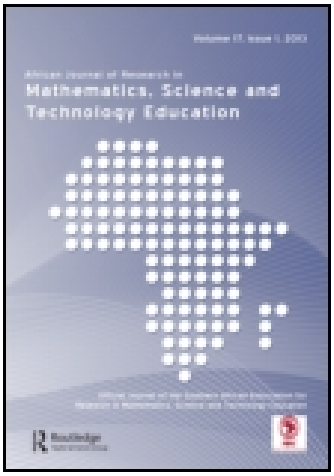

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Exploring Methodologies for Researching Indigenous Knowledge of Plant Healing for Integration into Classroom Science: Insights Related to the Data Collection Phase

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Exploring Methodologies for Researching Indigenous Knowledge of Plant Healing for Integration into Classroom Science: Insights Related to the Data Collection Phase

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This article forms part of a major study being conducted in Zimbabwe to explore the possibilities of integrating indigenous knowledge of plant healing (Ikoph) into western-oriented classroom science. The article reports on an aspect of research methodology. This study explored appropriate strategies for gaining access to indigenous knowledge holders, and for generating indigenous knowledge data from these knowledge holders. It is a descriptive study rooted in an African indigenous research methodology. Data were generated through field-noted observations and audio-recorded conversations with 12 participants during the phases of attaining access and of data generation. The findings demonstrated that the participants hold a solid spiritual worldview alongside that of western science and Christianity. Ikoph occupies these participants' metaphysical knowledge zone, although when asked they initially display western science and Christian worldviews related to plant healing. The use of the knowledge holders' language, terminology and metaphors, and of socio-cultural research protocols and methods, was pivotal in accessing the indigenous knowledge of plant healing. It also emerged that spirits play a central role in penetrating this metaphysical knowledge zone. It is argued that classical interpretive research approaches are constricting research involving indigenous knowledge. A shift from such approaches to those that accommodate unique aspects of spirituality, language, methods and protocols of the researched—that is, indigenous African interpretive approaches—is being called for.

Keywords: research access; ethics; indigenous interpretive; classical interpretive; protocol

Introduction

The use of culturally sensitive research methodologies for studying indigenous knowledge (IK) has become a contentious issue in science education research the world over (see, for instance, Aikenhead & Ogawa, 2007). This comes in light of the observation that much research has been done on the knowledge of indigenous people, but little has been published on appropriate research frameworks (Smith, 1999). Literature on IK that brings out indigenous people's voices is scarce. This gap can be largely linked to the fact that westernised worldviews have dominated research for decades. In those decades, scholars researched within western science frameworks, even when researching IK. Those with an indigenous cultural background were challenged to leave their indigeneity at the door (Meyer, 2008). Such approaches disregarded the holistic nature and metaphysical worldview of IK (Battiste, 2002). In contrast, western science is monolithic and categorised (Ogunniyi, 2007). On these grounds, most indigenous scholars, like Smith (1999) and Meyer (2008), question the legitimacy of using western science approaches for investigating IK, particularly the use of positivistic approaches

as they assume an objective physical world. Instead indigenous scholars, including Kovach (2010) and Lowan (2012), argue that in studying IK research methodologies need to be used that are rooted in, and sensitive to, indigenous cultures. This article will explore one specific aspect of these research methodologies, i.e. the strategies of securing access to indigenous knowledge holders and the appropriate methods for collecting indigenous knowledge data.

Research paradigms may be distinguished by looking at the relationship between the knowledge providers (participants) and the reporter (researcher). In the positivist paradigm, scientific truth or reality is out there to be studied, captured and understood. Therefore objective knowledge is unearthed by the knowledge provider and summarised by the reporter through a reductionist approach (Guba, 1990). A reductionist approach breaks down the world into its basic elements. These elements are then studied to develop facts and views about them. Reasons for the established facts and views are also included. In contrast, the Classical Interpretive Research (CIR) paradigm accommodates multiple realities (Patton, 2002). In this paradigm, the researcher, as a welcomed visitor but an outside observer, describes views and experiences from the participants' perspective, including their context, experiences of space and changes over time. Accordingly, the interpretivist researcher owns the findings but is reflective about the role of her or his own voice and perspective. In the indigenous paradigm, knowledge holders (participants) share community knowledge with the researcher as cultural associate, a community and family member (Lowan, 2012). The researcher needs to operate within the Indigenous Interpretive Research (IIR) framework so as to provide an insider description of the community's and thus the researcher's IK.

