

Creating Sustainable Posthuman Accounting Learning Environments: The Case for Green Accounting in South Africa

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Article Info

Received: July 3, 2023

Accepted: November 13, 2023

Published: March 22, 2024

 10.46303/repam.2024.6

How to cite

Mahlomaholo, M. R., & Mahlomaholo S. M. G. (2024). Creating sustainable posthuman accounting learning environments: The case for green accounting in South Africa. The title of the article. *Research in Educational Policy and Management*, 6(1), 90-101.

<https://doi.org/10.46303/repam.2024.6>

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ABSTRACT

The study aims to explore the infusion of Environmental Accounting, or Green Accounting or Sustainability Accounting, into Posthuman Accounting Learning Environments (PALE) that promote deep learning. Posthuman Accounting Learning Environments (PALE) refer to the teaching and learning of Accounting that recognises the contributions of both the human and non-human aspects in the processes of acquiring and disseminating Accounting knowledge; seemingly, such knowledge leads to the derivation of the final products such as the financial statements. The latter, in turn, constitute the final product of the Accounting processes, affecting Accounting information used by shareholders, managers, prospective investors, lending institutions, government, employees, regulatory agencies, and researchers, who attempt to make relevant decisions that impact the circular flow of resources in a country. To date, Environmental Accounting is neglected in all these. Thus, PALE's significant impact on the social, economic, and environmental conditions is not appreciated or taught in our institutions. This paper demonstrates an urgent need to explore ecological knowledge and its contribution to the teaching and learning of Accounting, leading to the conclusion that the sustainability infused Accounting curriculum embodies the totality of all the teaching and learning experiences aimed at understanding, for example, the issues of cybersecurity, diversified Accounting skills, advanced marketing strategies and the knowledge to align Accounting with globalisation processes, which are the subject matter of the PALE, including the sustainability content, principles, pedagogic approaches, implicit and explicit norms, and values inherent in the sustainability learning and teaching process.

KEYWORDS

Green accounting; posthuman accounting: Sustainable Learning Enviromenments

INTRODUCTION

Sustainable Development Goals (SDGs) 2015-2030 are the blueprints to achieve a better and more sustainable future for all, irrespective of one's station in life. The idea is clearly captured where the redefinition of humanity is seen through the place, the technological and the biological, including animals and the green continuum. The theories and policies on Green Accounting, also known as Sustainability Accounting, conceptualise it differently from what Conventional Accounting usually does. The latter mainly focuses on the industry and its supportive human beings, usually referred to as the users of the final products, in the financial statements. This focus differs from that of Green Accounting. The latter presents the understanding emanating from the conceptualisation of the SDGs above. This understanding accommodates in its explanatory scope everything that exists alongside the human being. This view assists in ensuring the survival of the entire creation. Once all the other forms of life are recognised, one might talk about life as post-humanist, as aptly captured in the 17 SDGs and other global agreements and policies.

Education is a fundamental driver of personal, national, and global development, resulting in many countries investing heavily in this sector. However, due to its importance, education has always been prioritised globally in organisations such as the United Nations and its 17 Sustainable Development Goals (SDGs) for 2030 (Huckle, 2013). Among the 17 goals, we look at SDG 4 because it deals with quality education, a central idea in this paper. This goal is interested in ensuring inclusivity and equitable quality education and promoting lifelong learning opportunities (Mahlomaholo & Mahlomaholo, 2022; Muukkonen, 2022). It is one of the goals that ensure optimum achievement of the overarching goals geared towards producing a set of universal contexts that combat the urgent environmental, political, and economic challenges facing our world (Mahlomaholo et al., 2023). This means that each country is guided by international goals such as the SDGs on top of its national priorities when deciding what should be prioritised in the learner's curriculum (Sharma, 2022). In South Africa, the development of the constitution and its implementation has been at the centre of all the departmental policies because it provides fundamental guidance through its principles, such as hope, peace, social justice, democracy, equity, and equality, to mention but a few. These guidelines are of particular importance because they collectively and actively promote the equality of all and prohibit unfair discrimination of any kind. So, every state department is mandated and required to align its policies and procedures to both the international standards and the national imperatives as dictated by the democratic constitution of the country, and curriculum is no exception (Dube et al., 2023; Sullivan, 2018).

