DECOLONISATION OF THE CURRICULUM THROUGH THE INTEGRATION OF INDIGENOUS KNOWLEDGE IN HIGHER EDUCATION

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ABSTRACT

Recently there has been increased research interest in the decolonisation of the curriculum in higher education. Indigenous knowledge (IK) is the key aspect through which the curriculum in higher education can be decolonised to ensure its relevance to indigenous students and expose non–indigenous students to alternative forms of knowledge. This phenomenological study explored the decolonisation of the Environmental Education (EE) module in the Bachelor of Education Honours through integrating IK at the University of South Africa (Unisa) through interpretive paradigm and sociocultural theory. The study engaged document analysis and participant observation. Data was analysed and relevant themes were formed. The findings revealed that the University's Strategic Plan drives decolonisation of the curriculum; the integration of IK was more evident in Tutorial Letter (TL) 102 of the EE module; there was minimal evidence of the integration of IK in TL105; IK was almost absent in TLs101, 104 and 103; and IK was only minimally introduced later in TL101 through the glossary of translated terms into African languages. The study contributes to attempts to decolonise the curriculum in higher education.

Keywords: curriculum, decolonisation, sustainability, indigenous knowledge, higher education.

INTRODUCTION

Decolonisation of the curriculum is increasingly raising research interest in the field (Al–Natour 2016; Durie 2009). This happens when higher education institutions face challenges to decolonise their curricula to realise social justice, inclusivity, and representation in education. Literature shows that IK can be sustained by indigenising the curriculum (Al–Natour 2016).

For example, In Australia, The Great Guide to Indigenisation of the Curriculum was planned to assist employees at Central Queensland University during the indigenisation of the curriculum (Al–Natour 2016). Durie (2009) mentions that tertiary institutions in New Zealand have been involved in indigenisation and transformation since 1999. An effort is being made to recognise the aim of safeguarding African IK by several academic institutions, individuals, and non–governmental organisations (NGOs) worldwide (Maila and Loubser 2003).

In South Africa, an effort to indigenise the curriculum, which followed an audit of IK by the Council for Scientific, Industrial Research (CSIR) together with selected universities resulted in framing an Indigenous Knowledge System (IKS) policy (South Africa 2004). As a result, the University of KwaZulu–Natal, Northwest University, and Unisa have initiated the integration of IK into their academic projects. In addition, the 2015–2016 student protests relating to decolonising the curriculum in South African universities demonstrated their dissatisfaction with the colonial curriculum (Le Grange 2016). However, decolonising the curriculum was never a simple assignment. As Le Grange (2016) rightfully points out, decolonising the universities, including decolonising the curriculum, is a challenging mission. In addition to this issue, universities also have to cope with the underlying culture of resistance to transformation, for instance, the incident at Stellenbosch University in 2021 – of a white male student urinating onto a black student's gadgets. In this light, a robust organisational support system for the sustainable integration of IK is needed in higher education (Kaya and Seleti 2013).

This study explored the decolonisation of the Environmental Education (EE) module in the Bachelor of Education Honours through the integration of IK at Unisa. This module is termed Mediation of Environmental Learning, and its code is HBEDMEF. The research question is stated thus: "How can HBEDMEF be decolonised through the integration of IK?" There are lessons to draw from or build on regarding the decolonisation task attempted in this module.

In this article, we describe the working concepts decolonisation and IK and EE; outline and justify the theoretical lens for the study; discuss the process of decolonising the academic programmes; provide the basis for the integration of IK in the EE programme, the role that IK plays in education for sustainability; outline the methodology applied in the study; and present the findings.

CONCEPTUALISATION

Decolonisation

Decolonisation is a self–determination act to resist colonialism for its dehumanising activity.

Sium, Desai and Titskes (2012) argue that decolonisation is opposed to colonial thinking and acting and requires an indigenous starting point. Sium et al. (2012) also state that decolonisation is a contestation for power that must necessarily push back against colonialism threatening indigenous ways of being. This definition of decolonisation suits this study since we focus on the notion of IK integration. IK should be integrated into the curriculum to realise the transformation of the curriculum. Centring IK is therefore important considering Unisa's transformation agenda and the broader national call for change in South African education.

