COGNITIVE JUSTICE: A ROAD MAP FOR EQUITABLE INCLUSIVE LEARNING ENVIRONMENTS

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Abstract

The conceptualization of the notion of inclusive education is mostly drawn from western forms of conceptions, thought and knowledge. Few studies actually prioritize indigenous forms of knowledge in understanding the concept of inclusion based on local African livelihoods and lifestyles. This paper therefore argues that cognitive justice which articulates recognition of alternative indigenous forms of knowledge provides a theoretical basis for enabling dialogue without qualifying standards of western hegemonic discourse of thought and practice. This paper uses cognitive justice to generate an alternative indigenous African discourse on the conceptualization of inclusion, pedagogy and practice. The work of Odora Hoppers and Shiv Visvanathan, the proponents of cognitive justice, are used to provide a framework of understanding cognitive justice as a theoretical lens. Critical Realism (CR) is used as a theoretical roadmap. Participatory Action Research (PAR) was employed to generate data. Group interpretative analysis framework was used to analyse data. Among the findings is that indigenous forms of knowledge were better placed to enhance inclusive and equitable of learners from deprived backgrounds.

Key concepts: cognitive justice, equitable learning, inclusive education, inclusion, indigenous knowledge.

Building a theoretical framework

Let me start by outlining the theoretical roadmap for this article. I adopted Basker's view of reality (Basker 1998). According to Basker reality is constituted by three domains which are:

- Real: generative structures or causal mechanisms

- Actual: events resulting from various real tendencies and countertendencies in specific initial conditions
- Empirical: observations or measurements of actual events and, in some circumstances, underlying structures or mechanisms (Bhasker 1998).

According to Basker most of what happens at the level of the actual and empirical are controlled by relational and causal mechanisms operational at the level of the real. These mechanisms might not be readily accessible as they are mostly hidden from the empirical world. The implication is that which is witnessed at the level of the actual and empirical should be treated with caution ad they might not represent the true nature of reality. This principle articulated by Basker connects well with Foucault's notion of "discourse" which could be a disguised nature of reality. I would argue that most discourses are in themselves products of underlying relational and causal mechanisms and therefore discourse are played out at the level of the actual and feeds into the level of the empirical. Having reviewed this principle it therefore becomes crucial to look as the notion of research in inclusion within the context of indigenous knowledge systems. The implication of Basker's understanding of reality features prominently in inclusive education research as most conclusions are based at the level of empirical. What constitutes inclusion according to current body of literature is mostly observable aspects such as resources and physical accommodation of learners in the mainstream classrooms and hardly anything is said about the underlying mechanisms influencing how learners learn especially from their indigenous ways of generating and acquiring knowledge. Therefore this kind of research done in the name of equity and social justice prompts posing the following questions:

> *How can indigenous forms of knowledge be used to enhance inclusion and equitable learning?*

Conceptual framework

In order to answer these significant question it is important to provide the conceptual schema. Firstly, let me start by articulating that epistemology and ontology plays an important role in determining convictions about knowledge and reality. Epistemology is the ways by which

knowledge is acquired and validated (Makoelle 2012). Ontology on the other hand is that which is regarded as constituting nature of reality. Likewise this notions impact also on the understanding of inclusive education and how knowledge within this field is acquired and validated. My experience is that most epistemological and ontological tools used in inclusive education research like in many other disciplines are mostly derived from western frameworks and thinking. For example in his work entitled Post-colonial perspectives on education policy research in South Africa, Van der Westhuizen (2011) argues that epistemological tools used to conduct research have sort to perpetuate view of reality as seen by the colonizers. The studies that used indigenous epistemologies and thinking about ontologies are very few if nonexistent. This therefore raises the issue of what Visvanathan calls "cognitive justice" (2009).

Conceptualizing cognitive justice and equitable learning

Visvathathan coined the concept of cognitive justice in 1997. The concept came about as a result of a concern that western forms of knowledge and the way knowledge is acquired and validated seemed to perpetuate the dominant hegemonic discourse of the western cultures. Therefore cognitive justice is a paradigm that seeks to critique the hegemonic paradigm of modern science. It proposes to give recognition to alternative paradigms especially those that are derived from indigenous forms of knowledge.

Odora Hoppers (2010, 2011) has been instrumental in using cognitive justice as a lens in educational research. According to her indigenous forms of knowledge have to be part of knowledge production process and that they should not be subjected to standards and should not be forced to fit structures of western knowledge. The proponents of cognitive justice posit that it has the potential to result in what they refer to as equitable learning.