This paper investigates the Accounting curriculum, its efforts to achieve a sustainable learning environment and how the teaching of Accounting fulfils the promise of achieving the SDGs and the National Development Goals (NDP). These are geared towards the economic development of all through environmentally sustainable approaches that socially include all (Huckle, 2013); this is particularly captured in the Green Accounting component of Accounting.

Green Accounting refers to the teaching and learning of Accounting that recognises the contributions of sustainable environmental factors in the acquiring and disseminating processes. This component of Accounting goes beyond the conventional practice of Accounting; the latter focuses every business exclusively on the objective to maximise profit (Dhar, 2022). Unfortunately, this focus runs parallel to the fundamental mandate of Accounting, which is to assist businesses to understand the importance of the environment in financial contexts (Kumari, 2022). Such a mandate, understanding and approach take into cognisance the needs of our present generation without compromising the future of posterity (Muukkonen, 2013), which is done through safeguarding the earth's capacity to support life in all its diversity while ensuring economic well-being and growth of all. This aspect of Accounting is equally concerned with all the factors of production, be they the human or natural resources and capital (Dhar, 2022). All these are regarded as essential, and the sustainability of each is taken into consideration, which is unlike in the past, where the sole focus was on human resources (human) and the goal of sustaining capital or profits. Very little was said about the sustainability of natural resources and the environment. These are the focuses of Green Accounting because if we as humans continue to consume all the non-renewable resources at the high rate that we are in the world, it will eventually lead to a situation where the future generation is left with little or no means of livelihood to survive (Kumari & Mishra, 2018). The future generation does not only refer to humans but also to the animals and environment we live in. Therefore, Green Accounting argues for using renewable resources to generate profit, as this will be primarily done in an environmentally sustainable manner as prescribed by the UNESCO SDGs (Albert & Uhlig, 2021). In addition, this has been proven to provide the sustainability of us as the human species and the planet as a whole. This process brings into play another critical aspect of technology that enables many sophisticated operations to happen in many businesses.

Green Accounting looks at the human, non-human and beyond human to ensure that all are considered. At the same time, profits are made (Albert & Uhlig, 2021), which is the substance of sustainability that acknowledges all the costs and factors of production. This position of looking into the animate and inanimate in Accounting operationalises at the same time the Posthuman theorisation. This lens positions Green Accounting adequately to respond well to the call by the SDGs' Agenda 2030 and the NDP. They all advocate for Accounting, which is taught interdisciplinary, where skills and knowledge from subjects such as Environmental Sciences, Chemistry and so on are included. This approach ensures that making a profit does not destroy the planet, humans, non-humans, and the more-than-humans (Dhar, 2022). Hence, the paper aims to explore Green Accounting as an aspect of the Posthuman in Accounting.

This paper begins by looking at the challenges of conventional Accounting concerning Green Accounting. After that, it explores how Green Accounting can best respond to the challenges of conventional Accounting teaching. Furthermore, the paper digs deeper at how best the envisaged Green accounting awareness will be infused in the classroom using Posthumanism as a theoretical framing.

