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The Complexity of Education for Sustainable Development: Insights from South African Higher Education

Abstract: The complex 21st-century world calls for greater knowledge about sustainable practices and policies to foster sustainable development. As evident in the international scholarly literature, there is an urgent need to reflect on education's role in creating sustainable societies and transforming learning systems and knowledge generation to support a sustainable future. Higher education institutions (HEIs) are in a unique position to nurture teachers, researchers, leaders, and citizens able to address global sustainability challenges and pursue sustainable decisions and actions. This qualitative research study, grounded in a global context, employed document analysis related to publicly funded universities in South Africa, including the universities' mission and vision statements, annual reports, strategic plans, and other relevant reports spanning the past 5 years. The study sought to answer the following two main questions: To what extent is sustainable development (SD) on the agendas of HEIs under investigation? What are the main complexities of implementing Education for Sustainable Development (ESD) in HEIs under investigation? Findings derived from systematic content analyses indicate that the investigated South African HEIs are committed to ESD; however, effective implementation of all dimensions of sustainable development is complex and problematic. It is evident that universities focus on three main aspects of sustainable development: sustainable education, sustainable initiatives, and financial sustainability. Although the results of this study cannot be generalised due to a small sample, they can inform other universities and contribute to the body of knowledge about ESD in higher education. As argued in the UN's *2030 Agenda for Sustainable Development*, societal problems are territorially blind, meaning that no country has sufficient knowledge or research capacity to solve all challenges. Thus, sharing insights from different contexts is essential.

Keywords: Education for Sustainable Development, sustainability, higher education, implementation of sustainable development

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Introduction: A global grounding

An increasingly complex and uncertain world calls for expanded knowledge about sustainable practices and policies that foster sustainable development (SD). The United Nations (UN) is a key international organisation that promotes human well-being and that of our planet. As Kumar et al. (2016) report, although the UN's international development agenda was first tabled in the 1940s, the UN did not strengthen and unify across its various agencies an agenda addressing social, economic, and environmental dimensions of development until the 1990s. Recognising the importance of SD and its implementation in education and other social sectors, in 2002, the UN declared 2005–2014 as the Decade of Education for Sustainable Development. Through its eight international Millennium Development Goals (MDGs), the UN prompted governments to include the principles of sustainability in their strategic plans and practical activities (UNESCO 2020, p. 55). Still, although the MDGs reshaped decision-making within the international community, the goals were not fully met, and many pressing inequalities remained.

The unfinished agenda of the UN's MDGs carried on with the UN's design of the Sustainable Development Goals (SDGs). In 2015, the MDGs' eight goals were revised and expanded into 17 SDGs, also referred to as the Global Goals. It is worth mentioning that while the MDGs were drafted by UN officials, the SDGs emerged based on collaborations among various countries, social sectors, and the public. In addition, while the MDGs focused on the developing world (assisted by funds from developed countries), the SDGs encouraged all nations to join forces in achieving the goals. It is also important to note that, while higher education had been left out of the MDGs agenda, this absence was rectified in the SDGs framework (O'Malley 2019).

The UN's SDGs were designed to end poverty, protect the planet, and ensure that all people will have increased potential to enjoy peace and prosperity by 2030 (Ferguson and Roofe 2020; Zermeno and de la Garza 2020). Learning from the past decade, the SDGs have continued to address the intensifying global challenges while simultaneously focusing on human rights, health, and education.

