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Do European quality assurance frameworks support integration of transformative learning for sustainable development in higher education?

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Abstract

Purpose – A transition toward sustainable development requires engagement of university students in transformative learning. Therefore, quality frameworks and processes should support deep approaches to sustainable development in higher education. Research and initiatives that connect sustainable development, higher education and quality assurance (QA) are lacking. This study aims to explore to what extent quality assurance agencies in Europe support transformative learning for sustainable development in their frameworks.

Design/methodology/approach – The authors conducted a qualitative analysis of national QA frameworks in the European Higher Education Area (EHEA) to assess whether they support transformative learning for sustainable development. First, frequency analysis was undertaken; second, a blended coding approach was used to investigate whether and how transformative learning for sustainable development is addressed.

Findings – Overall, the authors found little support for transformative learning for sustainable development in most QA frameworks. One exception is the framework of the United Kingdom, which includes a specific guide on education for sustainable development wherein transformative learning is prominently mentioned. To a lesser extent, some support exists in the frameworks of Estonia, Holy See, Romania, Sweden, Switzerland and Ukraine. Although the transformative learning for sustainable development approach is not explicitly mentioned in most QA frameworks, many of them contain opportunities to highlight it. France and The Netherlands offer guidelines and criteria for acquiring a sustainable development label, while Andorra suggests including the sustainable development goals in institutional quality assessment.

Originality/value – The research provides the first map of how countries within the EHEA support transformative learning for sustainable development in national QA systems.

Keywords Transformative learning, Higher education, Sustainable development, Quality assurance

Paper type Research paper

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1. Introduction

There has been long-term agreement that higher education institutions (HEIs) could play a prominent role in the transformation toward a more sustainable world (Leal Filho, 2011). HEIs are considered key to supporting the implementation of the sustainable development goals (SDGs) through research, teaching and learning, partnerships, community engagement, governance and management (HESI, 2017). HEIs can directly and indirectly influence sustainable development (SD) in areas such as the economy, societal challenges, the natural environment, policymaking, culture and demographics (Findler *et al.*, 2019). However, although the number of universities adopting higher education for sustainable development (HESD) declarations and engaging with SD is steadily increasing, deep changes in this area are scarce and most of the time disconnected from the core of HEIs' activities (Sterling, 2021): until now, not many HEIs have succeeded in implementing sustainability systematically in all their activities (Giesenbauer and Müller-Christ, 2020) and many of them seem to have no SD policy as a foundation for their governance plan (Leal Filho *et al.*, 2020).

Blanco-Portela *et al.* (2017) identified different barriers to the incorporation of sustainability in HEIs. The main barriers are related to stakeholders' convictions (e.g. resistance to change), internal structure of the institution (e.g. lack of interdisciplinary culture), institutional framework (e.g. lack of institutional sustainability action plan), external factors influencing the institution (e.g. government regulations delaying sustainability initiatives) and resources (e.g. lack of financial resources). The interplay between ecological, social and economic dimensions also makes SD complex (United Nations, 2021). A further strong barrier is the fact that sustainability is normative in nature and HEIs are traditionally reluctant to associate values with science, arguing that science must remain free and objective. This misconception of the nature of scientific freedom and objectivity also tends to affect HEIs' understanding of teaching (Bornemann *et al.*, 2020) and makes it difficult to mainstream the kind of pedagogy needed for education for SD (Tilbury, 2011), in particular a pedagogy enabling transformative learning, which goes beyond identifying key sustainability issues in existing ways. As Boström *et al.* (2018) point out, there is an urgent need for a theoretical perspective with a deeper understanding of the social and contextual aspects of learning at different levels (Boström *et al.*, 2018). Meanwhile, the strongest barrier to incorporation of sustainability in HEIs is arguably the dominant economic paradigm of constant growth, as underlined by Sterling (2021, p. 4): "A narrowly instrumental view of education, modeled to serve the perceived demands of a globalizing economy and culture, now defines and shapes learning."

This must be addressed, as transformative learning has been acknowledged to be a key means of ensuring that education can contribute to the transformation toward SD (Unesco, 2020). Transformative learning:

> [. . .] involves a deep structural shift in the basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-location: our relationships with other humans and with the natural world. It also involves our understanding of power relations in interlocking structures of class, race and gender, our body awareness, our visions of alternative approaches to living, and our sense of possibilities for social justice, peace and personal joy (Morrell and O'Connor, 2002, p. 17).

Transformative learning requires critical reflection on those beliefs that are problematic (Sterling, 2011). In Hoggan's (2015, p. 71) research, transformative learning is defined as "the processes that result in significant and irreversible changes in the way a person experiences, conceptualizes and interacts with the world." The process of transformative learning starts

with a trigger that challenges current thinking, feeling and being, a trigger which is often described as disruptive or transgressive in relation with SD (Lotz-Sisitka *et al.*, 2015).

Most of the barriers to integrating sustainability in HEIs could likely be addressed through greater awareness and understanding of quality assurance (QA) processes and frameworks and their relation to SD. Indeed, QA frameworks and processes inherently address the values that HEIs determine for their own mission against the background of values perceived to be essential by society at large (ENQA, 2003). QA in higher education takes place at two different levels: within the institution itself; and by external reviewers (ENQA, 2003). QA frameworks can assess the quality of institutions, academic programmes and study fields. Moreover, a distinction can be made between public and private QA frameworks (Dill, 2007). In Europe, the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) function as a common basis for the ongoing assessment and accreditation of HEIs. Higher education in the European Higher Education Area (EHEA) is subject to regular external review by a (national) QA agency. QA frameworks and/or national laws provide guidance for the quality process. The European quality assurance register for higher education (EQAR) lists those European QA agencies that comply substantially with the ESG (EQAR, 2021).