Indigenous Knowledge (IK)

According to the definition by Emeagwali (2014, 1), IK is "the cumulative body of strategies, practices, techniques, tools, intellectual resources, explanations, beliefs, and values accumulated over time in a particular locality, without the interference and impositions of external hegemonic forces". Shava and Manyike (2018) define IK as the pieces of knowledge that indigenous people have across the globe. The main features of IK include (native) peoples, spatio–temporal, culture, language, epistemological experience, practices, and dynamism (Shava and Manyike 2018; Shava 2013). Mapira (2013) views IKS (which embraces IK) as indigenous people's bodies of knowledge of certain physical locations they have been closely attached to for a longer period. This suggests that local people have knowledge and experience about their local environment, which could be harnessed to contribute toward the indigenisation of a programme of study such as HBEDMEF. Considering this, IK is the most important tool to decolonise education (Gumbo 2020). As an enabler of decolonisation, concepts and theories about IK can be integrated into a programme of study to express the aspects contained in the above–mentioned definitions of IK which support each other – hence, they are relevant to this study.

Environmental Education (EE)

We consider a transformative definition of EE that aligns with the decolonial thesis of this article. EE is infusing environmental content into all levels of the education system to promote people's awareness related to environmental issues (Erhabor and Don 2016). Erhabor and Don (2016, 5368) view EE as "an approach to education which is hoped to bring some solutions to the deterioration of the relationship between man and the environment". The mechanistic and scientific worldview that has dominated and manipulated nature is attributed to the severe environmental, social, and economic crisis that has mainly affected indigenous people (Chandra 2014; Gumbo 2023). In this light, Lowan (2009) argued that non–indigenous scholars of outdoor and EE can learn from indigenous epistemologies and how they treat their orientations

toward nature. This is because of the practical lived experiences of the native people – they live close to their environment, ensuring sustainable relationships. The attention is now turned to indigenous ecological knowledge as a promising solution to the distressing impact of climate change and ecological deterioration (Nestorova 2020). Subsequently, native people in different settings are now exploring sustainable strategies jointly with science experts to save the environment (Nestorova 2020). According to Lowan (2009), there is an intricate link between the land, language, and culture in indigenous communities. Hence, indigenous perspectives should be integrated into the teaching and learning materials – such as that of HBEDMEF.

Theoretical base

The sociocultural theory frames this study. Ndlovu, James, and Govender (2019) point out that IK is naturally grounded in epistemological understanding, and that knowledge is a social construct. Scott and Palincsar (2013) claim that sociocultural theory describes people's thinking about socio–cultural, institutional, and historical settings.

This supports Vygotsky (1978), who claims that a child (in this study, a student) is a social being who interacts with family, friends, peers, and society. Socioculturalism is suitable for this research since it promotes the notion of a collective effort to decolonise the curriculum to advance learning as a community in a higher education institutional environment. Unique cultures, languages, and beliefs characterise higher education communities. Language and culture are viewed by Shava and Manyike (2018) as some of the main features of IK. In higher education, decolonisation should be promoted through interaction to ensure that indigenous cultures are not excluded. In this sense, decolonisation of the module in question is necessary as part of the entire curriculum transformation at Unisa.

Efforts to decolonise a university curriculum

Higher education institutions in South Africa have made efforts to decolonise the curriculum through indigenisation of their academic programmes. Part of the reason for this is the student protests of 2015–2016, which demonstrated the students' reaction to the racial issues that they have experienced over the years (Chetty and Knaus 2016). The Higher Education and Training Minister, Dr Blade Nzimande advocated for Africanisation of universities in response to the #FeesMustFall protest movement. At the summit held in 2015, Nzimande stated that all higher institutions had to dismantle the troublesome features of apartheid and colonialism in favour of the decolonisation of the curriculum (Le Grange 2016). The #FeesMustFall campaign came as a wake–up call for universities because little had been done to decolonise the curriculum by the start of democracy in 1994. The universities' curriculum still undermined IK. This was

observed by Maila and Loubser (2003), who mention that often IK did not improve the quality of human life because it suffered the lower status attributed to it. These authors argue that IK can play a major role in education in general, including EE.

