

Student experiences of photovoice as a medium to inform decolonisation of the Health Sciences curriculum

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ABSTRACT

Decolonisation of curricula embeds the African realities into teaching. Within the Health Sciences, learning, which is responsive to community health needs, is required. This study used photovoice, a student participatory teaching method, where students (n=96) engaged with local communities, capturing photographs of environmental factors involved in causing disease. Photographic information of local adverse environmental conditions was gathered, linking these to disease causation within local communities. This observation and analysis of the South African circumstances, particularly those of marginalized communities, emphasized local knowledge, which prepared students to work within their local and national contexts. Students were prepared to be responsive to the needs of the people in their communities. This teaching pedagogy laid the foundation for lifelong learning as students were able to deal with real-life challenges while applying a new technology in the field of education. This will enable them to cope with changing aspects in health during their careers. Such changes are inevitable as population demographics and environments evolve with time. This alternate pedagogy, using photovoice, promoted decolonisation of the curriculum and has the potential to produce graduates who are reactive to local requirements of the community.

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Introduction

Decolonisation of the curricula has been topical in higher education institutions (HEIs) in South Africa recently. Academics are attempting to shift from what was taught under colonialism and oppression to that which is more relevant in the context of South Africa (Lockett, 2016). Le Grange (2021) adds that curricula were “factory made” and that academics have tended to continue within this modality. Whilst this challenge may require a disruption of the prevailing modes of teaching and learning, it does not suggest a completely new start. The need for decolonisation can be built on existing knowledge which can be adapted for greater relevance to the context (Le Grange, 2021). Hence, when transforming curricula, it is necessary to integrate disciplinary and social knowledge, thereby integrating learning within the broader community (Mashiyi, Meda, & Swart, 2020).

Decolonising theories challenge colonialism, racism, and oppression. They create a space for expression of the voices of those who were previously silenced and, therefore, have convergence with those who advocate for socially just leadership (Lockett, 2016). Within such an endeavour, academics, as well as advocates for justice, are essential as co-creators of knowledge and should commit to transforming theory into action (Du Plessis, 2021). In addition, within the South African transformative agenda in HE, alternative ontological and epistemological positions must be centred, understood, and practised. It is accepted that knowledge does not necessarily have to emanate from Africa, but it must address the African reality (Naudé, 2017). Such embeddedness of African realities and experiences is necessary to provide solutions to the challenges that prevail in Africa (Du Plessis, 2021).

In South Africa, the decolonisation of universities involves teaching students who were previously marginalized under apartheid, allowing them to embrace and recognize their own cultures. Students need to be taught about their own environment from a socio-cultural perspective and the impact of their present realities. Therefore, it is essential to question how the present Eurocentric aspects of the curriculum are in contradiction with African realities. Clearly, learning is expected to be relevant and responsive to community needs to improve the social responsibility of graduates (Du Plessis, 2021). The Durban University of Technology (DUT) strategy, named ENVISION2030, requires transformation that impacts society. This will involve generating new knowledge that positively impacts society (DUT, 2020). To achieve this, it will be necessary to move away from Eurocentrism.

The Council on Higher Education (CHE) (2017) has proposed four strategies to accomplish decolonisation within the South African national context. These strategies include altering the content, modifying the mode of teaching, transforming the understanding of knowledge, and changing who is teaching or researching this knowledge. These strategies were used as a theoretical framework to guide the study.

Modifying the content

The practical challenges faced by different communities highlight the role of HE in addressing major socio-economic issues. The content taught at universities must align with the societal needs of their respective locations. In the South African context, the focus is on determining if universities are preparing students who will be capable of reducing poverty and inequality (CHE, 2017). The emphasis lies on cultivating locally relevant and robust knowledge that better aligns with the requirements of students whilst simultaneously contributing to global knowledge production with an African perspective. This may require replacing work perceived to be Eurocentric in nature with locally produced texts. It may also involve using locally relevant examples and applications of knowledge to address local conditions and problems (CHE, 2017).

Content can be modified by either outward or inward facing strategies. Inward facing strategies will include transformation within the institution through changes in curriculum, whilst outward facing strategies involve working with local communities, building within these communities by redirecting institutional resources towards local indigenous communities to bring to fruition the communities' priorities and vision (Shahjahan, Estera, Suria, & Edwards, 2022).