As illustrated above, CIR approaches to researching are different to those of IIR. These two approaches, however, have many common characteristics too (Lowan, 2012). Despite such commonalities, some scholars of IK are still concerned about using CIR (e.g. ethnography) to research IK. Their argument is that such approaches with regards to Africans often present 'talked about rather than being talked to' findings (Matsika, 2012, p. 180). In addition, the respect of and adherence to traditional customs and practices only adopted by ethnographers is not enough; rather more importantly, the researcher should become a community and family member (Lowan, 2012). In this membership capacity, the researcher becomes one of the IK custodians and is bestowed with the responsibility and accountability of protecting and conserving it. Despite the differences between these two research approaches, their similarities provide some ground for aligning them (Dei, 2011). IIR is interpretive, therefore is one approach of coming to know the world.

Some scholars have taken cognisance of the context-specific nature of IK and developed indigenous methodologies appropriate to their contexts. For example, Smith (1999) advanced a Kaupapa Maori methodology. In this study, such work has informed our development of a methodological research framework for an African context. The challenge this view brings to this study, however, is that the African indigenous research methodologies have not been used, certainly not in studying the Chiweshe-Zezuru locality of Zimbabwe, the location of the larger study. In view of this challenge, we found it imperative in this study to establish appropriate Indigenous African Interpretive (IAI) research protocols and methods of accessing indigenous knowledge of plant healing (Ikoph) from participants in a rural locality.

The following questions guide this study:

1) What protocols are appropriate in order to gain access to the guardians of indigenous knowledge?
2) What strategies are effective for generating indigenous knowledge data from these guardians of indigenous knowledge?

Positioning

This article is co-authored by three experienced science teacher educators who share an African cultural background. In interpretive research positioning is of particular importance for both relationship building (Kovach, 2010) and for presenting the subjectivity based on which the research is formulated and conducted (Patton, 2002). Subjectivity informs decision making during the research process and, to that effect, the study's outcomes (Guba & Lincoln, 2005). The principal investigator is a Zimbabwean

with ancestral ties to the Karanga land of Masvingo. She has a rural background that provides her with rich experiences of indigenous healing. The second author is also a Zimbabwean Karanga but from another district of Masvingo. These two researchers, being Karanga, shared the general Shona cultural traditions and customs with the participants because both Zezuru and Karanga are Shona dialects. However, as Karangas our cultural experiences are limited at the deeper levels of Zezuru traditions and customs. The third author is a Nigerian who grew up in a rural setting in Nigeria and has vast experience in science teaching in the African and American contexts.

Theoretical Frameworks

The theoretical frameworks of the Unhu/Ubuntu[1] African worldview, the principle of dialectical collective participation and the nested fields model guide this study.

Unhu African Indigenous Worldview

Many assumptions common to indigenous worldviews are described in the literature. Simpson (2000) outlines seven of them as: (1) the holistic, cyclic and interdependent nature of the living and non-living; (2) multiple truths based on individual experiences; (3) everything is alive; (4) respect and equality for all; (5) sacredness of the land; (6) spiritually rooted relationships; and (7) human beings as least important. The place-based characteristic of IK (Aikenhead & Ogawa, 2007), however, sets apart these worldviews. The locality, the land where one lives, describes the nature that provides a blueprint for living well in it and all that is necessary to sustain life (Michell, 2005). Accordingly, as alluded to in assumptions 1, 2 and 6, indigenous knowledge's epistemological and ontological variations come from contextual individual experiences accumulated in one's land of origin.

As in assumption 1 above, Unhu is an African worldview emphasising symbiotic relationships among members of African communities (Keane, 2008). In a community within a particular geographical location are the living and non-living, inclusive of people, animals and plants, and spirits (assumption 6). In an indigenous community spirituality is regarded as encompassing relationships between living and dead, self and collective empowerment, metaphysical and psychic powers, healing and wholeness (Dei, 2011). It connects and holds together these natural and metaphysical elements. The human respect of spirits allows them to be guided by the 'I am because others are' principles of communalism (Keane, 2008) and sustaining familial relations (Weaver, 2001). At an individual level cultural-traditional values of good manners and empathy are needed for dialogue and building of collective teams (Shizha, 2010).