If we want to achieve the 17 SDGs, six major societal transformations are important, whereof education and skills is one (Sachs *et al.*, 2021). Varouchas *et al.* (2018) have argued that quality instruments are vital to transform HEIs. Cooper *et al.* (2014) have suggested that accreditation could provide an exogenous dynamic for change; accreditation, they argue, is either a mandatory or voluntary external pressure that influences the internal operations of HEIs. In fact, QA processes and accreditation have been described as a mirror enabling HEIs to reflect on what their core values are, whether they meet up to them and whether these values can compare with values from outside (Grolimund, 2020). They are therefore theoretically very compatible with SD requirements. As Junyent and Mulà (2018) and Tilbury *et al.* (2019) argue, linking sustainability and quality assessment systems is key to guaranteeing the change and continuous improvement of an HEI toward SD. By implication, international QA processes and frameworks could play an important role in upscaling the process of embedding sustainability in HEIs. But to what extent do QA frameworks currently encourage the integration of sustainability in HEIs, in particular the integration of transformative learning processes, which UNESCO has identified as central to supporting transformation toward SD (UNESCO, 2021)?

This question is addressed through a qualitative analysis of QA frameworks aiming to analyze whether the frameworks contain elements of sustainability and/or transformative learning. Our assumption was that, if one of the four principles of QA in the EHEA is *taking into account the need and expectations of society* (ESG, 2015), we should be able to find the presence of transformative learning and SD in QA frameworks. We chose to focus on national QA frameworks used in the EHEA because the EHEA claims to be a leader in commitment to pursuing the UN SDGs (European Commision, 2021). In this research, we present which QA frameworks support transformative learning for SD and to what extent. We concluded with a reflection on priorities that need to be addressed if progress in integration of sustainability in HEIs is to reach the proportions needed for a true contribution of HEIs to SD.

2. Methods

We analyzed QA frameworks in the EHEA in seven steps (Figure 1), underpinned by the research team's common and evolving HESD-oriented heuristic. In Step 1, we reviewed the

existing literature on sustainability and transformative learning using "sensitizing concepts" (Bowen, 2019) to create a coding scheme (Table 1) to review the QA frameworks.

Step 2 implied identifying and collecting relevant QA frameworks and guidelines within the EHEA. First, we collected the ESG guidelines, as this is the common framework for QA systems for learning and teaching at European, national and institutional level (ESG, 2015). Then, we proceeded with a thorough and complex process consisting of Web searches and contacts with QA agencies (by email and phone) to collect national QA frameworks and documentation available in English. In total, we were able to gather 33 national frameworks of the 51 belonging to the EHEA. Despite major efforts, the QA frameworks of Albania, Azerbaijan, France, Kazachstan, Moldova, Montenegro, North Macedonia, San Marino, Slovak Republic and Turkey could not be found, though in some cases – e.g. France – important information about integration of sustainability in HEIs was received in other formats. In addition, Andorra, Liechtenstein and Luxembourg could not be analyzed either, because there is no specific national QA framework. In Andorra, the quality agency uses the ESG guidelines directly. In Luxembourg and Liechtenstein, HEIs are assessed by foreign EQAR-registered agencies (ENIC-NARIC, 2018). Unfortunately, the Hungarian, Italian, Polish and Russian Federation national QA frameworks were not available in English. Because of language issues, we were only able to analyze summaries of Denmark's and Romania's QA frameworks. Finally, for those states including different nations, we only analyzed the country framework if there was one (e.g. in Spain, we analyzed the framework developed by the National Agency for Quality Assessment and Accreditation of Spain ANECA; in Belgium, we analyzed two frameworks – the one for Flanders and the one for Wallonia).

In Step 3 of the research, all QA frameworks were imported into NVivo: this computer-assisted qualitative data analysis software was used to organize and scrutinize the data. A specific case classification was created for each country and for each of the general standards and guidelines.

For Step 4, a word count was conducted to check how frequently words relating to sustainability or transformative learning were used. Stemmed variants (e.g. sustainable, sustainability,[. . .]) were included, but words with less than five letters were excluded to avoid counting meaningless prepositions, articles or pronouns (Feng and Behar-Horenstein, 2019). The results are presented in word clouds highlighting the most frequent words.

In Step 5, inductive and deductive coding techniques were combined. This blended approach allowed us to be open to surprises in the data, while at the same time stay attuned to the existing literature (Linneberg and Korsgaard, 2019). First, open coding, as described by Auerbach and Silverstein (2003), was carried out as a first-level categorization that expresses data and phenomena in the form of concepts (Williams and Moser, 2019). This implied reading through the selected guidelines and frameworks and grouping data in meaning units that were labeled with specific codes (Stuckey, 2015). Open coding resulted in 121 codes and was used to learn more about the content and structure of the different QA frameworks. Hereafter, a deductive approach was applied to search for elements that support transformative learning for SD based on our predefined coding scheme (see Table 1). Next, axial coding structured the data into subcategories.