Modifying the mode of teaching

It is argued that altering the methods of teaching and learning is an integral aspect of curriculum transformation, equivalent in significance to the content being taught (Agrawal, Heydenrych & Harding, 2022). The CHE (2017) underscores the importance of integrating instructional approaches into curricula that empower students as engaged contributors to the learning process, thereby enhancing their access to knowledge. This is accomplished through three strategies: appreciating student perspectives, fostering critical awareness among students, and integrating novel project delivery locations.

Transforming the understanding of knowledge

This requires a critique of existing knowledge and alternate ways of viewing the world (Thaman, 2003; Agrawal *et al.*, 2022). Thus, decolonisation should allow indigenous knowledge, which was previously subjugated, to resurface (CHE, 2017). Hence, there is potential for a shift in the comprehension of disciplinary knowledge, which establishes a connection between education and the real-life experiences of citizens.

Changing who is teaching or researching knowledge

This shift in knowledge production gives a voice to students and community members (Agrawal *et al.*, 2022). By enabling community stakeholders to become primary drivers of projects, the focus of students can be steered towards local contexts, hence striving towards modifying the content (Agrawal *et al.*, 2022). The students will require guidance but there will be a shift, which involves moving beyond perceiving the curriculum as a passive reception and instead viewing it as a collaboratively built framework of comprehensions (CHE, 2017). Students would then gain new insights about the local context and the effect of colonisation on South African society. Furthermore, it will enable critical thinking by students as they play an important role in knowledge production (Agrawal *et al.*, 2022). One of the necessary graduate attributes is “identifying and solving problems using critical thinking as well as scientific knowledge” (DUT, 2016).

Within the Health Sciences curriculum, the commitment is that learning must be relevant and responsive to community health needs, to improve the social responsibility of graduates and to stimulate creativity, whilst providing a distinctive education. Knowledge of disease, together with the social determinants of health, which are the conditions in which people live, grow, and work, is also essential (Puoane, Tsolekile, Caldbick, Igumbor, Meghnath & Sanders, 2012). Within the Health Sciences, some institutions have recognized the need to embed African traditional health practices into their teaching (Moeta, Mogale, Mgozeli, Moagi & Pema-Bhana, 2019). This would require an incorporation of traditional knowledge into modern health care systems. Since photovoice allows communities to capture images of their concerns, it has been used to enhance community health needs (Mark & Boulton, 2017). Within HE, photovoice has been used as a teaching tool to provide details that are often not captured in the classroom, as the visual images are a powerful tool to advance critical thinking about real-world situations (Muller, 2023). There is, however, limited

scholarship on its implementation. This paper aims to address this gap by providing an example of using a photovoice project to decolonise a Public Health module taught to second-year students.

The aim of this research was to elicit students' experience with a photovoice assignment that was designed with decolonisation goals in mind.

Methods

A photovoice assignment was presented to Health Science students registered for a module called 'Epidemiology: Public Health' between 2019 and 2021 at the DUT, South Africa. The four strategies proposed by the CHE (2017) were used to connect the assignment to decolonisation goals. To modify the content, students (n = 96) working in self-selected groups of three to four were required to take photographs of factors within their local environments that might cause disease. Thus, locally relevant knowledge, which will contribute to global knowledge production with an African perspective, was emphasized. Students within each group could either take the photographs individually or collectively as a group. Cellular phones, cameras, tablets, or any other device most accessible to the students were used to capture the photographs. Field notes, detailing the public health issues within each photograph were required. There was no limit on the number of photographs that could be taken. After capturing the photographs, the group was required to meet to discuss their photographs and field notes. This aligned to the second CHE (2017) strategy by modifying the mode of teaching. Thereafter students were to select the best photograph for presentation in class. Students needed to ensure that the presentations were pitched in a manner such that fellow students could learn from the presentation. Thus, all students were required to learn from one another and take notes from one another's presentations as they could potentially be tested on the public health issues that they researched. Hence, this aligned with the fourth strategy outlined by the CHE (2017), in that the students researched and taught the information. The lecturer facilitated the process, ensuring the correctness of the subject taught. Presentations were of approximately 10 to 15 minutes in duration with an additional five to 10 minutes to answer questions that were posed by the lecturer, an independent assessor, and other students. Presentations were assessed based on the picture, presentation quality, and ability to answer questions. The format of the presentation and assessment criteria are described in a previous study (Haffejee, 2021). In brief, the following criteria, adapted from Capous-Desyllas & Bromfield (2018), guided the presentations: (1) description of the picture; (2) health of the people in the depicted environment; (3) opportunities to improve the environment and health of the people. The oral

