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AFRICAN PERSPECTIVES OF RESEARCH IN TEACHING AND LEARNING - VOLUVE 1, NO. 1, JUNE 2017

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APoRTAL Scope

African Perspectives of Research in Teaching and Learning (APoRTAL*)* is an international, double-blind peer-reviewed journal that publishes original articles encompassing a range of current topics related to teaching and learning from all fields, disciplines and subjects. Articles may be rooted in disciplinary, interdisciplinary or transdisciplinary domains. The main thrust of the journal, which will be published **ONCE A YEAR** is directed at bringing to the fore discussions, debates and issues as they pertain to teaching and learning across a wide spectrum of education contexts in Africa without a commitment to a particular approach, methodology or worldview. It is concerned with and devoted to high quality articles that unravel, explain or problematize contemporary complexities of teaching and learning. It also embraces the ideal of building a new generation of teaching and learning scholars through the promotion of primary research by new and established researchers.

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This policy describes guidelines in the publication process of our journal.

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EDITORIAL COMMENT

African Perspectives of Research in Teaching and Learning Journal (APoRTAL)

This is the first or maiden issue of *African Perspectives of Research in Teaching and Learning* conceived and produced by the University of Limpopo, Centre For Academic Excellence and steered by the Editor - in - Chief. As a new international peer reviewed journal on the block, it brings to the fore an African voice to transdisciplinary discourse on teaching and learning. A unique quality of this journal relates to its focus on disseminating empirically-based researches from a contemporary breed of African scholars committed to excellent and reflexive teaching. The intention is to promote educational research in complex African settings with a view to entrench a truly African perspective to a global audience. The current issue sets the tone by addressing diverse educational topics by some renowned and budding African researchers. The topics herein focus on the Primary, Secondary and University sectors. The intention is to initiate debate on contemporary teaching and learning issues at those levels. It is imperative that these issues be brought to the fore, given that the African Educational landscape is fraught with challenges whose solutions can be provided through empirical studies. In subsequent issues, our hope is to thematicise the debates.

The articles published herein are a demonstration of passionate engagement with African scholarship by Africans seeking an academic voice in a world overfed with Eurocentric world views. We need not belabour the need for an African perspective given the diverse nature of a continent whose philosophical, religious and academic thinking and educational access has long been distorted by years of direct and implied colonialism. The African Education Agenda seeks to undo the deleterious and undying effects of colonialism by focusing on providing quality education anchored in science and education. This notion is aptly placed in context in the first listed article by Overson Shumba who argues from Zambia that poor educational quality developed through science and technology education is a manifestation of poor facilitation of epistemological access. Shumba condemns a curriculum that is not adequately contextualised and lacking in inclusivity with respect to local examples and cultures. Curricula, he argues, should make connections to social-cultural, socio-ecological, and to personal, familial and other real life situations in the community. He proposes the adoption of learning as connection discourse developed in the context of educational research, especially in southern Africa. Such endeavours, he concludes, will portray learning as a connection that facilitates and reinforces epistemological access and learning for sustainable development in, and through, science and technology education in Africa.

Gamuchirai Tsitsi Ndamba takes the access debate further by highlighting language-related teaching challenges confronting teachers and learners alike. She laments the policy-practice dissonance in teaching in the mother tongue with the impact this has particularly on primary school learners. Using evidence from Zimbabwe, Ndamba decries the challenges of teaching learners in their mother tongue during the formative years of their primary school learning (as per policy). Such challenges stemmed from low self-esteem: a consequence of inadequate training in translation and in teaching using the home language. This trend has the

cumulative effect of curtailing learners' educational access in secondary and to higher education. In the secondary school sector, for instance, as Vurayai and Gumabati argue, school Heads and teachers faced challenges in the implementation of correlation and integration of knowledge as well as the role of correlation and integration of knowledge in curriculum planning. These challenges reportedly emanate from a conceptual (mis) understanding of the need by schools to marry theory and practice for the maximum benefit of students. The authors propose in-service programmes wherein a common philosophy and common objectives are set and the participation of educators and school administrators at all levels is secured for all school-related programmes.

The higher education sector presents its unique set of challenges. The South African higher education sector is beset with the student dropout scourge. Most students drop out despite access being unrestricted. In their article, Wadesango, Mabovula, Makura and Toni buttress the notion that the dropout scourge is symptomatic, *inter alia,* of low entry levels/requirements, low competencies, lack of financial and material resources and overcrowded classrooms. Wadesango *et al* suggest that Universities develop and sustain existing intervention programmes and services aimed at providing educational access whilst assuring student retention. A strategy that some South African higher education academics have utilised in mitigating pedagogical and research related challenges is the conducting of Writing Retreats, which also harness scholarship. This innovation is elaborated on in Marhaya, Malatji and Maphosa's article who demonstrate the efficacy of Writing Centres in promoting the scholarship of teaching and learning and enhancing collaboration among academics. Thus the role of Academic developers in such centres is instrumental in the provision of education. Kadhila, Nyathi, Shanyanana, and Iipumb's article provide compelling evidence on the critical role of academic developers in Namibia, in shaping and influencing university culture. The methods used by lecturers and what informs the choice of these methods is integral to the teaching learning milieu. They suggest that university academics need to be equipped with skills (by academic developers) to enhance their ability to facilitate, manage and assess student learning, using proven effective approaches.

Based on the idea that students from historically deprived backgrounds of South African regions confront issues of higher education access. Therefore, Makura A and Nkonki N decided conduct a study at selected institutions of Higher Learning in the Eastern Cape Province aimed at determining Higher Education stakeholders' perceptions of articulation enablers and constraints for learners articulating from the Further Education and Training sector (FET) into Higher Education Institutions. The authors found that there was blurred policy on issues of articulation from FET to university, with extremely few respondents who are aware of the South African Qualifications Authority's current career development pathways and initiatives that enhance such articulation. Furthermore, they revealed that none of the probed students have any knowledge of various articulation routes available in South Africa. Meanwhile, a need to mount training, and awareness workshops as well as professional teacher development initiatives on articulation from FET to university was recommend by researchers as the best solution, amongst the others.

Writing from Botswana, Modesto Tichapondwa S poses a million-dollar question: What effect does a distance education teachers' training programme have on teacher discourse effectiveness in the classroom? This is with reference to classroom situations in nomadic

communities of the Basarwa in Botswana. Modesto's study focused on the enhancement of oracy to achieve cognitive intentions. Comparison of pre-intervention and post-intervention discourse practices led to the conclusion that teachers who participated in the intervention programme dominate interaction less and choose more effective discourse to promote learning. In turn, learners show a higher degree of initiative than their counterparts. He therefore, recommends that an in-service course taking into account the culture and language of the Basarwa should be designed and offered as a way of enhancing teacher discourse and increased learner participation in the learning situation.

In parting, it is our hope that you benefit from this rich and diverse offering. These articles report on both plethora challenges and success stories, incidentally from the Southern African Development Community countries (SADC). A word of thanks to an array of people whose sweat has yielded this modest journal be they authors, administrator, editorial board, reviewer, secretarial etc. We want to assure readers that this is in no way a predatory or fly by night issue. We promise to offer more eclectic articles penned by scholars of international, academic stature and repute. Our collective endeavours are invaluable and should sustain Africa's global academic agenda to posterity. Enjoy!

Prof Newman Wadesango

Editor -in-Chief (APoRTAL)

TACKLING EDUCATIONAL QUALITY AND EPISTEMOLOGICAL ACCESS CONCERNS IN SCIENCE AND TECHNOLOGY EDUCATION IN AFRICA: THE "LEARNING-AS-CONNECTION" IMPERATIVE.

Overson Shumba

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Abstract

The main purpose of this paper is to catalyse debates on educational quality and relevance in the Africa science and technology education context. It seeks to show that poor educational quality developed via science and technology education is a manifestation of poor facilitation of epistemological access. The curriculum is not contextualised adequately and largely lacks in inclusivity with respect to local examples and cultures that may inform pedagogy. It proposes the adoption of learning as connection discourse. This discourse developed in the context of educational research case studies in southern Africa scopes learning as actively interfacing context and concept. It stresses the need to make connections to social-cultural, socio-ecological, and to personal, familial and other real life situations in the community. More importantly, learning as connection facilitates and reinforces epistemological access and learning for sustainable development in and through science and technology education.

***Key words*:** educational quality, epistemological access, education for sustainable development (ESD), science education, sustainable development

1. LEARNING FOR SUSTAINABLE DEVELOPMENT AND THE AFRICAN DREAM

Learning for sustainable development is a global notion (UNESCO, 2016) that is the ultimate outcome pursued in all learning areas including Science and Technology Education. The failure to pursue and achieve this lofty educational agenda in Science and Technology Education amounts to a failure of the African dream of sustainable development. This African dream is expressed in the first speech delivered by the President Kwame Nkrumah (the president of the first country in Africa to gain independence from British colonial rule in 1957) at the foundation summit of the Organization of African Unity, Addis Ababa, on 24 May 1963 (now Africa Union).

> "We shall accumulate machinery and establish steel works, iron foundries and factories; we shall link the various states of our continent with communications; we shall astound the world with our hydroelectric power; we shall drain marshes and

> swamps, clear infested areas, feed the undernourished, and rid our people of parasites and disease. It is within the possibility of science and technology to make even the Sahara bloom into a vast field with verdant vegetation for agricultural and industrial developments" (Ghanaweb, 2013).

This dream reverberates today in *Agenda 2063: The Africa we want* (Africa Union, 2015). Learning for sustainable development is critical to the development of African nations. In this vein the Africa Union articulates the pertinence of educating for sustainable development when it states that:

> "Education is a critical sector whose performance directly affects and even determines the quality and magnitude of Africa's development. It is the most important means we have at our disposal to develop human resources, impart appropriate skills, knowledge and attitudes. Education forms the basis for developing innovation, science and technology in order to harness our resources, industrialise, and participate in global knowledge economy and for Africa to take its rightful place in the global community. It is also the means by which Africa will entrench a culture of peace, gender equality and positive African values" (Africa Union, 2006 at www.nepad.org).

Science and Technology Education and sustainable development have a relationship of interdependence that predicates learning for sustainable development. Through Science Studies at every level of an education system, students ought to get an education for sustainable development. We base this assertion cognizant of the richly philosophic notion of "Education through Science" (Holbrook, Rannikmae & Valdmann, 2014). This notion encompasses intellectual understanding of the nature of Science in a manner and extent that links it (i) to the achievement of goals in the personal domain, (ii) to the promotion of character and positive attitudes, and (iii) to achievement of goals in the social education domain, including socio-scientific decision-making. The concept of 'Education through Science' thus reminds us that the "over-riding target for Science teaching in school, as an aspect of relevant education, is seen in responsible citizenry, based on enhancing scientific and technological literacy." Clearly, social and humanistic goals cannot be outside the realm and pedagogical discourse of Science Studies whether at the school level or at the tertiary level, and attending to these humanistic and social goals might be the defining elements of educational quality and relevance.

