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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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Introduction

Ironically, research methods that are aligned to indigenous knowledge systems (IKS) are underused in IK research in South Africa in spite of calls for decolonised research methods (Chilisa, 2012; Mkabela, 2005; Smith, 1999), and in spite of suggestions of what such methodologies might be in practice (Keane & Malcolm, 2004; Khupe, 2017; Ndimande, 2012). IK research generally, and particularly in science education, remains conventional whether quantitative or qualitative. Research, as is published in academic journals and validated by peers in the academy, is an enterprise that needs to be adapted to include the very ways of knowing being investigated.

While IKS may be traced back for millennia, and academic writing on it has been extant for decades, the notion of *indigenous research methods* has more recently arisen in response to the often inappropriate Western paradigms and genres of research in African contexts. Thus, indigenous research is an invention that comes from an Afrocentric perspective and the call to decolonise (particularly academic) knowledge validation and representation. We argue here that research methods need to be created to align with the intentions, context, and participatory nature of IK. We echo calls that have been made for researchers to be sensitive to context (such as Dube, Ndwandwe, & Ngulube, 2013; Keane, 2006b; Malcolm, Gopal, Keane, & Kyle, 2009). In addition, we provide practical examples of research methods that may characterise *African research* (as opposed to research on African subjects), with a view to stimulate discussion and, hopefully, to increase the application of flexible, creative, relevant, and ethical ways forward for research among African communities. We assert that African research needs to develop methods that align with participants' lived experiences and cultural values, and we present examples of research methods that recognise the place of local culture in shaping the identities of community participants. In doing so, we support the call by Mkabela (2005) that indigenous culture needs to inform research methods.

In the following sections, we present an overview of some of the rationales for IK research. We reiterate the need for appropriate methodological approaches for different contexts. The overview serves as a background to the argument that more appropriate participatory and community-centred methodologies need to be explored, understood, and supported by funders and the academy.

African Knowledge and Research

A science and technology report on South Africa's Council for Scientific and Industrial Research (CSIR) claimed it is "least well equipped to deal with problems of disadvantaged communities. It has no experience in conducting research whose specific goals have emerged from long processes of consultation and discussion with disadvantaged people" (International Development Research Centre, 1995, p. 26).

While more than two decades have passed, there seems still to be a need to understand what appropriate and alternative research methodologies might look like in communities and in IK research in particular. Studies into IK across the world agree that indigenous ways of knowing are place-based and holistic, and much less for knowledge's sake than for specific purposes directly linked to survival (Aikenhead, 2001; Chinn, 2007). In addition, culture and language are widely acknowledged as playing an important role in learning especially among indigenous people (Lipka, Wong, & Andrew-Ihrke, 2013), and the same should be emphasised for education research among indigenous communities. With respect to knowledge production, Nabudere (2006) questioned the notion that Eurocentric knowledge about indigenous peoples was for knowledge's sake, citing subtle purposes of control of territories and expropriation of human and material resources. Goduka, Madolo, Rozani, Notsi, and Talen (2013) argued that for research to be relevant to, and improve the quality of life of, indigenous participants, it needs to be rooted in indigenous worldviews, cultural values, and languages. Language plays a crucial role in the preservation and transmission of IK (Khupe, 2017). It is therefore prudent for

IK researchers to be mindful of these features of IK and to appropriately align the ways in which they engage with communities so that they are respectful of, and responsive to, sociocultural contexts.

Efforts to understand what is *African* in the context of education and research are closely linked to questions about which knowledge should be described as *indigenous*. The way research is done is often linked to one of two ways of understanding knowledge: it is either universalist or pluralist. While a universalist would argue against the description of any knowledge as indigenous because there is no certainty about the extent to which a framework can be indigenous (Horsthemke, 2004), a pluralist would view knowledge as a sociocultural and historical construction (Turnbull, 1997). From a pluralist perspective, what qualifies as knowledge depends on the ways in which particular societies categorise, code, process, and assign meaning to their experiences. Turnbull (1997) asserted that:

Some traditions move it [knowledge] and assemble it through art, ceremony and ritual; [Western] science does it through forming disciplinary societies, building instruments, standardisation techniques and writing articles. In both cases it is a process of knowledge assembly through making connections and negotiating equivalences between the heterogeneous components while simultaneously establishing a social order of trust and authority resulting in a knowledge space. (Turnbull, 1997 p. 553)

For centuries, Western knowledge has not only been widely disseminated from the point of production to other places and other times, but colonisation and its accompanying political and ideological conquest has also been instrumental in propelling Western knowledge spatially and temporally, and in thwarting the diffusion of other knowledges. It is for this reason that scholars interested in research into sociocultural issues call for production of knowledge in ways that seek to reassert cultural identities (Nabudere, 2006). Acknowledging cultural identities can appropriately showcase the richness of pluralism—where diversity is accepted without hierarchical judgement on the basis of race or culture (Nabudere, 2006). We concur with and reiterate Nabudere's arguments and his call for "knowledge production that can renovate African culture [and] defend the African people's dignity" (Nabudere, 2006, p. 7).

