“Not everything can be taught.” Learning through a whole institution ESD process in university teacher education

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Abstract

Education for Sustainable Development (ESD) is key to the transition to more fair and sustainable futures and is an increasing emphasis across educational phases, including in teacher education. Whole Institution Approaches (WIA) to ESD are particularly effective in empowering learners and educators to act for sustainability, and there is a need for more understanding of the complexities and contradictions of implementation. This article reports on a WIA ESD process at a university teacher education institute in Germany. Drawing on the scientific monitoring of the process, we show that participants’ understandings of ESD developed through their involvement, and highlight some of the practical challenges associated with this approach.

Keywords

ESD; Whole Institution Approach; University Teacher Education; Scientific Monitoring; Focus Groups

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1. Whole Institution Approach to ESD in university teacher education

Education for sustainable development (ESD) is a policy priority in Germany and an increasing focus in teacher education (Fischer et al., 2022; KMK, 2024). There is some consensus that systemic changes are needed to embed ESD in university teacher education, beyond including ESD in curriculum and strategy documents, towards becoming an integral part of institutional and pedagogical practices (Evans et al., 2017). Whole Institution Approaches (WIA) take a holistic and systemic approach to embedding ESD across institutions (UNESCO, 2014). WIA includes integrating ESD within all subject-disciplines and fostering interdisciplinary and transdisciplinary education through partnerships between different subjects and faculties. It includes looking beyond teaching and research to consider environmental, social and political implications of management, campus and transfer among other activities (Holst & Singer-Brodowski, 2022).

For UNESCO, aligning entire institutions with the principles of sustainability, including curricula, facilities and administration, is necessary to empower learners as change agents, so that: "Learners learn what they live and live what they learn" (UNESCO, 2020 p. 28). Holst (2023) indicates the far-reaching scope and ambition of WIA, which for him includes "a redesign of policies, curricula and funding (macro level), a rethinking of the objectives, content and didactics of learning situations (micro level) and a redesign of learning environments in local communities and networks (meso level)" (ibid., p. 1016). The recent large-scale study, conducted in Germany by Holst, Grund and Brock (2024) confirmed the value of WIA for ESD. Young people who experienced WIA ESD were found to be more likely to act for sustainability beyond their institutions. Likewise, the educators involved in WIA ESD, viewed ESD as more relevant to them, participated in more ESD related training, and were more motivated to for sustainability.