presentations were assessed based on these criteria, as well as the presentation quality and the ability to answer questions. Overall, the assignment met the third CHE (2017) goal of transforming the understanding of knowledge which was not obtained from a textbook but from local investigations and critically linking the findings within the environment to health outcomes.

Following the presentations in class, focus group discussions were held to understand the students' experiences of this new pedagogic tool. Four groups were purposefully chosen from the 2019 cohort but all groups from the 2020 and 2021 cohorts were interviewed, thus a total of 18 focus group discussions, from all three cohorts, were held. The focus group discussions were facilitated by the researcher and a research assistant. Each focus group lasted approximately 30 to 45 minutes and was audio-recorded and subsequently transcribed. A total of 16 open-ended questions guided the focus group discussions. Responses to the following questions are used in this paper:

- How did you feel about this assignment?
- How did you feel about presenting your assignment to the class and in so doing be involved in teaching part of the course?
- Was it easy to get the required information?
- Describe any barriers that you faced?
- What approaches did your team use to complete your assignment?
- What factors helped your team feel successful?
- How did you feel about presenting your assignment to the class?
- What was your general attitude towards this type of study?
- What were the benefits of gathering information yourself, as opposed to getting it from the lecturer?

Data was analysed using thematic analysis, where the data was organized into themes and sub-themes using Tesch's eight steps of analysis (Creswell, 2007), as follows: (1) A verbatim transcription of the audio-recorded interviews, on a Microsoft Word® document. (2) Reading and making notes on each transcript, where important points and key statements were highlighted. (3) Groups of crucial information were organized to generate codes. The four strategies proposed by the CHE (2017) were used as priori codes: modifying the content, modifying the mode of teaching, transforming the understanding of knowledge, and changing who is teaching or researching this knowledge. (4) The coding process was used to generate themes. (5) Similar topics were grouped together. (6) Sub-topics that linked to a particular theme were named as sub-themes. (7) Patterns were unearthed, and deductions drawn based on the generated themes. (8) The data was interpreted.

Ethical clearance was obtained from the Institutional Research Ethics Committee (IREC) prior to implementing the project (IREC 108/19). Gatekeeper permission was provided by the Director of

Research at the university. All students provided written informed consent to be interviewed and for their data to be used as part of the research.

Results

This report presents the findings on the theme of decolonisation. Four themes emanated from the data. These included: (1) Modifying the content; (2) Modifying the mode of teaching; (3) Transforming the understanding of knowledge; and (4) Changing who is teaching or researching the knowledge. Subthemes emerged from themes 1 and 3. These are indicated in the narratives of these themes.

Theme 1: Modifying the content

Two sub-themes emerged from this theme: Absence of literature on health risks in communities and the limitation of textbook knowledge.

Subtheme 1.1. Absence of literature on health risks in communities

Students noted that there was an absence of literature on health risks within their local communities: “we felt that the literature of health risks in informal settlements is limited and therefore decided to review this area in order to describe and analyse the health-threats and everyday risks that people in informal settlements face” [Grp10/20]. Being afforded the choice of working in an area of their preference was also empowering. New knowledge was created because they had to interpret and analyse the situation that they were observing. The information was not directly available from the internet, but the latter could have been used in the interpretation of their data: “It’s not like something you can find on the internet. We had to get our own information and then compare with other information” [P1/19].

Subtheme 1.2. The limitation of textbook knowledge

A student affirmed that this was better than learning from a textbook: “it’s better than textbook learning” [P9/19]. Another student echoed this sentiment: “It is better than learning in the classroom because you actually went out into the community, and you learned there” [P5/21].