Following Nzimande's call, the Western Cape Provincial Government appointed a Central Curriculum Committee to lead the decolonisation of the curriculum at the University of Cape Town (Le Grange 2016). Gumbo (2015) highlight in their study conducted in Ethiopia that there has been indigenisation in curriculum development and studies as a plan to rehabilitate the knowledge base and perspectives of those who are ignored to make their curricula relevant. The literature shows that IK has been downplayed to a larger extent by a lack of transformation in higher education; even in other contexts, strengthening the case to decolonise the curriculum.

Issues of curriculum decolonisation have also been noted elsewhere. Aikenhead (2001) and Parkinson and Jones (2018) point to incorporating native knowledge into the curriculum of the Australian higher education. At Central Queensland University, the Indigenisation of the Curriculum guide was developed to champion the lecturers' efforts to indigenise the curriculum (Al–Natour 2016). Al–Natour (2016) argues that indigenising the curriculum in Australia would transform its landscape by acknowledging the Aboriginal and Torres Strait Islanders' knowledge and practices. However, these authors indicate that curriculum transformation was slow while the students were doing the work to maintain their indigeneity. This idea aligns with Le Grange's (2016) observation that decolonising the curriculum is not easy. Uneasy as it may sound, we argue that it is still crucial to embark on the decolonisation of the curriculum – indeed, slowing decolonisation makes it a difficult task. The slowness to transform the curriculum is evident in the results of an investigation done by Parkinson and Jones (2018) in Australia, which revealed a disjuncture between the curriculum and the Aborigine's aspirations for their children's education.

In the United States, the postcolonial educational paradigm, which is applied in curricula and standards favouring the white middle–class norms have enabled the promotion of various languages and community traditions (Nelson-Barber and Johnson 2019). At the University of Denver, the Mathematics curriculum implemented the native culture, beliefs, and values – to ensure indigenous students acquire their knowledge (Garcia–Olp, Nelson and Saiz 2019). Decolonisation in New Zealand is evident on the Library Information Association of New Zealand Aotearoa (LIANZA) site (https://www.bing.com/search?q=Lianza%202008%20new%20zealand&form=SWAUA2) of 2008, which shows the coverage of an extra component that acknowledges the significance of IK paradigms concerning the Māori knowledge system (colloquially known as Bok 11). The component is defined as "11. Awareness of indigenous knowledge paradigms, which in the

New Zealand context refers to Māori" (Lilley and Paringatai 2014, 142). In April 2012, this component was added to the International Federation of Library Associations and Institutions Guidelines after its strong three–year promotion by New Zealand delegates (Lilley and Paringatai, 2014).

These international developments are related to the rationale for considering IK in the South African education system.

Justifying the integration of IK in the EE module

Unisa's Strategic Plan outlines the Key Performance Indicators (KPIs) that should be achieved by 2030. KPI 4 is about accelerating student and workforce composition, research agenda, curriculum, and governance. Of interest to this study is KPI 4.1, which states thus:

Ensure that 15 per cent to 20 per cent of programmes manifest IK and/or are available in select indigenous languages by 2030, targets: All teaching material assessed for African context and baseline established, plans developed for meeting future annual targets formulated and approved at College and Senate levels.

To achieve KPI 4, the College of Education (CEDU) set targets for achieving certain activities. This means that all teaching materials, including EE, should be indigenised and reflected in the study materials. By 2030, the study material for all the modules must be transformed. However, the Strategic Plan does not indicate how IK should be integrated in a programme – this implies EE or education for sustainability as well. Hence, this article sheds light on attempts to indigenise the module. We think the indigenisation of the EE study material should also include environmental sustainability issues, considering that several scholars have highlighted IK as playing a significant role in alleviating environmental issues (Magni 2016; Maila 2001; Maila and Louber 2003).

Magni (2016) points out the importance of IK in dealing with environmental problems by stating that IKS and forms of supporting practices of environmental management contribute significantly toward fighting ecological challenges, preventing loss of biodiversity, reducing land degradation, and decreasing the effect on climate caused by these changes. The complex problems of the environment experienced globally shine the spotlight on IKS as one of the critical solutions to these problems due to their environmentally friendly methods and practices. Encouraging students to learn IK will arm them with experience and expertise to help them respond appropriately to environmental problems.

IK's role in education for sustainability

According to Maila and Loubser (2003), IK can play a role in EE. Sustainable Developmental

Goal (SDG) 4 focuses on quality education; one learning objective reads thus:

The learner understands the important role of education and lifelong learning opportunities for all (formal, non–formal and informal learning) as main drivers of sustainable development, for improving people's lives and in achieving the SDGs (United Nations Educational Scientific and Cultural Organisations [UNESCO], 2017, 22).

