such as self-reflection and mindfulness training, could aid in this education. This case study aims to explore the barriers to and drivers for fostering inner transitions through intra-personal skills training and mindfulness.

Design/methodology/approach – This case study from Lund University, Sweden, constitutes a critical case for investigating inner transitions in education. Data collection was designed around semi-structured qualitative interviews, to investigate the barriers to and drivers for intra-personal skills and mindfulness in education for sustainable development at all institutional levels of the university.

Findings – The results indicate that education for sustainable development already includes elements of introspection, albeit informally. However, there is a lack in a fundamental understanding of intra-personal skills and how they relate to other key competences for sustainable development. To make intra-personal skills training a formal component of the education, it must receive the full support from all levels of the university.

Originality/value – The study outlines general recommendations for universities to challenge existing policies while also finding ways to work around them. In the meantime, universities should make intra-personal skills training an informal learning activity. Recognizing that the students' prior knowledge in this area is a potential asset, universities should collaborate with their students to support student-led intra-personal skills training.

Keywords Education for sustainable development, Intra-personal skills, Inner transitions, Self-awareness, Self-exploration, Mindfulness

Paper type Research paper

This research was made possible with the support from the Kamprad Family Foundation project Resistance and Power, grant agreement 20182014. The author would also like to thank staff and students at the International Institute for Industrial Environmental Economics, Lund University.

International Journal of Sustainability in Higher Education
Vol. 24 No. 9, 2023
pp. 213-230
Emerald Publishing Limited
1467-6370
DOI 10.1108/IJSHE-12-2022-0395

1. Introduction

Humanity is facing unprecedented climate crises (WWF, 2016). Rapid changes to the physical environment and living conditions will be accompanied by challenges to mental health and well-being (IPCC, 2022a, 2022 b). Climate change is increasingly becoming a source of mental illness, and it has been linked to negative feelings, such as loss of hope and meaning, loss of identity, uncertainty, powerlessness and fear of the future (UNDP, 2022). Needless to say, education for sustainable development (ESD) should not only instruct students on the necessary skills for tackling environmental problems but should also include mental training and coping strategies to help them handle the stress and anxiety related to ecological collapse (Sayce *et al.*, 2013).

Sustainability science has identified five key competencies as important in ESD (Redman and Wiek, 2021; Rieckmann, 2018; Wiek *et al.*, 2011). A competence refers to a skillset of knowledge, understanding and values that facilitate human action in a specific context (Crick, 2008; Rieckmann, 2012). The identified key competences for ESD are systems thinking, normative competence, strategic competence, anticipation and interpersonal collaboration (Redman and Wiek, 2021; Rieckmann, 2018; Wiek *et al.*, 2011). "Systems thinking" refers to the ability to analyze complex systems across domains and scales to identify correlations and points of intervention. "Normative" competence entails values thinking and the ability to identify and implement governing values that promote sustainable development. "Strategic competence" is the capacity to jointly conceive and implement governing strategies for influencing society toward sustainable development. "Anticipatory competence" refers to the ability to collectively imagine alternative futures. Finally, interpersonal competence constitutes collaborative skills and capacities such as communication, negotiation, leadership and trans-cultural thinking (Redman and Wiek, 2021; Rieckmann, 2018; Wiek *et al.*, 2011). A bibliometric study concluded that these five key competencies have been the most influential framework within ESD (Grosseck *et al.*, 2019). While additional competencies have also been suggested as important for ESD to varying degrees, such as critical thinking (Rieckmann, 2012), action competence (Mogensen and Schnack, 2010) and creativity (Steiner and Scherr, 2013), these have not formally been recognized as core competencies (Redman and Wiek, 2021). The five key competencies were recently expanded to also include intra-personal competencies, implementation competencies and integration competencies (Brundiers *et al.*, 2021; Redman and Wiek, 2021). This study will focus specifically on the integration of intra-personal competencies in ESD.

The second generation of ESD has identified a discrepancy between *outer* and *inner transitions*. The original five key competencies are designed to address the sustainability challenges of external worlds; of social, economic, political and ecological systems (Ives *et al.*, 2020; Wamsler *et al.*, 2018). Much less attention has been given to the inner lives of individuals, such as the thoughts, emotions, beliefs and values that underpin sustainable behavior. An increasing number of scholars are arguing that there cannot be a sustainable transformation of society without a transition of the self (Brown *et al.*, 2019; Denton *et al.*, 2022; Thiermann and Sheate, 2021; Wamsler and Bristow, 2022). Proponents of this approach argue that the lack of sufficient progress in sustainable development is due to a disconnect between the self, others and the environment (Brown *et al.*, 2019). Only by realizing how nature and other living beings are entities of an "extended self" can real change be catalyzed (Bristow *et al.*, 2022; Wamsler, 2022).