Dialectical Collective Participation

The Unhu life grounds the principles of reflexivity and reciprocity. Reciprocity alludes to mutual relationships and benefits among members of the research group[2] (Kovach, 2010). In CIR, reciprocity is confined to the research group (Patton, 2002) while within the IIR framework it extends to all community members within the research location (Kovach, 2010). Reflexivity presumes the exchange of knowledge among members of the research group in which learning from each other is inherent. In IIR this extends to community level, and all the people the researcher interacts with are expected to uphold a collective accountability of the outcome of research, its process and the IK constructed. They do so by critically reflecting on the process and outcomes of research. Many researchers regard working with community members, particularly Elders, as important in documenting authentic IK. For example, Glasson, Mhango, Phiri, and Lanier (2010) and Lee, Yen, and Aikenhead (2012) have teamed up with Elders in their indigenising classroom science projects. In this study, we describe this participatory research approach of working with, and learning from, IK custodians to become a custodian as dialectical collective participation, to encapsulate the guiding assumption of Unhu.

Nested Fields Model

As a result of colonialism, most indigenous people in Zimbabwe today hold knowledge rooted in worldviews of Christianity, western science and their African culture (Shizha, 2010). Shizha also observes

that over the years IK has contested western science. However, to date, IK is still dominated by western science and is given a lower status (Hewson & Ogunniyi, 2011). The Contiguity Argumentation Theory (CAT) framework (Ogunniyi, 2007) explains Kazembe's (2010) observation that most Zimbabweans openly value modern medicine and reject indigenous medicine. CAT states that in different contexts, people holding two or more distinct worldviews (e.g. western science and indigenous knowledge) orientate themselves towards either of the knowledge forms. However, the very same people, regardless of class or educational background, seek the services of traditional healers. For this reason, accessing Ikoph from such Zimbabweans becomes a complex process of negotiating nested fields (Figure 1).

According to Figure 1, a community occupying a piece of land form the human and geographical fields, respectively, bounding IK. Within a particular geographical locality, IK is peculiar to people inhabiting it because of its place-based nature. As we alluded to in the Unhu framework above, this locality together with the individual and collective Ikoph experiences it provides to its residents forms the context of this study. The major assumption of this model is that plant healing knowledge in individuals is rooted in western science, indigenous knowledge and Christian worldviews. Both western science and Christian worldviews, however, are dominant, because IK is rather secretive (Keane, 2008). It is possible to access the physical field without penetrating the knowledge field, as knowledge is usually locked in human thoughts. In this field model, human thoughts, relationships and contexts are complex and accessing Ikoph calls for cultural strategies and skills.

Methodology

This study was conducted during the field entry phase from July 2012 to December 2012. It sought to establish appropriate methods of accessing Ikoph physically and epistemologically.

Twenty-six people interacted with the principal investigator as she sought authority to carry out the study. These informants were located in the offices of the Local Government, the Ministry of Education, Sport, Art and Culture (MOESAC), the Zimbabwe Traditional Healers' Association (ZINATHA) and villages. The 26 people formed the sampling base for the 12 people who participated in this research methodological study. Participant selection was ongoing and purposive so based on people's potential data relevant to the purpose of the study (Patton, 2002). This selection was based on professional contacts, referrals and ultimately on the researcher's judgement of the person's knowledge of Chiweshe traditional healing practices. Three of the participants were included on the basis of the researcher's intuition (see 'Findings and Discussion' section). The 12 key participants include 5 MOESAC educators, 2 researchers, 2 members of ZINATHA and 3 government officers. These participants were pseudo named for anonymity in line with the ethics code of the university where the larger study is registered.

We used observatory-conversational methods to access data from participants and to generate data with them. Audio-recorded conversations using open-ended questions were initially adopted to collect data. Field notes of observations of the context and non-verbal clues (e.g. posters, charts, gestures, etc.) were also taken. In this article, observation is described as any eye- or ear-catching incident that occurs during oral knowledge sharing and within the context of conversation. The observation

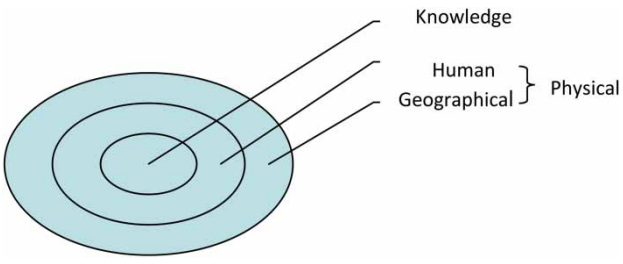

Figure 1: Nested fields.

methods of data collection progressed from general to Critical Observed Incidents (COIs) with prompt, delayed or no conversation follow-up. The conversations could either be staged (interview type) or prompt (talk type). At the end of a conversation session the researcher often asked: 'Do you know of anyone who can be of help in illuminating these issues?' This provided guidance on potential participants who were knowledgeable about the Chiweshe context. As data generation progressed, other methods of data collection, such as intuition, were adopted (see 'Findings and Discussion' section).