In Step 6, the coding results of the different cases were compared to each other to investigate the differences between the national QA frameworks. Hierarchy charts were

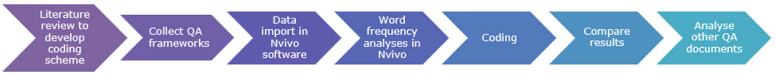

Figure 1.
Research process

Sensitizing concepts	Description/explanation	Reference(s)
Sustainability dimensions	Sustainability should be approached from an interdisciplinary perspective, i.e. from different dimensions as reflected by Elkington's "3 P" model, complemented by Agenda 2030's "5 P" model and the 17 SDGs	Brundtland (1987), Ukko *et al.* (2019), United Nations (2015)
Responsiveness regarding stakeholders	Attentiveness to the interests and needs of both primary and secondary stakeholders and the ability to negotiate trade-offs. Sustainable development meets the needs of the wider society	Holden *et al.* (2014)
Sustainability competences	Knowledge, skills, values and attitudes necessary to cover and cope with sustainability and sustainable development	Ploum *et al.* (2018), UNESCO (2021), Wiek *et al.* (2013)
Systems approach	Sustainability requires systems thinking and a holistic approach by linking interacting components such as economic development, social inclusion and environmental sustainability. Mutually supportive benefits should always be sought and trade-offs addressed	Sachs (2015), Waas *et al.* (2011), Independent Group of Scientists Appointed by the Secretary-General, G. S. D. R. (2019)
Dynamic process	No end phase is defined and further development is always possible	Waas *et al.* (2011)
Orientation regarding action	Sustainability change agents stimulate action regarding sustainability by initiating, managing or implementing the change	Wakkee *et al.* (2019)
Long-term and multiple perspective	Sustainable development requires a long-term and broad vision integrating intergenerational and intragenerational equity	Holden *et al.* (2014), Sneddon *et al.* (2006)
Normativity	The concept of sustainable development is socially constructed. Every person has their own view, values and norms from which he or she acts	Block *et al.* (2019), Sneddon *et al.* (2006)
Student-centered learning	The student is placed at the center of the learning process. Students influence the content, place and activities of learning. The teacher functions as a coach	Froyd and Simpson (2008), Kasworm and Bowles (2012)
Active learning	Actively engaging students with course material by using teaching methods that stimulate activity, for example role play, case studies, discussions, etc.	Kasworm and Bowles (2012)
Experiential learning	Learning by experience. Experience creates opportunities for learning; analysis and reflection on the experience develops the learning. This can include educational experiences beyond the formal setting, such as study-abroad programmes, activities in nature, hands-on experiences, etc.	Hoover (1974), Illeris (2007), Passarelli and Kolb (2012)
Disorienting experience	Experience that does not fit with pre-existing meaning structure, causing a disorienting dilemma or a dislocatory moment. This brings students in a "liminal state" where their "old" meaning perspective and way of being is no longer valid but the "new" is not yet clear	Rodriguez Aboytes and Barth (2020), Andersson (2016), Förster *et al.* (2019)
Critical (self-) reflection	Reflection and reconstruction of values, norms and perspectives	Rodriguez Aboytes and Barth (2020), Taylor (2000), Romano (2018)

(*continued*)

Table 1.
Coding scheme with sensitizing concepts describing the understanding of sustainability and transformative learning used in the study

Sensitizing concepts	Description/explanation	Reference(s)
Open to alternative perspectives	The learner should be open-minded and have the capacity to evaluate arguments in an objective way, using accurate information and evaluating presuppositions critically	Rodriguez Aboytes and Barth (2020)
Discourse	A special kind of dialogue in which the focus on content and attempt to justify beliefs by giving and defending reason and by examining the evidence for and against competing viewpoints	Rodriguez Aboytes and Barth (2020), Grabove (1997)
Behavioral change	Adopting or implementing new behavior consistent with new insights resulting from transformative experiences	Rodriguez Aboytes and Barth (2020)

Table 1.

created to visualize patterns. This helped us to identify the prominent themes in each QA framework.

In a final step, other QA documents retrieved during the literature review and through personal contacts were analyzed to check on potential additional relevant information.

3. Results

3.1 Word frequency analysis

Word frequency in the collected QA frameworks provided initial insights. Figure 2 presents the word cloud for the ESG, and Figure 3, for the national QA frameworks.

Figure 2 shows that the ESG guidelines do not include the terms "sustainable development" or "sustainability"; but other words frequently linked to them such as "stakeholders," "environment" and "responsible" appear in the cloud. However, without context, these words risk being misinterpreted. A link between the most frequently used words and transformative learning is harder to find.

Figure 2.
Word cloud of ESG guidelines

Figure 3.
Word cloud of frequently used words in the national QA frameworks

Figure 3 shows that no link to sustainability, SD or transformative learning exists in the word cloud of any of the scrutinized national QA frameworks, as none of the words in larger font can be linked directly or indirectly to one of these concepts.

Word frequency was also used to analyze each national QA framework individually. In the word clouds of Austria, Bulgaria, Czech Republic, Cyprus and The Netherlands, no word was found with a specific link to sustainability or transformative learning. In the other countries' word clouds, we found at least one word with a possible link to sustainability. In these QA frameworks, "stakeholder(s)" is one of the most frequently used words. Later analysis showed that the use of the word "stakeholders" was mostly limited to the context of including primary stakeholders such as employers in the QA process.

"SD" was mentioned literally once or more often in the frameworks of Estonia, Romania, Sweden, Ukraine, Switzerland and the United Kingdom, with the highest frequency in the latter two. The words "sustainable" and/or "sustainability" are mentioned literally in the frameworks of Armenia, Bosnia and Herzegovina, Croatia, GA, Germany, Holy See, Malta and Spain, but only within the context of "the sustainability of the curriculum," "the sustainable use of (financial) resources," "sustainability of the academic staff," etc.