This becomes immensely relevant in the African context where by historical and colonial precedent there exists a disconnect between knowledge circulating in the education system and that relevant to the life and well-being of individuals and their communities (Lotz-Sisitka, 2008; Shumba, Kasembe, Mukundu, & Muzenda, 2008) and the disjuncture between scientific and everyday ways of knowing (Shumba, 1999). This disconnect can be seen in the lack of

genuine personalization of meaning in terms of utilizing the knowledge, skills, and values in Science Studies to improve personal well-being. It is in the decontextualised curriculum in which local examples and case studies are under-represented or excluded that this can be seen. There is a disconnect seen in the non-reference to valuable indigenous ways of knowing, indigenous explanatory frameworks, indigenous practices and technologies, and most importantly, exclusion of the value ethics of the African, *Ubuntu* and in my language *Unhu*. Overall, we find in this situation that the knowledge that circulates in the education system is not sufficiently connected to learners' backgrounds, experiences, and cultures with great implications for quality and relevance, especially in Science and Technology Education. Its tendency is exclusionary.

2. LEARNING DISCONNECT AND NATIONS AT RISK

The questions of contextualization and relevance in Science Education and especially, if we seek to transform our ways of thinking, doing and being necessary for sustainable development, need serious interrogation. The following is a demonstrative quote of the untenable situations of lack of socio-cultural and personal significance and relevance, and signification.

It is a fact that despite the wide spread of science in the educational system, most Africans including professors of science, scientists, and technologist still hold strongly to the belief in black magic, mysticism and superstition. Again, most of our scientists including professors cannot translate most western concepts and generalizations in science to African cultural or traditional application. This can be seen in the inability of our scientists to translate what chlorophyll and photosynthesis are in their native dialect. This raises a serious question on thought pattern or reasoning. Do Africans especially the scientists; think in their native language or in English or in French?" (Usuquo, Samuel, Bassey & Bassey, 2010).

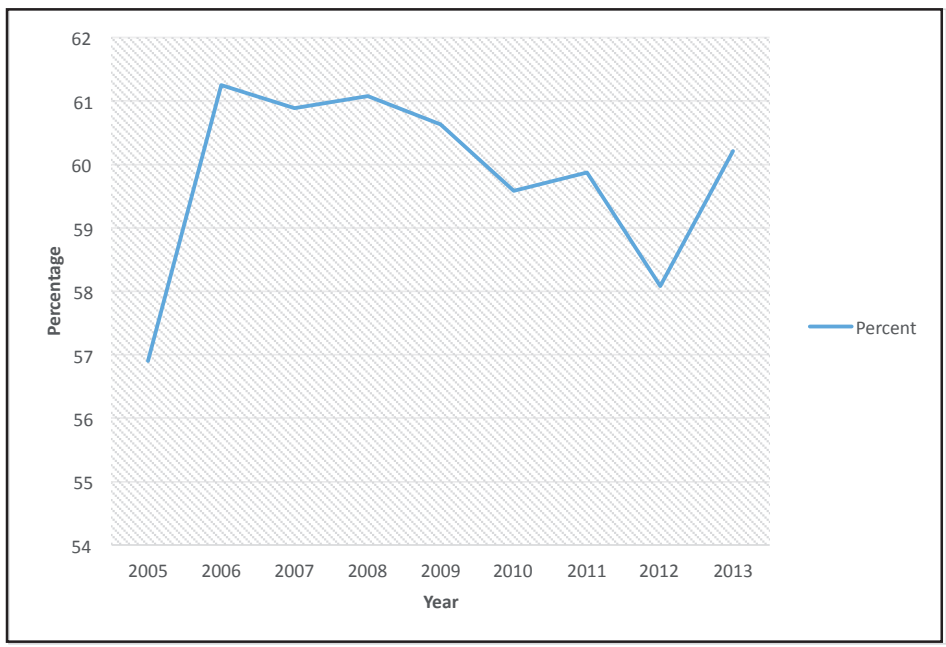
The above scenario reflects some anecdotal evidence of the learning disconnect and its consequences at the level of professionals in science. It has nothing to do with being African, but rather it reflects deeper epistemological disconnections evident in the imagery of "hazardous" cultural border crossings (Aikenhead, 1996; 2001; 2007) and parallel collateral learning (Jegede, 1995). This status and lack of conflation between western and indigenous knowledge systems creates conditions that not only endanger quality of Science and Technology Education, but also the pursuit and attainment of sustainable development. Many countries in Africa, as revealed by reports of various examination boards, show an imperilled state of academic achievement, the worst results in test scores and literacy levels being associated with Natural Science subjects. In Zambia, the *First National Assessment Project* (ECZ, 1999) stated that Zambia is "a nation at risk" (p. 6) and it went on to observe, "… levels of learning achievement are low right across the country, in all grades and in all curriculum areas. Very little learning of the type expected by society is occurring in

Zambia's schools" (p. 6). Learners from countries such as South Africa that participate in the TIMSS, PIRLS and SACMEQ perform poorly relative to learners from comparison countries outside Africa (Spaull, 2013). Numerous reports from the Examinations Council of Zambia (ECZ) paint a startling picture of secondary school students' academic achievement in, especially, Mathematics and the Natural Sciences (ECZ, 2014 & 2015, Kiwala, Nachibanga & Macwani, 2016). In 2013, the candidates obtaining a full certificate at the GCE O level represented 60.21% and the percentage of students obtaining full certificates has been hovering around the same percentage since 2006 (Table 1 and Figure 1).

Table 1: *National trends in candidates obtaining school certificates 2005-2013.*

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Percentage	56.90	61.25	60.89	61.08	60.63	59.58	59.87	58.08	60.21

Figure 1: National trends in candidates obtaining school certificate 2005-2013



Source: Examination Council of Zambia, 2013

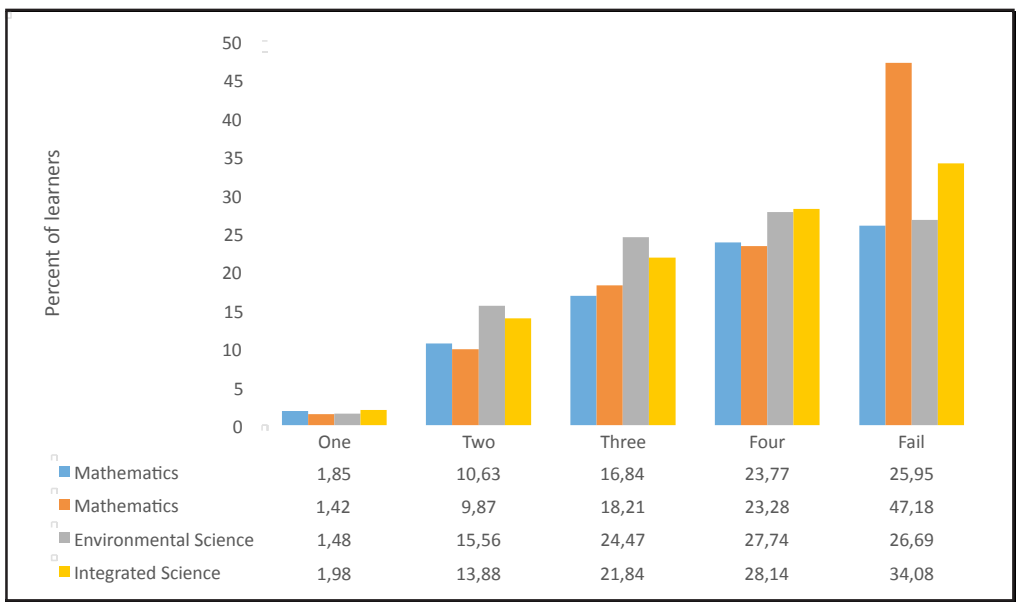
Some of those who fail to obtain full certificates can be traced to the low level of passes and failure rates in the Natural Science subjects in grade nine examinations (Table 2 and Figure 2). Around 50% either got grade four or completely failed the 2013 grade nine examinations in Mathematics and Environmental Science. In 2015, the situation got worse where 47.18% failed Mathematics completely and 23.28% got a grade four result. In Integrated Science (in the new curriculum), 34.08% obtained a failed result in 2015 compared to 26.69% who previously failed Environmental Science in 2013. This reflects a decline in achievement at this level.

Table 2: *Grade 9 subject grade distribution for science subjects in 2013 and 2015.*

Subject	**Year**	**Grade Scored and Percent %**				
		One	Two	Three	Four	Fail
Mathematics	2013	1.85	10.63	16.84	23.77	25.95
	2015	1.42	9.87	18.21	23.28	47.18
Environmental Science	2013	1.48	15.56	24.47	27.74	26.69
Integrated Science	2015	1.98	13.88	21.84	28.14	34.08

Source: Examination Council of Zambia (2014)

Figure 2. *Grade 9 subject grade distribution for science subjects in 2013 and 2015.*

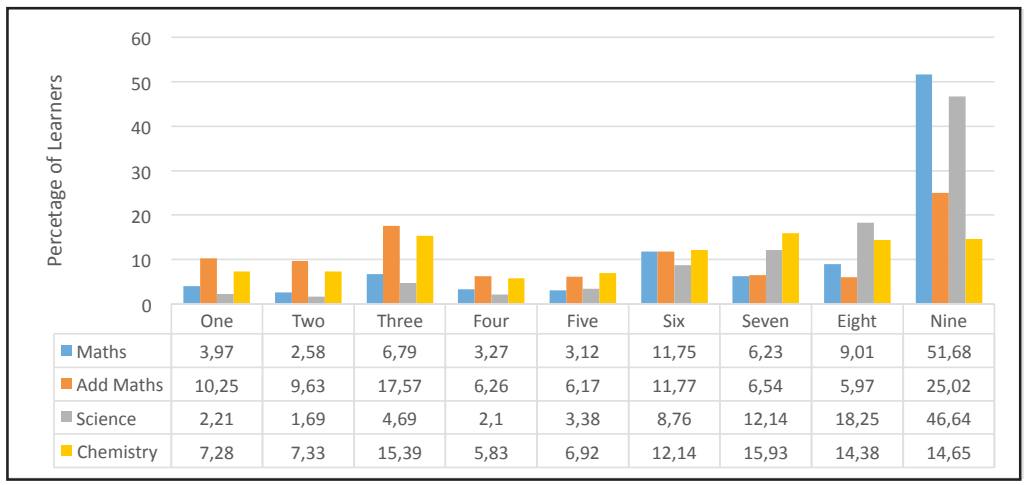


Let us also peek at the situation at the end of the secondary school cycle where the majority of students take Mathematics syllabus D and Science 5124. In 2014, over fifty percent (i.e., 51.68%) got a failing grade in Mathematics and 46.64% in Science (Table 3 and Figure 3). The same trend is seen in Table 4 and Figure 5 where the 2015 results show that 50.6% got grade nine in Mathematics and 48.6% got a failing grade in Science 5124, marking an increased failure rate. The results for "pure" Chemistry 5070 like other "pure" Sciences and Additional Mathematics show lower failure rates (e.g., 14.65% for Chemistry 5070) as these subjects are taken by the most able and academically talented but these are in the minority.