Paraide and Owens (2018) advocate for integrating IK in formal learning environments. Formal education, especially at higher levels, is a vehicle of sustainable development assumed to improve lives. Accordingly, the EE module provides a mode through which to overcome education issues for sustainability. As noted by Maila and Loubser (2003), it is increasingly noticed that IK is part of the global heritage and a national resource to be utilised for the benefit of all humanity. The mention of EE in the Brundtland Commission, the South African Education Policy Initiative, and the Non–Governmental Organisation Form Principles suggest that it is crucial in improving the integration of IK in formal education (Maila and Loubser 2003).

IK is viewed as traditional and local – after all, it is made locally to address environmental problems (Maila and Loubser 2003). In line with the definition of IK cited earlier, Magni (2016) views IK as incorporating knowledge and practices exclusive to certain communities, cultures, and societies – with practices that cover knowledge systems such as values, beliefs, and world views. Magni (2016) alludes to the role of IK in tackling environmental problems – as it provides a means of combating problems, reducing land degradation, averting biodiversity loss, and lessening the climatic effect of these variations. This adds to Odora Hoppers (2005), who claims that IK provides the forms of knowledge that are the means for a community to manage its concerns regarding environmental sustainability. Further aligned to this, Prehn et al. (2021) regard indigenising the curriculum as central to restructuring higher institutions to accommodate and represent native societies, viewpoints, and places. It is, therefore, crucial that the local people's epistemologies are considered to help alleviate the local environmental challenges. A transformed curriculum is one of the critical modes to realise this.

Maila acknowledges that environmental challenges are taking various shapes and becoming multifaceted daily and has this to say about using inclusive systems of knowledge:

The world should utilise and develop other systems of knowledge to deal with the challenges at hand. It is imperative that all ways of knowing, whether indigenous or modern; Western or African, must be explored and their valuable capitals (skills, values, and wisdom) be integrated into environmental educational frameworks that would take us forward. Knowledge is a national heritage and a national resource (Maila and Loubser 2003).

Hence, IKS and Western knowledge systems can be studied and compared to enhance the

students' knowledge in the EE programmes. It is imperative to explore how IK is integrated into the curriculum and how aspects of environmental sustainability are infused into the EE module.

METHODOLOGY

Using a qualitative approach, this research explored the decolonisation of the EE module in the Bachelor of Education Honours by integrating IK at Unisa using an interpretive paradigm and phenomenological design. The interpretive paradigm and sociocultural theory enabled us to source the views and experiences of the participants in their social setting (Alharahsheh and Pius 2020). As stated earlier, IK relates to epistemology, while knowledge is socially constructed (Ndlovu et al. 2019). The qualitative approach provided clarity and promoted our understanding (Rubbin and Babbie 2013) of the issues of transformation unfolding in the decolonisation of EE. We intended to personally interact with the participants as they stated their views, especially during the seminars about decolonisation of the curriculum. Phenomenology gave us a profound, detailed understanding of the issue. In addition, the phenomenological design helped to determine the procedures for data gathering, analysis, and interpretation to safeguard the trustworthiness of the findings (Rubin and Babbie 2013).

DATA COLLECTION

We used document analysis and participant observation to collect the data. The choice of these methods was informed by the practical tasks involved in the attempts to decolonise the module (suggesting their observations while talking to the participants) and the produced module documents, which raised a need to review them. Resultantly, document analysis and participant observation tools were developed. The tools covered items that revolved around IK framed within the sociocultural aspects. The first author in this article is the primary lecturer for the EE module; as such, she observed the decolonisation process and tasks while actively involved in the module. The analysed documents included the study materials, in other words, TLs 1–5 which the primary lecturer designed; e–mails and internal communication (Intcom) that were sent to the lecturers; Unisa's Strategic Plan that was presented during the IK seminars (held online via Microsoft Teams), the recordings of which were e–mailed to the attendees by the Manager of Teaching and Learning; assessments; and glossaries that the primary lecturer compiled.