Only one student felt that because the literature was not easily available, it required more effort on their part: “unlike research where we could just go maybe on the internet and find out something, read books, uhmm, it did require a lot” [P8/20]. However, when probed, the student confirmed that learning was enhanced, despite the greater effort that was required: “yah, yah I did learn more” [P8/20]. He elaborated that this was particularly in terms of a lack of environmental cleanliness: “In terms of just knowing how other places are not so clean or how other places are not managed the way they should be managed by the municipality coz we found a lot of places very dirty. Uhh, it’s just okay to be healthy where I live but it also pertains to the whole environment - of how it should be clean” [P8/20].

The aspect of decolonisation was reiterated by the students, who expressed that most textbooks focus on examples from developed countries: “Usually in textbooks, they reference to other countries like the United States. They think this affects us locally as citizens of South Africa. So, I think this project helped us to face reality and to get to know more about our community because we got to see with our own eyes what is happening” [P3/21].

Theme 2: Modifying the mode of teaching

The method of teaching was modified. Students were no longer presented with information that required rote learning but rather engaged with the environment during the learning process. It identified the translation of theory into practice. During a module on parasitology, in the previous semester, students had learnt about parasites which cause bilharzia. Interestingly, two groups of students, one from each of two different year cohorts, linked their photographs of the environment to the presence of bilharzia in the community. Figure 1a shows a section of the Tugela River, while Figure 1b indicates a dam wall along the Umgeni River. Although both photographs were taken at different locations in KwaZulu-Natal, students were able to link the presence of bilharzia to various activities by local residents that perpetuated the presence of the parasite. Students affirmed that in Figure 1a, the pollutants on the riverbank were due to people coming to the river to collect water and relieve themselves since sanitation was lacking in the rural areas. “Water supply in this area is very poor, so people and livestock share the river as a water source. It is a rural area that lacks sanitation; residents are uneducated, so they pollute water. Since sanitation is also poor, people excrete their waste (urine and faeces) in the river. They also use the very same water for drinking, cooking, cleaning, bathing, and washing. Some wash in the river while others bath in the river. Also,

the people of Tugela Ferry are at risk of being infected by *Entamoeba histolytica*, *Schistosoma*, etc.” [Grp 7/20].

They were able to link the presence of larvae in the water, which is the route of transmission of the parasite, into a human host: “Children are then infected by the cercaria larvae while swimming. This causes urinary bilharzia or intestinal bilharzia” [Grp 7/20].



Figure 1a. A section of the Tugela River, in Tugela Ferry, a rural Area [Grp 7/20].



Figure 1b. A dam wall along the Umgeni River between Pietermaritzburg and Durban [Grp 9/19].

In Figure 1b, children are bathing and swimming in the dam, along the Umgeni River. Additional reading that the students conducted revealed the presence of pathogens in the dam water: “Water tests have shown *Vibrio cholerae*, *Salmonella*, *Shigella*, many viruses and *Schistosoma* at all locations along the river” [Grp9/19].

Thus, modifying the mode of teaching by sending students into local communities empowered students to identify local problems that led to ill health. The issues that they uncovered were not isolated to the individual communities that they researched but were reflective of many marginalized communities within the country. This practical assignment thus played a role in decolonising the curriculum as the students were able to learn various ways in which host activities played a role in parasites entering the water with subsequent transmission to humans: “This assignment taught us about diseases that affect our own population, and not those which might be coming from Britain or America, so our learning was more important to us and we learnt how poor people in South Africa can get infected with parasites in the water because they have to go into the river to bath or collect water for drinking and cooking” [P23/21].

This was re-iterated by another student: “it did umh remove the colonial aspect because now I actually had to go and experience outside the institution – for example you could have just made this whole thing a practical where we just came in and you could have showed us pictures – it wasn’t. Instead, we went out there and then we got to actually interact with what we learnt about here in class, so, I think it is a very good step” [P12/21].

Theme 3: Transforming the understanding of knowledge

Three subthemes emerged from this theme: (3.1) contextualization of knowledge, (3.2) improved understanding through discussions, and (3.3) the development of critical awareness among students.

Subtheme 3.1. Contextualization of knowledge

The students strongly believed that this assignment contextualized learning to local health matters, hence decolonising the curriculum: “I feel like this project helped us to learn more about the communities and the things that are happening locally” [P3/21]. This was echoed by another student: “I think that by going into the community and society and talking to people and seeing the problems first-hand, made us learn more about the South African situation” [P8/21].