Education here can be defined as an essential tool for achieving transformation within society. SDG 4 speaks specifically to education's role in the development of societies' collective ability to overcome urgent challenges (Brandt and Barth 2019; Brodowski 2017). Recognising the power of education, the UN member states have identified it as a fundamental instrument that nations can employ towards their social, economic, and environmental emancipation (Novo-Corti et al. 2018). O'Malley (2019, p. 16) shared a message conveyed by Dr. Joanna Newman, the secretary general of the Association of Commonwealth Universities, who in July 2019 noted that universities »play an incredibly important role in solving global problems anyway,' but using the SDGs as a framework 'encourages interdisciplinary research, encourages students to face challenges as individuals and encourages a world that has not recently seen universities as trusted beacons to see that they have a crucial role to play in development.«

Education for Sustainable Development (ESD) is a lifelong learning process and a crucial element of achieving quality, inclusive education, which is encapsulated in SDG 4 (United Nations Department of Economic and Social Affairs [UNDESA] 2015). ESD and its transformative goal to nurture sustainability-oriented individuals who become future teachers, researchers, leaders, and citizens is relevant to achieving all Global Goals. In fact, ESD can be viewed as a vehicle driving SD in several areas: at the core of SDG 4 Target 4.7, which aims to ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development. (UNESCO 2020, p. 57)

Nearly 20 years ago, Bonnett (2002, p. 19) suggested that education can serve as a vehicle to foster positive attitudes and patterns of behaviour that are necessary to engage in SD: »Finally, it hardly needs saying, in an educational context, aspirations to promote sustainability as a frame of mind which retrieves that receptive/responsive relationship with things which it has been held is constitutive of authentic human consciousness, must necessarily be located in a practical way of life that does not so insulate us from the power and gift of nature that we lose the sense of our intimate connection with it. This has clear implications for aspects of education which fall outside the formal taught curriculum, such as the attitudes and values expressed in the ethos and practices of the school and the status it accords to different activities and relationships and versions of success in life.«

As pointed out by several scholars, implementation of ESD is complex and thus at times problematic, because: (a) sustainability and SD are not synonymous yet are used as interchangeable terms (da Silva et al. 2018); (b) SD has different meanings according to the field—for instance, in sociology, ecology, and economics (Barbosa et al. 2014); and (c) opposing views exist about what development entails and what criteria should be met for development to be classified as sustainable (Solera and Laya 2017). As stated by Bennett (2002, p. 9) SD is a highly problematic term, open to a variety of interpretations and arguably also subject to internal contradictions. Bennett further argued that the complexity of social and natural systems along with imperfect human knowledge often impedes unified agreement on what constitutes and contributes to SD. Mula et al. (2017) further support the above-mentioned arguments, explaining that higher education institutions (HEIs) often do not understand the principles of sustainability, which results in poor implementation of ESD.

Sustainability-oriented universities

Although all levels of education have great potential to contribute towards SD, HEIs are in a unique position to nurture sustainable mindsets among researchers, teachers, and future leaders. As advocated by many scholars (e.g. Farinha et al. 2018; Ferguson and Roofe 2020; Novo-Corti et al. 2018), HEIs have a responsibility to nurture sustainability-literate graduates and serve as examples for citizens and other social institutions. Sharing effective practices with others is part of maximising universities' contribution to SD. Batson (2021, p. 18) adds that »universities must agree globally that their main mission—and state this in their mission statements—is to create a sustainable human civilisation.«

According to Avila et al. (2017), sustainability-related teaching, research, and other academic activities can contribute to a sustainable economy, environment, and society at large. To that end, scholarly work encourages implementation of initiatives that support transformation of universities' strategic plans, curriculum, and research enterprise (Mula et al. 2017, p. 799). International scholarly literature also supports the value of universities showing their responsibility for SD through engagement in international dialogue and pledging their commitment (Farinha et al. 2020; Mula et al. 2017). Although strategic planning and signing declarations serve as a good starting point, other scholars (e.g., Novo-Corti et al. 2018; Zermeno and de la Garza 2020) remind us that any long-term vision of SD practical education activities that foster shift in citizens' perspectives—a shift that calls for a critical read of the world and informed interpretation of sustainability principles. Such a shift also entails encouraging students to explore and engage in activities that enhance their awareness about SD and their critical ability to make sustainable decisions and take sustainable actions. Increasingly, scholarly literature validates ESD as the method with the most potential to change the mentality of citizens, nurture sustainability-related competencies, and achieve the long-term goal of sustainability (Novo-Corti et al. 2018, p. 818).