Researchers review both published and unpublished documents (Nieuwenhuis 2016) as part of data collection. Because of this, TLs 1–5 were analysed to trace the extent of their coverage of IK. The e–mail–based and Intcom–based communication was analysed to assess

any reference to IK. Unisa's Strategic Plan was analysed because it informs the scope of the curriculum transformation. Assessments were analysed to determine whether students were assessed on IK, while glossaries were analysed to determine whether African indigenous concepts related to EE were considered. In addition, data was collected by listening to the video recordings of the indigenisation seminars held in CEDU.

Participant observation was conducted during the IK seminars, when designing TLs between January 2019 and May 2022, setting and administering assessments (assignments and summative assessments), and reading e–mails and Intcom messages sent to all the lecturers, including the authors. The video recordings of the IK seminars available on Microsoft Teams augmented these methods.

TRUSTWORTHINESS

Trustworthiness was ensured by collating the data across data collection methods (McMillan and Schumacher 2010). The theoretical lens and literature review also guided the data analysis to reduce bias (Maree 2016). Furthermore, the ethics protocol was adhered to (Van Wyk 2015). To that effect, permission to conduct this research was obtained from the CEDU to which data collection methodologies were disclosed. Since the first author is the primary lecturer for the EE module, an effort was made to remain neutral in data collection, thus suspending her bias. Both authors did the same since they are Unisa employees. Our two pairs of eyes and repeated reading of the documents enhanced the trustworthiness of the methods.

DATA ANALYSIS

Thematic analysis and interpretation of data enabled us to understand the data and arrive at conclusions from the findings (Nieuwenhuis 2016) regarding how the EE module could be decolonised through integrating IK. Generally, TLs 1–5 data analysis continued from the design to the application stages. The e–mails, Intcom relating to IK, Unisa's Strategic Plan, assessments, and the compiled glossaries were intensely and repeatedly read and analysed. As stated above, the main task of the analysis was to trace the integration of IK, how it was treated, and the extent of its coverage.

The seminar videos were listened to again and again and were transcribed ultimately. The data was sifted until only the more useful information remained. It was again read several times, deeply, and interpreted to reduce it to only a few themes and to avoid the duplication of information. We did this as we coded the data by breaking it into parts/patterns consisting of similar ideas. The codes were clustered to form categories. Two themes were formed from the concepts and/or phrases that belonged to the same categories following data collection tools –

namely, the indigenisation of the EE module and the indigenous peoples' viewpoints.

FINDINGS

The findings from the data collected through documents and participant observation are presented in an integrated manner.

Indigenisation of the EE module

Five TLs (TLs101–105) were analysed. The analysis focused on the contents of the modules and the tracing of indications of the integration of IK. TL101 is basically an introductory document to the module. It provides general information such as the purpose and outcomes, resources, due dates, and the number of assessments, credits, and examinations. It also contains the contact information of the lecturers responsible for the module.

TL102 contains the learning content namely, the learning context and perceptions about the natives' experiences in the school curriculum. Firstly, the content covers the definition of IK, which includes a system of classification, observation of the local setting, nature, and self–management practices that govern resource use and sustainable living. The rationale for integrating IK into the higher education curriculum is the consideration of indigenous people's experiences and social context. This means students will have opportunities to learn native ways of living sustainably with the environment, allowing them to construct knowledge in their social contexts.

TL102 provides the background of the apartheid ruling in South Africa. For instance, as part of the rationale for integrating IK into formal education at higher education institutions, TL102 refers to the colonial system of education from which the country had to be rescued; the dominance of the colonial worldview over other worldviews; the colonial worldview as the idea of the superiority of Western science and the inferiority of IK, with very little done to educate students about the importance of local resources, values, and indigenous modes of production and management; a spatial conflict that came from the Western pedagogy's practice of indoor education.

Again, the same TL records the results of an interview with a Ugandan educationist on perceptions of IK within the school curriculum. This confirms the consideration of indigenous peoples' experiences and epistemologies. So, TL102 covers the decolonial issues as it sets the stage for the integration of IK.

TL103 comprises content on theories of behavioural learning, cognitive learning, and social learning/development. TL104 presents a classification of theories contained in TL103

except for cognitivism, while TL105 provides content on assessment, such as types of assessment, their purpose, and the use of Bloom's taxonomy. However, these are only described and not contextualised within IK. Only a few questions related to IK are set in both the formative and summative assessments – for example, "Explain what indigenous knowledge is" and "What is the rationale for the inclusion of indigenous knowledge in an environmental education curriculum?". A connection is expected between TL102 and TL105, where more questions would be set on IK. The informal and summative cumulative assessments contribute to the student's final mark. The analysis shows that the IK content is mainly covered in TL102. It is not evident in the other TLs except for TL105.