Students acknowledged that this reflective assignment expanded the lens through which they observed the contribution of their environment to ill health, thus supporting learning of local societal issues which impacted the broader community. They were able to easily link the theoretical knowledge acquired during lectures to the realities of their communities: “I think Ma’am, it definitely did decolonize the way we learnt because 80% of things you learn in class never really apply to the real world and it becomes something that is not useful and because of that you forget. Whereas with this, there was a lot of emotions that was invested because you are applying it in the real world and now we were connecting more to a human being like us” [P1/20].

Subtheme 3.2. Improved understanding through discussions

Discussions with fellow group members also enhanced their learning. In response to the question on whether this method was useful for learning, a student responded: “It’s definitely useful coz then

you also get a chance to look at things in different perspectives. You can't always stay in your box so it's nice to see how other people think and tackle questions and whatever" [P8/19].

Another student followed by adding: "And maybe, if P8 suggests something during the lecture and I'm thinking then I'm going to get ideas and then add my idea and she adds and then now you are like okay this is general knowledge. So, you just think along" [P9/19].

Another student reiterated that the issues were not new, but that the realization of the effects of these was not present until they were working on the assignment: "You see these are things that were happening in the environment, honestly speaking were always happening but we were not aware about them because we never thought about them. We never took these into consideration until you gave us this assignment and that was when a bell rang in my head" [P15/20]. This was reinforced by another student who mentioned that most people are facing these difficulties: "I think it was a good assignment because it was one issue that we have especially in our areas. Yeah, it's an issue that most people are facing" [P6/20]. There was a sense of appreciation for being afforded the chance to work in an area of their choice as they could ascertain how the environment affected the health of their own communities: "I like it because we were given a choice to choose the issue, the issue that we wanted to present about, and we were expressing our opinions about how it affects the environment" [P4/19].

Subtheme 3.3. The development of critical awareness among students

The students displayed creativity, lateral thinking, and a willingness to explore alternative solutions that may not be immediately apparent. "It was a good experience. We came up with different ideas, we were really thinking out of the box. The written part, you know everyone contributed, we set down a lot of pictures and then we had to choose because there were a lot of pictures, so we had a lot of discussion, which gave us lots of new ideas" [P19/21].

They displayed the ability to approach challenges in innovative ways. For instance, in Figure 2, which depicts portable toilets in an informal settlement, the direct problem is a lack of piped water and sanitation. "The inadequate sanitation and lack of running [tap] purified water creates an environment with risks of infectious diseases. Diarrhoeal disease, worm infections and other infectious diseases that spread via contaminated water are common. Families have difficulty with basic hygiene in their homes" [Grp10/20].

However, students also noted that these portable toilets were not regularly emptied or cleaned, which led to further problems in the community as residents were then forced to relieve themselves in nearby bushy terrain. There was a particular concern for females, who may also be exposed to gender-based violence: “The lack of infrastructure causes the citizens to use the bushes as their toilets. Not only does this create an unhygienic environment, but it also increases the vulnerability to crime and gender-based violence, particularly at night” [P3/20].

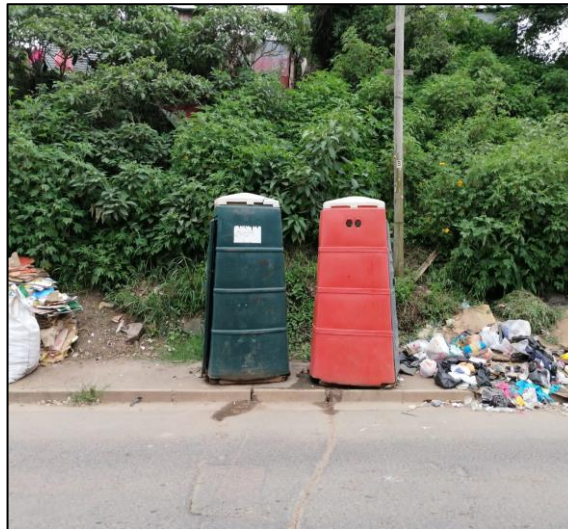


Figure 2. Portable toilets on the pavements outside an informal settlement in Mayville, Durban [grp10/20]

It is clear that the assignment fostered a curiosity and open-mindedness, encouraging students to explore beyond the boundaries of conventional thinking. Hence a culture of innovation was encouraged, creating an environment where teams were empowered to explore and push the boundaries of what is considered achievable.