In his book *Certain to Win*, Richards (2004, p. 138) uses a garden metaphor to describe the responsibility of business leaders, which can be transferred to HEI managers, who are called upon »to design the garden, decide what they want to grow, and prepare the proper conditions […] The plants grow themselves—bottom up, […] the ‚system' implements itself […] And most important, weeds must be removed, no matter how tall they grow.« In other words, HEIs must set the conditions for effective implementation of ESD in all academic activities through which students can become sustainability-literate. Richards's referral to weeds can be interpreted as removal of unsustainable practices that are present and limit or impede (if not eradicate) conditions that are conducive to SD.

As O'Malley (2019) reminds us, none of the SDGs can be realised without the input of the higher education sector through teaching, research, and community engagement. Reporting on the global political forum organised in 2018 by the Higher Education Sustainability Initiative representing over 2,000 universities around the world, O'Malley (ibid., pp. 4–7) shared their released statements:

- None of the 17 Sustainable Development Goals can be achieved without the contribution of higher education and research.
- Through research, universities play a unique role in producing new knowledge and innovation to address global challenges and providing evidence for informed public policy.
- Through teaching, universities develop generations of new leaders and skilled professionals who will drive social and economic development.
- Through community engagement, universities work with a rich variety of stakeholders, including governments, the private sector, and civil society, to contribute towards local, national, and global impact.

Status of higher education for SD in South Africa

In a South African context, it is essential to recognise that the country has one of the most unequal education systems in the world, as a direct result of the apartheid system. However, efforts are continually made to foster accessible and inclusive educational opportunities. As indicated by the Department of Environmental Affairs (DEA 2016), from 1994, in transitioning to democracy, South Africa has put extra effort into creating an inclusive society, providing previously disadvantaged people with access to quality education, health services, and fulfilment of other basic needs. In 2008, the country adopted its vision for a sustainable society which emphasised the interconnectivity of all systems (economic, socio-political, and ecological): »South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration.« (DEA 2008, p. 19)

Padayachee et al. (2018) report that the post-apartheid South African government has acknowledged the importance of reshaping higher education to prepare graduates for an uncertain and complex future. As evident in the following quote, the proposed reshaping calls for attention to SD: a »need for university curricula to be adapted to better prepare graduates for current and future uncertainties also echoes the calls for universities to include more explicitly, the critical issue of sustainable development in all university curricula« (ibid., p. 290). Although the commitment to including SD within the curricula is evident, scholars report that there is very limited research about actual implementation of SD in South African HEIs. Awuzie and Emuze (2017, p. 1176) indicate that the implementation of the SD agenda in South African HEIs is gradually gaining attention, driven by universities' »desire to support the national government's sustainable development (SD) aspirations through their core activities of teaching and learning, research and operations.« Yet, most studies look at factors driving the adoption of sustainable practices and not the actual implementation of SD or the outcomes of ESD.

It is essential to add that as a developing nation, South Africa is vulnerable to many social issues, such as poverty, high crime rates, unemployment, and social inequality, all of which impact the implementation of ESD. As Feinstein et al. (2013) report, the effective implementation of ESD is limited due to weak tertiary institutions, inadequate financial and human capital, lack of proper infrastructure, and a lack of prioritisation for ESD in the curriculum and teacher training programmes. Much like with the global situation, the role of ESD within the South African curriculum and teacher training is not clearly articulated, leading to its poor integration within HEIs. This in turn may limit the role of HEIs to equip students with the knowledge, skills, and attitudes necessary to contribute towards SD.