Equitable learning is a process of bridging the learning gap between those who are advantaged and those that are disadvantaged in terms of educational resources (UNESCO 2012). According to UNESCO, there is a crisis in learning as the gap between the advantaged first world and the disadvantaged especially from the third world and developing countries is widening. There is also concern about the learning gap between the rural and urban learners. While the definition by

UNESCO captures the essence of what equitable learning entails, it falls short of addressing equity from the angle of cognitive justice, which is equitable use of epistemologies and pedagogic practices that addresses indigenous knowledge acquisition. So, in this article less emphasis is placed on access to resources but I would argue that learning is not equitable unless it draws on indigenous knowledge systems of those whom learning is intended for. According to the Global Compact Policy guide (2011) education and learning are at the pinnacle of development, as such, they need to be high on the agenda of educational systems of the world. However most arguments being put forth for equitable learning focus primarily on access to educational resources, very little is said and done about making learning itself an emancipatory process. Emancipatory in a sense that indigenous knowledge systems are recognized and incorporated into teaching and learning process to ensure cognitive justice. In South Africa while efforts have been made to ensure equitable learning through making resources available to the previously disadvantaged majority, more effort is needed to recognize that there is disparity between indigenous epistemologies and pedagogic practices and expectations between the dominant western forms of knowing and learning and the indigenous knowledge systems. Learners from previously disadvantaged backgrounds have been included in the highly resources schools but the main question is how equitable are the teaching and learning processes in those contexts. This bring us to the next crucial aspect of this article and that is the notion of inclusive education and how it relates to cognitive justice and equitable learning.

Inclusive education

In 1994 most of the developing countries including South Africa signed the Salamanca statement. This signaled an intention to implement inclusive education (Makoelle 2012). Inclusive education is the kind of education that recognizes teaching all learners in the mainstream classrooms regardless of their background (DoE, 2001). While inclusive education has been propagated throughout the world it appears to be a context driven notion and while there are clear indications of what inclusive education seeks to achieve there is hardly a universal definition of the concept.

A lot of research has been generated in developing inclusive schools, and also attempting to define what it means to teach in an inclusive way in the classroom. Researchers have also sort to conceptualise the notion of inclusive pedagogy (Makoelle 2012). Be that as it may, the indication is that two countries (at the most) in the north, that is, the US and UK have been instrumental in

producing knowledge about inclusive education (Makoelle 2013). So many other countries in the south have just follow suite and have borrowed a lot of concepts and practices from these two countries. Even when research is conducted in countries of the south western forms of epistemologies are dominant. The focus on inclusive education has been how accessible education is to all learners in the mainstream classrooms regardless of their background with more emphasis on resources and perhaps the curriculum. Less emphasis has been placed on cognitive justice, that is how prevalent are forms of learning that are consistent with the learner's indigenous knowledge systems. While some researcher have attempted to do this kind of studies, there appears to be a huge gap in addressing inclusion within a cognitive justice perspective.

One such study was that of Phasha and Moichela (2011) who attempted to infuse the notion of inclusion within the indegionous forms of knowledge. For example they have drawn their arguments from using African concepts from the seven South African language groups to demonstrate that the notion of inclusion has long been there but was never explored using the African lens. For example they draw on the use of the philosophy of Ubuntu which they describe in three broad concepts i.e.

- Humanness
- Interdependence/interconnection
- Communalism

While doing that, Phasha and Moichela (2011) ask a question which is pertinent to this article how can Inclusive Education be rendered sensitive to indigenous beliefs and worldviews of people. Furthermore while Phasha and Moichela (2011) sort to bring the issue of culture and way of living in the conceptualization of inclusive education using indigenous forms of knowledge and demonstrating that research in inclusion has ignored forms of indigenous knowledge they went short in going further to ask questions about the current form of schools and schooling practices which in a way are alien to the African way of learning and knowing.For instance, the African community did not have the so called special schools, all children were treated as part of the whole community, so no special arrangement was made for those who appeared different. In view of the above one is tempted to ask this question: how can an alternative indigenous discourse around inclusion be developed to facilitate equitable learning?

Methodology

Participatory Action Research (PAR) is a process by which practitioner critique and probe their practice in order to improve it (Makoelle 2010). It is critical emancipatory in nature and seeks to empower those whom research is intended for. A group of 5 like-minded teachers embarked on an enquiry process about their inclusive practices. Teachers and learners in this study were from the disadvantaged backgrounds within the context of South Africa. They and learners belonged to a similar ethnic and cultural group in South Africa called Basotho. In this study action research stages of Kemmis and Mactaggart (1998) were adopted in data collection. These are planning (during which objectives for PAR will be determined), observation (current practice observed), action (new practices put into action) and reflection (reflecting on PAR processes). During these stages a series of reflective meetings were held as part of data generation and a number of meeting was determined by when theoretical saturation was reached.