Theme 4: Changing who is teaching or researching the knowledge

The knowledge was produced by the students, who researched the knowledge. They recognized that this knowledge production helped to improve their learning. “In obtaining the knowledge ourselves, this project helped us to improve our learning because this project was also an eye opener for us to see that there’s a lot that still needs to be done in South Africa. There are a lot of people who are living on uncondusive conditions, umh which also motivates us to try and help those in need in what-ever way that we can” [P19/21].

Community involvement in obtaining the knowledge was evident. “Some people were hesitant speaking with us or taking pictures with us but besides that other people were really friendly – they told us the information we needed, elaborated, they engaged with us and you can see that they really trust that we can help them with something, they have that hope” [P8/21].

In addition to enhanced knowledge production, working with community members created empathy within the students, which could result in a longer-term impact on the society. “At first, I had a totally different picture, I was excited to actually work on something that is hands on instead of just sitting here in class and writing down notes. Umh, and then when we actually got there and I realized that we actually gonna be working with people and not just the environment itself coz’ at first that’s what I thought. Then knowing that we were actually helping people who are actually in need and they don’t realize it, made an impact me. There were feelings involved – a lot of empathy because looking at this situation these women live in and looking at your own situation and actually realizing that even though we sitting in class and learning about this. That certain people do get illnesses but its people who are right here around the corner that are actually suffering” [P3/21].

There was an overall appreciation of this new teaching pedagogy, which was articulated very well by the following student: “Without your teaching, without your creative thinking, this would not have been possible, it was more of an effort coming from you. You know grooming our minds and enlightening us with issues that we live with. So, it’s a high favour coming from you, thanks a lot” [P15/20].

Discussion

This study used photovoice, a student participatory teaching method, to decolonise a Health Sciences curriculum at a South African university. Students were able to gather photographic information of adverse local environmental conditions and link these to disease causation within their communities. The project decolonised the teaching of the discipline through alterations in project context, delivery, and the individuals participating in project instruction. It also transformed the students’ understanding of Public Health. Hence, it transitioned the project's context and setting from a classroom-based environment to one that resonated more with students’ lived experiences. Additionally, it provided a point of reference for the community, benefiting most of the students.

The key modification implemented in the new project involved integrating a problem that is locally relevant. Students no longer relied on Eurocentric examples, which are provided in the textbooks, for their knowledge of Public Health, but were able to observe and analyse the South African circumstances, particularly those of marginalized communities. With this emphasis on local knowledge, this study demonstrates that this new teaching pedagogy can decolonise the curriculum. This teaching modality emphasized South African knowledge, in particular knowledge of the local societies from which the students hailed. This emphasis prepared students to work within their local and national contexts. The students were able to report on their own communities, particularly those that were marginalized, divulging their own histories. The awareness of the lived realities that their communities faced were exposed. Although they passed through these communities on an almost daily basis, they were previously unaware of the effects that these living conditions would have on health. As one student mentioned, this understanding only arose when they embarked on the assignment; that is when “the bell rang in the head”. Thus, modification of the content, as well as the approach to teaching, transformed the understanding of knowledge, linking all four strategies of decolonisation. Du Plessis (2021) reports that academics are ignorant about the actual lives of students and of the difficulties that they face. Whilst the students were most likely aware of the daily difficulties that they faced, in terms perhaps of lack of piped water, toilets, and other municipal amenities, they had not previously linked this to complications that would arise in other aspects of their lives, such as health. A lack of toilets, for instance, is often linked to a high incidence of diarrhoeal disease (Ntshangase, Ghuman, & Haffejee, 2022); the students, however, also related this to the occurrence of gender-based violence. Critical thinking was thus evident, an important attribute for workplace preparedness.