Research approach

This qualitative research study is based on a larger international research project, which has received ethics clearance. Following the requirements of the ethical approval, the anonymity of the higher education institutions under investigation was ensured through data analysis and interpretation of the results. The study employed document analysis of three large publicly funded universities in one province of South Africa. Each of the selected universities has several campuses and is in a position to implement ESD as part of their academic endeavours. Although the study focused on universities in South Africa, the research is grounded in a global context. Therefore, the findings are connected to and complemented by international scholarly literature.

As Yavuz (2016) explains, relevant data must be accessible to successfully undertake document analysis. In this research study, 18 publicly available institutional documents from 2015 to 2020 were purposively selected to address the following research questions:

1. To what extent is SD on the agenda of HEIs' under investigation?
2. What are the main complexities of implementing ESD in HEIs under investigation?

The documents included universities' mission and vision statements, annual reports, strategic plans, and other relevant reports varying in length from 5 to 200 pages, which can be classified as public records and physical evidence (Triad 3 2016). In terms of data analysis, an informed decision was made to employ content analysis as a qualitative document analysis research tool. Qualitative content analysis process involved three main phases: preparation (collecting data), organisation (coding and categorising), and reporting of results (describing results based on the content of categories). As indicated by Busetto et al. (2020), the coding process makes raw data more manageable and sortable. This process involved allocating codes to collected documents then merging codes to categories, and categories to core categories pertaining to the main phenomenon of the enquiry (Saldaña 2016). More specifically, 42 open codes were identified, which were then grouped into a more manageable number of 11 categories. In the next step, the categories were collated into 5 core categories relevant to the research questions addressed in this study, namely sustainable education, sustainable initiatives, financial sustainability, implementation of ESD, impediments to ESD implementation.

The following section provides results of document analysis. It is important to note that the sample size of the investigated institutions is small and context-specific; therefore, interpreted data are not meant to be generalised but rather informative, as is customary with qualitative research designs. The results have potential to be relevant for various stakeholders interested or engaged in ESD.

Findings

This section is divided in two parts, which correspond to each research question. The first will illustrate the SD within HEIs, and the second part will showcase the main complexities of implementing ESD in the HEIs under investigation. As explained earlier, the findings will be connected to and complemented by the international scholarly literature.

SD agenda

The first question of this study explored the extent to which SD is on the investigated HEIs' agendas. The findings indicate that the universities under investigation focus specifically on three common aspects of SD: sustainable education, sustainable initiatives, and financial sustainability.

The analysed documents showed that universities aim to achieve sustainability within their institution and their local communities. Sustainability was mentioned within the strategic goals, as well as mission and vision statements. Furthermore, all institutions reported commitment to achieving the UN's SDGs through research as well as teaching and learning. It was concerning, however, that the analysed documents did not contain clear definitions of the sustainability-related terms. As argued within the scholarly literature, inconsistent definitions and a lack of understanding of the concepts related to sustainability may lead to misconceptions and hinder the successful implementation of ESD (Tierney et al. 2016). To avoid this, sustainability-related concepts call for clear description. In some cases, the word *sustainability* was used vaguely within the documents and did not always refer to the environment, society, or the economy but rather to the short-term continuation of an activity. It is essential to note that although the use of the word is important within strategic documents, *sustainability* and related terms should not be used loosely to satisfy compliance criteria. Instead, all staff members, students, and academics should possess a clear understanding of the interconnected nature of sustainability and what it means to the institutional culture.

The content analyses of documents showed that all three institutions prioritise community engagement as a sustainable initiative. However, community engagement projects often focused on the environmental dimension of sustainability (only in one case did community engagement projects focus on economic sustainability). Although there is an emphasis on environmental sustainability, it is important to note that community engagement projects attempt to address inequalities in society, with the aim of achieving social justice. This in turn aligns with the literature outlining universities' responsibility to promote »well-being and sustainability oriented towards justice, solidarity and human rights, respecting culture and diversity, creating space for dialogue and forging collaborations between local and global communities and with other levels of education, other social institutions and the economy« (Hurtado 2021, p. 1).