Challenges of the Conventional Accounting Teaching Concerning Green Accounting

Conventional Accounting Records in South Africa still show that maximising profits without including Sustainability calculations remains the main objective of many businesses, hence the entire Accounting education system (de Wit, 2022). This overrated objective still ensures that many businesses and conventional Accounting curricula overlook the essential factors of production, like natural capital and ecological systems enshrined in the Corporate Social Responsibility - CSR legislation (Albert & Uhlig, 2021), leading to unreliable business profits being reflected in the Environmental, Social and Governance - ESG Reporting because environmental costs and natural capital are not accounted for. Secondly, the other issue is that teachers seem unaware of Green Accounting; this problem stems from the lack of comprehensive training towards teaching Accounting, which also highlights the environmental issues (Gray, 2013); this is a problem starting from high school (Grades 9 to 12) level up to the higher education training of the pre-service teachers (de Wit, 2022). Many teachers assume that environmentally related themes are dealt with only in specific courses like Environmental Studies (Ulrich, 2020). Such Accounting teachers do not emphasise these aspects when included in the Accounting curricula. Thirdly, the other challenge is the overreliance on standardised tests and exams that leave teachers with limited time to address any content beyond the scope of the pre-planned assessment tasks (Gray, 2013). Teachers assume they would instead utilise all the time for the learners to master the conventional content that will be assessed, graded and used for the benchmarking processes, limiting learners' ability to study, debate, and understand environmental concerns (Ulrich, 2020).

The above leads to the exclusive focus on those conventional Accounting variables which are easily monetised, thereby truncating the range of the entire Accounting system. This ideology creates a severe challenge because Green expenditures are thus still not included in the calculations of the Gross Domestic Product -GDP, and no effort has been made to do so (Kumari & Mishra, 2018). The fourth challenge is the lack of exposure to the issues regarding environmental ethics, focussing on the values and principles of combatting environmental problems such as pollution, loss of species and habitats, and climate change (Chemhuru, 2019). A little knowledge seems to be shared about the relationship between the environment and humans, especially how human values impact the environment. The teachers and learners must be aware of their obligations as humans to protect the environment and other species for the sake of non-humans and to ensure that future generations can also benefit (Rousell, 2020). Finally, there are limited resources dedicated to the popularisation of Green Accounting. These are limited exposure and marketing activities, availability of materials and resources, and training opportunities (Bigoni & Mohammed, 2023). If these can be secured and adequately marshalled, they may contribute to the awareness owed to this Accounting component. The ignorance of this vital aspect of Accounting makes a serious indictment about the education sector that is not well versed in the issues of Green Accounting while the world, the big

corporations and the media are pushing for the issues of environmental awareness (Rousell, 2020). Green Accounting seems relevant, especially when aligned with the SDGs, Africa Agenda 2063, National Development Plan - NDP and other Green-aligned conventions, priorities and policy imperatives. Therefore, providing a platform in the education sector through our prescribed and enacted curriculum is essential to raise awareness about sustainability issues. *Sustainability* enshrines the primary moral and economic imperative of the 21st Century and is one of the most important sources of both opportunities and risks for businesses (Bigoni & Mohammed, 2023).

Green Accounting attempts to respond to the challenges of conventional teaching

According to Ernst and Young (2013) as well as PricewaterhouseCoopers (2014), sustainability disclosure can foster investor confidence, improve access to capital and is used by analysts in determining the firm's valuations (Bebbington et al., 2021). In addition, according to PwC's 2016 Global Investor Survey, over 60% of investors agree that business success in the 21st Century will be redefined by more than financial profit to include sustainability factors (Hassan & Ogunwole, 2022). This affirmation of Accounting firms worldwide regarding the importance of environmental costs aligns with what many governments call for. Governments worldwide enforce more substantial environmental restrictions, requiring corporations to record and lessen their environmental impact. All these are done in addition to many awareness programmes run at that level (Bebbington et al., 2021). However, these efforts cannot be said to have yielded entirely the results until awareness is made of, and Green accounting is part of, the conventional teaching and learning in schools. At this level, the future generation becomes aware that the company, through its Corporate Social Responsibility (CSR), has a duty to serve the community as well as the financial interests of its shareholders. In this way, there will be a complete disclosure of all costs involved in the production, including the environmental costs. Once these costs are included, the business will be sensitised to find innovative ways to reduce these that would have reduced their profit (Bigoni & Mohammed, 2023). As they reduce the impact and costs to the business, the companies will not only disclose the reliable profit, but it will sustain the environment and thus truly abide by the principles of CSR. These emphasise the business commitment to act ethically, operate legally and contribute to economic improvement along with improved quality of life of employees and their families, local communities, and the wider community (Dhar, 2022).