Shona or English were used as languages of communication where appropriate. Shona was used because it is the first (indigenous) language (L1) of most participants and of the researcher. English was mostly used as the official language of communication since it is a medium of instruction in Zimbabwe. A mixture of English and Shona (code switching) was also adopted with the unfolding of conversations (see 'Findings and Discussion' section).

A grounded theory approach was adopted as an ongoing and simultaneous process with data generation (Denzin & Lincoln, 2005). Our interpretation initially started from the theoretical basis presented in earlier sections. The interpretation phase preceded the stages of transcribing and translation. Our translation was literal so as to remain faithful to the essence of what participants were communicating in L1.

Table 1 illustrates how the interpretation of the data was carried out. In the middle column is the selected text (excerpt 1) from the researcher's journal. In the left column the underlined words are sub-theme codes that we developed from logical thoughts (notes on reflections, hunches, etc.) of the superscripted and bold formatted words (analysis units). A unit of analysis is a 'segment of text that is comprehensible by itself and contains one idea, episode (occurrence or experience), or piece of information' (Tesch, 1990, p. 116). In this study, analysis units are single words, phrases, sentences, paragraphs or episodes superscripted from 1 to 30. They indicate themes related to protocols and methods in this research. The superscripts are mere labels of units that were analysed to avoid tautology and to remain within the word limit of the journal. In the right-hand column, we wrote the main emerging themes that we arrived at by organising and grouping sub-themes. Superscripts in the left-hand column depict the codes for a unit of analysis superscripted with the same number in the excerpt column, which we organised into one theme. Codes in the left-hand column are not mutually exclusive as qualitative text analysis allows a unit of text to belong simultaneously to more than one category (Tesch, 1990).

Findings and Discussion

In addressing the two research questions, as noted earlier, the data were deductively-inductively – deductively and iteratively processed. The initial deductive analysis was informed by codes derived from the theoretical frameworks. Data were then inductively analysed to develop grounded codes. The codes were then condensed and clustered into five main themes, which are presented and discussed below.

(1) *Context-Specific Language*

As illustrated in Table 1, various communication patterns emerged during conversations. The language used oscillated between English and Shona, and at times a mixture of the two. This illustrates a practice of altering linguistic elements to contextualise talk in interaction (Nilep, 2006). Of the 12 participants in this study, 11 spoke both Shona and English. Their L1 was one of the Zezuru, Korekore and Karanga Shona dialects. The L1 of the remaining participant was Ndebele, but he could also speak Shona fluently. The languages were mostly switched intra-code (within the same session). Conversing in English was oriented towards official communication, curriculum and academic issues. All the participants, regardless of age or educational qualification, quickly tuned to their L1 whenever the conversion turned to a cultural issue like Ikoph. Even those participants like Sanga, a research scholar stationed at one of the universities in Zimbabwe, and Mukanya, a ZINATHA member who holds a PhD and is regarded as western-educated, code switched during conversations. Code switching was not only peculiar across languages but also manifested within and across dialects. For example, in one of the conversations Choto swept into deep and complex Korekore, using such