Based on the reviewed documents, it can be assumed that the investigated HEIs aim to equip their students with the knowledge, skills, and attitudes necessary to contribute to SD. At the same time, the term ESD is not mentioned in any of the documents, and in practice, a holistic approach towards SD is not evident. It is stated on numerous occasions that HEIs aim to educate citizens who can thrive in all the dimensions of sustainability; however, in practice, teaching and learning focuses on environmental stewardship. The three HEIs under investigation incorporate environmental education in their curricula and academic programmes.

Financial sustainability received special attention in the strategic goals of HEIs. It was evident that all the universities are concerned about their future financial sustainability. Currently, HEIs rely on government funding, student tuition, private donations, and fundraising. Student debt and uncertainty about government funding were identified as two of the greatest factors threatening financial sustainability. Financial unsustainability will threaten HEIs' competitiveness and affect their ability to achieve their strategic goals in terms of research, teaching and learning, and other academic activities. Another visible element related to SD was a focus on organisational sustainability to prevent »brain drain« in the South African context. On several occasions, the commitment to developing the next generation of researchers and attracting and retaining high-calibre human capital through fair incentives, policies, and research was emphasised.

Complexities of implementing ESD in higher education

The second question in this study sought to identify the main complexities of implementing ESD in higher education. Although the analysed data showed that sustainability compliance is important, achieving the long-term goal of sustainability is challenging and will require more than compliance from institutions. In other words, simply committing to the UN's SDGs and incorporating sustainability-related terms into vision and mission statements does not ensure sustainable academic activities. SD requires citizens to develop knowledge, skills, and attitudes that enable them to incorporate sound economic, environmental, and social decisions in their daily lives.

Barth and Rieckmann (2012) found that the implementation of sustainability in higher education faces impediments even when universities are committed to ESD. Scholars foreground several barriers affecting implementation, one of them being lack of holistic vision and integrated approaches towards innovation and sustainability. A holistic vision calls for declaring ESD a priority within policy and mandates, providing training to staff, and promoting sustainability-related research and collaborative work between disciplines and various education stakeholders (Farinha et al. 2020, p. 466). Another identified impediment is that SD initiatives are occurring in isolation, focusing almost exclusively on campus environmental sustainability and thus neglecting social and economic dimensions. The analysed documents point to universities' awareness that sustainability is not limited to the environment and that it is HEIs' responsibility to foster the social, economic, and environmental dimensions of sustainability. Yet, as stated earlier, in practice, environmental events and policies are extensively implemented and elaborated on within the documents, and a more holistic approach towards ESD is not adopted. Based on the scholarly literature, this may stem from a lack of clarity around sustainability-related concepts (Mula et al. 2017). The HEIs under investigation showed implementation of environmental sustainability practices such as saving electricity and reducing carbon footprint; other activities were not reported.

While the environmental dimension of sustainability dominates research activities and the curriculum, scant attention is paid to the social and economic dimensions. It is important to mention, however, that the focus on environmental practices also showed commitment to social sustainability in the form of social justice. It was promising to discover that the universities are mobilising their staff, students, and resources to engage in their local communities and contribute to society through environmentally responsible practices. In fact, in some instances, the HEIs indicated that paying attention to their direct ecosystems and preserving their resources allows them to contribute to the fulfilment of the social and economic dimensions of sustainability. In addition, using resources optimally and sustainably allows them to achieve institutional sustainability and strategic objectives.

Another reported impediment affecting implementation of ESD refers to limited support towards sustainable initiatives from HEIs' senior management (Rampasso et al. 2020). To that end, Lu and Zhang (2013, p. 53) noted that with no support from top management, ESD is often viewed as an optional addition to the curriculum, which at times may lead to unsuccessful implementation. The next identified impediment is lack of financial resources. Sustainable initiatives are developed with low funds and almost full reliance on voluntary work (Avila et al. 2017).