Recent research suggests that incorporating intra-personal skills into ESD would remedy the discrepancy between outer and inner transitions (Brundiers *et al.*, 2021; Ericson *et al.*, 2014; Giangrande *et al.*, 2019). Including these skills would not only better align inner values to external actions, but they have also been proposed to strengthen all other sustainability

competencies (Brundiers *et al.*, 2021; Redman and Wiek, 2021). Furthermore, intra-personal skills would not only better prepare students for sustainability work, but they would also improve the learning environment and help students maintain mental well-being (Frank *et al.*, 2019; Wamsler, 2020).

Intra-personal skills are an umbrella term for abilities such as self-reflection and self-awareness that aim at facilitating inner transitions. More explicitly, intra-personal skills refer to contemplative practices, emotional intelligence, social learning and the ability to identify and regulate emotions, thoughts and behaviors (Brundiers *et al.*, 2021; Redman and Wiek, 2021). These are all abilities that can be practiced and cultivated. For example, Eastern philosophy has a long tradition of mindfulness and compassion training from which ESD could borrow (Frank *et al.*, 2019; Thiermann and Sheate, 2021). Training for facilitating inner transitions and fostering intra-personal skills could include, but perhaps not be limited to, mindfulness, meditation practices, breathing and attention exercises, mindful listening and talking, body scans and self-enquiry techniques [1] (Ericson *et al.*, 2014). This type of training should not be understood as indoctrination of certain opinions, but rather as a learning process that helps people understand themselves and to find purpose and meaning (Wamsler, 2022).

However, the extent to which inner transitions – and practices that aim at fostering intra-personal skills such as mindfulness training – will be embraced and incorporated in ESD is yet to be determined. The credibility of mindfulness in sustainability science is still a contested topic (Wamsler and Bristow, 2022) and attempts to include inner transitions training in education have been met with skepticism (Wamsler, 2020).

This paper focuses on attitudes toward teaching and learning intra-personal skills in higher education. More explicitly, the study explores how sustainability in the classroom is perceived, whether intra-personal skills should be added to the curriculum and the extent to which mindfulness training should be practiced in education as a means of fostering intra-personal skills. By using the International Institute for Industrial Environmental Economics (IIIEE) at Lund University as a case study, this paper investigates barriers to and drivers of including intra-personal skills and mindfulness in ESD at the level of teachers, course coordinators, study directors and department heads, as well as of the division for higher education development (AHU).

This paper is structured as follows: the next section reports on the significance of including intra-personal skills training in ESD and identifies key principles for curricular renewal. Section 3 elaborates on the methodology and provides a background to the case and the study context. Section 4 presents the results, whereas Section 5 provides an analysis of barriers to and drivers for curricular change through the application of key principles. The final section concludes the study by providing some recommendations for how intra-personal skills training can be included in education, and remarks on the limitations of the study.

2. Incorporating intra-personal skills training in higher education

Including intra-personal skills training in education is a matter that is gaining recognition not only in research (Wamsler *et al.*, 2018) but also outside of academia. This is exemplified by UNESCO, which has included *self-awareness* competency as a key competence for sustainable development (UNESCO, U.N.E., Scientific and Cultural Organization, 2017), and by the Inner Development Goals (IDGs) initiative (IDG Initiative, 2021) that has emerged as an addition to the Sustainable Development Goals (UN Department of Economic and Social Affairs, 2023). Table 1 lists the five IDGs and the related intra-personal skills that foster

Inner dimension	Description	Related skills	Cultivated through mindfulness training
1. Being – relationship to self	Cultivating our inner life and developing and deepening our relationship to our thoughts, feelings and body helps us be present, intentional and non-reactive when we face complexity	Inner compass Integrity and authenticity Openness and learning mindset Self-awareness Presence	Yes – Yes Yes Yes
2. Thinking – cognitive skills	Developing our cognitive skills by taking different perspectives, evaluating information and making sense of the world as an interconnected whole is essential for wise decision-making	Critical thinking Complexity awareness Perspective skills Sense-making Long-term orientation and visioning	Yes Yes Yes Yes Yes
3. Relating – caring for others and the world	Appreciating, caring for and feeling connected to others, such as neighbors, future generations or the biosphere, helps us create more just and sustainable systems and societies for everyone	Appreciation Connectedness Humility Empathy and compassion	– Yes – Yes
4. Collaborating – social skills	To make progress on shared concerns, we need to develop our abilities to include, hold space and communicate with stakeholders with different values, skills, and competencies	Communication skills Co-creating skills Inclusive mindset and intercultural competence Trust Mobilization skills	Yes Yes – Yes –
5. Acting – driving change	Qualities such as courage and optimism help us acquire true agency, break old patterns, generate original ideas and act with persistence in uncertain times	Courage Creativity Optimism Perseverance	Yes Yes Yes Yes

Table 1.
List of the five IDGs and their 23 related intra-personal skills (Wamsler and Bristow, 2022)

inner transitions. Wamsler and Bristow (2022) have identified how the majority of these skills can be cultivated through mindfulness training.