***Table 3**. Extract of Grade 12 subject grade distribution for selected Natural Science subjects in 2014.*

Subject/Grade	One	Two	Three	Four	Five	Six	Seven	Eight	Nine
1. Maths	3.97	2.58	6.79	3.27	3.12	11.75	6.23	9.01	51.68
2. Add Maths	10.25	9.63	17.57	6.26	6.17	11.77	6.54	5.97	25.02
3. Science	2.21	1.69	4.69	2.10	3.38	8.76	12.14	18.25	46.64
4. Chemistry	7.28	7.33	15.39	5.83	6.92	12.14	15.93	14.38	14.65

***Figure 3**: Extract of Grade 12 subject grade distribution for selected Natural Science subjects in 2014.*



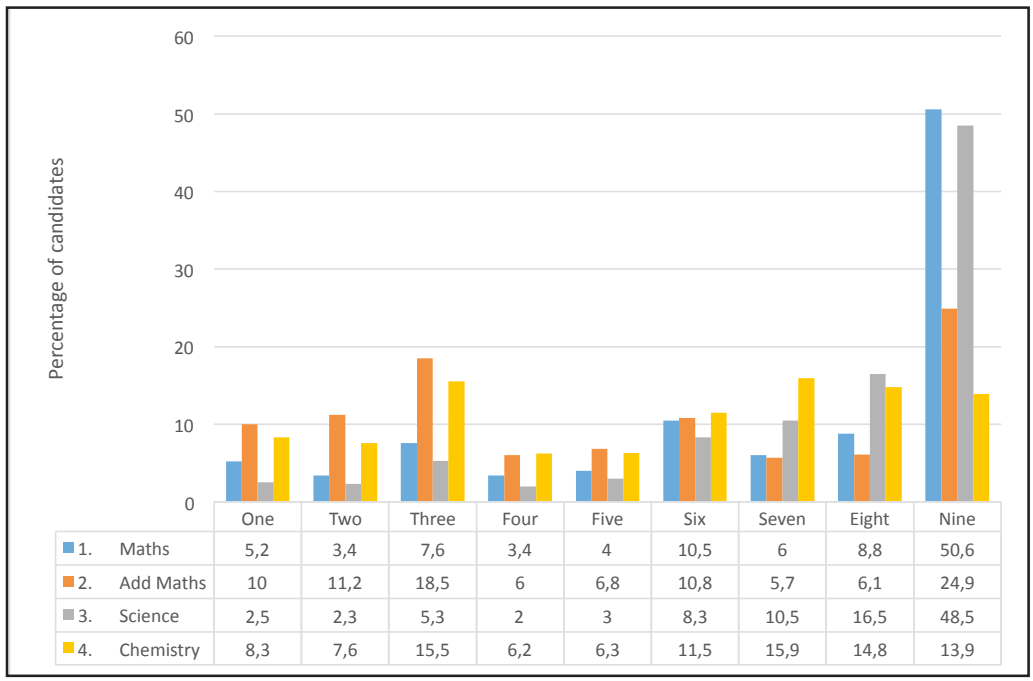
Source: ECZ, 2015

Table 4: *Extract of Grade 12 subject grade distribution for selected Natural Science subjects in 2015.*

Subject/Grade	One	Two	Three	Four	Five	Six	Seven	Eight	Nine
1. Maths	5.2	3.4	7.6	3.4	4.0	10.5	6.0	8.8	50.6
2. Add Maths	10.0	11.2	18.5	6.0	6.8	10.8	5.7	6.1	24.9
3. Science	2.5	2.3	5.3	2.0	3.0	8.3	10.5	16.5	48.5
4. Chemistry	8.3	7.6	15.5	6.2	6.3	11.5	15.9	14.8	13.9

Source: Extracted from Kiwala, Nachibinga and Macwani (2016).

Figure 4: *Extract of Grade 12 subject grade distribution for selected Natural Science subjects in 2015.*



Source: Extracted from Kiwala, Nachibinga and Macwani (2016).

Clearly, these data point to an imperilled Science and Technology education landscape, at least in one country in Africa. African countries that participate in international comparison of achievement in Mathematics and Science have generally ranked behind comparison countries outside

Africa (Spaull, 2013). Many factors account for the state of affairs, not least among which are the learning disconnect referred to above. We do concede that the examination results as presented above can only be a proxy for gauging educational quality in a system. We are mindful of the multiplicity of factors that may equally explain some aspects of educational quality. For example, it is typical that we point to the qualification of teachers, the availability of resources such as textbooks, apparatus, and laboratory reagents, and many other material grounds. The learning disconnect as we see it is cognitive rather than material-resource linked. The disconnect relates to the factors that are intellectual and epistemological, i.e., knowledge-oriented, and those factors that would shape the intellectual environment, what knowledge is found in the curriculum and what ways this knowledge in the curriculum is transacted and negotiated, and meaningfully assimilated to become part of who we are as scholars of science. These are some epistemological access factors, of which we can also identify a basketful of them. The inadequate (even denial of) epistemological access could explain the state of academic learning and achievement in the Natural Sciences in schools and undergraduate studies. We contend that full epistemological access is the *sine qua non* of educational quality.

3. EPISTEMOLOGICAL ACCESS *SINE QUA NON* OF EDUCATIONAL QUALITY

Arbee, Hugo and Thomson (2014) (citing Morrow, 2003 and Gee, 2005) explain the concept of epistemological access in relation to the ability to understand and 'own' both the knowledge and the characteristic ways of knowing, and ways of being associated with particular academic disciplines. Ultimately, to achieve full epistemological access entails that students be able to appreciate the appropriate identity of a discipline (what we may call the discipline-centric view). In science education, this would mean students have to appreciate the nature of science, for example. Taking Chemistry as an example, this would entail understanding the transformation of substance and materials, how to explain behaviour of these transformations using appropriate models and theories, using acceptable chemistry language and IUPAC nomenclature and conventions, how to represent the substrates and products symbolically and by equations.

We contend that epistemological access is more than this. It entails (or ought to entail) too an understanding of the applications and impacts of chemical technologies and products, personally and in society. For example, Lotz-Sisitka (2009) argues the need to go beyond the technical and discipline-centred approach to teaching and learning and to "embrace an open-ended notion of epistemological access to enhance reflexivity, agency and responsiveness to risk and vulnerability" (p. 11) associated with, for example, risks and vulnerability posed by climate change, biodiversity loss, HIV-AIDS, Ebola, and other such conditions. Does this not need or require a different pedagogical orientation? Is it not a different type of understanding and a different kind of pedagogy when students are asked to reflect in Chemistry and make

the connection, for example, when they respond to the following as citizens and consumers? For example, should the Bonn-Haber process developed in the context of providing ammonium nitrate fertilizer to boost crop production and fight hunger have been the driving force behind the war machines around the world?. At the personal level, how much do our household chemical products contribute to the pollution load of the local water bodies and to the cost of water processed by the water utility company? What are the implications for biodiversity? What do the pollutants contribute to the cost of potable water? What is the level of awareness concerning consumer products, e.g., improper dumping of household chemical products? Do they understand that the use of chemical products may be an expression of lifestyles, e.g., cosmetic practice of skin lightening with hydroquinone skin breaching creams? In addition to students of Science studies having complete access to the knowledge and ways of knowing and being in a discipline they must as well have complete access to the social, economic, cultural and ethical dimensions or implication of the subject. For further reflections on the relevance and case studies of epistemological access in, for example, Physics, Life Sciences, and Anatomy (Bozalek, Garraway & McKenna, 2011).

4. EDUCATIONAL QUALITY, EPISTEMOLOGICAL ACCESS AND INCLUSIVITY

The question of educational quality in Science Education is a question of epistemological access, which in our opinion has not been given due consideration in Science curriculum and instruction. Some of our pedagogical actions limit epistemological access starting as early is in Basic and Secondary Education levels. These are sites where the spirit of scientific inquiry together with critical questioning must be nurtured and yet they can be places that dissuade and suffocate critical questioning and inquisitiveness. One example suffices. It is the story of the Tanzanian pupil Erasto B. Mpemba who in 1963 discovered an important phenomenon that remains unexplained today, the *Mpemba effect,* later published in the journal *Physics Education* in 1969.

The Mpemba effect relates to the observation that hot water can sometimes freeze faster than cold water, but which has not yet been explained. Erasto had asked his physics teacher (who dismissed him as confused) why the ice cream mixture he had been boiling had frozen quicker than that of his friend which had been more tepid. It is reported in the *Science Magpie* that towards the end of June 2012, the Royal Society of Chemistry created a competition to find the best explanation of the Mpemba effect. In the case of Mpemba, we can blame it on teachers who suppress the spirit of questioning and inquisitiveness, a common problem across Africa. This behaviour illustrates an example of an epistemological factor that shapes the pedagogical space in Science Education by denying students to question and wonder. This can easily shape what we students believe to be the nature of science, that is, delivered by authorities, factual and unquestionable and that the role

of students is that of receptacles and receivers of given information.

The decontextualized curriculum also limits the extent of epistemological access. While various efforts at localising the Science curricula in Africa have been undertaken, the persisting resemblance of these curricula to the curriculum models of former colonizing countries' universities and examination boards is usually easy to notice. These tended (and tend) to be formalist, content-, object-, and process-oriented, while in contrast African education (built on *Ubuntu* philosophy and values) differs markedly by tending to be humanistic and values-oriented. This leads, in the context of Science education, to a situation where learners fail to conceptually connect content of school subjects to their personal lives in the community. This creates conditions of "hazardous" cultural border crossings (Aikenhead, 1996) and parallel collateral learning (Jegede, 1995) and an uneconomic way of learning. The above scenarios, coupled with the failure to contextualize the curriculum by bringing in local examples and practices, lead to a decontextualized learning space where students might learn in the classroom about the structure of a hibiscus flower and not relate it to any other flower in the local environment.