Shaping sustainability-literate students: Concluding thoughts

Based on the analysis of the three HEIs' documentation, SD was always of utmost importance, although often secondary to economic development and based on a short-term vision. Any social development concerned with sustainable continuity calls for a long-term vision. Universities, as knowledge-transfer and knowledge-production social institutions, must foreground principles of sustainability. Furthermore, promoting sustainable continuity and supporting students in becoming sustainability-aware citizens need to be taken in consideration holistically.

As stated earlier, the higher education sector is uniquely situated to contribute to the sustainable development of society. By nurturing sustainability-literate graduates, who will serve society as teachers, researchers, and leaders, the potential to accomplish all SDGs is maximised. Therefore, HEIs driven by SDG 4 can be considered a main pillar supporting achievement of all the other SDGs. Capturing this opportunity calls for universities to effectively implement ESD and thus integrate the principles of SD into their curricula and all academic activities.

As evident from this study, the investigated South African HEIs adopted a vision for a sustainable society and committed to preparing graduates for a complex and sustainable future. Even though the HEIs under investigation committed to including SD within the curricula and other activities, the actual implementation of ESD constitutes a challenge. This clearly indicates that committing to SD in vision and mission statements alone does not imbue students with sustainable mindsets. As a result, results towards equipping students with the knowledge, skills, and attitudes that will allow them to make sustainable decisions and take sustainable actions are diminished.

The findings also showed that universities prioritise the environmental dimension in their academic programs and community engagement initiatives. Although the focus on environmental practices showed institutional commitment to social sustainability and social justice, the inclusive approach of all sustainability dimensions was missing. It can be claimed that achieving a holistic vision of ESD is imperative. This in turn calls for providing training to staff and academics, increasing support from and engagement of senior management, promoting sustainability-related research, and networking between disciplines.

The most pressing question raised by this study asks: What is the way forward? Indeed, we must strive to identify the collective shifts that need to take place to incorporate SD in HEIs in a more holistic way and thus allow sustainability-oriented universities to shape sustainability-literate students, or as Bonnett (2002) calls it, to foster *sustainability as an attitude of mind.* Without a doubt, we need to critically challenge ourselves, magnify our attention to principles of sustainability in all academic activities, and share effective practices with the scholarly community.

References

Avila, L., Filho, W. L., Brandli, L., MacGregor, C., Molthan-Hill, P., Ozuyar, P. and Moreira, R. (2017). Barriers to innovation and sustainability at universities around the world. *Journal of Cleaner Production*, 164, pp. 1268-1278.

Awuzie, B. and Emuze, F. (2017). Promoting sustainable development implementation in higher education: universities in South Africa. *International Journal of Sustainability in Higher Education*, 18, issue 7, pp. 1176-1190.

Barbosa, G., Drach, P. and Corbella, O. (2014). A conceptual review of the terms sustainable development and sustainability. *International Journal of Social Science*, 3, issue 2, pp. 1-15.

Barth, M. and Rieckmann, M. (2012). Academic staff development as a catalyst for curriculum change towards education for sustainable development: an output perspective. *Journal of Cleaner Production*, 26, pp. 28–36.

Batson, T. (2021, 10. 23.). Time to act: what universities owe to human civilization. *University World News*. Retrieved from https://tinyurl.com/32c8ypnp (Accessed on 18. 11. 2021).

Bonnett, M. (2002). Education for sustainability as a frame of mind. *Environmental Education Research*, 8, issue 1, pp. 9-20.

Brandt, J. and Barth, M. (2019). Becoming a competent teacher in education for sustainable development. *International Journal of Sustainability in Higher Education*, 20, issue 4, pp. 630-653.

Brodowski, M. (2017). Pedagogical content knowledge of sustainability: a missing piece in the puzzle of professional development of educators in higher education for sustainable development. *International Journal of Sustainability in Higher Education*, 18, issue 6, pp. 841-856.

