

FINDING A SUSTAINABLE CULTURAL IDENTITY AS A SCIENCE TEACHER EDUCATOR: A MOZAMBIKAN PERSPECTIVE

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ABSTRACT

Mozambican schools are not helping students to see themselves as culturally rich beings because local cultural values, traditions, knowledge and beliefs have never been included in the curriculum. More than 30 years after independence from 500 years of Portuguese colonial rule, Mozambican science teachers continue to serve as agents of assimilation of students into a Western modern worldview that is indifferent to their local cultural identities and aspirations. As a science teacher educator preparing new teachers for Mozambican schools Cupane (first author) saw his cultural identity to be part of the problem and part of the solution. He designed a critical auto-ethnographic inquiry and explored (and transformed) his cultural identity as he addressed the key research question: *How can school science serve better the cultural development of local school communities in Mozambique?* A key outcome of this research is Cupane's multi-cultural identity as a Mozambican, an indigenous (Changana) person, a world citizen, and a science teacher educator. Generating this understanding has fuelled his vision of future science education for Mozambique for which he has articulated a culture-sensitive philosophy of physics teacher education.

Keywords: *culture, identity, indigeneity, non|essentialism, critical auto-ethnography*

INTRODUCTION

Indigenisation of the science curriculum has become a worldwide issue for Western nations with substantial indigenous populations such as Canada and South Africa. In Australia the new national primary science curriculum is currently being 'indigenised', but there is no shortage of debate about how best to accomplish this controversial task. On the one hand, mainstream scientists are questioning the academic status of indigenous knowledge. On the other hand, critical science educators are complaining about indigenous culture being assimilated into the dominant Western modern worldview. In Mozambique local cultural values, traditions, knowledge and beliefs have never been included in the curriculum. As a science teacher educator preparing new teachers for Mozambican schools in the postcolonial era Cupane (first author) saw his cultural identity to be part of the problem and part of the solution. He designed a critical auto-ethnographic inquiry, involving narrative and autobiographical research methods, socio-cultural theories and dialectical thinking, and explored his cultural identity as he addressed the key research question: *How can school science serve better the cultural development of local school communities in Mozambique?* (Cupane, 2007).

THEORETICAL PERSPECTIVE

Under Portuguese colonial rule school curricula in Mozambique were based on an 'essentialist' view of culture (Ashcroft, Griffiths, & Tiffin, 2000) in which indigeneity is non-existent in modern life because interaction with the West destroyed the purity of the Indigenous people (Semali & Kincheloe, 1999). From this perspective, indigenous knowledge is understood as primitive, and although it is has become a focus of academic knowledge it is not yet widely regarded as legitimate academic knowledge that can be studied in the science classroom. And so Mozambican science classes continue to serve as sites of uncritical assimilation, or one-way border crossing, into the Western modern worldview, thereby robbing Mozambican children of the opportunity to develop a more complex, dynamic and sustainable cultural identity. In this study, a 'non|essentialist' perspective on culture as a dynamic process was adopted, where '|' signifies a dialectical relationship between nonessentialism (cultural instability) and essentialism (cultural

stability). In this view, identity is characterised by the way that family, religion, political agency, education and human rights have significance for the individual as self, connected to human aspirations in a given space. This is moral identity and is shaped by family, neighbourhood, the city and the ethnic group. Sfard and Prusak (2005) suggest that identities can be known by stories told by individuals. Identity results from everyday interactions and decisions taken in everyday life. This notion of identity can help to unravel how the processes of academic failure and success occur in school science, especially in a postcolonial context.

METHODOLOGY

For science education, critical auto-ethnography is an innovative research method that draws on multiple research paradigms to engage the researcher in a process of transformative professional development (Ellis & Bochner, 2000; Taylor, Settelmaier & Luitel, in press). In this study, the first author undertook prolonged critical reflexive inquiry into his cultural identity by: excavating his cultural memory using a range of logics (metaphor, dialectics, poetics), representing this experiential data via numerous genres (story, narrative, poetry), subjecting it to critical theoretical scrutiny (or decolonisation), and engaging in creative reconstruction via a process of philosophical envisioning. The second author served as his 'critical friend'. A range of rigorous quality standards (alternatives to validity, reliability, objectivity) were used to regulate the generation of the researcher's personal practical self-knowledge. They will be explained in the paper.

OUTCOMES

For me (Cupane), one of the major outcomes of this research was coming to know 'who I am', both as a Mozambican and as a professional science educator. An important realisation is how incomplete is the cultural identity given by my ID card. The physical environment, my cultural capital, the weather, and my students are all stimuli that elicit different aspects of me, but my ID card states that I am a science teacher educator without feelings. I have come to believe that my full professional identity can parade in the science classroom only when these stimuli are in a sustainable relationship. This transformed self-understanding helps me to be at peace with myself as: a Mozambican, an indigenous (Changana) person, a world citizen, and a science teacher educator. This understanding has fuelled my vision of future science education for Mozambique, given that we are living not only in a free market period but also within previous times and that this entanglement is dangerously invisible to us. Our school science curricula continue to serve only the modern Western worldview, ignoring the urgent realities of both the traditional and rapidly emerging 'post|modern' worldviews of contemporary Mozambican society. By making clear in my own professional practice how I have achieved my personal sustainability, a clear sense of who I am, my colleagues and students (pre-service physical science teachers) can benefit as they are facing similar problems of cultural identity and curriculum adaptation. The paper will explain this outcome in detail, especially my emergent philosophy of a culture-sensitive physics teacher education for Mozambique.

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