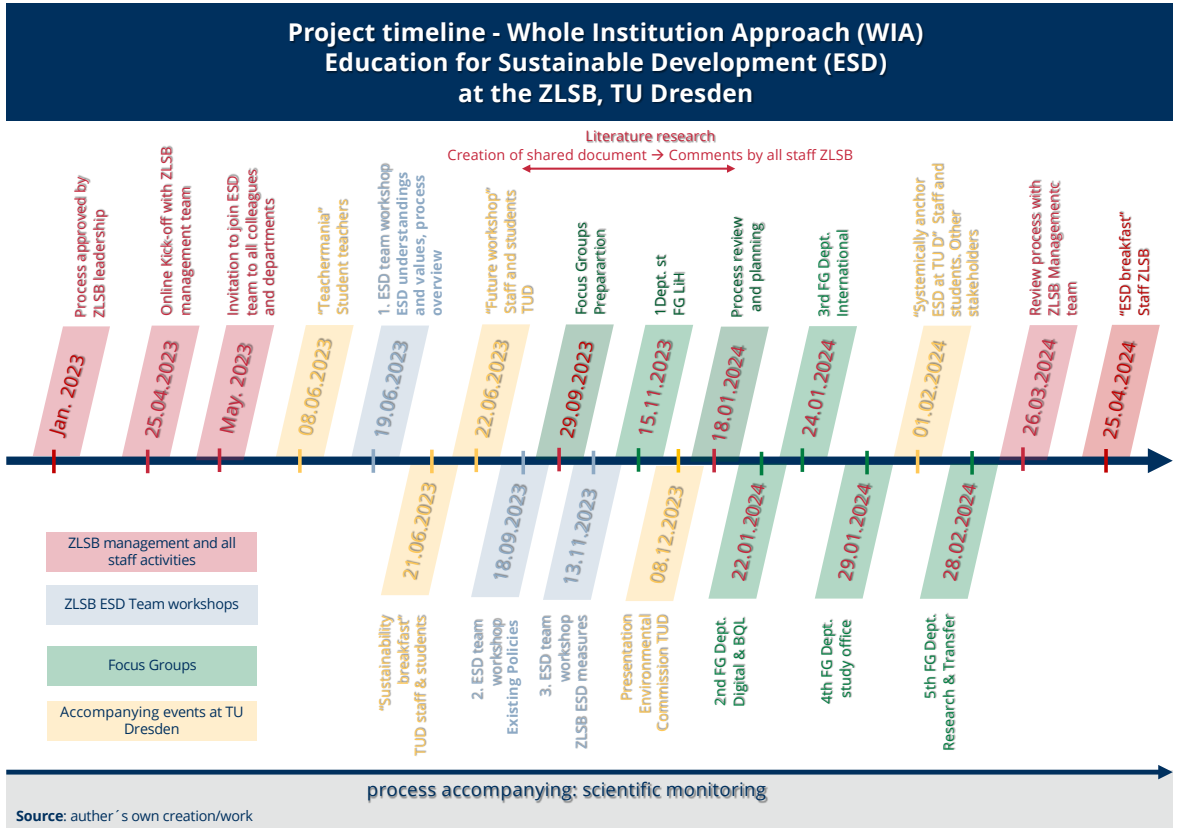
It is helpful to distinguish between two approaches to WIA ESD. The first, *instrumental approach* (Wals et al., 2008), also termed ESD1 by Vare and Scott (2007), provides definitions, goals and measures to be implemented by employees in an institution. This approach is suited to situations where problems are well understood, and interventions are clearly defined and known to be effective across contexts. The second, *emancipatory approach* (Wals et al., 2008), termed ESD2 by Vare and Scott (2007), engages people in defining ESD and identifying measures for their contexts and the activities they are involved in. This latter approach is suitable when the effectiveness of interventions is contingent on how they are understood, valued and enacted. Where instrumental approaches can underestimate the commitment and effort needed to establish meaningful measures, emancipatory approaches may support systemic change through fostering participation, teamwork and shared leadership (Klein, 2017). In complex institutions such as schools and universities, local agency increases the likelihood that sustainability measures align with local priorities and concerns, resources and constraints (Wals et al., 2008). In practice, instrumental and emancipatory WIA are valid in relation to different aspects of SD/ESD and are often used in combination, for example through open and closed phases in the WIA process (Wals et al., 2008).

While general concepts, strategies and frameworks for WIA ESD are well-represented in the academic and policy literature, there are few situated examples of practice that explore engagement with diverse interpretations of ESD, and related challenges and contradictions (Schopp et al., 2020). Such examples are important for practitioners seeking to implement WIA ESD in their institutions, given that diverse interpretations of ESD are inevitable and dialogue between them can be generative (Tikly, 2023). This article addresses the gap, by reporting on a WIA ESD process at a university teacher education institution in Germany. In the following section, the context of the study is briefly described. Next, the methodology and methods of the scientific study which accompanied the process are presented. This is followed by some generalised findings, which are exemplified through two extracts from one focus group. The article finishes with a brief summary of learning.

2. WIA at the Centre for Teacher Training and Educational Research

Currently, just over 4,000 students are enrolled in one of the four initial teacher education pogrammes at TU Dresden University of Technology (TUD): primary school, secondary school, grammar school and vocational schools. With around 80 employees, the Centre for Teacher Training and Education Research (ZLSB) coordinates initial teacher education across faculties at TUD, and coordinates closely with local education authorities, and training centres for newly qualified teachers. The ZLSB also leads research and projects on cross-cutting issues such as internationalisation, digitalisation, inclusion and ESD and, since 2016, the side-entry into teaching qualification training for primary school teachers in Saxony.

In April 2023, a WIA ESD process was initiated at the ZLSB by the ESD coordinator with the support of the managing director. The approach was conceptualised as emancipatory, with the aim of opening up conversations and understandings around ESD and defining meaningful practices for individuals and teams.