Busetto, L., Wick, W. and Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*. Open access.

da Silva, R. J., Tommasetti, R., Gomes, M. and Macedo, M. (2019). How green is accounting? Brazilian students' perception. *International Journal of Sustainability in Higher Education*, 21, issue 2, pp. 228-243.

Department of Environmental Affairs. (2008). *People—planet—prosperity*: *a national framework for sustainable development in South Africa*. Retrieved from https://www.environment.gov.za/documents/strategicdocuments/nfsd (Accessed on 18. 11. 2021).

Department of Environmental Affairs. (2016). *2nd South Africa environment outlook: a report on the state of the environment*. Retrieved from https://tinyurl.com/2brfhkp7 (Accessed on 18. 11. 2021).

Farinha, C. S., Azeiteiro, U. and Caeiro, S. S. (2018). Education for sustainable development in Portuguese universities. *International Journal of Sustainability in Higher Education*, 19, issue 5, pp. 912-941.

Farinha, C. S., Caeiro, S. S. and Azeiteiro, U. (2020). Universities speak up regarding the implementation of sustainable development challenges: the case of Portugal. *International Journal of Sustainability in Higher Education*, 21, issue 3, pp. 465-506.

Feinstein, N., Jacobi, P. and Sisitka, H. (2013). When does a nation-level analysis make sense? ESD and educational governance in Brazil, South Africa and the USA. *Environmental Education Research*, 19, issue 2, pp. 218-230.

Ferguson, T. and Roofe, C. (2020). SDG 4 in higher education: challenges and opportunities. *International Journal of Sustainability in Higher Education*, 21, issue 5, pp. 959-975.

Hurtado, M. E. (2021. 5. 27.). HE should prepare students for life not just livelihood. *University World News*. Retrieved from https://tinyurl.com/48trc6sp (Accessed on 18. 11. 2021).

Kumar, S., Kumar, N. and Vivekadhish, S. (2016). Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs): addressing unfinished agenda and strengthening sustainable development and partnership. *Indian Journal of Community Medicine*, 41, issue 1, pp. 1–4.

Lu, S. and Zhang, H. (2013). A comparative study of education for sustainable development in one British university and one Chinese university. *International Journal of Sustainability in Higher Education*, 15, issue 1, pp. 48-62.

Mula, I., Tilbury, D., Ryan. A., Mader, M., Dloucha, J., Mader, C., Benayas, J., Dlouhy, J. and Alba, D. (2017). Catalysing change in higher education for sustainable development: a review of professional development initiatives for university educators. *International Journal of Sustainability in Higher Education*, 18, issue 5, pp. 798-820.

Novo-Corti, I., Badea, L., Tirca, D. and Aceleanu, M. (2018). A pilot study on education for sustainable development in the Romanian economic higher education. *International Journal of Sustainability in Higher Education*, 19, issue 4, pp. 817-838.

O'Malley, B. (2019, 7. 20.). SDGs »not attainable without contribution of HE«, UN told. *University World News*. Retrieved from https://tinyurl.com/2zhrp5xb (Accessed on 18. 11. 2021).

Padayachee, K., Matimolane, M. and Ganas, R. (2018). Addressing curriculum decolonisation and education for sustainable development through epistemically diverse curricula. *South African Journal of Higher Education*, 32, issue 6, pp. 288-304.

*R*ampasso, S. I., Quelhas, O. L. G., Anholon, R., Pereira, M. B., Miranda, J. D. A. and Alvarenga, W. S. (2020). *Engineering education for sustainable development: evaluation criteria for Brazilian context. Sustainability,* 12, issue 10, pp. 1-11.

Richards, C. (2004). Certain to win: the strategy of John Boyd, applied to business. Bloomington, IN: Xlibris.

Saldaña, J. (2016). *The Coding Manual for Qualitative Researchers*. 3rd ed. Thousand Oaks, CA: Sage.

Solera, C. R. and Laya, M. (2017). Higher education for sustainable development at EARTH University. *International Journal of Sustainability in Higher Education*, 18, issue 3, pp. 278-293.