The differences in the indigenous ways of thinking and knowing and the 'scientific' ways of thinking and knowing in the Science classroom, coupled with the decontextualized learning space they create, make the personalization of meaning difficult, if not completely impossible. This decontextualisation leads to the curriculum irrelevance of "school Science" that immensely hampers full epistemological access. 'School Science' is coined from Whitty's (1985) notion of "school knowledge," by which he means a selection of knowledge that is carved "from a much vaster range of knowledge" (p. 1). This Natural Science knowledge in the curriculum in much of Africa does not account for indigenous knowledge or indigenous natural science, and examples drawn from local environments. For example, the ethno-chemical knowledge of the African concerning mineral ore extraction of iron and copper, the fermentation process in brewing, *kachasu or munkoyo* and the souring of milk, the use of fire and ashen to neutralize the acid soils, e.g., in *chitemene*, the case of many ethno-medicinal practices, and so forth, that is, the knowledge excluded in the Science curriculum. One cannot cease to think too of the Physics teacher attempting to bring an understanding of the electrostatic explanation of thunder and lightning in the village where local belief holds that certain people have powers to capture and use their potent force to attack enemies. One wonders too concerning the belief among many peasant farmers in African communities that the use of chemical fertilizers will kill the crop. This is the reason studies acknowledge that "no community, even at its most traditional level, exists in a 'knowledge-vacuum' and any sustained capacity can only be built if the transferred knowledge is intertwined with the positive fabrics of existing local knowledge systems" (World Bank, 2000).

The above background suggests the need for seeking pedagogical models that

are transformative in being inclusive and that we need to question Science Education and Technology Education built on the culture deficit assumptions. Pedagogical models that are inclusive are more likely to result in Science and Technology Education that is seen as relevant at the personal, familial and societal levels. This is the rationality of the 'science-technology-society' (STS) approach stressing connections and applications in Science and Technology Education in the 1990s. The STS approach was meant to provide opportunities for students to tackle problems of local interests and personal impact, careers in Science and Technology, and to make the learners see the importance and relevance of Science and Technology knowledge as useful and needed to solve problems in daily life. The STS approach is a clear effort to balance the interests of all by ensuring relevance at the personal and societal level. Psychologically, this touches the personal psyche and provides the motivation and drive for a learner to engage, to focus, to strive, to persevere, and possibly to succeed in Science Education.

5. EPISTEMOLOGICAL ACCESS, INCLUSIVITY AND LEARNING FOR SUSTAINABLE DEVELOPMENT

Above, it has been shorn how a learning disconnect can lead to a nation at risk and how a decontextualized and non-inclusive learning space stifles epistemological access in Science and Technology Education. It has been shown that an approach such as the STS approach attempts substantially to cater for personal and societal relevance, and thus for learners in Science to approach socio-scientific issues and other humanistic concerns. It is relevant to connect this to the earlier reference to the African dream, of sustainable development driven by science and technology. This requires a strategic re-orientation of educational processes to achieve 'learning for sustainable development' (UNESCO, 2016). This kind of learning goes beyond simple transfer of knowledge; it seeks to make learners into persons who can make decisions and act based on the knowledge they acquire (Fritjers, 2016). As stressed by Arjen Wals, learning for sustainability is transformative and it "emphasises 'learning for being", alongside learning for knowing and learning for doing" (Wals, 2010, p. 32). As such, learning for sustainable development is more than gaining of knowledge, values and theories related to sustainable development. Education for Sustainable Development (ESD) learning also refers to learning to ask critical questions; learning to clarify one's own values; learning to envision more positive and sustainable futures; learning to think systemically; learning to respond through applied learning; and learning to explore the dialectic between tradition and innovation (Tilbury, 2010). In learning for sustainable development, the pillars of quality learning (UNESCO, 1996 & 2010) remain relevant, inter alia:

- *Learning to know*- entails acquisition of instruments of understanding and finding out, or learning how to learn.
- *Learning to do*- entails application of learned knowledge in everyday life to act creatively and responsibly. Learning

involves learner questioning of and engagement with local sustainability practices.

- *Learning to be*- entails the development of the whole person, including personality, self-identity, self-knowledge, self-fulfilment, etcetera in a lifelong learning process.
- *Learning to live together*- entails changing one's lifestyle, having respectful relationships and respecting the rights of others, valuing difference and diversity, valuing social inclusion, conflict resolution, and mutual understanding. Learning includes consideration and questioning of equity, fairness and social justice in distribution of resources and opportunities within and between generations.
- *Learn to transform oneself and society*- entails being self-critical and having knowledge, values and skills to change one's lifestyle and serve as an agent of change for a sustainable future. This includes competencies and abilities to reflect on, and act together with, others to learn from sustainability practices and to change unsustainable practices.

An education through Science and Technology Studies requires that these learning outcomes be achieved. It is worth noticing from this that Science and Technology Education faces serious challenges requiring us to think deeply and creatively about educational quality and relevance and frameworks to guide us to think and reflect about them. For example, Professor Arjen Wals (2010) of the Wageningen University, Netherlands, made the proposal that we need forms of education and learning that can develop capacities and qualities of individuals, groups and communities to meet the challenges of sustainability. Such forms of learning are more than knowledge-based; they focus on existentially relevant 'real issues' to engage learners. Such forms of learning consider learning as cross-boundary in nature and permitting "increased permeability between units, disciplines, generations, cultures, institutions, sectors, and so on" (Wals, 2010; p. 22) which in turn require the "competence to integrate, connect, confront, and reconcile multiple ways of looking at the world" (p. 32). As can be seen from our reflections here, we need to engage in debates concerning educational quality and relevance in order to tackle the intellectual and epistemological disconnect found in Science and Technology if we do nothing.

6. EPISTEMOLOGICAL ACCESS AND EDUCATION FOR SUSTAINABLE DEVELOPMENT

In southern Africa we have pondered since 2007 how this may be achieved, framing our educational research network's thinking and practices around the notion of 'learning-as-connection' (Lotz-Sisitka, 2010; Lupele & Lotz-Sisitka, 2012; Lotz-Sisitka, 2012/2013). This powerful notion emerged from a series of ESD case studies[1].

[1]The network initiated with seed funds from the Southern Africa Development Community Regional Environmental Education Programme (SADC REEP, 2008-2012) is coordinated by Professor Heila Lotz-Sisitka, Murray and Roberts Chair in Environmental Education at Rhodes University. It involves institutions from Botswana (University of Botswana), Lesotho (Lesotho College of Education), Mauritius (Mauritius Institute of Education), Mozambique

The case studies explored the question: What contribution does education for sustainable development make to debates about educational quality and relevance? Illustrative case studies focused on various facets of learning for sustainable development and the following examples suffice to show some of the issues explored:

- contextualized and problem-based learning approaches in the curriculum in general (Bholah, 2012; Shumba, Kasembe, Mukundu, & Muzenda, 2008);
- integrating Environmental and Science Education in education in particular (Monjane, 2017; Shumba & Kampamba, 2012/13); and
- cultural artefacts and indigenous knowledge in the curriculum (Namafe, 2008; Namafe & Chileshe, 2012/2013).

(Pedagogical University of Mozambique), Namibia (University of Namibia), South Africa (Rhodes University), Swaziland (University of Swaziland), Zambia (University of Zambia & Copperbelt University) and Zimbabwe (University of Zimbabwe)

The results of the case studies inspired the evolution of the concept of 'learning-as-connection' and the books *Learning Today for Tomorrow: Sustainable Development Learning Processes in Sub-Saharan Africa* (Lotz-Sisitka & Lupele, 2012) and *Education for Sustainable Development and Schooling in Africa* (edited by Wilmot, Lotz-Sisitka, Shumba, & Lupele, 2017). With respect to Science Education, we have explored how the notion of learning as connection can lead to a balanced treatment of disciplinary knowledge, socio-ecological issues and other humanistic concerns in Science Education (Shumba, 2012; Shumba & Kampamba, 2012/13; Shumba & Kampamba, 2017) and proposed pedagogical innovations and transformative pedagogies in Science Education (Shumba, Kasali, Choobe, Mutondo, Maseka, and Mbewe, 2016)). Overall, we argue for a framework and an approach of integrating and connecting the scientific and technological content of curriculum and change projects to real life contexts, including social contexts. For example, we argue the need to gain scientific knowledge of, for example, climate change science, should not be the end all of learning in Science Education (Shumba, et al, 2016). Learning must include an understanding of the development issues associated with climate change and an appreciation of practical ways to act and do things to cope with or mitigate its impacts.

A reflective change in the pedagogical content knowledge of Science and Technology educators premised on the notion of ESD pedagogical content knowledge (ESD PCK) was postulated (Shumba & Kampamba, 2012/13). The ESD PCK foregrounds the relevance of understanding ESD concepts, principles, and values (i.e. ESD content knowledge), and the appropriate teaching and learning approaches with which to interrogate and act on them (i.e., the ESD pedagogy). Therefore, ESD PCK relates to teacher expertise to connect subject content and concepts to issues of concern to society's development. This ability to tackle the universal concepts of science and contextualise them to local real-life issues and problems will lead to attainment of 21st century learning outcomes. This is defensible if we take de Jong's (2005) suggestion that an education in science should develop capabilities to form opinions and make political decisions on science-technology-society issues. We see science education as a knowledge area and a process that is beneficial to society, and as such, it must take its full share of responsibility for educating for sustainability thinking and action. For this to happen, social and humanistic issues in the sustainable development discourse must not remain at the periphery of science and technology learning.

7. EPISTEMOLOGICAL ACCESS AND LEARNING AS CONNECTION

Clearly, what we suggest in the above is to ensure the complete 'connect' among learning a discipline and relevance in real-life contexts and problem-solving. It reflects the learning as connection principle. The notion of 'learning as connection', is part of the discourse of educational quality that views learning as actively interfacing context and concept and thus making connections to social-cultural, socio-ecological, and to personal and communal life-worlds and experiences (Lotz-Sisitka, 2008; 2009; 2010; Lotz-Sisitka & Lupele, 2012). Learning as connection advocates for education to be connected to socio-cultural, contextual and historical dynamics of learners' life worlds and experiences, while simultaneously gaining mastery of educational concepts and content. Therefore, learning as connection provides for contextualized and locally referenced approaches to quality in science and technology education (Shumba, 2012).