The second issue raised by the literature under the challenges of conventional Accounting was that teachers were unaware of the issues of Green Accounting in the curriculum at all levels of education. However, in response to this issue, many countries, through their schools and institutions, have started to follow green trends and develop green awareness to integrate them into their school and business policies (Gray, 2013). To date, such countries like Montenegro are seen as future countries. Through these policies, businesses and institutions are conducting training and staff development programmes to ensure that awareness of environmental issues is on the agenda (de Wit, 2022). Thus, introducing corporate self-

regulation is becoming one of the most important paradigms on which modern companies and schools want to improve sustainability by integrating elements of the environment into the business policy system. Individuals in these contexts realise that environmental issues are subject-specific, interdisciplinary, transdisciplinary, and multidisciplinary (Chemhuru, 2019).

The third issue outlined within conventional Accounting centred around the overreliance on standardised tests and exams, leaving teachers with limited time to do anything beyond the pre-planned assessment tasks. To respond to this challenge, UNESCO (2005a), UNECE (2007) and Huckle (2008) identified the need for transdisciplinary learning, upskilling of higher education staff and more participatory approaches in course design (Piramanayagam et al., 2023). Teachers are encouraged to exercise their roles as researchers and to learn to integrate relevant ideas from other disciplines and learn from such to be well-conversed with environmental issues (Nkechinyere, 2020). These environmental issues are not only impacting corporate management and profit, but they also are about life and cut across all disciplines. As such, teachers need to professionally take up opportunities that provide upskilling in Green Accounting in their workplaces, ensuring that they are more confident and aware of the debates and developments regarding environmental accounting. UNESCO (2005a) advocates for the participatory approaches to course design because once all the stakeholders contribute collectively at the design stage, it will bring into the picture the issue of ownership by those entrusted with implementing the planned curriculum (Piramanayagam et al., 2023). These ensure that there is a bridging of the gap between the planned and the implemented curricula. This will allow the awareness to be prioritised from the design stage to the implementation stage in the different classrooms.

Fourthly, literature on conventional accounting indicated that there seems to be little knowledge that is shared about the relationship between the environment and humans, especially how human values impact the environment (Rousell, 2020). Through Green Accounting, the advocacy is leaning towards developing respect for the environment by instilling a desire for environmental ethics among learners, simply referred to as Ethical Values-Based Learning. In support of this, a further argument by Shephard (2021) is for fostering effective outcomes in sustainability education, focusing on values, attitudes and behaviours that promote sustainability in the learning and teaching process (Edelheim et al., 2022). The exclusive focus on cognitive skills in learning, teaching and assessment has led to many teachers attempting to stimulate critical analysis without encouraging pro-ecological values, attitudes, or behaviours. Learners seem to develop a more positive attitude towards the environmental aspects of accounting when the strategy of action-based learning is used rather than the conventional banking method of teaching facts and expecting learners to reproduce them when needed (Edelheim et al., 2022).

Finally, the literature indicates that the teaching of conventional Accounting, to the exclusion of Green Accounting, limited the resources dedicated to the popularisation of the latter in the form of exposure and materials for training (Bigoni & Mohammed, 2023). One

practical way to overcome this is through establishing and using resource centres in the form of the community classrooms that are also geared towards implementing the Problem-Based Project Learning (PBPL) methods (Berry, 2019; Chow, 2021). Through these methods, the community will be involved and can provide resources through their expertise, experience and equipment. The above will contribute towards raising awareness and ensuring that the issue of environmental sustainability is shared among all stakeholders in the community (Berry, 2019). Through PBPL, the learners use current real-life cases to learn about the development and the need for the sustainability of the environment. These ensure that the sustainability benefits are entirely derived from the first-hand experience of the corporate world with limited costs (Sart, 2022). On the other hand, the emphasis on the use of technology in Green Accounting presents a strong bond among the humans, the non-humans and the beyond-the-humans in ensuring the success of the creation of a sustainable learning environment that is conducive to sustainability in Accounting (Sart, 2022).