Tierney, A., Tweddell, H. and Willmore, C. (2016). Measuring education for sustainable development: experiences from the University of Bristol. *International Journal of Sustainability in Higher Education*, 17, issue 6, pp. 853-874.

Triad 3. (2016, 3. 9.). An introduction to document analysis. *Research Methodology in Education*. Retrieved from https://lled500.trubox.ca/2016/244 (Accessed on 18. 11. 2021).

UNESCO. (2020). *Education for sustainable development: a roadmap*. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000374802 (Accessed on 18. 11. 2021).

United Nations Department of Economic and Social Affairs. (2015). *17 sustainable development goals, 17 partnerships*. Retrieved from https://tinyurl.com/4vuuwtny (Accessed on 18. 11. 2021).

Yavuz, S. (2016). A content analysis related to theses in environmental education: the case of Turkey (2011-2015). *Journal of Education and Training Studies*, 4, issue 10, pp. 118-125.

Zermeno, M. and de la Garza, L. (2020). Open laboratories for social innovation: a strategy for research and innovation in education for sustainable peace and sustainable development. *International Journal of Sustainability in Higher Education*, 22, issue 2, pp. 344-362.

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KOMPLEKSNOST IZOBRAŽEVANJA ZA TRAJNOSTNI RAZVOJ: VPOGLED V JUŽNOAFRIŠKO VISOKO ŠOLSTVO

Povzetek: Zapleteni svet 21. stoletja zahteva več znanja o trajnostnih praksah in politike za spodbujanje trajnostnega razvoja. Kot je razvidno iz mednarodne znanstvene literature, je treba nujno razmisliti o vlogi vzgoje in izobraževanja pri razvijanju trajnostnih družb ter preoblikovanju šolskih sistemov in ustvarjanju znanja, če želimo zgraditi vzdržno prihodnost. Visokošolske ustanove imajo posebno vlogo, saj izobražujejo učitelje, raziskovalce, voditelje in državljane, ki se bodo sposobni soočiti z globalnimi trajnostnimi izzivi ter sprejemati trajnostne odločitve in ukrepe. Predstavljena kvalitativna raziskava, ki izhaja iz globalnega konteksta, je analizirala dokumente, povezane z javno financiranimi univerzami v Južni Afriki, kot so izjave o poslanstvu in viziji univerz, letna poročila, strateški načrti in druga pomembna poročila za obdobje zadnjih petih let. Raziskava je poskušala odgovoriti na naslednji temeljni vprašanji: V kolikšni meri je trajnostni razvoj prisoten na analiziranih visokošolskih zavodih? Katere so glavne težave pri izvajanju izobraževanja za trajnostni razvoj v teh visokošolskih zavodih? Ugotovitve, ki izhajajo iz sistematične vsebinske analize, kažejo, da so proučevani južnoafriški visokošolski zavodi zavezani izobraževanju za trajnostni razvoj, vendar je učinkovito izvajanje vseh razsežnosti trajnostnega razvoja zapleteno in težavno. Očitno je, da se univerze osredotočajo na tri glavne vidike trajnostnega razvoja: trajnostno izobraževanje, trajnostne pobude in finančno vzdržnost. Čeprav rezultatov študije zaradi majhnega vzorca ni mogoče posplošiti, so lahko v pomoč drugim univerzam in prispevajo k védenju o izobraževanju za trajnostni razvoj v visokem šolstvu. Kot je navedeno v *Agendi Združenih narodov za trajnostni razvoj do leta 2030*, so družbeni problemi teritorialno slepi, kar pomeni, da nobena posamezna država nima dovolj znanja oziroma raziskovalnih zmogljivosti, da bi sama rešila vse izzive. Zato je izmenjava spoznanj iz različnih okolij bistvena.

Ključne besede: izobraževanje za trajnostni razvoj, trajnostnost, visoko šolstvo, pospeševanje trajnostnega razvoja

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