Learning as connection entails a deep engagement and participatory discourse of educational quality. It is important for learners to engage with questions that may have wider implications for learning for sustainable development. In the context, of chemistry education, it is relevant, for example, to allow students at the same time to reflect on social issues of consumption and the ethics of production as they learn the cannons of chemical knowledge. For example, should the Bonn-Haber process developed in the context of providing ammonium nitrate fertilizer to boost crop production and fight hunger have been the driving force behind the war machines around the world?. At the personal level, how much do our household chemical products contribute to the pollution load of the local water bodies and to the cost of

water processed by the water utility company? What are the implications for biodiversity? What do the pollutants contribute to the cost of potable water? What is the level of awareness concerning consumer products, for example, improper dumping of household chemical products? Do they understand that the use of chemical products may be an expression of lifestyles, for instance, cosmetic practice of skin lightening with hydroquinone skin breaching creams? Such questions are relevant in learning for sustainable development and for developing a value ethic relevant for us and our students to engage in debates and actions towards sustainable futures.

8. SUMMARY AND CONCLUSION

What this paper has shown is the fact that the African dream of science and technology-driven sustainable development is far from reached. A large impediment can be found in the poor educational quality developed via science and technology education. The curriculum is not adequately contextualised and largely lacks inclusivity with respect to local examples and cultures that may inform pedagogy. The paper has shown the risks of poor learning achievement to nations and their sustainable development. It is desirable to transform and remove barriers to epistemological access that are the sine qua non of educational quality. We have proposed a learning-as-connection framework in which conceptions of quality education are three-fold and intersecting. They entail (i) an efficiency/mastery discourse leading to a view of learning as mastery, (ii) an inclusivity/participatory discourse leading to a view of learning as participation, and (iii) a 'learning as connection' discourse (Lotz-Sisitka, 2008; Lupele & Lotz-Sisitka, 2012; Lotz-Sisitka, 2012/13). In the latter discourse of educational quality, learning is featured as actively interfacing context and concept and thus making connections to social-cultural, socio-ecological, and to personal and communal life-worlds and experiences (Lotz-Sisitka, 2008). Meaning-making that occurs at the interface of existing experience and context leads to more abstract forms of representation and comprehension.

Therefore, learning-as-connection as observed in Lotz-Sisitka (2012/2013) "further deepens notions of inclusivity or inclusivity concepts of quality so as to be inclusive of culture, local context and issues, and practices that have meaning in local societies, such as environment and sustainability practices, health education practices, life skills, and citizenship practices". The learning-as-connection discourse expresses, therefore, the relationship between meaning-making, context, and concept which creates deeper understanding. Taking Lotz-Sisitka's example, teaching and learning fermentation (concept) may best be facilitated by reference to the local beverage brewing process (context). In this example, the concept of fermentation and the context (local brewing process) interface to facilitate meaningful and connected learning. Everyday knowledge, concepts and experience are brought into relationship with scientific and abstracted representation of knowledge, concepts and societal experience (Daniels, 2002 cited in Lotz-Sisitka,

2012/13). In our view, learning-as-connection fosters epistemological access and potently transforms quality and relevance of science and technology education.

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MOTHER TONGUE EDUCATION AND BILINGUAL CLASSROOM PRACTICE IN POSTCOLONIAL SETTINGS: TEACHER CONCERNS AND PROPOSED INTERVENTIONS

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Abstract

This study was motivated by the desire to understand the nature of teacher concerns that act as barriers to effective implementation of the policy on the language of education, which is meant to benefit rural primary school pupils by learning through their mother language up to Grade 7. A qualitative case study was conducted, whereby 15 rural primary school teachers were purposively selected to speak out their views and concerns about mother tongue education in one district of Zimbabwe. Data, which was collected through the use of focus group discussions, was analysed thematically. Findings indicate that the major concern of teachers was that they lacked self-confidence to teach in the mother tongue, which was viewed as emanating from a lack of training, translation challenges, limited knowledge of policy requirements and the home language of learners having some terms which are vulgar in meaning. Participants suggested the training of teachers as the most effective strategy that could be employed in order to minimise the teachers' concerns. The exemplary and research roles of teacher education institutions were presented as the other intervention measures which might contribute towards the success of the mother tongue policy in a postcolonial bilingual education context.

***Key words*:** Mother tongue education; Language-in-Education policy; teacher concerns; Concerns Based Adoption Model; teacher education; intervention strategies

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1. INTRODUCTION

Literature from recent studies is clear on the indisputable role of the mother language as a key factor on the cognitive development of learners, particularly at primary school level (Alidou, Boly, Brock-Utne, Diallo, Heugh & Wolff, 2006; Mutasa, 2006; Open Society Initiative for Southern Africa (OSISA), 2008; Brock-Utne and Skattum, 2009; UNESCO, 2010; Desai, 2012; Benson & Kosonen, 2013; Mcllwraith, 2013; Brock-Utne & Mercer, 2014). Zimbabwe is one of the African countries which recognised the significant role played by the mother language particularly during the early years of schooling. Accordingly, a policy was put in place under the Education Act of 1987, whereby learners were allowed to access the curriculum in their home language during the first three years of primary school. The policy was amended in 2006 to enable the mother tongue to be the language of education up to Grade 7. Some researches conducted in Zimbabwe also

indicate that the mother language is vital for learners to access the curriculum with ease (Peresuh & Masuku, 2002; Chivhanga, 2012; Nyaungwa, 2013; Greenhalgh & Shumba, 2014). Despite the advantages of learning through the mother tongue, the Language-in-Education Policy (LiEP) is not being effectively implemented in Zimbabwean primary schools (Chimhundu, 2010). In rural Zimbabwe, the majority of learners come from poorly resourced schools and very little English is used outside the school premises as everyday communication is mainly conducted through an indigenous language.

Teachers play a central role in enacting a mother tongue policy in a bilingual situation, hence there is a need to explore their implementation practices (Setati, 2005; Johnson, 2010). Therefore, this study was aimed at investigating how rural primary school teachers were influenced by their beliefs, attitudes, social and cultural inclinations towards mother tongue education in a postcolonial context (Mfum-Mensah, 2005; Rizvi, Lingard & Lavia, 2006; Ngefac, 2010), with a view to examining the nature of barriers to the implementation of the LiEP. There is dearth of literature in Zimbabwe, pertaining to specific teachers' views and concerns towards failure to implement the 2006 LiEP in rural primary schools. This paper draws on a larger doctoral study which focused on teachers' conceptualization and implementation practices of the LiEP in the Zimbabwean postcolony (Author, 2013).

2. CONCEPTUAL FRAMEWORK

This study is framed and guided by the Concerns Based Adoption Model (hereinafter to be referred to as the CBAM). The focus of this study is on teachers as key players in the implementation of the LiEP at primary school level in Zimbabwe. Although there is lack of agreement on a common theory of implementation (Cohen & Spillane, 1993), this study explored the relevance of the CBAM. The CBAM is a well-researched model which describes how people, specifically teachers, develop as they learn about an innovation and the stages of that process (Sweeny, 2008; Hollingshead, 2009; Wang, 2014). According to Anderson (2002), the CBAM was developed at the University of Texas Research and Development Centre for Teacher Education in the early 1970s and continued until the mid-1980s.

Anderson (2002:333) affirms that several assumptions about classroom change in curriculum and instruction underpin the CBAM in the following ways: (1) change is a process, not an event; (2) change is accomplished by individuals; (3) change is a highly personal experience; (4) change involves developmental growth in feelings and skills; and (5) change can be facilitated by interventions directed towards the individuals, innovations and contexts involved. The assumptions stated above seem to imply that teachers play a vital role in implementing change, such as the policy on the language of education for primary schools in Zimbabwe. Since change is a process and not an event, and a highly personal experience, the individual experiences of teachers are crucial. The CBAM provides an analytical tool for this research, as one of its assumptions is that classroom change can be facilitated by assessing teacher concerns and using that information for planning and delivering interventions to assist individuals or

groups of teachers in implementing the change in general, and the implementation of the mother tongue education policy in particular.

According to Fullan (1991:73), a key feature of the practicality of implementation is the 'presence of the next steps'. The question of the relevance of steps is encompassed by the CBAM, where the feelings and attitudes about a change are classified into seven steps or categories of concerns, namely: awareness, informational, personal, management, consequence, collaboration and refocusing. The term 'concern' is further clarified by Hall and Hord (2001, cited in Hollingshead, 2009:168) who define it as "composite representation of the feelings, preoccupation, thought and consideration given to a particular issue or task". The Stages of Concern, therefore, examines attitudes and feelings.

Hall and Hord (2001, cited in Hollingshead, 2009) explain that when undergoing change, individuals impacted by the change share common concerns which happen to have a powerful influence on the implementation of a change policy. According to Anderson (2002), the Stages of Concern (SoC) is a framework that describes the feelings and motivations that a teacher might have about a change in curriculum and/or instructional practices at different points in its implementation. To illustrate this point, Anderson (2002) describes the Stages of Concern as illustrated below.

At Stage 0, AWARENESS, the teacher has little knowledge about or little interest in the change. At Stage 1, INFORMATIONAL, the teacher is interested in learning more about the innovation and the implications of its implementation. Teacher concerns at Stage 2, PERSONAL, typically reflect strong anxieties about the teacher's ability to implement the change, the appropriateness of the change, and the personal costs of getting involved. Stage 3, MANAGEMENT, is reached when the teacher begins to experiment with implementation. At this point teacher concerns intensify around the logistics and new behaviours associated with putting the change into practice. At Stage 4, CONSEQUENCE, teacher concerns focus predominantly on the impact of the change on students in their classrooms and on the possibilities for modifying the innovation or their use of it to improve its effects. Stage 5, COLLABORATION, reflects the interest of the teacher in working with other teachers in the school to jointly improve the benefits of implementing change for students. At some point in the change process, teachers may reach stage 6, REFOCUSING. At this stage, the teacher is thinking about making major modifications in the use of the proposed change, or perhaps replacing it with something else.

In view of the CBAM described above, it is evident that the Stages of Concern examines individual characteristics pertaining to teacher concerns, feelings, attitudes and motivation about implementing a new instructional practice (Hollingshead, 2009; Mugweni, 2012). As such, with reference to my study, the Stages of Concern relates to how rural primary school teachers feel about implementing the LiEP as a curriculum change. The implication is that teachers experience various stages of concerns in their effort to achieve the expected goals. For this reason, Anderson (2002) maintains that the CBAM theory idealizes the Stages of Concern as a

developmental progression in which teachers who are expected to implement a change have concerns of varying degrees across all seven stages at different points as they progress through the change process. In the case of my study, a teacher who is just learning about a change from teaching in English to teaching in the learners' home language, as required by the LiEP, is likely to have higher self-concerns. The early stage concerns subside and the middle stage concerns intensify when the teacher starts trying to implement the change in the classroom. As the teacher gets more skilled in using the change, the middle stage concerns may give way to upper stage concerns. This view is clarified by Anderson (2002), who summarises the stages of concern by indicating that the original CBAM framework progressed from self-concerns (Awareness, Informational, Personal), to task concerns (Management), to impact concerns (Consequence, Collaboration, Renewal).