Words linking to transformative learning were very difficult to find. Only in the framework of the United Kingdom was the string "transformative learning" mentioned literally. In the frameworks of the Holy See, Slovenia and Sweden, the word "transformation" appears; in the latter two, it refers to the changing curricula and/or the institution.

3.2 Coding results

The ESG guidelines pay attention to "responsiveness regarding stakeholders" by stating, for example, that "Quality assurance takes into account the needs and expectations of students, all other stakeholders and society" (ESG, 2015, p. 8). The link to sustainability or SD is in this sense somehow implicit, although sustainability as an orientation for stakeholder processes is not explicitly addressed.

Elements of transformative learning are partially present in the ESG guidelines, which support "student-centered learning," "experiential learning" and "active learning" in

standard 1.3 of the guidelines (ESG, 2015, p. 12). Other elements related to transformative learning are not addressed.

The same analysis was done for each of the national QA frameworks (see Annex 1 for the overview by country). The results show that only in the United Kingdom is transformative learning for SD prominently and explicitly supported in the QA framework. In this country, separate guidance for education for SD is available for higher education providers. This additional document aims to assist educational staff with incorporating sustainability in the curriculum and providing students of every discipline with the knowledge, understanding and skills relevant to SD. Transformative learning is mentioned literally as one of the approaches to support education for SD, and concrete pedagogical tools are recommended.

The Holy See's QA framework also supports transformative learning for SD, although the concept is less highlighted in the documents, compared with the United Kingdom. There is explicit support for social transformation as stated in their rationale: "A set of four major criteria help Ecclesiastical Academic Institutions cultivate knowledge that can genuinely contribute to real social transformation [. . .]" (The Ecclesiastical higher education system in the global world – the rationale of AVEPRO's evaluation system, 2019, p. 4). Furthermore, different elements of sustainability are described in the QA framework. For example, sustainability dimensions are stated in the formulation "[. . .] marked by a general social and environmental and human crisis, in which each day we can see more signs that things are now reaching a breaking point, due to the rapid pace of change and degradation [. . .]" (Guidelines for external evaluation, 2019, p. 19). Attention is also given to responsiveness to stakeholders, as illustrated in the quote: "Quality Assurance takes into account the needs and expectations of students, all other stakeholders and society in general" (Guidelines: nature, context, purpose, standards and procedures of quality evaluation and promotion, 2019, p. 6).

The frameworks of Estonia, Romania, Sweden, Switzerland and Ukraine contain explicit elements of sustainability, but there is only low and implicit support for transformative learning for SD. In Estonia, SD is literally mentioned as one of the evaluation criteria. The criterion reads as follows: "How are the principles of environmental protection and sustainable development observed in implementing the study programme?" (Self-evaluation report for institutional accreditation guide, 2020, p. 17). Transformative learning is, however, not mentioned explicitly. Only elements of "student-centered learning" are described. Moreover, no clear or explicit connection between both topics exists in Estonia's QA frameworks. The same applies to the QA framework of Romania. For example, on page 24, one can read: "The study programs include, [. . .], themes that help acquire transversal skills, such as the expression of student personality as part of the society, [. . .], European values, issues pertaining to sustainable society development, promotion of democracy, intercultural dialogue, [. . .], which may influence their further development and can be applied in their future careers." Although not mentioned literally, the promotion of democracy and intercultural dialogue provide opportunities to include transformative learning, as they can be linked to the elements of multiperspectivism and discourse (Rodriguez Aboytes and Barth, 2020).

More explicit support can be found for student-centered, active and experiential learning. In Sweden's national system for QA of higher education, SD is mentioned literally on page 13, stating that the government instructed the QA agency to evaluate HEIs performance in promoting SD. However, no approach for education for SD is expressed. A link to transformative learning exists in the referral to student-centered and active learning. In the Swiss QA framework, "sustainable development" is mentioned explicitly in standard 2.4 of the framework (AAQ – Institutional accreditation, 2018, p. 37). Below the standard, a

separate paragraph is devoted to explaining how social, environmental and economic sustainability are defined and could be implemented in HEIs and how this standard could be assessed. Although this standard does not refer to transformative learning explicitly, it includes a description of student-centered and active learning. Also, the Ukraine's QA framework indicates explicitly that higher education needs to contribute to innovative SD of society, as stated in the "Quality assurance policy" document: "[. . .]the National Agency prepares and publishes a report on the quality of higher education in Ukraine, its compliance with the tasks of innovative sustainable development of society,[. . .]" (The National Agency for Higher Education Quality Assurance protocol, 2020, p. 3). The link to transformative learning is, however, only implicitly present in the mentioning of the student-centered learning approach (Self-assessment report of the educational program, 2019, p. 5).

In the remaining frameworks, we found no direct explicit support of transformative learning for SD. Although the majority of the frameworks support some responsiveness regarding stakeholders, they do not explicitly cover the concept of SD. However, from the context in the quotes, one can easily deduce that very often only stakeholders who directly benefit from education, such as employers and the labor market, are referred to. There is a source of hope, however, in the fact that some QA frameworks refer to societal needs as well. Neither is transformative learning fully supported in the remaining frameworks, though the majority mention elements such as student-centered and active learning. This is not surprising, as the ESG guidelines support these concepts and the majority of the national QA frameworks are based on them.