Table 1: Illustrating data processing

Sub-theme codes	Excerpt 1 from the researcher journal[1]	Main theme codes
Intuitive link [1, 3]unplanned event. [19–30] deviation from initial stand point, looks like has no control over it, his utterances and actions point towards push from metaphysical force Ethics & protocols [2]anonymity, [5]seeking for informed consent; [8]negotiation for human & knowledge access; [7]consequence of gate crashing which all conforms with classical interpretive research (CIR) ethics; [29]CIR access ethics and protocols limited to accessing Ikoph, need for indigenous interpretive protocols. →What are these? Language of communication [4]Expected official communication in English in Government offices; [23]Communication in first language related to cultural subject of discussion Methods of data collection [6, 11, 14]OCI linked to knowledge domain (see figure 1); [9]audio-recording conforms to CIR, any possibility of adapting it to IIR? [10, 12, 14, 17]probing within the CIR, [19]Change point from the interview type session [20, 21, 22]these actions are linked to communication with spirits?, [24, 25, 28]Narration method emerged probably appropriate for IIR?	31 July, 2012: I arrived at the MOESAC head office 09 00hrs. I requested to see an education officer **Mr. Choto (pseudo name)** [2]. **I had no appointment with him**[3]. I found him out of his office. A passer by advised me to wait for him. In five minutes time we entered his office and **exchanged formal greetings in English**[4]. **I introduced myself and provided him with the background of my research. I gave him my ministry authority letter, participant information sheet and ethics clearance letter from my University**[5]**.** He **frowned and grumbled**[6] as he read through this information. In response he said he was **too busy to engage in conversation with me today or any other day**[7]. After a **few minutes of negotiation**[8] he agreed to engage in an **audio-recorded conversation**[9] for at most five minutes. **I adopted an interview approach**[10] to our conversation. I regarded the **frowning and grumbling as my observed critical incident (OCI) 1**[11]. **My first question**[12] **of what he thought**[13] **about my study topic was aligned to this OCI 1**[14]**.** His response was Ikoph is not science and cannot be considered for inclusion in the school science curriculum **(here he makes reference to his experience of teaching and learning science)** [15]**.** He emphasised that Ikoph is **a cultural issue which has no place in the science curriculum**[16]. **My follow-up question**[17] was on his experience of Ikoph to which he responded that he **was a Christian**[18] and had no such experience. All of a sudden **he became quiet**[19]. It looked like his **thoughts were very far away**[20]. He took out a **snuffing container (Chibako)**[21] from his pocket. He **snuffed three times**[22] and **code switched into Korekore**[23]. I regarded observations coded 9 to 11 as OCI 2.	1. Context-specific language 2. Central role of spirits 3. Accessing Ikoph protocols and ethics 4. Methods of accessing data

(*Continued*)

Table 1: Continued.

Sub-theme codes	Excerpt 1 from the researcher journal[1]	Main theme codes
Accessing Ikoph from participants [13]embedded in the knowledge field (KF), [24, 26]moment of revelation; [29, 30]feeling of loss of control linked to researcher's intuition guided forceful access. Inclusion Ikoph into classroom science [16]Perception of Ikoph integration, cultural issue as a reason for not including into classroom science, [18]Christianity conflicting with cultural practices, [15]Western science educated does not see the place of Ikoph in the science curriculum	The **narration of his African IK of plant healing experience began**[24]. I was **allocated the role of an active listener**[25]. **The narration went on for more than an hour**[26]. Thereafter he wished me good luck in my studies and **dismissed**[27] me. I was **not given a chance to follow upon OCI 2**[28]. On my way out he called me back and said, **how do you manage to talk to people like me**[29]? I merely smiled back at him and reflected on how I had considered him a participant in the study—the **INTUITION**[30]. I left his office at 11 35 hours.	5. Situational and individualised field access pathways

words as *mapadza* for money, and *homwe* for a spirit medium, as he narrated his experiences and roles in traditional healing. In emphasising that communicating with the ancestral spirits is very difficult, he said:

> Excerpt 2: When a medium is under an ancestral spirit trance, there is always a mediator present who interprets for people the deep and difficult to understand *Shona* they speak. (31 July 2012)

These findings illustrate that fieldwork[3] language usage is dynamic and context specific rather than fixed. It depended on the participant's linguistic background, participant state (normal or spiritual trance) and subject of discussion. This implies that the researcher needs to be language sensitive and code switch to the participant's language at any given time. The researcher probes for elaboration and understanding (Patton, 2002) as and when it becomes conducive. This fieldwork language approach gives credence to and addresses the conerns of indigenous scholars (e.g. Matsika, 2012; Smith, 1999) that much has been researched *on* indigenous peoples and not *with* them. It also impinges on the researcher's acceptability by participants, their agreement to participate, their perceived value of the study, researcher–participant relationships and ultimately the depth of Ikoph accessed. Language strongly influences the authenticity of both the process and the findings of the study.

(2) *Central Role of Spirits*

The data revealed another main idea that access to authentic contexts hinges on spirituality. This finding is evident in recurring ideas in almost all the conversations with the genuine Ikoph holders who had taken the researcher into their confidence. For example, although it is difficult to prove, Choto's (a post-graduate male science educator) regular action of snuffing from a cultural artefact[4] at the onset of and during his narration about his experiences in Ikoph (excerpt 1, superscripts 19–30) suggested his consultation with spirits. In the Shona tradition, snuffing is generally associated with a moment of consulting ancestral spirits for either guidance or protection or both. In addition, as he snuffed, he stopped in the middle of his sentences and at some points he fell into a pensive mood before resuming his narration.