Indigenous peoples' viewpoints

Document analysis, especially of the TL102 content, included the viewpoints of indigenous people. The reference list covers sources by African scholars, such as the then–head of the Republic of South Africa, Thabo Mbeki. He is cited in a paper that he presented at the 14th Conference of Commonwealth Education Ministers, in which he indicated that South Africans are challenged with the transformation of education post–apartheid. He points to the aspect of transforming the curriculum and restoring the cultural pride of black South Africans. Public–private partnerships such as the Joint Education Trust (JET), the READ Project, and the National Business Initiative are three important examples that contributed greatly to providing working models of educational transformation.

Mbeki's paper quotes the Department of Education's Education White Paper 3: A Programme for the Transformation of Higher Education,1999b:

The transformation of … education is part of the broader process of South Africa's political, social, and economic transition, which includes political democratisation, economic reconstruction and development, and redistributive social policies aimed at equity. This national agenda is being pursued within a distinctive set of pressures and demands characteristic of the late twentieth century, often typified by globalisation. This term refers to multiple, inter–related changes in social, cultural and economic relations linked to the widespread impact of the information and communication revolution, the growth of transnational scholarly and scientific networks, the accelerating integration of the world economy, and intense competition among nations for markets.

Mbeki points out that the effort to transform the curriculum has been the country's most far–reaching project since 1994, citing the first curriculum framework, Curriculum 2005, which was launched in March 1997. He further mentions that South Africa has 11 official languages, the main being isiZulu (22.7 per cent), isiXhosa (17.7 per cent), Sotho/Pedi and Tswana (24.9

per cent), and Afrikaans (14.3 per cent). In his paper, he mentions a Sotho expression, *Motho ke motho ka batho* (a person is but through other people).

Unisa's Strategic Plan indicates that all the teaching materials were assessed to ensure the Africanisation of the content and dates were set for the completion of activities (see Figure 1).

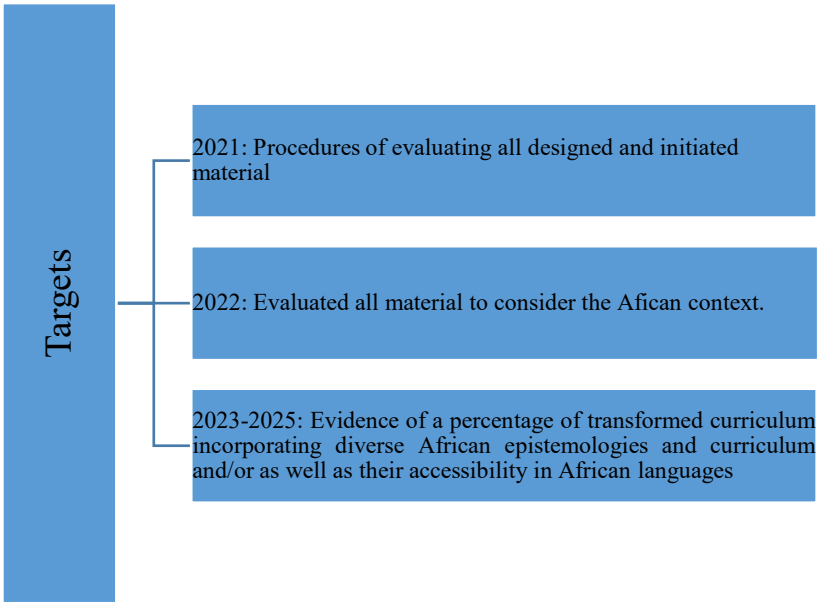

Figure 1: CEDU's targets to achieve Key Performance Indicator 4

When we assessed this module's TLs, it was not compliant with the CEDU targets for 2021 to 2022, as can be gathered from Figure 1. The findings from the e–mails revealed that the process of indigenisation started before 2021, as indicated by the dates in the invitations to the meetings where the compilation of glossaries was discussed. Since the outbreak of Covid–19, invitations have also been extended through Microsoft Teams. Staff members were invited through e–mails and Intcom messages to attend the meetings and seminars. The module leader compiled glossaries in six different African languages; this initiative aimed to indigenise the study material. Ten glossary concepts were compiled in Northern Sotho, Tshivenda, Setswana, Sesotho, isiZulu, and isiXhosa. For the EE module, these translated concepts were included in TL101.