Green Accounting through the Post-humanist Lens

To make sense of the above discussion, we found Post-humanist framing the most useful lens, especially because of its origins as the antidote to the Anthropocene (Natrass, 2021). This is the era identified by scientists to refer to the past 1000 years of human history on the planet marked by humans' unprecedented footprint on the climatic conditions, among others (Steffen et al., 2011). As humans, we are destroying our planet and our existence and that of other beings, human, non-human (for example, objects, plants, animals, etc.) and more-than-human (for example, machines and computers). The pollution of the oceans, rivers, lakes, the atmosphere, the land and all through carbon emissions from our cars, machines of production in and out of industries and aeroplanes that use fossil fuel has become unbearable on the planet and the universe (Bonneuil, 2015). The dent we have created during this period of the Anthropocene has enlarged the hole in the ozone layer, resulting in unprecedented direct and unfiltered penetration of the sun's ultraviolet rays onto the planet. This has significantly changed the patterns of the climatic conditions, accompanied by extreme heat and/or cold in areas that never experienced such (Natrass, 2021). Flooding due to unnatural and uncontrollable rains during the wrong seasons and drought when rain was expected have destroyed the earth's food security. Large tracks of land have become deforested as we sought more land to farm but destroying natural vegetation that protected those lands. Famine and unemployment have resulted as a result, and this engulfed the more significant proportion of humanity, leading to anti-social behaviours like crime, murder, gender-based violence, you name them. Green Accounting, going in tandem with this Posthuman origins to address the problems of the Anthropocene, is thus helpful as it intensifies the effect of this antidote (Steffen et al., 2011). As discussed above, Green Accounting proposes that there must be respect for the environment as it is the source of human and non-human lives. Respect for the environment and including the cost of production on the environment that provides raw materials and resources thus becomes a logical proposition in determining the real profit (Bonneuil, 2015). Educating young

minds of learners at school about this fact also seems to be the best way to preserve the planet for future generations. Suppose more and more people can become aware that it is not the case of profit at all costs. In that case, profit should be accompanied by sustainability, ensuring that the non-renewables would still be there in the future, even though we enjoy economic prosperity now (Malhi, 2017), which is precisely what the SDGs preach that there has to be economic development of all in an environmentally sustainable manner for social inclusion of all.

Another vexing problem that the Posthuman theory makes us aware of is how society has become hierarchised given the influence of humanism and enlightenment as both philosophical perspectives and historical epochs of the planet (Jansen et al., 2021). Since the Renaissance following the anarchy of the Dark Ages and the founding of the nation states, order was restored through harsh compliance to such social hierarchies (Jackson, 2013). The heads of the nation-states who provided safety and security to some communities against the hordes of marauding lawless bandits bent on destroying established settlements with any form of civility were assumed to be ordained to rule and lead by the divine rights of kings who represented God on earth (Jansen et al., 2021). A class of aristocrats followed these: their soldiers, rich men, and workers. All these were white European males who were assumed to be superior to all the white females who were, in turn, higher than all Black men, followed by Black women (Ingold, 2021). Below all humans were located the animals, followed by the plants and then the objects. Such was the hierarchy, which was assumed to be natural and justified through religious belief and rights, giving dominion to humans over all creation and the planet. For example, oppression of the Black people or the deprivation of rights from women was considered to be the natural order of things (Landgraf, 2022). Practices such as slavery and colonisation were considered to be natural as humans who were not white and/or Europeans were considered inferior creatures. Once again, this anomaly inspired the posthumans to strive towards removing all hierarchies and, in their place, the institution of social justice, equity, freedom, peace, and hope, among others. The Posthuman advocates for the respect of the environment with all the human, non-human, and more-than-human beings therein (Ingold, 2021). As discussed earlier, Green Accounting also advocates for the same respect for all where, for example, the inanimate are considered for the role they play in the construction of the environment. The trees and the stars are considered to be of equal value as the animals and the humans, as well as the more-than-humans, in calculating costs, income and profits, where applicable.