According to Sweeny (2008:2), the three lower stages are focused on oneself and are referred to as self-concerns, a clue of which might be the use of 'I' and 'me' as in 'I am frustrated'. In the context of this study, during the early concerns phase, teachers may not be aware of the requirements of the LiEP and seek information to gain more knowledge. They may experience anxiety with regard to their capability to meet the demands of implementing the LiEP, its appropriateness in teaching and learning and the personal cost of getting involved (Anderson, 2002). Teachers may also be uncertain about the conflict which they may experience with the school management and parents with regard to attitudes towards teaching in the mother tongue. Not getting adequate information on the part of teachers may make them resist or ignore the change, leading to their failure to implement the policy. The middle stage (management) focuses on mastery of tasks to the point that they become routines and are easier to do. In the context of my study, at this stage teachers' concerns would be focused on the logistics and new behaviours of putting into practice the LiEP as a curriculum innovation. The upper stages are focused on the results and impact of an activity. With reference to this study, teachers' concerns would focus on the impact of the LiEP on learners in their classrooms. A clue might be the use of pronouns which refer to clients who benefit from the activity (Sweeny, 2008). For example, "The students are really learning better since I started using the mother language as a learning and teaching strategy". In the impact phase, teachers are concerned about how to improve implementation of change such as the LiEP and to explore its benefits with the cooperation of other teachers. The subdivision of concerns into three major stages must be viewed as serving a positive purpose. This view is expressed by Sweeny (2008) who argues that the goal of all professional development programmes should be to help people to reach the collaboration level of practice, such as illustrated in the Stages of Concern.

It is evident from the CBAM literature that when people are overwhelmed or feeling unsuccessful, they are not ready to grow. This implies that educational change such as the LiEP cannot be implemented until the concerns of teachers are addressed. The Stages of Concern point out the significance of acknowledging teacher concerns and addressing them at the appropriate time.

Thus, understanding the concerns of teachers can facilitate the adoption of the LiEP as a curriculum change.

The purpose of this study was to assess and pay attention to teachers' concerns during the implementation of the LiEP in rural primary school classrooms in the Zimbabwean postcolony, and for participants to suggest intervention measures which may assist them to embrace the mother tongue policy.

3. METHOD

This study was situated within the postcolonial theory paradigm where proponents of this tradition believe in "dialogical methodologies" (Ashcroft, Griffits & Tiffin, 1998; Marshall & Rossman, 2006; Ratele, 2006; Chilisa, 2012). The study represents a qualitative case study design. Data was collected from fifteen teachers, five from each of the three selected rural primary schools in Masvingo district of Zimbabwe. Purposive sampling was used to access in-depth knowledge on the specific, unique issue on the LiEP from the identified participants, who happened to be knowledgeable people by virtue of their professional role and experience.

As a way of capturing "the perspectives of the decolonised" (Punch, 2005:173), the views of teachers were gathered through focus group discussion tactics (Anderson, 2002) regarding why they do not effectively implement the LiEP. My choice of the focus group interview method was based on my awareness that scholars who subscribe to the postcolonial theoretical perspective emphasise interaction as a way of giving a voice to the previously marginalised so that they can relate their own history and other experiences in relation to the effects of colonialism (Ratele, 2006). In the process, an opportunity was created for participants' agenda to predominate as postcolonial subjects, rather than the researcher's (Viruru, 2005; Rizvi, Lingard & Lavia, 2006; Chilisa, 2012). Rural primary school teachers were empowered to express their concerns, and to suggest themselves, the nature of intervention measures that could be employed to minimize the challenges.

It has been observed recently that many researchers present studies of the powerless from an elite viewpoint, which does not represent the actual situation of the affected (Chilisa, 2012). During the research process, participants sampled for this study were expected to express their concerns, self-efficacy beliefs, thoughts, feelings and experiences pertaining to factors that contribute towards failure to implement a mother tongue education policy in a postcolonial setting. Rapport with the participants was established and maintained, an approach which is in keeping with the postcolonial theoretical perspective where respect and trust are emphasised (Chilisa, 2012).

Ratele (2006:553) argues that postcolonial scholarship brings to our attention the need to develop research relations which might bring researchers to an understanding of "another life" in a less alienating manner. Hence, the thinking in the postcolonial perspective which emphasises the importance of giving a voice to those who have not been visible, influenced my decision to consider rural primary school teachers as subjects for this study. A thematic analysis was carried out (Bogdan & Biklen, 1992; Corbin & Strauss, 2008; Nyawaranda, 2014) on the gathered data. In line with the methodologies inclined to the postcolonial paradigm, I went back to conduct a

'member check' audit with the participants as a way of heightening the dependability and confirmability of my study.

This study received ethical clearance from an institution of higher learning and was implemented after getting permission from the Ministry of Education. To assist participants to relax, I gave them a verbal assurance that the information that they provided would be kept as confidential information (Gray, 2009). To achieve rapport and trust, I asked the interviewees to read and sign an Informed Consent form as a way of guaranteeing their willingness to freely participate in the interviews (Frankfort-Nachmias & Nachmias, 1996; Creswell, 2005). The Informed Consent form clearly stated the purpose of the study, that their participation was voluntary; that they were free to discontinue participation at will, and that their answers would be held in strict confidence (Gray, 2009; Silverman, 2010). I made use of a digital voice recorder for the focus group discussions and these were personally transcribed, verbatim.

4. FINDINGS

All the teachers in this study indicated that they did not have confidence to implement a LiEP which uses the mother tongue as the language of education. Participants' concerns and fears were perceived as emanating from lack of training, failure to translate terms from English to the mother language, limited knowledge of policy requirements and terms that became vulgar when used in the home language of the learners.

4.1. Lack of training

Lack of relevant training was viewed as a major reason why teachers lacked confidence in using the mother tongue when teaching, as they had not been equipped with skills to implement the LiEP. These views were expressed by many participants and they are represented in the following responses:

> *Not very confident because I was trained using English and taught using English. Using Shona will be like teaching old dogs new tricks. I will take time to adapt and some terms will be difficult for me to explain (Teacher 4, School 1).*
>
> *Unless measures are put in place for us to understand it thoroughly (policy), then we can implement. We need to get experience from countries where it is successful (Teacher 1, School 3).*

Responses from all the participants in this study confirmed that teachers were concerned that they had not received any form of relevant training to empower them to implement the LiEP of 2006.

4.2. The challenge of translation

The majority of the participants in this study stated that they were not confident to implement the LiEP because they did not have the capacity to translate concepts in textbooks which were written in English. Responses indicated that participants displayed their incompetence in translation by stating the following reasons which represent many such responses from the three schools:

> *It will be hard to teach other subjects in Shona because there are some words which are in English which might be very difficult to translate them into Shona. As a result, we will develop a very*

backward community. If we are to look at the world as it is, English is a language which must be known in order to communicate with others (Teacher 3, School 2).

For example, you want to introduce the lesson on photosynthesis, how am I going to tell the children the Shona word for photosynthesis? You see, you run short of facts. When it comes to English, that word will be a very big problem for them to explain in Shona (Teacher 2, School 1).

4.3. Limited knowledge on policy requirements

Teachers indicated that they lacked knowledge on the policy requirements, hence they could not put into practice what they did not know. This concern was revealed when all the participants expressed that they had low self-confidence in implementing a mother tongue policy simply because they were not aware of the provisions of the current LiEP. This finding is revealed in the following statements which are typical of many such responses:

I am not confident because I have never heard about the policy. Besides, there are no resources and as it is, it's like the people at the top are quiet about it, so we won't be flexible to implement the policy (Teacher 5, School 1).

We have not been made aware of this document so we cannot say we are confident of something we don't know much about (Teacher 4, School 2).

Another dimension for low confidence in implementing a mother tongue policy in education was that teachers feared that their lack of knowledge about policy requirements could cause confusion among teachers, parents and even pupils if they implemented such a policy.

4.4. Vulgar concepts

It emerged in this study that some teachers said they lacked confidence in teaching in the mother language due to cultural reasons. Teaching in English was viewed by many as an advantage because of the following reasons:

Another advantage is that there are other Shona words which you cannot explain clearly to the pupils, anenge otosvodesa (they become vulgar) but if you say them in English there is nothing wrong [---] especially in Environmental Science during reproduction (Teacher 4, School 3).

In vernacular language there are some concepts which cannot be taught in Shona. For example, the topic on reproduction [---] you cannot code switch. Haiiti (It's not possible to translate) [laughter]. Sometimes we can say vernacular language is good because children understand but some topics ha-a-a it is difficult (Teacher 3, School 1).

Participants thus stated that it was taboo to mention names of reproductive organs in the home language of the learners.

Teachers in this study were mainly concerned about low self-confidence in implementing the LiEP due to limited knowledge on policy requirements and lack of relevant training to equip them with skills on how to implement the 2006

LiEP. Consequently, they felt disempowered to translate materials written in English into the mother language and to conduct lessons in a language they were not trained to use when teaching. Interestingly for cultural reasons, teachers indicated that they could not use some terms in the mother tongue as it was considered taboo to talk about sexuality issues with learners. As a result, teachers had no confidence to teach in the mother language, hence, they preferred the use of English particularly for such scientific terms which had to do with the reproductive system.

4.5. Intervention strategies

4.5.1. The training role of teacher education institutions

The professional development of teachers as an intervention strategy was regarded by all the participants as the major technique which should be employed by universities and teachers' colleges to empower teachers on the essential role played by the mother language in the learning of primary school children and also on how to implement the policy effectively. All the participants in this study strongly believed that if they could go for retraining, then they would be in a position to cope with the demands of the current policy which encourages mother tongue usage in the education of primary school learners. The following statements typify suggestions on the role of teacher education institutions in the professional development of primary school teachers for the benefit of mother tongue usage:

> *Students at universities and colleges should be equipped and acquainted with the changes so that they implement them when they get to schools. College and university lecturers should hold in-service and refresher courses for teachers (Teacher 1, School 2).*

> *I support the first two speakers. If we got training, yes, we can manage to teach in the vernacular language because we will be equipped. We will be able to teach especially the other subjects like the science subjects, content subjects and especially mathematics because it's not easy to teach mathematical concepts in Shona but if you are trained to do that you can manage (Teacher 2, School 3).*

> *Currently I am not very confident, I am not yet equipped. Maybe with syllabus interpretation and some key terms in the mother language, yes, so that I grasp them first before imparting to the children (Teacher 3, School 1).*

Involvement of teacher education institutions was considered important in making teachers appreciate the essential role of the mother tongue in education and how to implement a mother tongue policy. Teachers in this study, therefore, valued the training of pre-service teachers as a crucial step for any meaningful implementation of the LiEP to take place. Coupled with pre-service education, was the suggestion that the re-training of practising teachers was very vital and it was proposed that this could be done through seminars, workshops and in-service programmes. Thus, teachers who participated in this study claimed that if they were trained on how to implement the

policy, they would be in a better position to put it into practice.

