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Towards an African Education Research Methodology: Decolonising New Knowledge

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Abstract

South Africa has a number of policies to protect and promote indigenous knowledge (IK). The increasing interest in research into indigenous knowledge and science education in southern Africa has led not only to the production of publications, but also to numerous conferences, seminars, research centres, projects, learning materials, and postgraduate courses. However, research methods that are aligned to indigenous knowledge systems (IKS) are yet to develop to the extent that IK policy, publications, and interest groups have. Notwithstanding some authoritative texts (Chilisa, 2012; Odora Hoppers, 2004; Smith, 1999), there is a need for research-based examples from the southern African context that can offer authentic and nuanced suggestions for IK researchers of what an African research methodology might be. In this paper we present a brief overview of arguments for research methods that are consistent with IKS, propose features of such research orientations, and some examples of research processes. We synthesise some of the knowledge we have gained in this field in South Africa and offer considerations and reflections that will contribute to the conversation and exploration of creative, culturally relevant, and ethical ways forward for participative IK research.

Keywords: indigenous knowledge, cultural values, research framework, language, transformative participation, decolonisation

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This study (Khupe 2014) sought answers to the following questions:

What indigenous knowledge can be identified from interaction with participants in Mqatsheni?

What constitutes the worldview that informs the community's indigenous knowledge?

What aspects of the participants' knowledge could be included in school science, and how? (pp. 14–15)

In line with the research purpose, the study followed a transformative participatory design, bringing together the Mqatsheni community and university researchers in co-participation.

This interpretive research study sought to contribute to culturally relevant education by finding and documenting IK in Mqatsheni for use in science teaching and learning, and to contribute to the transformation of IK research through using methods that recognise the role of language and culture in the lives of community participants. The study was part of a bigger project on indigenous knowledge, science curriculum, and development: a project that involved partnering with communities in identifying ways of bringing together IK and science to benefit communities.

Fieldwork for this study lasted 2 years and involved 10 visits to Mqatsheni, each lasting 1 week. All visits to Mqatsheni were arranged with the school principal, participating teachers, and elders. We respected the time that they gave towards the project and we needed to arrange for time that was most convenient and least disruptive of their day-to-day obligations. Project plans and activities remained flexible throughout to accommodate unexpected incidents such as illness, death, and other impromptu community and school events. Indeed, there were deaths in the vicinity: some participants lost loved ones and one participant died during the course of the study. Meetings came up that were previously not on participants' schedules, and all of this extended the fieldwork—an aggravation to an already stretched budget and to postgraduate completion timelines. However, the extended engagement with the community, coupled with a careful negotiation of access and a focus on relationship building, proved valuable in terms of the quality of data and in terms of maintaining respect for the local culture.

Chibini (Keane, 2006a).

There is a lovely road that runs from Ixopo into the hills. These hills are grass-covered and rolling, and they are lovely beyond any singing of it . . . if there is no mist, you look down on one of the fairest valleys of Africa. (Paton, 1944, p. 1)

So it is still: with scattered traditional homesteads, round huts, pretty goats, small herds of cattle, and wide open spaces. The school is a rectangular block with a few pit toilets behind tall wire fences next to a dirt road. Subsistence farming enables the largely unemployed community to eke out an existence with some help from child grants, casual labour, and pensions. In spite of poverty and ill health, community spirit and cultural practices endure. There is a strong sense of identity in the homogenous society where everyone is isiZulu-speaking with an African/Christian worldview. I am particularly indebted to the openness and vision of strong leadership within the community and to all those who contributed. In line with my argument of participative research, giving just tribute to knowledge holders and the research community, I acknowledge the research community below.