The advocacy of the Posthuman above is borne out of a realisation that the entire universe is about entanglement among all its constituent parts and members. As humans, we are so entangled in the oceans, the air, the land, and all that attempting to extricate one from the rest is impossible (Landgraf, 2022). As demonstrated above, Green Accounting recognises that the calculation of profit that does not explain all the factors of production including issues of sustainability of the environment, is grossly inaccurate and inadequate (Jackson, 2013). Post-humanity further enables us to understand the individual entity, which so much has been

written about and has suffused the entire theorisation and thinking of what is human and what is object, as mere figmentation of the humanist and enlightenment's imagination (Petrovskaya, 2023). The individual is nothing more than a function of the relationalities that birthed and crafted it. For example, my assumed individuality is a result of the loving relationship between my parents that gave birth to my biological being (Crosson, 2021). That biological corporeality became the platform where all my other modes of being were created in relational connections to my family, community school friends, geographic location, weather, and climatic conditions, to mention a few (Landgraf, 2022). In decentering individuality, Post humanity achieves its highest level of theorisation. Green Accounting also recognises that economic performance cannot be located in the profit motif only but in the entire environment and its role in determining costs, income, and profits, among others. Profit is a function of the interaction of a myriad of variables, including environmental sustainability and social inclusion. These take into cognisance the human, non-human and more than human aspects (Zapf, 2022). The recognition of the impact of the environment and all in it directly affects the following, among others: Accounting information, including shareholders, managers, prospective investors, lending institutions, government, employees, regulatory agencies and researchers. The individual entity is continuously extended and expanded by advanced technologies which enable one to function ubiquitously, not confined to space and time, as in Artificial Intelligence, which is the cornerstone of Green Accounting (Petrovskaya, 2023).

CONCLUSION

Therefore, this paper argues that Green Accounting is a better and more inclusive form of Accounting that does not overlook the crucial factors of production like natural capital and ecological systems enshrined in Corporate Social Responsibility (CSR). Teachers of Accounting need to be made aware of this and to practice and support Green Accounting. Teachers are to teach to fully understand Accounting processes and not rely overly on teaching for good performance on standardised tests and exams. As argued elsewhere in this paper, this limits learners' ability to study, debate, understand environmental concerns, and more. Finally, Green Accounting always puts the issues of environmental ethics in sharp focus, which is what the planet requires.

REFERENCES

- Albert, M. & Uhlig, M., (2021). Education for sustainable development at Chemnitz University of Technology. *International Journal of Sustainability in Higher Education*.
<https://doi.org/10.1108/IJSHE-02-2021-0078>
- Bebbington, J., Larrinaga, C., O'Dwyer, B., & Thomson, I. (Eds.). (2021). *Routledge handbook of environmental accounting*. Routledge. <https://lccn.loc.gov/2020044184>
- Berry, S. (2019). Teaching to connect: Community-building strategies for the virtual classroom. *Online Learning*, 23(1), 164-183.
<https://olj.onlinelearningconsortium.org/index.php/olj/index>