This project prepared the students to meet current challenges that are faced by their communities. As opposed to learning information about Public Health from a textbook, they were able to observe at first hand the public health challenges faced by their communities. They recognized that children bathing in the dam water, whether to cleanse themselves or as recreation, were exposed to parasites that cause bilharzia. In a previous module on parasitology, these students had learnt about the causes of bilharzia; this photovoice assignment made that previous learning a reality as the students witnessed first-hand the opportunity for the spread of the parasite within the local South African context. Their further reading into pathogens that are found in the dam water demonstrated critical thinking and collaborative skills which are essential to respond to the challenges faced by the societies in which they live (Du Plessis, 2021). Furthermore, the students recognized that measures could be put in place to limit the spread of these diseases. According to Moll (2004: 9), critical

engagement with the material fosters the course for decolonisation. The students themselves attested that this was better than textbook learning, which was mainly limited to Eurocentric examples.

The project generated a space where students expressed how colonialism and oppression affected societies, over two decades after political change had occurred. Their pictures depicted how oppression affected local environments, which subsequently affected health. It has been reported that these living conditions within marginalized South African communities have led to inadequate access to health services (Coovadia, Jewkes, Barron, Sanders, & McIntyre, 2009), which further perpetuates the health problems faced by these communities. In South Africa, access to health care among different socio-economic strata is disproportionate, with those from lower socio-economic strata attending public sector health care, which is understaffed, under-resourced, and overcrowded (Coovadia *et al.*, 2009). Textbooks tend to elaborate on these differences by comparing developed and developing countries. The acquisition of this knowledge by the students, through their assignment, established these differences within neighbouring South African communities. The students reiterated that although they had previously observed these environmental conditions, they did not realise how they would affect health. It was previously regarded as a normalization of their surroundings, and they accepted things as they were. This alternate epistemology thus moves education forward, allowing scholars to connect theory with practice. All the narratives were from a local perspective, addressing past and present injustices and the marginalization of those who were previously colonised. Since local history is viewed from people's perspectives, it decolonises the curriculum (Mampane, Omidire, & Aluko, 2018) and would be important to include in the teaching curriculum going forward.

This teaching modality thus shifts the power dynamics in education, giving students a voice to shift the direction of the curriculum, which is important because in the two decades since the advent of democracy in South Africa, the curriculum has remained colonised (Fomunyan & Teferra, 2017). In sharing and discussing their field experience, students became aware and critical of their own and others' assumptions and reflected on problems from varied perspectives. Participation in such discourse transforms learning (Mezirow, 1997). This learning recognises "the pain, anger and anguish being experienced in society" (Odora-Hoppers & Richards, 2011), a factor important in decolonising the curriculum. It equipped students to comprehend the social and economic circumstances that affect health in local societies. Students were able to perceive how the injustices of the past affect current living and health conditions. Photovoice was used as a participatory

technology to reflect the African reality, which Naudé (2017) states is important in decolonisation discourse. Participatory scholarship is also important as it permits sharing of information, which is reflected upon and critiqued so that learning can be improved (Cronin & MacLaren, 2018).

In the process of modifying the mode of delivery, the project empowered students to actively engage in constructing knowledge instead of merely receiving information passively. Similar findings were reported in a study where the site of delivery of an engineering project was changed, together with enabling students to research the knowledge (Agrawal *et al.*, 2022). The photovoice assignment provided an opportunity for the students to voice what was important to them and to their societies. This voice is essential in transformation and decolonisation of the curriculum. Furthermore, they become active participants in the construction of knowledge, which ensures that they become stakeholders in the move towards decolonisation (Fomunyan & Teferra, 2017).

This project established a path towards decolonisation by changing the curriculum content, changing the mode of delivery, including students as the co-creators of knowledge and transforming the students' understanding of knowledge. This was appreciated by the students. In particular, they acknowledged the educator's inclusion of new knowledge systems and the critical thinking component.

Conclusion

This study promoted decolonisation. It made learning relevant, preparing the students as future citizens who are responsive to the needs of the people in their communities. It laid the foundation for lifelong learning. Students were able to deal with real-life challenges while applying a new technology in the field of education. This will enable them to cope with changing aspects in health during their careers. Such changes are inevitable as population demographics and environments evolve with time. This alternate pedagogy has the potential to produce graduates who are reactive to local requirements of the community.

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