Inkosi Ndlovu was the chief of the Ifafa region. Without her wisdom, kindness, and support the research would not have been possible. Induna Chiya, the headman in the area, summoned people to our initial meetings. Induna Ngcobo provided consistent guidance and commitment to the project. The *Isangoma* [traditional healer] as well as elders, parents, farmers and other community members were

generous in their openness, and willingness to participate. Sihle Mchunu and Nomfundo Ndlovu joined us as community researchers while the school principals, Mr Mkhize and Mr Hadebe, were generous in opening their schools to us. They translated between English and isiZulu at public meetings and voiced their public support of the project (Keane, 2006a). The teachers, especially Ms Mbhele of Sinevuso, contributed in many ways, participating in workshops and having us in their classrooms. Students were the heart of the project.

The community hoped that science education would contribute to learning skills to alleviate poverty. My aim, from the start, was to define relevant science in (and with) this rural community, to explore indigenous science knowledge and link school learning with the community. The community's immediate concern was food security. This led to a partnership with an NGO known as Heifer, which started a chicken-farming project with 20 farmers chosen by the community. Our research and curriculum intervention built on integrating this enterprise with the school curriculum, while also developing an understanding of education and research.

As the scope of the research expanded to include the wider community, we struggled with complexity and competing agendas. Our research began to include project management amid all the difficulties of distance and "unstable" environments. Severe poverty means that children often go to school not having eaten, or they stay away from school because of obligations to household chores. It became clear that the project would only have an impact if we could also address the immediate stresses of poverty.

We worked with all sectors of the community over the 3-year period collaborating on data creation through workshops, interviews, student assignments, and school visits. We discussed visions, concerns, and findings, celebrating learning in a 10-day science intervention that ended with a community science festival. Feedback and dialogues continued into the following year, as did the development of the farming project.

Features of an Indigenous Methodology

We base our synthesis of an indigenous methodology on the above two projects (Keane, 2006a; Khupe 2014).

People

As observed by Ndimande (2012) as well as Vakalahi and Taiapa (2013), it is essential to establish respectful, authentic connection with the community, preferably through an invitation by them. The community are a reflection of their culture and language. Respectful relationships were central in our studies. One elder emphasised: "*Inhlonipho ngumuntu* [respect is the core of the human being]" (Khupe, 2014, p. 149). The least the research process could do was to be respectful to the people, their values, and practices. In both projects, relationships were demonstrated through collective coexistence and collective responsibility. In the Chibini project, when children were asked to draw their house, all drew the whole village. One child wrote under his drawing: "A person without a neighbour is not a person" (Keane, 2006a, p. 211). In spite of this demonstrated connection to culture, the elders were concerned about loss of ubuntu.

Sadly, the social fabric is fraying and elders look back with nostalgia:

Kwakuyindlela eyayinjalonje ukuthi ingane bezifundiswa ukuphathana. Kwakukhuliswana. Kwakunjalo. . . . Kwakuyinhlalonje eyayinjalo. Abantu babebhekene [That was the way that children were taught to care for each other. We were responsible for the other's growth. That is how it was . . . That was the way of living. People looked after each other. (Mr Zitha, interview May 2010, Khupe, 2014, p. 152)

The research process is a balance between researcher expertise, the benefit of an outsider perspective, and the main direction given by the elders. In addition, it is necessary to continually consult with research assistants—who may become “cultural consultants” (see Vakalahi & Taiapa, 2013, p. 403). That consultation helps to keep the study aligned to the values of the community’s cultural space, as explained by Hornung (2013). Of necessity, this process will take a great deal of time, which is often at odds with research Gantt charts. In indigenous communities, the taking of time is a mark of respect and shows the importance of something. Time is not a commodity that is a variable in “return on investment.”

Place

Research planning needs to allow for features of distance, changing conditions, and consideration of the importance and significance of the spaces themselves. Places may be sacred. Distances will be travelled. Approaching a study using a transformative, participatory approach enhances understanding of context. Discussions will include matters that do not directly relate to the research questions such as concerns about livestock theft, crime, and dissatisfaction in the political arena. However, all these matters help researchers understand the context better. The recurrence of the use of collective pronouns such as *indawo yethu* [our place], *endaweni yakithi* [in our place], *umuzi wakithi* [our home], and *intaba yangakithi* [our mountain], all contributed to an understanding of place as collectively owned, and where people are bound by collective responsibility. We learnt through our studies to keep plans open in order to accommodate unexpected events. Collaboration enabled shared benefits, which were empowering, such as opportunity for discussions on local level curriculum matters, conversations on school–community collaboration, and new ways of teaching and learning within a resource-constrained environment.