The findings from participant observation showed that the IK specialists were invited from other institutions to guide the lecturers on indigenise the curriculum. In addition, lecturers who were knowledgeable in IK and had attempted to indigenise their curricula were invited to guide their colleagues on integrating IK. The attendees of the online meetings were given a chance to raise questions after the presentations. Both the attendees and the presenters answered questions.

The participant observation showed that seminars on indigenisation of the curriculum were conducted, video–recorded and made accessible to the staff members for ease of reference.

Alongside the video recordings, staff members could view the presentations and listen to the seminars' questions and answers. The participant observation findings revealed that the materials' indigenisation commenced with the compilation of African languages for the EE module.

The findings thus far show that efforts were made to some extent to indigenise the curriculum in the EE module. Moreover, CEDU's Tuition Portfolio drives and guides the decolonisation processes in the College.

DISCUSSION OF FINDINGS

The indigenisation of the curriculum is fundamental to managing the colonial education system that excluded and ignored IK (Chetty and Knaus 2016; Al–Natour 2016; Le Grange 2016). This is why, generally, institutions of higher learning worldwide consider decolonising their curricula (Le Grange 2016) using IK as a tool to decolonise education (Gumbo 2020).

The guiding question for the study was: How can HBEDMEF be decolonised through the integration of IK? This question was answered as evidenced by the findings of the study. It was gathered that Unisa has a plan to implement the decolonisation of the curriculum. The Strategic Plan guides indigenising the curriculum to decolonise it, concurring with Gumbo (2020). The findings also show that the effort to indigenise the EE module ran ahead of the Strategic Plan (see Figure 1) as it already included aspects such as the definition of IK, reasons for not including IK in the curriculum before the transformation era, and failure to consider IK means that might contribute greatly in dealing with environmental challenges and sustainability of the environment.

The self–willed move by lecturers shows that they did not have to wait for the transformation to be formally started by the leadership of the Institution. They did not only theorise about transformation but took the first step to confront the educational atrocities that apartheid brought, propagating the colonial education system (Le Grange 2016) through Western science, which was paraded as more significant than IK. The lecturers identified a need to teach students about the importance of local resources, values, and indigenous modes of production and management and the importance thereof for the sustainability of the environment. Concomitant with this move, the lecturers confronted the notion of teaching inside the classroom in favour of inclusive approaches which promote diverse and complex environmental problems (Maila and Loubser 2003; Maila 2001) – the advantage of indigenous people's education is that teaching can take place anywhere at any time, making use of the natural resources. Elders take advantage whenever the opportunity arises to teach about nature and its principles as and when they encounter something worth teaching about. The live fauna

and flora are the teaching aids. The definition contained in the module speaks of the local people's knowledge and culture, in line with scholars in the field (Garcia–Olp, Nelson and Saiz 2019; Parkinson and Jones 2018; Shava 2013; Shava and Manyike 2018). Likewise, Ndlovu et al. (2019) indicate that IK is naturally grounded in the epistemological understanding that knowledge is a social construct, aligning with the sociocultural theory that framed this study. Maila and Loubser (2003) agree that they view IK as traditional and being constructed in a local environment to resolve local environmental challenges.

Among others, Hoppers (2005) views IK as a form of knowledge that could be used to deal with environmental sustainability issues. Magni (2016) claims that IK can provide a means to cope with environmental challenges – for instance, preventing biodiversity loss and lessening environmental degradation and the climatic effects of these changes. It is, therefore, significant to incorporate the knowledge of the local people when indigenising EE.

The theoretical basis contained in TL103 is problematic. Even though students are introduced to IK, they are not taught African theories that could be used when studying and applying the local people's epistemologies. African theories may assist with the understanding of content supplied by those who compile the modules to ensure the smooth indigenisation of the curriculum. IK should be relevant to the local people as its custodians (Al–Natour 2016; Lianza 2008; Maila and Loubser 2003) – even theoretically. Proverbs, for example, can be used as theoretical lenses.