Additionally, some good practices were found in Andorra, Austria, France and The Netherlands when analyzing other QA documents retrieved during the literature review. In Andorra, the Andorran Quality Assurance Agency for Higher Education (AQUA) and the Complex Research Group (GRC) together with an international team of experts developed a proposal to introduce the SDGs into the HEIs of Andorra through quality assessment (Junyent and Mulà, 2018). In Austria, the UniNEtZ network gathers universities to play an important role in the implementation of the UN SDGs by so-called "(co-)sponsorships," which means that a university coordinates and collects all Austrian knowledge and activities on a specific SDG (UniNetZ, 2021). In France, the DD&RS label helps ensure that higher education and research institutions' approaches to SD, and social responsibility can be valued and recognized nationally and internationally (DD&RS, 2021). In The Netherlands, the assessment of special sustainable higher education attributes gives study programmes the opportunity to profile themselves in the area of sustainability (NVAO, 2021).

4. Discussion

Transformative learning is key to realizing the paradigm shift proposed by Sterling (2021) for achieving the Agenda 2030. Indeed, nothing short of a paradigm change with regard to our understanding of the economy and society will lead to the transformation needed for SD. For both the systemic and individual behavioral change, UNESCO (2021) has now very explicitly called for transformative learning as the way forward. Transforming education contributes to the goals of SDG 4, which in turn has an impact on reaching all other SDGs (Sachs *et al.*, 2021). But transformative learning has been on the global agenda for quite some time (UNESCO, 2014). One would expect that transformative learning and SD should start appearing in QA frameworks, as taking into account the needs and expectations of society is one of the four principles of QA in the EHEA according to the ESG (2015). However, the results of our study show that this is only done explicitly in the QA frameworks of the United Kingdom, to a lower extent in the QA frameworks of the Holy See

and more implicitly in the QA frameworks of Estonia, Romania, Sweden, Switzerland and Ukraine.

Although the majority of QA frameworks do not explicitly support transformative learning for SD, we did discover other windows of opportunity to promote integration of SD and transformative learning in HEIs on a national scale. First, some QA frameworks emphasize the need to redefine higher education so that it can better contribute to the needs of society. Thus, it makes sense to argue for supporting sustainability in higher education, which implies dealing with issues related to quality of life, participatory engagement, employment and environmental protection (Tilbury *et al.*, 2019), all of which are vital for the future of our communities. Especially if EHEA wants to live up to its leadership role in pursuing the UN SDGs (European Commision, 2021), the ESG should explicitly include transformative learning for SD. Additionally, the results show how national QA frameworks take over elements that are deemed important in the ESG guidelines. This illustrates the influence of the latter on the content of their national counterparts. Subsequently, those elements are only mainstreamed structurally within HEIs' institutional QA policies if they are included in the national QA frameworks they adhere to. Therefore, there is an urgent need to engage with QA agencies and professionals if we seek to influence quality systems, and to discuss with them the importance and relevance of transformative learning for SD. After all, quality stakeholders have been forgotten in (E)SD dialogues and decision-making processes at international, national and institutional levels (Tilbury *et al.*, 2019).

While many of the QA frameworks insist on student competences, few describe them in detail. In the past decade, many sustainability scholars such as Ploum *et al.* (2018) and Wiek *et al.* (2013) have proposed sustainability competence frameworks for students and graduates that aim to foster positive contributions to our societies. These generic competences are relevant to all types of universities, degrees or disciplines, adding value to what any HEI does. Additionally, even when transformative learning is mentioned in QA frameworks (e.g. United Kingdom), an explanation or proper definition is lacking. This might be problematic, as transformative learning is increasingly being used to refer to almost any instance of learning outcomes (Hoggan, 2015). So there is a risk of greenwashing in education as well. Hence, we suggest that whenever transformative learning for SD is included in QA frameworks, a clear description and framework is offered, just like for sustainability competences. This will enable stakeholders within HEIs to interpret transformative learning correctly as the deep structural shift meant by Morrell and O'Connor (2002) without being manipulative or instrumental. However, at the same time, further research on the outcomes of transformative learning is urgently needed and HEI educators need to address the question how these outcomes can be assessed, as conventional summative assessment formats are not adequate.

Finally, the results show that some initiatives can help to include transformative learning for SD within HEIs even when the QA framework is not adapted to integrating the topic. The separate guide in the United Kingdom and the practices in Andorra, Austria, France and The Netherlands show that guidelines, networks, labels, etc. can be important intermediate enablers of transformative learning if the topic has not yet been included in official QA frameworks.

Opportunities also exist to highlight the approach of transformative learning. Elements that contribute to the approach of transformative learning such as student-centered learning and active learning are mentioned in almost all of the QA frameworks. This section could be expanded by adding explicit mention of the approach of transformative learning such as in the case of the UK, or by adding elements of democracy and intercultural dialogue such as in the case of Romania. Additional research could focus on the impact of using such tools as

the very detailed Sustainability Tracking, Assessment and Rating System (STARS), a self-reporting framework for measuring sustainability performance offered worldwide by the Association for the Advancement of Sustainability in Higher Education (AASHE). In all cases, we suggest that "student-centered learning" and "active learning" should not be linked to an instrumentalized understanding of HEIs (Sterling, 2021); in other words, we argue that it is necessary to follow the call for a change of paradigm in our understanding of how SD can be achieved, as expressed in the Berlin Declaration on Education for Sustainable Development (UNESCO, 2021).