Data instruments and collection process

Data collection process was a cyclic and to obtain adequate and appropriate data, it is important to consider the data collecting tools convenient for that particular study. So in this study data was collected using free attitudes interviews, observations, research diaries, learner focus group and reflective meetings during PAR.

Phase 1 planning: during this phase the research group determined the objectives for PAR. For example we asked this question *"what are the indigenous forms of knowledge that we can use to ensure inclusive and equitable learning among all our learners"*.

Phase 2 we then observed one another during lesson presentations whereby a pre-planned observation schedule wasdrafted and used by the research group to evaluate current practices used to facilitate learning.

We then conducted free attitude interviews among ourselves based on observations to gather evidence on how observed practices could be developed to facilitate inclusive and equitable learning.The structure of free attitude interview was usually organized around an aide memoire or interview guide. This contains topics, themes, or areas to be covered during the course of the interview, rather than a sequenced script of standardized questions. The aim is usually to ensure

flexibility in how and in what sequence questions are asked, and in whether and how particular areas might be followed up and developed with different interviewees. This is so that the interview can be shaped by the interviewee's own understandings (Freebody, 2003).

Phase 3 action: the research group based on evidence from observations and interview data identified practices that had potential to facilitate equitable learning and adopted them in facilitating learning over 3 months during which reflective meetings were held once every week to review their usefulness in facilitating learning. Concomitantly, documentary analysis of learner performance were also reviewed by analysing mark schedule in subjects taught.

Focus group Interviews were conducted with learners from the classes from which the adopted practices were used to determine their perspective on practices adopted to facilitate learning.

Phase 4 reflection: the research group reflected on PAR processes, analysed their research diaries and made interpretations from which conclusions were made.

Discussion of findings

Having identified different indigenous practices and implemented them in facilitating learning the research group came to the following findings with regards practices:

Practice 1: Use of cultural artifacts to teach angles and shapes in mathematics

The research group decided to infuse the use of cultural artifacts to teach angles and shapes. For instance in teaching different shapes and measurement the Basotho (ethnic group to which learners belonged) hat called "Mokorotlo" was used. The fact that most learners could related to it had far more positive results to learning. The hat was symbolically used as a triangle and different angles were taught referring to the hat. The feedback from teachers indicated that for the fact that most learners could relate to the hat, it seemed as though it became easier for learners to identify the angles and their shapes. The following quote by one of the teachers supported this view: *"it appears as though that when learners are taught using objects available in the cultural vocabulary is easier"*. Feedback from the learners also showed that the use of culturally familiar artifacts had positive implication for learning, for example one of the learners alluded *"it is easier for me to learn angles especially using something that I see on a daily bases, it like is helping me to remember"*

Practice 2: use of storytelling to teach history

Having given the learners tasks to do an enquiry on the history of the Basotho nation, the elderly in the community were identified as resources to collect indigenous stories. The learners embarked on an inquiry process and brought feedback to class. The indication was that getting information from the elderly in the community raised the level of curiosity of learners about historical developments. Data in form of stories were them compared with texts from books. Most of the knowledge collected in this manner seemed even more accurate that the one in books as learners could triangulate different pieces of stories. The research group indicated the benefit of this process as knowledge was acquired differently, but in a manner that put learners at the centre of enquiry process. One of the teachers had this to say about story telling by community members *"knowledge collected in this manner by learners become tacit as it is told by those whom they are close to"* this view was supported by one of the learners who alluded *"the stories become real in your mind because they got to be told to you in your own language by one of your own people and it stays longer in your memory"*

Practice 3: use of indigenous language concept "dilotho" to teach problem- solving

The Basotho nation have cultural concept known as "Selotho" (if one) or "Dilotho" (if plural) to stimulate critical thinking in learning. A question is usually posed followed by several hints or clues to solve the problem. The clue is hidden in the statement and the one who generates an answer should solve the riddle. For example the person questioning starts with the phrase "if I may ask" "a bird made out of metal" the one answering through critical thinking may then answer " an airplane" this goes on and if the answer is right, then it becomes turn for the one asked questions to question. Feedback from the research group about the use of this indigenous questioning method to stimulate critical thinking indicated that it boosted the confidence of learners as there are no rules on the topic to ask questions. One of the teachers indicated *"because questions are on unexpected issues, it has far positive effect on the thinking of learners, they have to be novel and creative"*

The learners also showed remarkable interest as this determined how quickly and accurate they can think. For instance one of the learners said *"the more we do this the more we become faster and precise on our answers"*