The findings from the document analysis showed that EE lecturers compiled glossaries covering ten terms in six different African languages. This is crucial because language is the "vehicle" to transfer IK from the local people to the information seekers, in this case, from the lecturers to the students. Including the glossary should facilitate the students' understanding of the study material. The glossaries of the EE concepts translated into different African indigenous languages were included in TL101 to benefit black African students. They will also be used during the indigenisation of the material when the module is reviewed. Our take is that the translation should not be limited to a glossary only – where there is a need to include certain concepts in native languages, there should be room to do that. Unisa has introduced native languages in examinations by providing versions of the question papers in those languages. This is a motivation to integrate indigenous languages into the content and teaching of the modules. This move agrees with Shava and Manyike (2018) and Shava (2013), who point out that language is one feature of IK. This suggests that decolonising the curriculum should consider the language of the indigenous people. The videos recorded during the seminars allowed lecturers to chat on the site. This was an effective way of maintaining collaboration amongst the lecturers throughout indigenisation and ensuring social interaction.

The information from the interview with a Ugandan educationist cited in TL102 is acknowledged and supportive of the move to integrate IK. It is augmented by former president Thabo Mbeki's paper, which revealed the viewpoint of a local indigenous person, thus contextualising IK. He outlined issues of transformation of the curriculum post–apartheid. The transformation of the curriculum can bring back cultural pride to black South African communities. The former president's paper cited Curriculum 2005 to show the country's determination to transform the curriculum. The paper spoke to the significance of considering African languages, agreeing with Unisa's Strategic Plan for the indigenisation of the curriculum. This process began by compiling African language terms for each module.

CONCLUSION

This study explored the decolonisation of the module on EE in the Bachelor of Education Honours through the integration of IK, which was integrated into the study material, introducing the content before the implementation of the Strategic Plan of the University. This was done by defining IK and providing reasons for the current curriculum to undergo a paradigm shift by indigenising the curriculum. The significance of IK in resolving environmental problems has been scrutinised. Assessments of both formative and summative nature covered a few questions on IK; it indicates to the student the importance of IK. The University has a plan to ensure the indigenisation of curricula by the set date. At the CEDU level, the staff is supported through seminars to ensure successful indigenisation. The study makes a valuable contribution to the attempts to indigenise the curriculum, how the modules can be packaged, and areas that reveal gaps, for example, assessment minimally covers IK. The theories which are not indigenously inclined can hamper the implementation of the modules – the theories could be seen as counter–transformation. There is a willingness among academic staff to transform the curriculum, though. This study allowed us to reflect on our practice and to view ourselves as the transformation agents who will embrace and enact the recommendations made below.

Since decolonising the curriculum is a challenging task, this article extends the work by contributing practical ways and processes on how curriculum can be decolonised in an institution of higher learning – it should be a collaborative and guided effort. Though the focus was on a programme module, we believe that the article provides valuable insights that can be applied at a programme level as well. This contributed work has implications for higher education in South Africa: 1) reorientating the university curricula to justifiably respond to students' call to Africanise the curriculum, 2) producing students who are well informed with African knowledge, skills, pedagogy, theories, etc so that after completing their qualifications, they can impart African epistemologies in their work environments and communities, 3)

responding to national policy demands about the transformation of higher education.

RECOMMENDATIONS

TL102 covers IK, but the other TLs do this minimally – therefore, they should all cover it. The content should focus on the integration and representation of the IK of the local people; how they interact with the environment, deal with environmental problems, and ensure environmental sustainability, which should be done through interviews and discussions. The study material should include African theories, idioms, and proverbs relevant to EE to enhance understanding of the content. These expressions could add value to the theoretical basis of the module from African indigenous perspectives. Pedagogical practices should be well defined to enable the teacher–trainees to teach IK after completing their qualifications. The coverage of IK should increase in both formative and summative assessments – instead of limiting it to just a few questions.

LIMITATIONS

This study was limited to exploring the integration of IK into one module of EE. Hence, the entire EE curriculum should be researched to present a broader picture of the transformation. This could even be extended to all the programmes of the department hosting EE. In addition, research needs to be conducted to gather the lecturers' views about the progress, opportunities, and challenges they experience during the implementation process. Most importantly, students' experiences of the transformation that is currently underway should be recorded as well.

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