5. Conclusion

To the best of the authors' knowledge, this study is the first attempt to explore to what extent QA frameworks for HEIs support transformative learning for SD. This is an underexplored area that requires further attention if we want to achieve the ambitious goals of Agenda 2030 and of the ESD for 2030 programme, which include a call for transformational learning and quality. Three key messages can be distilled from our qualitative research and literature review. First, there is an urgent need to engage more meaningfully with QA agencies and professionals if we seek to influence quality systems, as they have been forgotten in (E)SD dialogues and decision-making processes. Secondly, we recognize the critical role that ESD and higher education networks and groups, such as the COPERNICUS Alliance (CA) and the UNECE, play in strengthening the links between quality and higher education, connecting professionals who have never talked together before. An example is the latest CA annual conferences, which have included QA as a key topic and have invited QA stakeholders to participate and share their experiences in this area. Moreover, these groups can help share good practices and lessons learned internationally from leading countries, such as Andorra and the UK. Thirdly, through our research, it has become clear that embedding transformative learning for SD principles in the ESG guidelines could cause a positive ripple effect and accelerate the process of linking sustainability with quality concerns. The ESG is the common quality framework of countries within the EHEA and the different national quality standards and indicators are defined based on these. In 2018, Junyent and Mulà proposed a series of standards that could be included in these European guidelines so that they could contribute to addressing the SDGs. But additional research and debate on the outcomes of transformative learning is urgently needed to ensure that assessment forms are aligned with the aim of fostering SD and not instrumentalized for "business as usual."

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Appendix

Country	Elements of sustainability	Elements of transformative learning	Level of support
Armenia	• Responsiveness regarding stakeholders "The TLI's mission, goals and objectives reflects the needs of the internal and external stakeholders" (Institutional accreditation self-assessment form, p. 5)	• Student-centered learning ". . . approaches and the intended learning outcomes of academic programs promoting student-centered learning" (Institutional accreditation self-assessment form, p. 11)	None
Austria	• Responsiveness regarding stakeholders "The degree programme was developed using a predefined procedure for the development and establishment of degree programmes which involves relevant stakeholder groups" (Decree on the Accreditation of Universities of AppliedSciences 2019, p. 16)	• Active learning: "The didactic conception of the degree programme's modules . . . promotes the students' active contribution in the learning process" (Decree on the Accreditation of Universities of Applied Sciences 2019, p. 9)	None
Belarus	• Sustainability competences ". . .systemic knowledge of concepts, theories and research methods in an area or a field of the acquired education . . ." (The national qualifications framework of higher education of the republic of Belarus 2019, p. 13)	• None	None
Belgium Flanders and Wallonia	• Responsiveness regarding stakeholders ". . . the study programme . . . takes stakeholders' needs and expectations into account" (AEQES 2012, p. 12) "The training involves internal and external stakeholders on the one hand and external and independent peers and experts on the other" (NVAO Belgium 2018, p. 11)	• Active learning ". . . encourages students to take an active role . . ." (NVAO Belgium 2018, p. 11) • Transformation "Quality as transformation is . . . change from one state to another. . . . transformation refers to the enhancement and empowerment of students or the development of new knowledge" (AEQES 2012, p. 5)	None
Bosnia and Herzegovenia	• Responsiveness regarding stakeholders "Learning outcomes are based on academic and professional needs, as	• Student-centered learning • Active learning	None

(*continued*)

Table A1. Summary of the results

Country	Elements of sustainability	Elements of transformative learning	Level of support
	well as the needs of society . . .” (Guide to assessing the quality of internationalization 2018, p. 12)	“Student-centered learning, teaching and evaluating . . . motivate and involve students in taking an active role in the research, science and teaching process . . .” (Guide to assessing the quality of internationalization 2018, p. 14)	
Bulgaria	• None	• None	None
Czech Republic	• Responsiveness regarding stakeholders “Higher education institutions play a key role in . . . playing an active role in the public discussion of social and ethical issues, cultivating cultural diversity and mutual understanding, shaping civil society and preparing the younger generation for life in such a society . . .” (The Higher Education Act 2017, p. 3)	• None	None
Croatia	• Responsiveness regarding stakeholders “The higher education institution understands and encourages the development of its social role” (standards for the evaluation of quality of universities and university constituents in the procedure of re-accreditation of higher education institutions, p. 7) • Sustainability competences “Various teaching methods are used that encourage interactive and research-based learning, problem solving and creative and critical thinking. . .” (standards for the evaluation of quality of universities and university constituents in the procedure of re-accreditation of higher education institutions, p. 17)	• Student-centered learning “The higher education institution ensures student-centred learning” (standards for the evaluation of quality of universities and university constituents in the procedure of re-accreditation of higher education institutions, p. 17)	None
Cyprus	• Responsiveness regarding stakeholders The purposes of every university shall be . . . the advancement of science, knowledge, learning and education, through teaching and research for the benefit of the	• None	None

(*continued*)

Table A1.