Research has identified several benefits of including mindfulness in education that relate to both learning outcomes and the learning environment. Evidence supports the improvement of subjective well-being, an increase in the perception of the connection to and care for the environment, stronger intrinsic values and ethics, a greater openness toward new ideas and the willingness to engage in social activism as positive influences (Bristow *et al.*, 2022; Ericson *et al.*, 2014; Thiermann and Sheate, 2021; Wamsler *et al.*, 2018). Overall, these learning outcomes will improve students' understanding of the complexity of the human–nature relationship and their role in it (Wamsler, 2020). There is also evidence suggesting that the practice of mindfulness leads to more pro-environmental behavior (Barrett *et al.*, 2016; Ericson *et al.*, 2014; Thiermann and Sheate, 2021).

Regarding the learning environment, empirical research has observed how mindfulness training can reduce stress, anxiety and psychological distress (Barrett *et al.*, 2016;

Thiermann and Sheate, 2021). This would be of particular value in ESD, as the severity of the topic is likely to cause some level of anxiety to students. Including mindfulness training in education would help students cope with their anxieties related to global environmental problems while also fostering hope (Vandaele and Stålhammar, 2022; Wamsler, 2020). The fact that climate anxiety is increasing among the population, in particular among younger people (Hickman *et al.*, 2021), strengthens this argument further (Pihkala, 2022). Practicing mindfulness would, in this context, help students to develop healthier perspectives on the topic in relation to themselves (Wamsler, 2020) and break vicious cycles of negative thinking (Wamsler and Bristow, 2022). Mindfulness may also improve the learning environment, in that it is a form of attention training (Bristow *et al.*, 2022). As such, mindfulness helps students focus on their studies, both in the classroom and at home (Wamsler, 2020). Mindfulness has also been shown to improve motivation and inspire action (Wamsler, 2020), which are other important qualities for maintaining sustainability studies.

It should also be noted, however, that mindfulness training might not be for everyone, as every individual faces unique personal circumstances and challenges. Exploring the inner self can give rise to everything from curiosity to distress. Thus, some students will find mindfulness more useful than others (Bristow *et al.*, 2022).

Considering all these matters, it is reasonable to further explore how intra-personal skills in general, and mindfulness in particular, can be included in ESD. Regarding the inclusion of intra-personal skills, Wiek and Redman (2022) have noted several flaws in current practices. First, sustainability programs tend to "cherry-pick" competencies and thereby omit to fully integrate every competence to the same degree. For example, Salovaara *et al.* (2020) observed how intra-personal skills have been neglected in favor of the other competencies. Second, sustainability programs fail to operationalize the key competencies (Wiek and Redman, 2022), and the extent to which they are included becomes the individual responsibility of the educators (Wilhelm *et al.*, 2019). Third, subjective assessment (Lozano *et al.*, 2017) and lack of appropriate assessment measures (Redman *et al.*, 2021) obstruct the evaluation and thereby also the implementation of intra-personal skills in ESD (Wiek and Redman, 2022). Apart from the study by Wamsler (2020), research on barriers to and drivers for mindfulness in ESD is scarce. Hence, the remainder of this section will draw from experiences of curriculum renewal in ESD in general when investigating drivers and barriers.

The literature lists four principles that should govern curriculum renewal at universities. First, changing the curriculum and its related learning activities requires a thorough understanding of a university's culture and its organizational values, both at the departmental level and at the university level (Blanco-Portela *et al.*, 2017; Holdsworth and Thomas, 2015). Second, the intended change in the curriculum should be considered an ongoing process rather than a single outcome, and the vision must therefore be flexible and open to change (Holdsworth and Thomas, 2015; Levesque and Wake, 2021). Third, leadership at all levels of the organization must be recognized to guarantee support for everyone involved in the process. Those working on curriculum renewal should receive support in the form of time allocation, recognition of their work, ownership of the process and additional training (Biasutti *et al.*, 2018; Blanco-Portela *et al.*, 2017; Holdsworth and Thomas, 2015; Kwee, 2021; McConnon, 2020). Fourth, the process must be fully anchored with both staff and students (Biasutti *et al.*, 2018; Blanco-Portela *et al.*, 2017; Holdsworth and Thomas, 2015; Kwee, 2021; McConnon, 2020).