Practice 4 Use of "ditshomo" to teach literature and life-skills

"Tshomo" (plural) or "ditshomo" are fictions stories that are told to learners with a purpose of building their comprehension, literature analysis skills and life-skills. The story is told and at the end it got to be analysed and learners are requested to find the following: the theme, the moral of the story and what could be learned from the story. In using "ditshomo" in our teaching and learning process the research group requested learners to find such stories from their elders and presented and challenged their fellow learners for analysis. Reflections by teachers in this particular activity revealed that such stories extended deeper the level of thinking of the learners and that because most stories related to knowledge that existed from their immediate frames of reference, this seemed to enhance learning of all learners in unique but positive ways. For instance in support of this the following quote from one teacher serves as evidence *"Ditshomo are related to the learners' socio-cultural and historical contexts and therefore create enhances the learners' cognitive faculty*" asked how the use of "ditshomo" enhanced their learning one of the learners alluded *"I think because "tshomo" is derived from our cultural practices it make learning a fun"*

Practice 5 use of the concept "pitso" and "Lekhotla" to teach collaboration, patriotism and citizenship

Basotho have the forms of dialogue which facilitates exchange of knowledge. Firstly, "*pitso"* where people are called to a meeting to discuss matters of particular interest to the community. Often this in interactive but communication is usually from those in power to those powerless. Secondly the "*lekhotla"* which is a meeting usually of the authorities to take decisions or reach consensus on behalf of the community members, here crucial and important decisions are made. The dialogue is between authority figures. We infused this notion in our teaching by letting learners these kind of grouping and role playing the different parts of the dialogic activities. Reflecting upon this activity the research group noted that collaboration among the learners was improved and that learners developed a cohesive community. For instance in reflecting one of the teachers posited *" I have not seen the learners so keen to work together, I think because this is consistent with their cultural understanding of collaboration and team work"* on the other hand this quote from the learner also provided evidence "*this activities help us to relate to our cultural practices and know who we really are"*

While it is important to understand the all these notions occur within a particular cultural-historical background and they have however presented a basis for how indigenous knowledge systems could be used

to enhance equitable learning. The activities yielded some lesson which are significant in conceptualising inclusion and equitable learning taking advantage of indigenous knowledge systems to enhance cognitive justice.

Some lessons and a way forwards

I therefore present lessons drawn from this study in the manner that seek to address the research question:

Lesson 1: Developing an alternative indigenous discourse of inclusion

In order to develop an alternative discourse around inclusion the following needs to be explored.Firstly, the indigenous ways by which people live needs. Each community has a particular culture and subscribe to a particular way of living. In order to understand the need to develop an inclusive education system or conduct research about inclusion there is a need to firstly understand the cultural context. For example in African communities the way of life is more communal and interdependent. Individualism is not cherished. The role of rearing children is not only the responsibility of a single family but for the entire community. The economic activities are dealt with in a more socialist form. This forms the basis of understanding how to deal with inclusion. It is apparent that in this system the community will have a particular way of dealing with difference. Inclusion must tap into the kind of values and norms that in one way or another deals with the issue of social justice and ethical care for those who are different.

Lesson 2: The indigenous way by which people acquire knowledge

Knowledge is generated differently depending on the epistemologies and conceptions about ontology. It is evident in the study that one's advantage is taken of indigenous forms of generating, validating and sharing knowledge from the perspective of the learners' socio-cultural background, this increased the chances of the learner being accommodated ensuring cognitive justice. The implication is that inclusion of learners must go beyond the narrow understanding of access to resources and mere physical presence of the learner in inclusive classrooms but tap into the indigenous knowledge systems that the learner bring to the classroom which will ensure cognitive justice and equitable learning

Lesson 3: Understanding the learners' socio-cultural context

Classrooms are multi-cultural and for teachers to be able to respond to the learning needs of all learners in the classroom, knowledge of learners socio-cultural background in pivotal in the sense that this present the teacher to at least understand the cultural dynamics of the learners' background which could be beneficial in facilitating the teaching and learning process. To tap into indigenous knowledge system the study has demonstrated that learning should not only be classroom based but incorporating knowers from the community bridges the gap between epistemologies and pedagogic practices between indigenous knowers and teachers.

Conclusion

The study has demonstrated that there is a need to rethink the conceptions of the notion of inclusion in line with the indigenous knowledge systems. To ensure cognitive justice, inclusive practitioners must go beyond the issues of access to resources and physical presence of learners in mainstream classrooms, should go deeper into how emancipatory is forms of learning and how this forms take note of already existing indigenous ways of knowing and learning. While the study was of a limited scope and a homogeneous cultural group was used to conduct the study, it however laid a ground breaking foundation in exploring the dimension of conceptualizing inclusion through cognitive justice which taps into indigenous knowledge systems.

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