Country	Elements of sustainability	Elements of transformative learning	Level of support
	society as a whole . . .” (Private Universities Law 2005, p. 6)		
Denmark	• Responsiveness regarding stakeholders “The Danish Accreditation Institution . . . appropriate academic content and level, the right educational quality and are relevant in relation to the labour market and society” (Guide to institutional accreditation 2013, p. 9)	• None	None
Estonia	• Responsiveness regarding stakeholders “A higher education institution . . . takes into account the . . . expectations of the society” (Conditions and procedure for institutional accreditation 2016, p. 3)	• Student-centered learning “The purpose of institutional accreditation is to support the development of strategic management and quality culture that values learning-centeredness, creativity and innovation in the HEIs, as well as to increase the societal impact of education, research and development delivered by the HEIs” (Guidelines for Institutional Accreditation, 2018, p. 1)	Some support SD is explicit
	• Sustainability dimensions “How are the principles of environmental protection and sustainable development observed in implementing the study programme?” (Self-evaluation Report for Institutional Accreditation Guide, p. 17)		TL is implicit
Finland	• Responsiveness regarding stakeholders “The HEI monitors and evaluates the degree programmes . . . to ensure that they are up to date with regard to . . . the changing needs of the society . . .” (Audit Manual for Higher Education Institutions 2019–2024, p. 12)	• Student-centered learning • Active learning • Experiential learnin “In the student-centred approach, students are encouraged to take an active role in the learning process. This can be done, for example, by supporting students’ motivation, self assessment abilities and well-being, as well as enabling flexible	None

(*continued*)

Table A1.

Country	Elements of sustainability	Elements of transformative learning	Level of support
		study paths. Other important aspects in the development of teaching include learning environments and the connection between teaching and research, artistic activities and innovation activities" (Audit Manual for Higher Education Institutions, 2019–2024, p. 6)	
Georgia	• Responsiveness regarding stakeholders "In order to reflect the learning outcomes, to the specifics of the field and the requirements of the labor market, the process of compiling the learning outcomes should involve academic and visiting staff, students and alumni, employers in the relevant field, etc" (Higher Education Program Accreditation Standards Guide, p. 3) • Sustainability competences ". . .during the seminars, creative, critical thinking, and reasoning skills, will be assessed" (Higher Education Program Accreditation Standards Guide, p. 11)	• Student-centered learning ". . . a student-centered teaching-learning method should be selected." (Higher Education Program Accreditation Standards Guide, p. 18)	None
Germany	• Responsiveness regarding stakeholders ". . . personality development also covers the future political and cultural role of the graduates in a civil society. Following their qualification, the students should be able to help decisively shape social processes in a critical, well thought-out manner as well as responsibly and in a democratic public spirit" (Specimen Decree Pursuant to Article 4, 2017, p. 8)	• Student-centered learning • Active learning • Critical (self)reflection ". . . actively involves students in organising teaching and learning processes (student-based teaching and learning) and creates freedom for a self-organised study programme" (Specimen Decree Pursuant to Article 4, 2017, p. 9)	None
Greece		• Student-centered learning	None

Table A1. (*continued*)

Country	Elements of sustainability	Elements of transformative learning	Level of support
	• Responsiveness regarding stakeholders "The goals are accompanied by a specific action plan for their achievement, and entail the participation of all stakeholders" (Standards for Quality Accreditation of the Internal Quality Assurance System, p. 5)	• Active learning "Student-centered learning, teaching and assessment. Institutions should ensure that the undergraduate programmes are delivered in a way that encourages students to take an active role in the learning process." (Standards for Quality Accreditation of Undergraduate Programmes, 2016, p. 4)	
Holy See	• Sustainability dimensions "... marked by a general social and environmental and human crisis, in which each day we can see more signs that things are now reaching a breaking point, due to the rapid pace of change and degradation ..." (Guidelines for External Evaluation, 2019, p. 19)	• Social transformation "A set of four major criteria help Ecclesiastical" Academic institutions cultivate knowledge that can genuinely contribute to real social transformation (contemplative contact with the heart of the Gospel; limitless dialogue; inter- and trans-disciplinarity; and networking with other academic centres to find appropriate solutions or paradigms of transformation) (The Ecclesiastical higher education system in the global world – the rationale of AVEPRO's evaluation system, p. 4)	Some support Implicit SD Explicit TL
	• Responsiveness regarding stakeholders "Quality Assurance takes into account the needs and expectations of students, all other stakeholders and society in general" (Guidelines: nature, context, purpose, standards and procedures of quality evaluation and promotion, 2019, p. 6)	• Student-centered learning "...learning, meaning the integral development of a person, focused on "student-centred learning ..." (Guidelines for external evaluation, 2019, p. 16)	
Iceland	• Sustainability competences "... can apply critical analysis, evaluation and integration to new and complex projects"	• None	None

(*continued*)

Table A1.

Country	Elements of sustainability	Elements of transformative learning	Level of support
Latvia	• Responsiveness regarding stakeholders "Higher education institutions shall organise their activities in the interests of society . . ." (Law on Higher Education Institutions, 1995, p. 5)	• Student-centered learning "The study process at the higher education institution/ college has been developed and is organised by applying the principles of student-centered learning." (The Guidelines for the Preparation of the Joint Opinion by the Experts Group on the Assessment of the Higher Education, 2019, p. 6)	None
Lithuania	• Responsiveness regarding stakeholders "The higher education institution carries out an analysis of national and (or) regional demands, . . . and foresees the potential impact on national and (or) regional development." (Order of the director of the centre for quality assessment in higher education on the approval of the methodology for conducting institutional review of a higher education institution 2020, Annex 1)	• None	None
Malta	•Responsiveness regarding stakeholders ". . .cover the involvement of external stakeholders in quality assurance" (External Quality Audit Manual of Procedures 2015, p. 31)	• Student-centered learning • Active learning "Student-centred learning, teaching and assessment: entities shall ensure that programmes are delivered in a way that encourages students to take an active role in the learning process" (External Quality Audit Manual of Procedures, 2015, p. 7)	None
Norway	• Responsiveness regarding stakeholders "The requirement that the programme must be academically up to date means that it must be up to date in relation to knowledge development in both academic and professional arenas, society and the labour market" (NOKUT's Academic Supervisions Regulations – Regulations Concerning Supervision of the Educational Quality in Higher Education, 2017, p. 8)	• Student-centered learning • Active learning	None