More recent research has confirmed that neglecting to follow these principles may constitute potential barriers for curriculum renewal. For example, Kwee (2021) reported six barriers; namely, negative perceptions of the teachers, lack of training, backlash from

students, teachers' lack of knowledge, lack of support from university management and university policies. The significance of support from staff and students was also reported by McConnan (2020) and Biasutti and colleagues (2018). Levesque and Wake (2021) reported that educational change is dependent on collaboration between disciplines, having a common vision and adaptations to local institutional and cultural contexts.

An interesting case study related to the inclusion of reflective learning in ESD indicates the significance of additional training and knowledge of teachers. The teachers participating in the study reported increased emotional stress, as they were unable to accommodate the students in their often emotional and challenging reflective processes (Ayers *et al.*, 2020). The findings suggest that in order to teach intra-personal skills, teachers will require a completely new set of pedagogical skills in addition to their conventional training.

Following the identified principles may, on the other hand, facilitate educational change. For example, Kwee (2021) found that the perception of teachers, a supportive environment and university policies constitute drivers for ESD, whereas Blanco-Portela and colleagues (2017) found organizational leadership, institutional culture and quality assurance to be important drivers for educational change. Worthy of note is also how activities outside the curriculum play a role. Referred to as the "informal curriculum," student-organized and voluntary campus activities have been proposed as equally important as the formal curriculum in ESD (Alm *et al.*, 2021; Hopkinson *et al.*, 2008). Of particular interest is the study by Gramatakos and Lavau (2019) who found that informal curricular activities can overcome certain barriers of the sometimes-rigid organizational structures of formal education. By participating in informal learning activities, such as activist groups, student networks, social clubs and student societies, students will have more sustained learning opportunities and real-life experience applying theoretical knowledge in practice. Gramatakos and Lavau (2019) also note how students receive emotional support and affective learning from informal curricular activities. This implies that there are alternatives to formally including all competencies for sustainable development in the curriculum, and that there is a value in supporting students that organize spaces where they can obtain these competences themselves.

Table 2 provides a summary of the identified barriers to and drivers for curriculum renewal in ESD.

3. Case, context and methodology

3.1 The International Institute for Industrial Environmental Economics (IIIEE)

Lund University in southern Sweden is ranked among the top 100 universities in the world (QS Top Universities, 2023a; The Best Universities in the World, Ranked, 2023) and is home to nine faculties within disciplines such as engineering, science, economics, humanities and law (Lund University, 2023). Among these departments is the IIIEE – an international and interdisciplinary center for research and education. IIIEE research and education focus on "advancing knowledge on transitions to low-carbon and resource efficient economies," with a particular focus on policy interventions, urban governance and sustainable production and consumption (IIIEE, 2021). IIIEE's research and curricula also have a strong action orientation, and are conducted in close collaboration to industry and other societal partners. The department provides graduate education in the form of two master's programs – the master's Program in Environmental Management and Policy (EMP) and the European joint master's Program in Environmental Sciences, Policy and Management (MESPOM). Both EMP and MESPOM aim to provide students with the necessary knowledge and skills to become change agents and leaders in sustainability. Their content ranges from courses in environmental science and the fundamentals of economics to lifecycle assessment and

	Institutional level		
	Individuals	Groups	Organizational
Barriers to change	Negative perceptions among staff and/or students	Group culture and organizational values	Lack of common vision
	Lack of knowledge and/or training	Lack of collaboration between disciplines	Leadership and support
	Lack of support		University policies
	Lack of ownership		
Drivers for change	Positive attitudes of staff and/or students	Informal learning activities	Supportive environment and leadership
	Knowledge and training	Supportive institutional culture	University policies
	Engagement and commitment		Informal curriculum
			Quality assurance

Table 2. Drivers for and barriers to change in ESD. Adaptation of Blanco-Portela *et al.* (2017)

environmental policy and law. Both programs are international and interdisciplinary, and the student batches constitute a diverse group of people with different backgrounds, both cultural and academic. This diversity creates a unique learning environment that in many ways are ideal for fostering the five key competencies for sustainable development (Wiek *et al.*, 2011).