4.5.2. Exemplary role of teacher education institutions

Apart from the training of teachers through pre-service and in-service programmes, participants in this study suggested that teacher education institutions should be exemplary in their demeanour regarding the implementation of the current LiEP. This view was exposed by some participants as follows:

> *The institutions should be exemplary and teach their students in ChiShona and their students will in turn teach pupils in the same language (Teacher 1, School 1).*
>
> *Universities and teachers' colleges need to teach the policy by teaching their students first in Shona so that the students will be taking part and will take it to the pupils (Teacher 5, School 3).*

Thus findings indicated that teacher education institutions were regarded as vital nerve-centres where the LiEP had to be taught through example to pre-service and in-service students as a way of giving them confidence to implement the policy upon completion of their programmes. The translation of textbooks and syllabi into the mother tongue and making them available to all schools was also taken to be an effective measure to be undertaken by teacher education institutions to enhance the implementation of the 2006 LiEP particularly in rural areas. Another crucial role suggested for teacher education institutions as focal points on the training of teachers was that of research as illustrated below.

4.5.3. The research role of teacher education institutions

Conducting research and experiments on how to implement the current LiEP was deemed a necessary intervention strategy by participants in this study. This kind of thinking was revealed in the following responses which suggest that:

> *They also can make experiments on certain schools so that others can see the results (Teacher 2, School 2).*
>
> *Research further, find out from other countries which have been successful. (Conduct) outreach programmes to make teachers aware, like what you are doing right now (Teacher 2, School 1).*
>
> *... When the policy is drafted they should pilot test it with just a few schools, a few samples (Teacher 3, School 3).*

Participants in this study generally agreed that teacher education institutions should play the key role of training teachers on how to implement a mother tongue policy through pre-service and in-service programmes. It was also believed that by playing an exemplary role in their conduct and by researching to find out from other countries, loopholes would then be identified and rectified through an informed process.

5. DISCUSSION OF FINDINGS

Teachers play a crucial role in implementing change (Jansen, 2009). Therefore, in this study their individual concerns and fears were sought for the purpose of planning intervention strategies

as suggested by the CBAM. The assessment of teacher concerns, attitudes, feelings and motivations was crucial since these factors have a powerful influence on the implementation of a change policy (Anderson, 2002; Bitan-Friedlander, Dreyfus & Milgrom 2004; Hargreaves, 2005; Sweeney, 2008; Hollingshead, 2009; Mugweni, 2012; Wang, 2014). When evaluated against the CBAM, teachers in this study were in the early self-concerns phase of Awareness, Informational and Personal stages. Therefore, teachers had higher self-concerns as they expressed lack of awareness with regards to the provisions of the LiEP and that they sought information to get more knowledge. Participants indicated that they experienced strong anxieties pertaining to their lack of capability to meet the demands of implementing the 2006 LiEP. Clearly, participants in this study had unanswered concerns and fears pertaining to how teachers would translate textbooks which are written in English if all the subjects were to be taught in the mother language.

Professional development through pre-service and in-service programmes was viewed as the most relevant method of preparing teachers to use indigenous languages as media of instruction in a bilingual postcolonial context. Firstly, training and retraining of teachers on the issue of bilingual education is crucial for creating positive attitudes by enlightening teachers on the pedagogic benefits of using the first language in primary schools. Secondly, such professional development would equip teachers with knowledge on how to use appropriate terminology since the text books were written in English.

Professional development strategies can be undertaken on the job, in teachers' colleges and in teacher education departments in universities (Fullan, 1998; Rogan & Grayson, 2003; Bitan-Friedlander, Dreyfus & Milgrom, 2004; Darling-Hammond, 2005; Sergiovanni, 2005; Alidou, 2009; Van Laren & Goba, 2013). The empowerment of teachers through professional development is in line with the current trends in teacher education where pre-service and in-service teachers ought to be made aware of bilingual education in order to achieve balanced bilingualism (Mwamwenda, 2004; Alidou et al., 2006; Baker, 2006; Donald, Lazarus & Lolwana, 2010; Fernando, Valijarvi & Goldstein, 2010; Prinsloo, 2011). In other words, findings point towards the important task to be undertaken by teacher education institutions in equipping both pre-service and in-service teachers with the requisite knowledge and skills which make them gain confidence on how to implement the bilingual policy upon completion of their studies.

Research conducted in most European and North American contexts indicated that teacher education institutions did not pay attention to the challenges of bilingual education (Cummins, 2005). The same findings were yielded in Africa where research has proven that teacher education institutions still prepare their students to teach in ex-colonial languages in schools. Similarly, such lack of teacher preparedness was evident in Malawi (IEQ Research Project, 2000) and in South Africa (Rassool, Edwards & Bloch, 2006). This means that teachers graduate from teacher education institutions without much knowledge about the significant role of the mother tongue in education. As a result, they would find it a big challenge to implement

a mother tongue policy upon completion of their pre-service or in-service programmes. For that reason, Roy-Campbell (2001) implores teacher education programmes to come up with innovative ways of helping learners to value their mother language as well as developing proficiency in English, which appears to be the goal of the current LiEP for Zimbabwean primary schools.

All teachers in this study confirmed that they were never given any form of training in methodological skills in the usage of the mother language as the medium of instruction, hence they suggested the inclusion of relevant modules for both pre-service and in-service programmes at teacher education institutions. It can be argued that negative attitudes may result from lack of adequate training in respect of the cognitive benefits of education in the mother tongue. When teachers are not well versed in the pedagogical benefits of teaching and learning in the first language, then they cannot be expected to enthusiastically introduce it in their practice. As reflected in my study findings, teachers cannot have the expertise and confidence to implement a mother tongue policy, particularly in the absence of relevant educational material resources.

For the mother tongue policy to succeed in Zimbabwe, Nkomo (2008) aptly points out that the Zimbabwean LiEP should not be restricted to classroom practice without considering what happens in lecture rooms where teachers are produced. This implies that Nkomo (2008) regards teacher education programmes in Zimbabwe as crucial in preparing teachers in the use of the first language as the language of teaching and learning in primary schools, in tandem with the expectations of the current LiEP. The fact that teachers in this study confirmed that they were not exposed to any approaches on how to implement a bilingual education programme during their initial teacher training and even at in-service level for those who had obtained degrees, it can be argued that they may lack knowledge and skills to teach in the mother tongue as a change strategy, a factor which may contribute to implementation failure (Fullan, 1998; Benson, 2005; Cummins, 2005; Baker, 2006; Foley, 2008; Jansen, 2009).

The same sentiments are echoed by Foley (2008) who avers that in addition to the training of student teachers in the use of African languages for teaching and learning, it would also be necessary to upgrade the competency levels of those teachers who are already in practice. It was the participants' contention that their needs had to be met, as failure to do so was viewed as tantamount to implementation failure. In other words, if practising primary school teachers do not get in-service training on methodological techniques in the usage of the mother tongue as the language of teaching and learning, it may be regarded as a factor that hinders effective implementation of the bilingual policy. The question here is: 'If the minds of teachers are still colonised, will professional development programmes succeed in changing their attitudes?'

Achieving the above stated task may not be automatic due to deeply rooted attitudes inherent in individuals and institutions as revealed in this study. However, literature has shown that in-service training of bilingual education teachers has been successful in Bolivia (Albo & Anaya 2003 cited in Benson,

2005), Namibia (Stroud 2002 cited in Benson, 2005) and in South Africa under the PRAESA (Project for the Study of Alternative Education in South Africa) at the University of Cape Town (Rassool et al., 2006; Alidou, 2009). At the University of KwaZulu-Natal, three modules are offered as a way of preparing Post Graduate Certificate in Education (PGCE) students to be able to teach in isiZulu in Foundation Phase classes (Grade R-3) upon completion of their programme (Mashiya, 2010, 2011; Van Laren & Goba, 2013). Therefore, through pre-service and in-service training, it may be a way of addressing teacher concerns and enhancing their competencies in mother tongue usage in education, while at the same time attempting to create positive attitudes in those teachers who would otherwise look down upon the home language due to colonial influence.

Besides the involvement of teacher education institutions in the training of bilingual education teachers, the other form of intervention strategy that was suggested by study participants was the production of educational materials. Results of this study demonstrated that teacher education institutions were regarded as appropriately placed to spearhead production of educational resource materials. Literature makes reference to the Rivers Readers' Project in Nigeria where materials of reasonable quality were developed even in situations where resources were scarce (Foley, 2008). Therefore, it was suggested that before any attempt is made to enforce the use of the current LiEP, there is need to allocate resources for teachers and learners since the current scenario leaves the teachers desperate due to a lack of requisite terminology (Nkomo, 2008). Failure to produce relevant educational materials for use in primary schools may thus lead to the resistance of the bilingual education policy as reflected in the current study findings.

6. CONCLUSION

Participants in this study mainly expressed concern that their low self-confidence was due to a lack of training which would have empowered them with knowledge and skills to translate materials into the home language and to effectively use the mother tongue during lessons. It can be argued that if concerns and fears experienced by rural primary school teachers in Zimbabwe are not taken into consideration, that factor may explain why the mother language policy continues to be ignored (Collarbone, 2009). The suggested objective for serious professional development activities may be due to the fact that attitudes, which have been embedded in people for over one hundred years due to colonialism, are difficult to eradicate.

7. RECOMMENDATIONS

Teacher concerns can be addressed through training and retraining for the purpose of enlightening bilingual education teachers on the pedagogical benefits of mother tongue usage during the early years of schooling. Such training would further equip teachers with the requisite knowledge and skills on how to conduct lessons in the mother tongue while using appropriate language. When materials are rewritten in the mother language, the cultural factor could be considered so that more acceptable terminology could be introduced in sections dealing with sexuality.

8. AREAS FOR FURTHER STUDY

A similar study to this one in design can be undertaken, but using teacher education personnel in the form of university and college lecturers, to investigate their views on the implementation of the current LiEP. This would be important to assess their beliefs and attitudes since they are expected to lead by example in preparing pre-service and in-service teachers on how to implement a mother tongue policy in primary schools.