Expectations

Research purposes need to be codesigned and negotiated. Inevitably this brings problems in terms of a community’s competing agendas, possible dynamics of conflict, and constraints on the researchers from the academy and funders. Communities have needs that cannot be ignored as irrelevant to the research agenda: unemployment, crime, disease, and death. For them, the researcher is their ambassador to the outside world:

Siyafisa kakhulu ukuthi niwujikele lowo mlayezo nakwamanye amazwe ukuthi siyafisa ukusizwa endaweni yakithi. Siyafisa intsha yakithi isizakale. Siyafisa nathi qobo ukuthi ngelinye ilanga sizibone nathi sihlukile entweni esiyiyona [We wish that you send this message even to other countries that we are looking for help. We wish for our youth to be helped. We also wish for ourselves, that one day we can see ourselves transformed from our present state]. (Ms Majazi, May 12, 2010, Khupe, 2014, p. 37)

This is why the best compromised solutions regarding what is beneficial and possible, need to be established at the start. These are also likely to change. A high degree of integrity, flexibility, generosity, and resilience is likely to be needed by all in projects that are holistic, exploratory, and inclusive.

Frameworks

An integrative research framework guided both studies that we draw on (Keane 2006a; Khupe 2014). The framework principles included ubuntu (Nyaumwe & Mkabela, 2007; Swanson, 2007), indigenous research methods (Chilisa, 2012; Louis, 2007), and sociocultural theory (Lemke, 2001).

Table 1 shows the focus elements for the research and the multiple methods used to generate data, together with the different groups of participants. The data generated was in the form of video and audio recordings, photographs, artefacts, and various forms of text, many of which were in isiZulu. The first author (Khupe) was researcher–transcriber (Bird, 2005), and this allowed for analysis to begin at transcription stage (Lapadat & Lindsay, 1999). The early analysis was helpful in identifying issues that required follow-up, translation, or explaining. Multistage analysis and interpretation of data was collectively done with participants through deliberation on emerging themes. Each data set was analysed in its original language to avoid loss of meaning in translation. This process brought out the participants’ perspective more clearly and also ensured what Louis (2007) termed *respectful representation*. Even in reporting the findings, any direct quotes were in the language that the participants actually used (mainly isiZulu). We only translated the quotes for the benefit of non-Zulu readers.

Ethics

Both projects were granted university ethics clearance. Participants signed consent forms at the beginning of the studies. Unlike what is widely assumed in conventional research, none of the community participants wanted to be anonymous or to have pseudonyms assigned to them. They even agreed for their photographs to be used in the research reports. However, actual ethics issues extended beyond written contracts. Ethics decisions were made throughout the duration of the fieldwork and beyond (Keane, 2008). For instance, in all meetings with the elders, the secretary of the Traditional Council would double check with the elders if they approved of having discussions recorded and if they approved of photographs being taken. For participants in communities with a largely oral culture, written contracts are not as important as the spoken word, but that does not imply the absence of protocols. We had to answer questions such as: “*Inkulumo le, uzoyikhiphaphi? Ungasitshela njengoba sonke sila* [Where are you going to publish this discussion? Can you tell us all as we are gathered here?]” (Elder Cekwane, Khupe, 2014, p. 203).

Ethical research is complex and requires moral integrity, and judgements about sometimes abandoning aspects of the data that may cause harm— as was the case for the first author (Khupe).

Data production

In Table 1, we summarise focus elements from the two studies that contribute to African research methodologies.