Historically, IIIEE has been very strong in its ESD and in cultivating competences for outer sustainability transitions. However, less attention has been given to skills that foster inner transitions; something that to some extent has been identified by the students themselves. During fall 2022, students from the EMP program organized a reflection group. The group was initiated during the first weeks of the program as a continuation of a team-building exercise that the students were introduced to during the program's introductory week. In this exercise, students shared their hopes and fears for the coming two years, and recognizing the value of this exercise, they decided to continue this practice throughout the program. Every third or fourth week, they gather after class to check in on how they are feeling emotionally about their education, and about life. As such, the reflection group becomes an exercise in identifying and expressing thoughts and feelings, and in finding comfort in the shared experiences of their peers. In other words, students practice the intra-personal skills referenced by Redman and Wiek (2021). The reflection group is much appreciated by the students and each session is attended by around 15–25 people (between half and two-thirds of the class).

3.2 Methods

This paper considers the IIIEE to constitute a critical case for investigating intra-personal skills training in ESD. Critical cases are cases that have strategic importance, as their prominence and generalizable characteristics can help increase the understanding of a general problem (Flyvbjerg, 2006; Patton, 1990). The IIIEE is, in many ways, a distinguished research center for interdisciplinary education and research on sustainability, and should be regarded as representative of ESD in general. For example, in 2023, the master's programs of IIIEE received a top ranking in a global survey along with the other sustainability educational programs at Lund University (QS Top Universities, 2023b). Moreover, the IIIEE has also received global top rankings for its online education (Class Central, 2021). However, for different reasons, intra-personal skills training is not a compulsory component of

education. The lack of inter-personal skills training in ESD is a general problem in higher education, regardless of the academic and educational rigor of the university (Wiek and Redman, 2022). Thus, by investigating the IIIEE, this study deduces generalizable recommendations for overcoming barriers to including intra-personal skills training in ESD.

As an employee of the IIIEE, the author of this paper was able to assume the role of an active participant in the case study. Active participants are those researchers who are already members of the context that they seek to study (Adler and Adler, 1998). Being immersed in the context of study facilitated a deeper understanding of the department's organizational culture and values. It also allowed the author to challenge existing structures and practices at the department more naturally, to prompt a more reflexive discussion around intra-personal skills training. All respondents were informed of the author's intent with the study beforehand and provided their consent.

Data collection was designed around semi-structured qualitative interviews, to allow for a more in-depth and subjective understanding of respondents' perceptions (Kvale and Brinkmann, 2015). The quality of the data was strengthened through transparency during the data collection and through triangulation during the data analysis (Tracy, 2010).

To construct a group of respondents as diverse as possible that would capture all perceptions and values at the IIIEE, the principles of maximum variation sampling were used when choosing respondents (Patton, 1990). Consequently, respondents were chosen with regard to their age, gender, position and educational role. By choosing respondents at different levels of the educational hierarchy (e.g. teacher, course coordinator, director of studies, head of department, pedagogical development), the goal was also to understand how each level perceives the situation. A full list of the respondents can be found in Appendix (Table A1).

The interviews were structured around themes of sustainability in the classroom, intra-personal skills in the curriculum and mindfulness training should as a way of fostering intra-personal skills. The interviews were recorded and subsequently transcribed and coded by using manual coding. The codes that were used corresponded to the barriers and drivers identified in Table 2. Based on the coded perceptions of the respondents, four ideal types were constructed that reflected the general opinions of intra-personal skills training and mindfulness in ESD (Halkier, 2003).

4. Perceptions of intra-personal skills in education for sustainable development

This section reports the findings from the interview. It elaborates on what a sustainable classroom meant to the respondents, their perception of intra-personal skills training and mindfulness in ESD and perceived barriers to including such training in education.

4.1 Sustainability in the classroom

In general, all respondents understood sustainability in the classroom as something more encompassing than content-related facets. Everyone agreed that ESD not only refers to learning about sustainability but also to having a sustainable learning environment. The understanding of a "sustainable learning environment" ranged from the physical environment to the psycho-social well-being of students and staff. The respondents highlighted how the often-intense workload at the master's level and the high expectations students place on themselves contribute to stress and anxiety. Sustainability in the classroom then becomes a matter of accommodating the needs of the students; such as adapting the education and the workload, encouraging the students via informal discussions and creating a fun and inspiring learning environment by supporting student-led extra-curricular activities.