Our paper is situated within IK research methods literature. We contend that research among indigenous African people must be characterised by flexibility, participation, and negotiated purposes (Khupe, 2014), and should seek to interrupt colonising forms of research by focusing on African thought and experience (Mkabela, 2005; Ndimande, 2012). Research aligned to indigenous contexts will seek to embrace inclusivity throughout the research process: from the time of joining the community, to negotiating the research purpose, gathering data, sharing interpretations and findings and outputs. The process will also involve turning the inquiry inwards, so that there is a "reflexive sensitivity to its data" (Mkabela, 2005, p. 181). This also means that ethically and relationally there is an imperative to *act* on the findings in some way. The focus is not solely on the researcher but on the researcher-in-relationship. Asante's writing on Afrocentric method intended to relocate the African person as subject: "To be centered is to be located as an agent instead of as 'the Other'" (Asante, 1998, p. 1). And yet, this needs to be considered, not in the Western context of individualistic agency but in the more complex context of *ubuntu* where the individual is a person through other people: I am because I belong. Mbiti (1969) illustrated the notion of ubuntu well:

Only in terms of other people does the individual become conscious of his own being, his own duties, his privileges and responsibilities towards himself and other people. . . . Whatever happens to the individual happens to the whole group, and whatever happens to the whole group happens to the individual. The individual can only say: "I am, because we are; and since we are, therefore I am." This is a cardinal point in the understanding of the African view of man. (Mbiti, 1969, p. 106)

Ubuntu prescribes desirable and (communally) acceptable forms of human conduct, and this includes how they should relate (Letseka, 2013).

We characterise African research as that which is both transformational and participatory (Khupe, 2014; Malcolm et al., 2009), and which recognises local cultural identities manifesting through language, cultural protocols, and relationships. In the next section, we provide exemplars of how African research might be carried out. Although not exhaustive, the exemplars provide a practical guide for researchers considering collaborating with indigenous communities.

People and Places.

We draw on two participatory science curriculum research projects carried out with communities in rural KwaZulu-Natal, South Africa (Keane, 2006a; Khupe, 2014). We describe them here highlighting features such as access into the community, research purpose, data production processes, ethics, and outcomes.

Mqatsheni (Khupe, 2014).

When I heard Mqatsheni had very cold winters and sometimes even had snow, I was really excited and greatly looked forward to my first visit, desperately hoping there would be snow. I started creating mental images of myself in snow. My family shared in the wild excitement.

On arrival in Mqatsheni, I learnt that the community had been devastated by strong winds, which left a number of families with literally no roofs above their heads. The occupants were left in the cold. As we chatted about this disaster with Skhumbuzo (who had agreed to participate in the study as a research assistant), he remarked, “This place is always facing one weather disaster or another. It’s the strong winds, heavy rain or snow.” That was a sobering moment. I suddenly realised I had not, for one moment, stopped to think of how the weather impacted the community. I regretted my naïve, “tourist” attitude, and was grateful I had not mentioned to Skhumbuzo how desperately I had wanted to see snow. (Reflections on first visit to Mqatsheni, August 2009, Khupe 2014.)

Mqatsheni is in KwaSani Municipality, Sisonke District in the KwaZulu-Natal province. The village is in the southern *UKhahlamba* [Drakensberg] mountains, about 30 kilometres north of the small urban settlement of Underberg. Not much of the Mqatsheni is known to the outside world because the village is perceived as not offering much of economic importance outside of itself. IsiZulu is the majority language in Mqatsheni. English is the language of instruction for schools in the area but it is hardly spoken outside of school premises. So strong is the presence of isiZulu that it is quite often used in classroom in place of English. Cultural values are strongly present in Mqatsheni. Although I grew up and even worked in rural areas, I did not realise that I had lost a significant number of values from my own culture, perhaps through the years of staying in urban areas. I only noticed when I arrived in Mqatsheni that I did not greet people as spontaneously as I used to—before I lived in the cities. In Mqatsheni I was greeted by adults and children alike—not because I was new in the area. I was greeted because I am a human being, and that is all that mattered.

Rural communities are often structured differently from non-rural ones, and they are often governed by intricate networks of traditional, political, and civil service structures. Mqatsheni is no different. Local governance and service delivery in Mqatsheni are provided through the KwaSani Municipality, which is based in the urban Underberg. In addition, the area is under the authority of a Traditional Council of Elders headed by an *induna* [chief]. The elders are the custodians of knowledge and culture, and are responsible of passing that on into the future.

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 Majosi, 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 	
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 Mpofu, 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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