Source: auther´s own creation/work

Fig. 1: WIA ESD process

Figure 1 illustrates activities which occurred as part of the process in the first year. The core of the process were the three workshops with an ESD team (in blue), which included representatives from each department. In the first meeting staff exchanged understandings, values and goals for ESD in relation to their work. In the second meeting, existing frameworks for ESD were presented and discussed. After this, all staff were invited to contribute to defining measures in relation to their work using a collaborative document. In the third meeting, the proposed measures were reviewed and priorities were identified. The entire process and all activities were scientifically monitored, through participant observation in the workshops and additional focus groups (in

green). In addition, research with student teachers and TU Dresden employees on the topic of sustainability and ESD was conducted at various university events (in yellow). The process was presented and discussed with the ZLSB leadership team (in red).

3. Scientific monitoring as research into the implementation of ESD within a WIA

The WIA ESD process was accompanied from the outset by scientific monitoring. Scientific monitoring is a particular form of research, often using a participatory approach, which has an explicitly action-orientated function and aims to support project objectives and processes through the integration of research and practice (Salone, 2006, p. 623). Focus groups were used as the main form of data collection because they are suited to capturing implicit and shared knowledge and observing change processes (Kondratjuk, 2023, p. 85). Moreover, they are suitable for educational research and teacher training research (Flores & Alonso, 1995) and for the analysis of organisational processes and structural analyses. A particular feature of focus groups is that the researcher takes on a moderator role to guide thinking and discussion. Focus groups allow the discussion to benefit from multiple perspectives. Their aim is to define differences in participants' understanding and enable the development of shared insights (Schulz et al., 2012). In this study, focus groups were formed within different departments of the ZLSB and thus represented real groups that were not artificially brought together for research purposes. Participation in the focus groups was voluntary. However, the WIA process was endorsed by the leadership team, so participants may have felt some pressure to take part. A total of 5 focus groups were conducted, with the number of participants ranging from 2 to 10. The range of participant numbers per focus group reflects the different sizes of the departments. The focus groups lasted 90 minutes and were semi-structured around three main discussion areas: 1) the understanding of sustainability and ESD; 2) practical measures for embedding sustainability and ESD at the ZLSB; and 3) the prioritisation of the selected measures. Finally, the groups were asked to identify 3 top priorities. The data were analysed within the discourse of the entire discussion in order to identify the situated meaning of utterances (Loos & Schäffer, 2001, p. 38). The method of analysis was thematic analysis (Braun & Clarke, 2006).

4. "Not everything can be taught" – Some important results

In this section, some of the cross-case and generalised results of the focus groups are presented. These are then exemplified through two extracts from one focus group. The following themes were present across focus groups:

- the need to define sustainability and ESD as both separate and connected terms
- the complexity of definitions of sustainability and ESD, which typically increased through the process of articulation and group discussion
- the emotional challenge of engaging with this complexity
- the need for concrete, relevant and practical measures
- the need for opportunity to examine existing policies and practices and develop alternative understandings and practices

In almost all focus groups, there was a tendency to initially define sustainability in relation to the use of natural resources, and education for sustainability as teaching learners to use resources responsibly. However, more holistic and transformative definitions emerged through the process of discussion, with participants increasingly making the link between participation in a whole institution process as a form of ESD.

Focus group 5 (FG)[1], which comprised 6 employees and a single interviewer[2] and was conducted in person exemplifies this process. The sequence shown here is taken from the beginning of the FG, from line 13 (L13) to line 176 (L176) in the transcript. In this

1 Transcription code: 240228_FuL_05

2 "In focus groups the researcher (interviewer) takes a moderator role, to guide thinking and discussion of the focus group members while actively encouraging of, and attentive to, the group interaction." (Barbour, 2007, p. 2) In this specific method researchers see themselves "as agents of change in the field they are researching" (Schäffer, 2012, p. 349) and, in their role, provide moderating support, observe with restraint and steer focused and targeted interventions.

phase of the FG, the participants are asked to describe their understanding(s) of ESD. The interviewer (I) emphasises that he is asking for a "very low-threshold" (German: niedrigschwellig) answer that relates to personal understanding. The sequence demonstrates how participants' articulated understanding of ESD and WIA becomes increasingly complex during the discussion process. It also highlights key tensions such as the need to both define clear actions and engage with the complexities of ESD.