Regarding knowledge in general and skills in particular, the respondents' perceptions of the content in ESD corresponded to a large extent with the key competences identified by Wiek *et al.* (2011). Systems thinking and holistic thinking were the most common answers offered by respondents. They considered having a holistic understanding to be the most important competence for sustainable development. Innovative thinking and critical thinking were also mentioned by several respondents. Furthermore, skills related to communication, such as writing, speech, presentation and outreach, were mentioned as being important. Several respondents also highlighted how empathy and inter-cultural skills are vital capacities for sustainable development, echoing Wiek *et al.* (2011) on the importance of collaborative skills and inter-personal skills. However, the uneven emphasis on the key competencies among the respondents indicates a form of "cherry-picking" (Wiek and Redman, 2022) and corresponds to the observations by Salovaara *et al.* (2020).

Teacher #1 and teacher #2 also mentioned two additional skills that are not currently part of the education, at least not formally. The first skill related to reflective thinking. Reflective thinking is, to some extent, part of some courses, however, teacher #1 highlighted that the degree of inclusion of such a component is dependent on the teacher, thereby echoing Wilhelm *et al.* (2019). Teacher #2 considered self-awareness to be at the core of ESD. The respondent deemed that more self-awareness training would help the students to stay connected to their values, purpose and goals, as well as their mental well-being. Exercises where students practice self-awareness are a part of EMP's introductory week, but they are not brought in regularly or consistently throughout the remainder of the program.

4.2 Intra-personal skills and mindfulness in education for sustainable development

Very few of the respondents were familiar with the concept of intra-personal skills and their understanding was fragmented. It was mainly understood as an ability to "obtain deep knowledge," "self-reflection" or a capacity to find "inner balance." Only two respondents had a complete understanding that fully corresponded to how Redman and Wiek (2021) envision it:

> I equate intra-personal skills with reflection and reflecting on your own values, on your own perspectives and your own learning. I also think about seeing yourself and seeing yourself in relation to others. [. . .] In sustainability, intra-personal skills are about reflecting on your own resilience *(Teacher #1)*.

After the concept had been explained, all respondents agreed that intra-personal skills are important for ESD. However, intra-personal skills were mainly interpreted as a means of supporting students in their mental well-being by respondents unfamiliar with the term.

However, whether (or the extent to which) intra-personal skills should be formally included in education divided the respondents. Although everyone understood their value for ESD, not all respondents thought that training in intra-personal skills could or should be included in education. The main argument of the opponents was that, for different reasons, intra-personal skills would be difficult to formalize and should therefore rather be a component of extra-curricular activities. Rather than formalizing the training, resources should be put into supporting students in organizing it outside of the education.

Another divisive topic was whether intra-personal skills should be taught specifically through mindfulness training. The answers ranged from fully agreeing, to only including certain aspects of mindfulness, to fully disagreeing. The opponents of mindfulness in education argued that it is not for everyone, and that mindfulness is not a universal solution. Some also found it problematic for educational or administrative reasons. Instead, similar to intra-personal skills training, the opponents to mindfulness argued that mindfulness is a better fit for extra-curricular activities, and that it should not be made compulsory.

Based on these answers, four different perspectives on teaching intra-personal skills through mindfulness training in ESD have been outlined (Figure 1 > Table 3). All respondents found intra-personal skills to be an important competence for sustainable development, and believed students should receive support in cultivating these skills. However, whether that training should come in the form of mindfulness or whether it should take place in the classroom or be organized by the students themselves outside of class divided the respondents. Based on these two parameters, four different opinions can be distinguished. The fact that diverging opinions were observed indicates that there is a lack of alignment in organizational values (Blanco-Portela *et al.*, 2017; Holdsworth and Thomas, 2015), and that the idea is not fully anchored among staff (Biasutti *et al.*, 2018; McConnon, 2020).

4.3 Barriers to and drivers for including intra-personal skills training in education for sustainable development

The respondents mentioned several barriers to including intra-personal skills training and mindfulness practice in ESD, of which several corresponded to the barriers found in Table 2. The main themes that emerged were perceptions by staff, lack of knowledge and training and quality assurance.

Several respondents deemed that the perception of both intra-personal skills and mindfulness by the teachers influenced their attitude. If this type of training is not fully supported by teachers, it will be met with resistance (Blanco-Portela *et al.*, 2017; Wamsler, 2020). Mindfulness was especially thought to be seen by some as "too much" or "too radical" and did not belong in higher education. One respondent pointed out that this might be partially explained by what skills are recognized as employable. Another respondent speculated that resistance by staff may also come from a desire to safeguard quality.

The lack of knowledge and training was another prominent theme among respondents. Several respondents emphasized that providing training in intra-personal skills and mindfulness was outside most teacher's area of expertise. Teachers cannot be expected to understand the value of such training, let alone have the capacity to provide it, without having received training themselves (Kwee, 2021).