Table 1: Key Aspects of African Research Methodology

Research focus	Constituents	Participation and data production ideas
People	<ul style="list-style-type: none"> • Respectful relationships • Role of elders/ancestors • Collaboration/community-centred • Participants' perspectives • Community researchers 	Elders: Focus group discussions following structure of Traditional Council meetings, hearing from the elders (by students and researcher), deciding on projects, arranging meetings, providing guidance, sanctioning participation, making ethics decisions.
Place	<ul style="list-style-type: none"> • Sacred space • Importance of context • Local cultural protocols • Language of communication 	
Expectations	<ul style="list-style-type: none"> • Shared purposes • Shared benefits • Managing expectations 	Students: Creative work (drawing, songs, stories, dance, plays), taking and interpreting photographs, playing games, visit to a museum, dialogue, research assistants.
Frameworks	<ul style="list-style-type: none"> • Participation • Ubuntu 	
Data production strategies	<ul style="list-style-type: none"> • Field work • Community projects • Observations • Stories/songs/artefacts/ dance • Dialogue • Community researchers' journals 	Teachers: Stating needs and expectations, informal conversations, interviews, questionnaires, workshops, meetings, co-teaching reflections, attending an education research conference. Options for anonymity or not.
Ethics	<ul style="list-style-type: none"> • Community-led • Community values • Acknowledgement 	All: deciding the language of communication, deciding time frames.
Consequences	<ul style="list-style-type: none"> • Shared learning (checked with knowledge holders) • Project outcomes • Continued relations 	Researchers: Requesting access, sharing knowledge and resources, project management, checking ideas, involvement in community activities (outside the research project).
Representations	<ul style="list-style-type: none"> • Knowledge benefits for the community • Various ways of disseminating research findings 	

Limitations

Africa is rich in diversity. Even within a single nation there is diversity of language, cultural identities, and experience that define different groups (Ndimande, 2012). Furthermore, even in small studies in one area, there are communities within communities. We acknowledge the limitedness of our experiences in bringing out the full richness of the African research experience. In addition, we would like to admit our undeserved privilege of now telling these stories to the academic community when we are in fact not the real voices of these communities.

Discussion

Assumptions that participation is enriching may tend to simplify both the notion of participation itself as well as the investment of time and money. However, the notion of time as a commodity is a Western construct and is of dubious relevance here—provided funders and academics understand this. Understanding everyone's intentions, relating to each other, enabling participants' contributions, being understood, and creating transformative structures, all take time. Community forums are consistent with rural life: the process itself is as important as the goals and products. Furthermore, participation is not unproblematic, nor is it prescriptive. For example, it is common in Western

literature to assume that *participation* is synonymous with *democratic participation*. This may not be the case. Elders may decide for community members whether they can participate or not.

Theoretical frameworks need to be eclectic and draw from indigenous paradigms such as ubuntu. Research that explores frontiers should also stretch the boundaries of the frameworks themselves. These frameworks need to be not only epistemological and methodological, but also ontological and axiological. The idea that local communities should be involved in deciding the research questions, the theoretical frameworks, the processes and interpretations, gives particular authenticity to the research. Standard notions of validity are thrown into question. “Truths” are defined not only as factual truths and representational truths, but also as healing truths. Validity needs to take into account all the research purposes, which stretch beyond knowledge creation.

In the natural flow of projects, many epistemologies work at once: everyday knowledge, science knowledge, intuitive knowledge, and revelation. In one sense these are integrated by the project, but in another they demand border crossings from one way of thinking to another and back, depending on the immediate context and task. In the process, everyone involved has to confront ways of thinking that are new to them, as well as detailed knowledge. This is true *learning*.

Education research aligned to indigenous African culture can be a mix of the more conventional qualitative methods and instruments (such as focus group discussions, interviews, open-ended writing tasks, worksheets) and those that are more eccentric (such as playing games, hearing stories, audiences with traditional healers, home visits). Data is gathered from both intended and unintended experiences (see Mpofo, 2016). Sensitivity to the context requires that the research process is not only guided by the researchers’ questions but also by the community participants’ day-to-day concerns. The local language plays a critical role as the language of thought, the store and the vehicle of transmission of local knowledge and worldview (Khupe, 2017).