- Bigoni, M., & Mohammed, S. (2023). Critique is unsustainable: A polemic. *Critical Perspectives on Accounting*, 102555. <https://doi.org/10.1016/j.cpa.2023.102555>
- Bonneuil, C. (2015). The geological turn: narratives of the Anthropocene. In *The Anthropocene and the global environmental crisis* (pp. 17-31). Routledge.
<https://doi.org/10.4324/9781315743424-3>
- Chemhuru, M. (2019). *African environmental ethics*. Springer Nature Switzerland AG.
<https://link.springer.com/book/10.1007/978-3-030-18807-8>
- Chow, W. (2021, December). Teaching Business Process Management with a Flipped-Classroom and Problem-Based Learning Approach with the Use of Apromore and Other BPM Software in Graduate Information Systems Courses. In *2021 IEEE International Conference on Engineering, Technology & Education (TALE)* (pp. 1-8). IEEE.
<https://doi.org/10.1109/TALE52509.2021.9678885>
- Crosson, J. B. (2021). Humanism and enlightenment. *The Oxford handbook of humanism*. Oxford. <https://doi.org/10.1093/oxfordhb/9780190921538.013>, 33.
- de Wit, M.P. (2022). South Africa: The Sideways Drift of a Jobless Coal-and-Carbon Nexus. In Murray, J., Owen, A., Simas, M., & Malik, A. (Eds.), *A Triple bottom line analysis of global consumption* (pp. 241-250). Jenny Stanford Publishing.
<https://doi.org/10.1201/9781003256885>
- Dhar, B.K., (2022). Can Green Accounting Save the Environment?. *OAJRC Environmental Science*, 3(1), pp.1-2. <https://doi.org/10.26855/oajrces.2022.03.001>
- Dube, B., Mahlomaholo, S., Setlalentoa, W., & Tarman, B. (2023). Creating Sustainable Learning Environments in the Era of the Posthuman: Towards Borderless Curriculum. *Journal Of Curriculum Studies Research*, 5(1), i-x. <https://doi.org/10.46303/jcsr.2023.1>
- Edelheim, J., Joppe, M., & Flaherty, J. (Eds.). (2022). *Teaching tourism: Innovative, values-based learning experiences for transformative practices*. Edward Elgar Publishing.
<http://hdl.handle.net/2115/86650>
- Ernst & Young., (2013) *Transparency report*. Managing partners letters. (pp1-49) EY- United Kingdom. https://www.ey.com/en_za/consulting/threats-to-a-business-transformation-can-define-its-success
- Gray, R. (2013). Sustainability+ accounting education: The elephant in the classroom. *Accounting Education*, 22(4), 308-332.
<https://doi.org/10.1080/09639284.2013.817795>
- Hassan, T. A., & Ogunwole, G. T. (2022). Oil and Gas Accounting Practices And Implications for Corporate Social Responsibility. *KWASU International Journal of Education (KIJE)*, 5(1), 213-221. : <https://www.kije.com.ng>
- Huckle, J., (2012). Sustainable Development (published in *The Routledge Companion to Education*, J. Arthur & A. Peterson (eds.), Routledge, , pp. 362-371.
<https://www.researchgate.net/publication/235995391>