Similar to personal growth, intra-personal skills training is an educational activity where it might be difficult to both identify and evaluate the results. All respondents pointed out the difficulty in evaluating intra-personal skills training, should it be formally included in the education. This relates to the problem of quality assurance of learning outcomes and education (Redman *et al.*, 2021; Wiek and Redman, 2022).

5. Identifying institutional resistance

Apart from the perceived barriers by the respondents, several underlying assumptions and hidden barriers related to principles of curricular renewal were discerned. This section elaborates on these barriers and their relationship to different institutional levels.

	Outside of class	In-class activity
Against mindfulness in education	*Supporting activities for learning intra-personal skills outside of class*	*Providing activities for learning intra-personal skills in class*
In favor of mindfulness in education	*Supporting intra-personal skills training through mindfulness practice outside of class*	*Teaching intra-personal skills through mindfulness practices in class*

Source: Author

Table 3.
Four perspectives on mindfulness training in ESD

5.1 Individual level

Even though the respondents deemed intra-personal skills important for ESD, their understanding of the concept was incomplete. Their understanding was mainly related to how intra-personal skills would improve the learning environment and not how inner change also can catalyze sustainable development. Furthermore, they lacked understanding as to how intra-personal skills are related to and underpin other sustainable development competencies (Brundiers *et al.*, 2021; Wiek and Redman, 2022). This, in turn, might explain why some respondents considered mindfulness to not belong in the classroom.

A second observation was that as the understanding of intra-personal skills is incomplete, there is no real support for or commitment to this type of training, even though many respondents' responses were positive. Also, due to the lack of commitment it is not reasonable to expect people to claim ownership. This creates a vicious cycle that poses a barrier to intra-personal skills training in education. Intra-personal skills training is not supported because of an incomplete understanding, and the lack of investment and commitment result from an incomplete understanding.

Previous research has identified that curriculum renewal requires support by staff (Biasutti *et al.*, 2018; Blanco-Portela *et al.*, 2017; Holdsworth and Thomas, 2015) and additional training (Kwee, 2021; McConnon, 2020). Overcoming these barriers at the individual level will therefore require a general change in the perceptions and the attitudes of the staff at IIIEE. Thus, more knowledge of and experience with intra-personal skills training are recommended, to change negative attitudes and foster engagement and commitment among staff. Additional training is not only needed to change perceptions but also to prepare educators to provide intra-personal skills training (Ayers *et al.*, 2020).

5.2 Group level

Although intra-personal skills training is considered important by individuals at the IIIEE, it was noted that these values have not yet been translated into organizational values. On the contrary, the significance of intra-personal skills training is not emphasized at the group level. Furthermore, the work ethic at the IIIEE appears to emphasize long hours and hard work. This constitutes a competing cultural value that to some extent hinders ideas that promote mindfulness, mental well-being and self-care. The lack of supportive values on the group level implies that allocating resources for intra-personal skills training will be difficult (Blanco-Portela *et al.*, 2017; Holdsworth and Thomas, 2015). Neither intra-personal skills training nor mindfulness will be a priority at IIIEE so long as they are not part of the organization's values.

At the group level, the IIIEE also fails to recognize the value of informal learning (Alm *et al.*, 2021; Hopkinson *et al.*, 2008) and creating networks of collaboration (Levesque and Wake, 2021). Education at the department could benefit from more collaboration between staff and students. All respondents said that they were supportive of student initiatives related to intra-personal skills training, such as yoga classes and group meditations. However, this is not translated into formal departmental support, and the IIIEE could do more to help students cultivate inter-personal skills outside of class. Each batch of students at the IIIEE commonly contains one to two students with experiences in mindfulness or intra-personal skills training. Recognizing that these students are an asset to the department, IIIEE should not only support student-led initiatives, but also learn from students to acquire more in-house knowledge and eventually institutionalize the training.

Previous studies have identified the significance of culture and organizational values for curricular renewal (Blanco-Portela *et al.*, 2017; Kwee, 2021) and of informal learning for overcoming institutional barriers (Gramatakos and Lavau, 2019). Therefore, more faculty

discussions about the organizational values and to collaborate more with students to support informal learning are recommended.

5.3 Organizational level

Having a common vision that is flexible and open to change has been identified as important for curricular renewal (Holdsworth and Thomas, 2015; Levesque and Wake, 2021). However, intra-personal skills training, let alone mindfulness, are not formally recognized at the university level, which in turn is reflected in curricula and learning outcomes. Therefore, the extent to which activities that cultivate intra-personal skills are currently included in the IIIEE's education is reliant on teachers' individual visions. This entails that intra-personal skills training that is included in education is done so informally, irregularly and inconsistently (Wilhelm *et al.*, 2019).