Table A1. (*continued*)

Country	Elements of sustainability	Elements of transformative learning	Level of support
		"The requirement for students' active role in the learning process is in accordance with ESG, 2015 standard 1.3 on student-centered learning" (NOKUT's Academic Supervisions Regulations – Regulations concerning Supervision of the Educational Quality in Higher Education 2017, p. 9)	
Portugal	• Responsiveness regarding stakeholders "Indication of institutional policies for the provision of services to the community (including cultural, artistic and sports promotion activities) and their contribution to regional and national development" (Guidelines for Institutional Self-Assessment, 2017, p. 15)	• None	None
Romania	• Sustainable development "The study programs include, . . ., themes that help acquire transversal skills, such as the expression of student personality as part of the society, . . ., European values, issues pertaining to sustainable society development, promotion of democracy, intercultural dialogue, . . ., which may influence their further development and can be applied in their future careers" (Methodology for external evaluation, standards, standards of reference and the list of performance indicators of the Romanian Agency for Quality Assurance in Higher Education 2018, p. 24)	• Student-centered learning • Active learning	Some support SD is explicit
		• Experiential learning • Open to alternative perspectives • Discourse ". . .the institution creates learning environments and experiences which lead students to discover and create knowledge themselves" (Methodology for external evaluation, standards, standards of reference and the list of performance indicators of the	TL is implicit

(*continued*)

Table A1.

Country	Elements of sustainability	Elements of transformative learning	Level of support
		Romanian Agency for Quality Assurance in Higher Education 2018, p. 27)	
Scotland	A separate guide on education for sustainable development wherein the approach of transformative learning is promoted	A separate guide on education for sustainable development wherein the approach of transformative learning is promoted	High support SD explicit TL explicit
Serbia	• Sustainability competences "... who have demonstrated knowledge and understanding in the field of study, complementing the knowledge gained in basic vocational studies and representing the basis for developing critical thinking and applying knowledge in practice"	• None	None
Slovenia	• Responsiveness regarding stakeholder "The higher education institution shall monitor the implementation of the study programme, it shall review and improve it ... by evaluating the achievement of ... the needs for knowledge and the objectives of the society ..." (CRITERIA for the accreditation and external evaluation of higher education institutions and study programmes, 2017, p. 13)	• None	None
Spain	• Responsiveness regarding stakeholders "...the committees responsible for designing the Degree should systematically consult the non-university groups or entities associated with the Degree (professional colleges or associations, benchmark companies in the sector, etc.), so that the graduate's profile meets the social and labour demands" (Guide to drawing up the degree proposal for the ex ante accreditation of recognized university degrees, 2015, p. 23)	• None	None
Sweden	• HEIs have to promote sustainable development "Government instructed UKÄ to evaluate the work of the HEIs in	• Student-centered learning • Active learning	Some support SD is explicit

Table A1.

(*continued*)

Country	Elements of sustainability	Elements of transformative learning	Level of support
	promoting sustainable development" (National System for Quality Assurance of Higher Education, 2016, p. 13)		
		"Students have the right to exercise influence over the courses . . ." (National system for quality assurance of higher education 2016, p. 18) ". . . encourages students to take an active role in the learning processes . . ." (Guidelines for reviewing the HEIs' quality assurance processes, 2020, p. 14)	TL is implicit
Switzerland	• HEIs have to promote sustainable development "The higher education institution . . . shall give consideration to an economically, socially and environmentally sustainable development in the completion of its tasks" (AAQ – Institutional Accreditation, 2018, p. 37)	• Student-centered learning • Active learning	Some support SD is explicit
		". . . the active participation of students in the creation of learning processes ("student-centred learning, teaching and assessment") . . ." (AAQ – Institutional Accreditation, 2018, p. 40)	TL is implicit
The Netherlands	• Responsiveness regarding stakeholders "The institution . . . develops its own vision of good education that must be well aligned with expectations and demands of . . . society" (NVAO The Netherlands, 2018, p. 7)	• Student-centered learning • Active learning	None
		"The educational learning environment promotes students' active participation in shaping their own learning (student-centered)" (NVAO The Netherlands, 2018, p. 20)	
The United Kingdom	A separate guide on education for sustainable development wherein the approach of transformative learning is promoted	A separate guide on education for sustainable development wherein the approach of transformative learning is promoted	High support SD is explicit TL is explicit

(*continued*)

Table A1.

Country	Elements of sustainability	Elements of transformative learning	Level of support
Ukraine	• HEIs have to contribute to sustainable development "... the National Agency prepares and publishes a report on the quality of higher education in Ukraine, its compliance with the tasks of innovative sustainable development of society, ..." (National Agency for Higher Education Quality Assurance Quality Assurance Policy, 2020, p. 3)	• Student-centered learning "Demonstrate how the forms and methods of learning and teaching comply with the requirements of a student-centered approach" (Self-assessment Report of the Educational Programme, 2019, p. 5)	Some support SD is explicit TL is implicit

Table A1.

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