Ndoro, a Chiweshe district resident, provides another pointer to the above findings in his utterance (excerpt 3) in one of the conversations with the researcher.

> Excerpt 3: I would talk to my sister in my grandfather's spirit trance for long hours, like more than two hours, in the same manner I would do with any living person. I would discuss and question and he would answer me in exactly the same manner my living grandmother would do. (30 October 2012)

The ancestral spirits' power of accepting or rejecting the researcher into their field is yet another crucial dimension to accessing Ikoph, illustrated in the ensuing excerpt 4. In this excerpt from a male traditional medicine and science educator from a university in Zimbabwe, Mbeza emphasised:

> Excerpt 4: You need clearance from the spirits for their mediums to accept working with you … I can find out this for you, (27 July 2012)

A week later the researcher followed up on Mbeza's promise and obtained the report of the medium's response captured in excerpt 5 below:

> Excerpt 5: We have long since seen her coming to us … we will talk to her. (3 August 2012)

The metaphysical control of ancestral spirits over their protégé is further reinforced in excerpt 5. It possibly also explains Choto's deviation from his initial standpoint of talking to the principal investigator for only five minutes (see excerpt 1). From the looks of things, Choto could not help it, but rather acted on prescribed guidance. It also emerges that this intuitive guidance does not only apply to the participants but also to the researchers, as exemplified by an extract from the researcher's journal (excerpt 1).

The preceding theme reveals that spirits are respected as the custodians of knowledge of a community. In researching African IK, therefore, spirituality-centred thoughts and wisdom of intuitions, dreams and visions (Dei, 2011) are central to obtaining access to study contexts (see Figure 1). In agreement with this proposition, Choto, in concurrence with other participants such as Ndola, Sanga and Mukanya, emphasised in excerpt 6 below that:

> Excerpt 6: The practice of traditional healing is a gift from ancestral spirits. (31 July 2012)

The preceding findings illuminate what Keane (2008) refers to as the African academics' search for the construction of authentic African indigenous paradigms. It also makes CIR approaches to researching IK inadequate as they exclude this metaphysical world. The message that researchers into IK need to draw from this finding is that intuitive clues, though unsolicited, uncontrolled and unplanned, are valuable for accessing authentic IK. Also talking to the medium in trance of the spirits, which can be planned, is crucial to indigenous research. The participants warned that identifying genuine Ikoph holders is a great methodological challenge, as asserted by Zembe in excerpt 7:

> Excerpt 7: Today, very few genuine traditional healers are found in communities because a lot of people are fake practitioners. (27 July 2012)

This challenge can, however, be largely overcome by spiritual guidance. In this regard the CIR approach to accessing authentic indigenous knowledge from genuine holders becomes limiting. Researchers inquiring into Ikoph within the IIR frame, therefore, need to follow ethical protocols and methods of collecting data if their findings are to be reflective of indigenous ways of knowing and the knowledge produced.

(3) *Protocols and Ethics for Accessing Ikoph*

The centrality of spirits in IIR presented in the preceding section calls for ethics and protocols that often are not compatible with those of CIR (see Table 2). To clearly show these contradictions we present them within the participant anonymity, consent and withdrawal pillars of the CIR ethical framework.

The finding in Table 2 that anonymity in CIR is contradicted by the disclosure of identity in an IIR framework is not peculiar to this study alone but has also emerged elsewhere. For example, Kovach (2010) has observed that in research in North American indigenous societies, many Elders involved in research wish to be honoured by name. To further support this finding, a South African study points out that identity disclosure deepens relationships among members of a research group as it tends to increase the participants' sense of belonging to the study (Malcolm, Gopa, Keane, & Kyle, 2009). This study also finds that within the IIR framework, anonymity or disclosure of participant identity has a bearing on the nature of the information the participant provides.

Table 2: Classical vs. indigenous interpretive ethical research issues

Ethical issue	Classical	Indigenous
Identity	• Anonymous	• Disclosure
Consent	• single aspect • physical person individual (with parental in case of children) informed and written consent	• Four aspects: → Acceptance → Protection → Guidance → Agreement • Informed, confirmed and verbal • Spiritual clearance
Withdrawal	• Individual right	• Community representative • Elder and spiritual consensus

A name recognised by spirits often connects an individual in the natural world to the metaphysical one. Choto in the ensuing excerpt emphasised that:

> Excerpt 8: As an African, there is a name which registers with your ancestors on birth. … [S]pirits connect the truth of what you say to this name. (3 December, 2012)

Anonymity in IIR can therefore perpetuate unethical behaviour of providing incorrect information because the participant is fully aware that his or her pseudonym identity blocks him or her from communicating with his or her spirits.