Almost all respondents deemed university policies and quality assurance as potential barriers. They spoke of the polices as if they were set in stone and immovable objects. However, as previously identified by Kwee (2021) and Blaco-Portela and colleagues (2017) university policies and quality assurance also constitute drivers for change. Thus, the perception of university policies as barriers should be challenged, and they should instead be viewed as opportunities. This can be done in two ways: first, lobbying to change the educational vision at the university level. And second, by finding ways of working with and working around existing policies to find ways to include intra-personal skills training in education. One such solution could be to better support student initiatives and use the informal learning environment.

6. Ways forward and recommendations

This paper has argued that ESD should not only focus on outer sustainability transitions but also include inner dimensions such as emotional intelligence and social learning (Brundiers *et al.*, 2021). A focus on inner transitions is needed to create a sustainable learning environment that supports students' mental well-being of the students, while also cultivating behavioral change for sustainable development (Bristow *et al.*, 2022; Ericson *et al.*, 2014; Thiermann and Sheate, 2021).

This case study from Lund University has explored perceptions of the implications of a sustainable classroom and of fostering inner transitions through intra-personal skills training and mindfulness. The results indicate that ESD at Lund University already to some extent includes elements of introspection; albeit informally, inconsistently and irregularly. However, there is a lack in fundamental understanding of intra-personal skills and how they relate to other key sustainability competencies. This study therefore concludes that there can be no substantial change in education before intra-personal skills are fully understood and supported by a majority of the staff. To make intra-personal skills training a formal component of education, it must receive full support from all levels of the university. To remedy this discrepancy, more knowledge of and experience with intra-personal skills training is needed among staff.

In the meantime, the best way forward is likely making intra-personal skills training an informal learning activity. Informal learning activities are student-organized campus activities, such as student networks and societies. Informal learning is deemed equally important as the formal curriculum in ESD (Alm *et al.*, 2021; Hopkinson *et al.*, 2008). Recognizing that the students' prior knowledge in this area is a potential asset, the university should collaborate more with its students in supporting student-led intra-personal skills training. Not only would this be a learning opportunity and a means of acquiring more in-house knowledge at the university, but it would also overcome certain

barriers to changing the curriculum; e.g. evaluation and quality assurance. Supporting student initiatives could, for example, include allocating time and providing space. Another option could be to hire external educators to give students introductory training and provide fundamental knowledge to help them set up the training themselves.

These findings matter, as this case study from Lund University should be considered a critical case that is representative of ESD in general. The department where the case study was conducted is a distinguished research center in sustainability science and is renowned for its strong education in and cultivation of sustainability competencies. However, less attention is paid to skills that foster inner transitions. As the department should be considered representative of universities worldwide, and similar in the ways in which it constructs and perpetuates its vision for ESD, the proposed recommendations to Lund University should be regarded as general recommendations for overcoming institutional barriers to incorporating intra-personal skills training in ESD.

6.1 Limitations

The decision to compare different organizational levels while also disclosing the name of case posed both a methodological and an ethical problem. Disclosing the case study left little room for differentiating between the responses, as this would have made the respondents easily identifiable for an outsider. An explicit demonstration of the differences and similarities between organizational levels was therefore impossible, as the protection of the respondents' integrity should always be given priority.

However, the decision to disclose the name of the case can still be justified. First, mentioning the department by name supports the claim of it constituting a critical case. Second, a comparison between organizational levels would likely have required more representatives from each level. Only having one representative on some levels made such analysis less relevant. Thus, rather than juxtaposing the levels, the aim was to make the understanding of the organization as comprehensive as possible.

Another limitation may be the extent to which the case study can be considered a critical case. It might be that other universities are struggling with completely, or at least partly, different challenges regarding intra-personal skills training. This would imply that the recommendations are less generalizable than expected. However, triangulating the data with previous findings suggest that these challenges are common, and the recommendations should thus be valid.

Note

1. Throughout the paper, "mindfulness" will be used as an umbrella term for these meditative practices if nothing else is stated.

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Appendix

Table A1.
List of respondents

Respondent	Department	Position	Role in education
Teacher #1	IIIEE	Associate senior lecturer	Teacher
Teacher #2	IIIEE	Doctoral student	Teacher
Teacher #3	IIIEE	Assistant professor	Course coordinator
Director of studies #1	IIIEE	Senior lecturer	Director of studies EMP
Director of studies #2	IIIEE	Project manager	Director of studies MESPOM
Head of department	IIIEE	Professor	Head of department
Higher education developer	AHU	Senior lecturer	Pedagogical developer in ESD

Source: Author

About the author

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