Extract 1: understandings of ESD

In the first phase of the extract, participants try to separate and simplify sustainability and ESD, linking sustainability to "resources" and ESD curricula to the SDGs. They also express their frustration and annoyance with trying to define terms.

The discussion begins with one interviewee's statement that ESD is "a completely different task" (B2, L13-14) than "sustainable practice in the organisation" (B2, L13). The interviewer then suggests that sustainability and ESD "are not necessarily two different things" (I, L18). Using the example of the SDGs, it is pointed out that the term "sustainability" reflects the idea that ecological issues should not be considered in isolation (I, L24-27). Another interviewee agrees that the SDGs are important and states that the task of defining ESD "annoyed" B2 (B3, L31-32). This points to the difficulty of defining sustainability and ESD as related and/or separate in the context of an educational institution. This becomes particularly clear when discussing the discrepancy between the objectives on paper and the actual implementation in the institution.

B1 reaffirms his/her rejection of a broad definition of ESD because "otherwise it encompasses everything" (B1, L33). B3 tries to reconcile both positions by stating that ESD "is limited to the teaching and learning area" (B3, 36), within which "the SDGs can play an important role as learning content" (L36-38). B2 repeats her assertion again, but the wording reveals a certain confusion:

> *„Education, i.e., that education is an aspect of sustainability, not only ecologically but also pedagogically, that is undoubtedly correct. But ESD is still something different from sustainable education."* (B2, L40–42)

B4 articulates the confusion implicitly expressed by B2 by stating that they "always find the term sustainability difficult" (B4, L43-44). They also differentiate between sustainability and ESD by describing the root of the term sustainability as "resources" and noting that it is difficult to transfer this to other areas (B4, L44-45). They refer to "a great deal of terminological confusion that confuses the whole debate" (B4, L47-48) in the joint working document and emphasise the need to clarify "what we actually want. What is actually our goal" (B4, L50-52). They admit to being confused by the breadth of ESD content and also recognise this breadth as necessary.

> *„I'm always annoyed by someone who says that ESD is everything, but ultimately I would say that too. If you look at the 17 goals (SDGs), you can turn almost any topic into ESD content."* (B4, L54–56)

In further statements, the definition of ESD in the groups becomes increasingly nuanced and goes beyond the level of communicating SDG content: ESD as a reflexive process of change; critical awareness of structures and contexts of education; and a critical questioning of one's own behaviour.

B4 begins by introducing the idea of a *learning process*: "Ultimately, it's about reflecting on processes of change, the future and so on" (B4, L58). B5 introduces the need for a critical awareness of the context in which ESD takes place and *how* ESD is implemented, which requires the reflexivity of educators: "The content also needs to be in a context that reflects the SDGs, how can we do that." (...) And later again: "How can we manage to offer education, if you like, but also reflect on it at the same time, like a didactic double-decker" (B4, 60-68). B4 adds a further, *personal* aspect to this:

> *"Well, for me ESD is about awareness in the broadest sense. It's about being aware of your own way*

of life, but also about being aware of, let's say, difficulties in relation to the 17 goals." (B4, L70–73)

This extract shows a repeated development of an articulated understanding of ESD. Starting from an initial focus on the teaching of SDG content, additional aspects such as learning processes, learning and teaching methods and learning contexts are presented. Finally, the perspective of a personal critical reflection process that deals with problems related to the SDGs is presented.