- Ingold, T. (2021). Posthuman Prehistory. *Nature and Culture*, 16(1), 83-103.
<https://doi.org/10.3167/nc.2020.160106>
- Jackson, Z. I. (2013). Animal: New directions in the theorization of race and posthumanism. *Feminist studies*, 39(3), 669-685.
<https://doi.org/10.1353/fem.2013.0024>.
- Jansen, Y., Leeuwenkamp, J., & Urricelqui, L. (2021). Posthumanism and the 'posterizing impulse'. In *Post-everything* (pp. 215-234). Manchester University Press.
<https://doi.org/10.7765/9781526148179.00020>
- Kumari, P. (2022). Impact of interactivity on bookkeeping application adoption intention in the new normal: a consumption values perspective. *Journal of Electronic Commerce in Organizations (JECO)*, 20(2), 1-17. <http://doi.org/10.4018/JECO.300301>
- Kumari, P. and Mishra, C.S., (2018). Value relevance of earnings and book value in India: significance of accounting reforms and intangible-intensity in an emerging market. *International Journal of Accounting, Auditing and Performance Evaluation*, 14(4), pp.364-387. <https://doi.org/10.1504/IJAPE.2018.095112>
- Landgraf, E. (2022). Posthumanism and the Enlightenment. In *Palgrave Handbook of Critical Posthumanism* (pp. 1-21). Cham: Springer International Publishing.
- Mahlomaholo, M., Israel, H., & Mahlomaholo, S. (2023). Relationally Enhancing Teacher Education in Early Childhood Learning Environments towards Sustainability. *Journal Of Curriculum Studies Research*, 5(2), 56-68. <https://doi.org/10.46303/jcsr.2023.18>
- Mahlomaholo, M., & Mahlomaholo, S. (2022). Assessment in Sustainable Remote Teaching and Learning Environments During Emergency Situations. *Journal of Culture and Values in Education*, 5(2), 16-31. <https://doi.org/10.46303/jcve.2022.17>
- Malhi, Y. (2017). The concept of the Anthropocene. *Annual Review of Environment and Resources*, 42, 77-104. <https://doi.org/10.1146/annurev-environ-102016-060854>
- Muukkonen, M. (2022). The 2022 Global Philanthropy Environment Index Finland. <https://finance.li/wp-content/uploads/2022/08/2022GPEIGlobalReport.pdf>
- Nattrass, N. (2021). Conservation and the Commodification of Wildlife in the Anthropocene: A Southern African History. *South African Historical Journal*, 73(1), 95-116.
<https://doi.org/10.1080/02582473.2021.1909117>
- Nkechinyere, O. C. (2020). Information and communication technology: A veritable instrument for distance education. *International Journal of Knowledge and Dynamic Systems*, 13(2), 17-33. <https://www.arcnjournals.org/images/NRDA-IJKDS-13-2-2.pdf>
- Petrovskaya, O. (2023). Farewell to humanism? Considerations for nursing philosophy and research in posthuman times. *Nursing Philosophy*, e12448.
<https://doi.org/10.1111/nup.12448>
- Piramanayagam, S., Mallya, J., & Payini, V. (2023). Sustainability in hospitality education: research trends and future directions. *Worldwide Hospitality and Tourism Themes*, 15(3), 254-268. <https://doi.org/10.1108/WHATT-02-2023-0021>

- Risiro, J. (2014). An evaluation on the implementation of environmental education program at Mutare Teachers' College in Zimbabwe. *Inter. J. Innov. Res. Develop*, 3(1), 264-271. https://www.internationaljournalcorner.com/index.php/ijird_ojs/article/view/134552
- Rousell, D. (2020). Doing little justices: Speculative propositions for an immanent environmental ethics. *Environmental Education Research*, 26(9-10), 1391-1405. <https://doi.org/10.1080/13504622.2018.1517408>
- Sart, G. (2022). Integrating Problem-Based and Project-Practice Based Learning rather than Exam Based Learning in the university curricula: A Case Study at The University in Turkey. In *INTED2022 Proceedings* (pp. 10551-10551). IATED. <https://doi.org/10.21125/inted.2022.2789>
- Sharma, U. & Stewart, B. (2022). Enhancing sustainability education in the accounting curriculum: an effective learning strategy. *Pacific Accounting Review*. <https://doi.org/10.1108/PAR-02-2021-0029>
- Shephard, K. (2021). Higher Education for Sustainable Development: Learning Gains or Learning Losses?. In *Learning Gain in Higher Education* (pp. 117-130). Emerald Publishing Limited. <https://doi.org/10.1108/S1479-362820210000014009>
- Steffen, W., Grinevald, J., Crutzen, P., & McNeill, J. (2011). The Anthropocene: conceptual and historical perspectives. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 369(1938), 842-867. <https://doi.org/10.1098/rsta.2010.0327>
- Sullivan, T.L. (2018). *The educationalization of student emotional and behavioral health: Alternativetruth*. Springer. <https://doi.org/10.1007/978-3-319-93064-0>
- Ulrich, K. (2020). *Study of the Incorporation of Sustainability Topics into the Accounting Curriculum at Missouri Four-Year Colleges and Universities* (Doctoral dissertation, Lindenwood University). <https://media.proquest.com/media/hms/PFT/2/kNkVH?s=1SJY9eFIQCUfOC0CVpBH59TDM0%3D>
- Zapf, H. (2022). Posthumanism or ecohumanism? Environmental studies in the Anthropocene. *Journal of Ecohumanism*, 1(1), 5-17. <https://www.cceol.com/search/article-detail?id=1019280>