In the IIR framework, participants' consent comes from four aspects: acceptance, protection, guidance and agreement. It is informed and confirmed, meaning that while spirits can tell you the purpose of your visit without you disclosing it, they still expect you to inform them about your research. Furthermore, spirits in their metaphysical form give verbal consent. All this hinges on spiritual clearance, which is contradictory to the ethics protocol within the CIR framework. This places the researcher in a dilemma about which framework to follow. Perhaps the *munyai* (mediator, go-between) present can witness the spirit-verbal consent and give written consent on their behalf. But is this ethical?

Spiritual acceptance (excerpt 4) or nomination by the community Elders entails that traditional healers participate in a study on behalf of the spirits and all community members rather than in their individual capacity. This means that as a representative of a community, one also has to get Elder and spiritual consensus to withdraw from the study.

In order to access IK research contexts, many indigenous scholars, such as Lowan (2012) and Kovach (2010), advise researchers to follow and respect tribal customs. This strategy agrees with the principles of Unhu. Failure to learn and adopt the traditional protocols has far-reaching consequences for accessing and generating data. In addition, it emerged in this study that researcher sincerity in his or her conduct and intentions is effective in accessing Ikoph contexts. Mbeze, Sanga and Dube, during their individual responses to the researcher's question, 'How do I arrive and present myself to traditional healers and Elders?', emphasised the values of humility, respect and acceptance and guidance of both spirits and Elders.

(4) *Methods of Accessing Data*

The design of this study emerged from a combination of intuitions, observations and conversations. This feature is typical of all interpretive designs (Patton, 2002). However, the spiritual centredness unique to IAI designs does not conform to CIR designs. As a result the data-accessing methods

were contextual, unpredictable and complex. To unpack this finding we weave excerpt 1 with others above in the ensuing sections.

The event[5] (excerpt 1, sub-theme codes 1 and 3) demonstrates that most unplanned conversations with participants were followed by either planned or impromptu researcher activities. Excerpt 1 is drawn from a conversation with Choto, and the same happened with three other informants, i.e. Ndola, Sanga and Mukanya. Planned activities were scheduled to access participants physically. These activities included the dispatch of research authority applications and the collection of responses; requests for participation; and scheduled conversations (interview type). Some of these activities culminated in impromptu events (talk conversations), while others led to scheduled interviews. Both talks and interviews enabled the researcher to access Ikoph data in the participants' latent knowledge (see Figure 1). Knowledge locked in the mind of the person is intangible, making its access complex. Ikoph occupies an inner core of the knowledge field and is even more complex to access (for instance, sub-theme code 13, excerpt 1). For centuries this form of knowledge was subjugated to a primitive zone by western science, such as medical practices (Shizha, 2010). People have therefore kept this knowledge to themselves (Keane, 2008) throughout their lives (self knowledge).

Contextually stimulated impromptu events or COIs emerged from general observations. Sub-theme codes 1 and 3 and excerpt 6 are illustrative of an intuition-based and spirituality-linked COI. While intuition promises to be a valuable method of collecting rich and authentic Ikoph data, there are some challenges. The researchers' one effective intuitive experience in the six months of study is evidence that intuition is an unsolicited rare experience and some researchers may never experience it. So what does this mean for IIR if intuitions are not forthcoming? To overcome this challenge, researchers can adopt participants' alternative advice of following the indigenous Elders' (e.g. Chiefs') wisdom and guidance, as pointed out by Zembe in excerpt 9:

> Excerpt 9: … talk to traditional Elders and Chiefs to identify genuine traditional healers. (19 September, 2012)

Planned or impromptu follow-ups or probes to COI conversations emerged (excerpt 1). A probe is a technique used to get deeper into the subject under conversation (Patton, 2002). The researcher's recounting that 'I was allocated the role of an active listener'[6] exemplifies a case in which probing (talk conversation) was not possible. Supporting this finding was the fact that no room for follow-up was provided during and at the end of conversation. This open-close window mode of allowing access to Ikoph is evidenced by Choto's dismissive[7] action of the researcher at the end of the exchange and his question, 'How do you manage to talk to people like me?'[8] All this can be linked to highly rated Ikoph, which its custodians consider top secret. Such CIOs were rare, but each alluded to rich and valid knowledge. These patterns suggest that adopting an IIR framework in researching IK requires verification with traditional healers throughout the fieldwork.