Extract 2: ESD and WIA

The second sequence shows that participation in the WIA has promoted the understanding of ESD as a process that deals with educational structures and contexts. For example, two participants, B5 and B4, state that their understanding of ESD has changed as a result of participating in the WIA process:

"It was the same for me at the beginning. I always thought, oh yes, sustainability, no more plastic water bottles, we'll bring our own bottles, I don't know. But that it can also be about equality, poverty and so on. I mean, participation, transparency, because of course these are structural things where you first have to look very closely." (B5, L60–67)

"But for me it's more like I have less of a perspective on the educational contexts and more on the organisational development or my own way of working or teaching, that's a completely new way of thinking for me." (B4, L88–90)

The group's thinking is further challenged by B2, who expresses the tension between confronting complexity, which can be overwhelming, and setting goals for action:

"I always said in the process, hmm, ok, we want to somehow work on behaviour, which somehow means we have to make decisions. Then I somehow have this broad and diffuse concept. That overwhelms me because I think, yes, well, you can't think of everything at once if you want to say, now you want to make some things more sustainable." (B2, L132–137)

B1 bridges this tension by suggesting that desired behaviours can be defined through the WIA process:

"Yes, exactly, to clarify in this process, what do we actually want, what kind of things?" (B1, L138–9)

Building on this idea, B5 defines ESD as "participation" (L141) and continues the dialogue between B1 and B5:

B1: "And that's exactly why participation is important. That's exactly why I linked it to the process. So that it doesn't become too instrumentalised, in the sense that everyone has to do it now, it's a negotiation process."

B5: "I understand that. And part of it also comes from the grassroots, so that the people who really want to do it can do it and then everyone can be involved and see what ESD means for the ZLSB, for example. And that it's not just the leaders sitting and saying this is how it is now, but that it's decided together."

B1: "Yes, of course, that is a goal and where we want to go, we are on the way there, at least the idea." (L142–150)

B3 establishes the link between participation in a WIA process and transformative learning:

"What I also find important is that in the literature, I think it is said that ESD is often understood to mean that plastic water bottles should no longer be used. It has this normative character. But that we actually want more of a change in mentality. I mean. I've realised that plastic bottles suck. And I've developed other solutions. So, I always think this transformation process is somehow important." (B3, L151-155)

B6 returns to the idea that ESD is about involving people in change processes rather than telling them what to do:

"Exactly, it's not about a law and then everyone does it. Instead, sustainability is really about what leads to long-term change, and that is the moment when individual people get involved. (...) Because not everything can be taught." (B6, L172-176)

This second extract further demonstrates that engaging with sustainability was challenging for participants, and that understandings develop through discussion. The final citation, speaks to the value of emancipatory WIA processes (Wals et al., 2008) as a form of ESD and the limitations of 'teaching' (i.e., prescribing) all sustainability measures. Taken together these extracts indicate the challenge and discomfort experienced by participants engaging with sustainability and ESD, and how understandings become more complex through discussion. The study reinforces the importance of emancipatory approaches as part of institutional WIA sustainability processes, and indicates that prescribing measures for people without opportunity for meaningful engagement may undermine learning and change.

5. Reflections: What we have learnt about WIA

Through the WIA process reported on this article, participants considered and discussed sustainability and ESD, and this led to increasingly nuanced understandings of ESD and its implications for the ZLSB. The process provided opportunity for people to exchange understandings and ideas for practical measures in relation to themselves, and as employees in an educational institution. Several measures have been adopted as a result of the process. These include regular sustainability brunches open to all staff, which aim to improve communication between teams and staff well-being. Other measures include integrating sustainability into the institutions' mission statement, initial steps towards making university teacher education more accessible for candidates from marginalised groups, and accounting for the carbon footprint of travel. At the same time, the process was challenging, and many participants expressed confusion, irritation and frustration. Our experience confirms the value of emancipatory WIA but also indicates the need for structure and support, as people across institutions engage with complex and challenging topics. There is also need for political will to bring about changes beyond the level of individuals, to reform institutional structures and accepted ways of doing things. What we have learnt:

1. That both Instrumental (ESD1) and emancipatory (ESD2) approaches to sustainability WIA can be valuable.
2. That not all aspects of sustainability should be prescribed or taught: engaging people to consider sustainability and ESD in relation to themselves and their work can be a form of ESD.
3. That difficult and uncomfortable confrontation with sustainability may be necessary in order to move from policy to practice.
4. That considerable time, expense and support is required:

    a. to deal with and share uncertainties and moral insecurities/tensions in a process that is fundamentally open and uncertain;
    b. to record, summarise and communicate ideas and specific measures;
    c. and for the organisation and implementation of measures.

To what extent are we responsible for these things happening?

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