It can be seen that IK in a broad sense (as opposed to perhaps specific content knowledge of fauna and flora in science, for example), is often tacit, intangible, disappearing, or contentious. Thus indirect and negotiated ways of coming-to-know are needed. According to Malcolm (2003, p. 36) representational knowledge “consists of concepts, metaphors and conceptual schemes (and their underlying worldviews, assumptions and processes of legitimisation) used to explain the world.” This knowledge is more difficult to recognise or discover than performative knowledge. The open-ended nature of attempting such inquiry can be unsettling, confusing, and incomprehensible to the academy. Participative research processes take time and outcomes cannot be guaranteed. In addition, the very nature of immersion and involvement creates (as mentioned) complex ethical dilemmas—which create high-risk junctures along the way.

Like the research process, data analysis is also a communal, iterative, and a negotiated process. Perhaps surprisingly in data interpretation, the combination of different worldviews opens up new ways of knowing and being. That is, an outsider may be able to see new connections and significances that an insider takes for granted and overlooks. The academic researcher perspective is also enriched and led by indigenous community views of the data and the findings, and consequences of the research become available for critique. The researchers’ use of rhetorical conventions and their assumptions about the nature of knowledge is challenged by alternative perspectives. For the research process to be truly participative, respectful challenge needs to be directed across the whole research community’s input and assumptions. Such robust engagement guards against romanticising IK systems, helps to acknowledge changing contexts, and allows for multiple truths.

We have tried to present aspects of research projects into IK education in rural communities that may inform an indigenous knowledge methodology. We draw this to a close by reiterating core approaches, and with a parable for scientists.

Concluding

A teacher said in conversation at the end of the project of finding relevant science curriculum: “Children will benefit because it is them who chose what they thought would help them” (Keane, 2006a, p. 318).

Recognition of, and sensitivity to, local knowledge, culture, and lived experiences needs to provide guidance regarding the way in which research among indigenous African communities unfolds. The community and not the researcher should be at the centre of the study. Although there are a number of African research studies in South Africa, much more such research needs to be done. Greater effort still needs to be invested into developing and applying appropriate methods for research with, for, and among indigenous communities.

However, in critique of the article’s title and our arguments, we have doubts about the term *method*. “Research needs to be messy and heterogeneous because that is how the real world is. That’s how life is” (Law, 2003, p. 3). Law made the point that in reporting, method is dressed with “clarity” (2003, p. 3). This is the expectation and genre of scientific reporting, designed—we suspect—to not only reinforce the myth, but also to avoid distracting busy people with messiness that everyone knows about. This is even more the case in deeply engaged research working across knowledge paradigms. In our experience in a rural setting with little control of agendas, method is almost a contradiction. We therefore find Law’s position of being “at odds with method” reassuring (2003, p. 3). Perhaps a better term would be *research processes*. We conclude with a parable of scientific research.

The Research Animal.

One day, Heiseb sent a new animal into the forest. It was clever: more clever than jackal and elephant. It had a huge head, and eyes that could see through things, see tiny things, see even the dust on the shiny moon. And it could hear things too: sounds of bat that even fox cannot hear. And it knew the secrets of long ago: who had walked and what they hunted; it even knew that dassie was elephant’s cousin—and how it knew this was strange because it didn’t know that he was our brother!

Perhaps he didn’t know some things because he was young. Some said he was greedy. Certainly he ate whole forests and even emptied the river. And he was a moody brother. There was the time when wild dog had nowhere to run and puppies were few. The new animal worked to save wild dog. But then he took the young pups and tore them into bloody pieces. Some say he is mad. Some say he isn’t so clever after all. Some even say Heiseb forgot to give him a heart.

Heiseb says he has not yet found his belonging. (Keane, 2006a, p. 322)

“The contribution African sagacity has to play is . . . in time we shall be in a position to bestow upon South Africa the greatest gift ever—a more human face” (Coetzee & Roux, 2002, p. 85). Perhaps upon research too.

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