Using different conversation formats when accessing data within a single session also emerged in this study. The participants revealed their Ikoph naturally through different formats, depending on the subject of discussion and on the informant's state (ordinary or in spiritual trance). As an illustration, an interview was stimulated by a COI during the session with Choto. This is evidenced by statements in the journal (excerpt 1): 'I adopted an interview approach to our conversation. … the frowning and grumbling as my COI 1 … the first question was … '.[9] The researcher's intention to use semi-structured questions was overtaken by the situation. She adjusted her approach to COI-based conversation to accommodate this unexpected development. In addition, while Choto was initially prepared to be interviewed for five minutes, the conversation shifted to Choto storytelling (narrating) his Ikoph experiences.[10] Storytelling is regarded as a commonly accepted oral method of accessing IK (Dei, 2011). We characterise this multi-conversational single session approach that varied with the subject and state of the participant as a dynamic intra conversation. In this study, interviews, talks and narratives emerged as common conversational formats during intra sessions.

(5) *Situational and Individualised Field Access Pathways*

The nested field model in Figure 1 shows that the domain of knowledge is embedded in the physical field. Data confirmed this and suggested that Ikoph, as held by participants in this study, is basically rooted in three worldviews of indigenous, Christian and western science. For example, Choto's verbal and non-verbal expressions in excerpt 1 are evidence that plant healing knowledge is a tri-worldview or paradigm rooted in Christianity, western science education and indigenous practices. As mentioned earlier, CAT states that in any context in which a subject is rooted in contesting worldviews, one is bound to dominate over the others (Ogunniyi, 2007). People overtly express a dominant perspective and hide the suppressed ones. Choto, in one of his responses, showed that in some situations western science dominated over IK, in others Christianity dominated over IK, and at the onset of the narration of his experiences of Ikoph, indigenous worldviews dominated over the other two. This contradicted his initial unwillingness to engage with Ikoph on the basis of Christianity. He even declared with emphasis his Christian and African worldview duality, as shown in excerpt 10.

Excerpt 10: I go to Church as well as keep my cultural ways … Spirits exist. (31 July 2012)

Like Choto, other participants also demonstrated their healing knowledge rooted in these three worldviews. Three participants (one researcher, one educator and one from ZINATHA) were forthright and open about Ikoph. The remaining eight, like Choto, initially made a concerted effort to downplay their Ikoph worldviews. Two possible ways of explaining this pattern are: (1) that some IK aspects of Ikoph are private (Keane, 2008); and (2) the IK has a lower status as a result of its repression over centuries of colonialism (Hewson & Ogunniyi, 2011). All this makes informants reserved regarding its value, thus making it difficult for researchers to access. In most cases, in the absence of spiritual control, such informants can openly express their Western science worldviews. Choto was driven into a trance in which he shared and exchanged knowledge against his initial intention. Against this background, we describe the pathway to accessing Ikoph as situational and individual. Without traditional cultural knowledge to inform researchers on how to access participants, the researchers can access the physical field but may fail to access the desired Ikoph hidden in the knowledge domain.

Concluding Remarks

This study shows that Ikoph is a form of knowledge locked in its holders. In this domain plant healing rooted in indigenous worldviews is shrouded and dominated by both western medical and Christian worldviews. Consequently its access has become a complex process that calls for the negotiation of the physical, human and knowledge fields. Furthermore, different and unique ways of accessing this form of knowledge from indigenous people of different social classes emerged. The study also evidenced that spirits are central to accessing Ikoph data, generating it and ultimately to the quality of the data. Although they are unique features of indigenous research, some commonalities with classical ways of carrying out interpretive research have been observed. These findings on issues related to gaining entry and data collection point towards the possibilities and practicalities of combining indigenous methods of doing research with classical interpretive methods. At a higher level, this seems to augur well for the possibilities of integrating indigenous knowledge with western science at the classroom level, the focus of the larger study of which this article is a part.

Notes

1. Referred to in this study as Unhu.
2. Research group refers to the researcher(s) and researched (participants).
3. Fieldwork here entails context access from physical to knowledge access (see Figure 1).
4. *Chibako or nhekwe* in Shona.
5. The term 'event' describes a significant occurrence (talk or action) that took place during fieldwork.
6. Excerpt 1, superscript 25.
7. Excerpt 1, superscript 27.

8. Excerpt 1, superscript 29.
9. Excerpt 1, superscripts 10, 11 and 12.
10. See excerpt 1, superscripts 24 to 26.

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