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THE PARANORMAL CLOUD THAT OBSCURES ACCESS, SUCCESS AND RETENTION OF STUDENTS IN SOUTH AFRICA'S HIGHER EDUCATION: PERSPECTIVES FOR EFFECTIVE INSTRUCTIONAL MANAGEMENT INTERVENTION STRATEGIES

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Abstract

The aim of this paper is to deliberate on the mystical veil that obscures access, success and retention in the institutions of higher learning. The paper argues that, although access to higher education is virtually universally available, many students who start in a higher education programme dropout prior to completing a degree. A desktop approach was used to interrogate what literature says on issues impacting student access and success within the South African higher education system. The main contributory factors seem to be largely attributed to, inter alia, low entry level competencies of students, financial problems, a lack of resources for lecturers and students, large and overcrowded classes, and a lack of enthusiasm of all role players. It is on these bases that we suggest that institutions develop and sustain existing intervention programmes and services whose core focus is to provide educational access and retain students.

Key words: Higher Education, student access, success, retention, dropout, repeater rate, attrition.

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1. INTRODUCTION

> *Worrying developments within the South African higher education scenario since 1994 are encapsulated in a document by South Africa's Council on Higher Education (CHE). The document noted: "Although South Africa has since 1994 witnessed a significant growth in enrolment in both the schooling and higher education sectors, graduate output has not kept apace with the country's needs. High attrition and low graduation rates have largely neutralised important gains in access" (CHE 2013: 9).*

The above quotation reflects the views of the Task Team of the Council on Higher Education (CHE, 2013) that was appointed to conduct a comprehensive investigation into higher education access, success and retention rates of students. As a sequel to the CHE study, this paper attempts to reveal intervention strategies adopted by two South African higher education institutions in their endeavour to retain students who had gained entry through the widened access afforded by the transformation of the education system.

Based on the report, massification of the higher education sector (by increasing student enrolment) served as a yardstick for social transformation. Issues of race or colour, which hitherto had been the cornerstones of apartheid, were replaced with a system that promoted racial equity. Subsequently, a series of reforms were put in place to try to redress this imbalance of an education system that was based on segregationist policies with regards to allocation of educational resources, including funding. Due to this fact, institutions of higher learning (universities) in South Africa witnessed an increased diversity which included an increasing number of students from outside the middle class and a large number with poor schooling.

In order to clarify what transpired then, the Council on Higher Education (2004: 24) asserted that the transformation of higher education had been informed by the principles of equity, effectiveness, and efficiency: Firstly, the system had had to be transformed to redress inequalities of access, participation, and success within higher education; and to reduce radically deeply-embedded inequalities between higher education institutions (HEIs), which included their resources, staff complements and student bodies. Secondly, the higher education system had had to produce effectively and efficiently, with limited resources, the range of graduate, research and service outputs required to drive national development in a global knowledge-driven economy.

This form of transformation of higher education also meant opening access to students who had previously been excluded. In amplification, researchers such as (Cloete, 2002; Motala, 2005) posit that within the South African higher education context, it could be noted that great strides had been made in improving access, particularly for the disadvantaged. Moreover, Yorke, (2006) asserts that institutions, educators and students in higher education were increasingly challenged by governments to contribute to national economic achievement. One aspect of this challenge, according to Yorke (2006), was a drive to improve student success, understood as increasing or widening participation, achieving high levels of course completion and attaining a passport to employment with a positive attitude to lifelong learning.

2. HIGHER EDUCATION AND ACCESS

In the Preamble to the Constitution of South Africa (1996), the vision for higher education is stated as "to improve the quality of life of all citizens and free the potential of each person." The strategic objective of higher education was identified by the then Minister of Education, Prof Kader Asmal. The purpose of higher education according to Asmal (2004) was to:

> "Produce graduates who are well rounded and thoroughly grounded;

> who are skilled and competent; who are creative, flexible and adaptive to new challenges; who are adept in critical thinking and cultural literacy; who are enabled and empowered to participate fully in their economy, their society and their globalising world."

To carry on with this task, it became necessary to expand South Africa's competitive participation in the global context by addressing the basic needs of its population, and enriching the intellectual and cultural life of its people. This expectation faced some opposition with some academics and researchers voicing concern. Badat (2007), for instance, criticised the highly unrealistic expectation placed on higher education as an instrument for social transformation. He argued that:

> "…universities must take their point of departure as social and moral imperatives that flow from our apartheid legacy and our constitution, and engage with the pressing development challenges of our society and continent, they cannot, however, on their own transform society (Badat, 2007).

This, according to him, required political and social programmes and interventions that are guided by what he termed 'principled political leadership'. Such leadership, Badat (2007) argued, recognises universities' core functions, as those that contribute to social transformation albeit, in contradictory ways. Inversely, Rajkaran (2009: 60) opines that universities' core business is teaching and learning that focuses on positive throughput rates. This could be achieved through restoration of the culture of learning and teaching which in some institutions is lacking. The restoration of a culture of learning and teaching is supported by Kruger (2003) cited in Deventer and Kruger (2003: 3), who state that an important issue that faces South Africa is the restoration of a sound culture of learning and teaching because the majority of institutions continue to reflect the characteristics of a poor culture of learning and teaching.

3. HIGHER EDUCATION and SUCCESS RATE

Within a short period of time, cracks in the system started to emerge. Although access to higher education became universally available, many students that started registering in some programmes, dropped-out prior to completing a degree or before achieving their individual academic or social goals (CHE, 2010). Statistical evidence is available to back up this assertion within the South African context (Akoojee & Nkomo, 2007; Frazer & Killen, 2005; Letseka & Maile, 2008; Taylor, 2011; Zulu, 2008). This scenario has been noted in the United States as well (Astin & Oseguera. 2004; Barefoot, 2004; Carey, 2004).

As early as 2005, it became evident that the success rate of students in higher education had not been very pleasing over previous years. Pandor (2006:10) confirmed this trend by arguing that

> "in order to give our nation value for (higher education) investment,

> universities must attend to the low throughput rates at first year level. Furthermore, they must develop effective academic programmes and devise some means to anticipate failure and must be competent at promoting success".

It was argued that, South Africa's university graduation rate of 15% was one of the lowest in the world (HSRC, 2008). In this study, it emerged that at some institutions, the drop-out rate was as high as 80%. The HSRC (2008) stated that about one in three university students and one in two Technikon's - currently known as Universities of Technology's - students had dropped out between 2000 and 2004. This raised serious questions about the Higher Education sector's ability to generate and sustain viable throughput rates. In 2005, the Department of Education revealed worrying statistics. From a student population of 120 000 in Higher Education in 2000, 36 000 (or 36%) reportedly dropped-out in their first year of university study. Thereafter, about 24 000 (or 20%) dropped-out in subsequent years. A paltry 60 000 (or 22%) graduated in the regulation time of a three-year generic bachelor's degree. According to the *Mail & Guardian* (2005) newspaper press release by the Department of Education, the South African Government had lost approximately R4,5 million (half of the actual subsidy paid) on subsidies paid to higher education institutions because of high drop-out rates between 2000 and 2003.

The preceding trends became a cause for concern as higher education institutions in SA are funded by the state through the public funds account. As such, they could not be left alone to champion academic and scientific excellence of their work by seeking answers to questions they generated (Tamir, 1985). They were expected to be in the forefront of providing answers to questions raised by those who consumed knowledge and skills produced by these institutions. It was in this context that the Council on Higher Education (2000) recognised the well-being of any developing nation as being dependent on the input of higher education. It was through the contribution of universities that a country's citizens would develop socially, economically and politically.

In 2005, the Department of Education (DoE) acknowledged that the university drop-out rate was costing the fiscus around R4.5 billion in lost grants and subsidies due to student attrition. This was viewed as disproportionate to initial investment in further education. Poor graduation, poor retention rates and high drop-out rates represented a huge waste of both financial (Crosling & Heagney, 2009) and human resources. According to CHE (2010), the drop-out rate of 20% implied that about R1, 3 billion in Government subsidies was spent each year on students who did not complete their study programmes. These wasted funds could invariably have gone a long way in not only expanding the higher education system, but in improving the much needed funds for redressing historical inequalities. The cost to those who dropped-out in terms of the moral and psychological damage associated with "failure" was there, but could not easily be quantified.

4. HIGHER EDUCATION STUDENT ATTRITION

It has been established that higher education student attrition is not only confined to South Africa but cuts across countries, where colleges and universities face an ever-increasing problem of student attrition (Akoojee & Nkomo, 2007; Barefoot, 2004; Carey, 2004; Cishe, 2012; Frazer & Killen, 2005; Letseka & Maile, 2008; Taylor, 2011; Moody, 2004; Mouton, 2007). Cishe (2012:19), for instance, maintains that high drop-out, low throughput and retention rates, as well as the increased need for quality academic development, bridging courses and foundation programs are not uniquely South African challenges. Evidence from the United States shows that the completion rate in six-year programmes in public universities ranges between 50-60% (Roberts & McNesee, 2010; Astin & Oseguera, 2002).

It has emerged that a number of students are enrolled into South African Universities with the minimum entry requirements to Higher Education (HE) (Letseka & Maile, 2008; Mabila, Malatje, Addo-Bediako, Kazeni & Mathabatha, 2005; Makura, Skead & Nhundu, 2011). The learners are mostly under-prepared due to their poor performance in the General Education and Training (GET) and Further Education and Training (FET) bands (Lesteka & Malle, 2008; Makura, Skead & Nhundu, 2011). Students from weak academic backgrounds enter university and contribute to extreme forms of academic inequality. This scenario invariably creates financial stress, affects cultural capital and creates inequalities in other resources as most students with weak pass rates come from poor backgrounds. A lack of academic preparedness in terms of both social class and high school curriculum is cited as one of the reasons why students fail or take longer to master degree requirements (Scott, Yeld & Hendry, 2007). This problem is further compounded by the fact that there have been massive enrolments of undergraduates. Massification has led to overcrowding in lecture halls thus stretching the limited resources such as learning space, computers and other teaching and learning materials. The University set-up has also been understaffed in most departments (Bundy, 2006).

The large classes of under-prepared students with low cultural capital, spell disaster for the students who would normally need specialised individual attention. There is thus the need for interventions to bridge the huge content gap. These students lack basic numeracy, literacy, writing and comprehension skills which are prerequisites for the academic world. Studies have shown that, the transition between high school and university is not an easy one for many learners, especially those from disadvantaged high schools (Nel, Troskie-de Bruin & Blitzer, 2009; Anderson & Jacobs, 2000; Thomas *et al.* ,1991). This transition is often associated with stress, anxiety, and tension which lead to students failing or withdrawing from university regardless of race, gender, background or class (Darlaston-Jones *et al*. 2003; Abouserie, 1994; Petersen, Louw & Dumont, 2009).

Whilst it is generally agreed that the majority of students in historically black university institutions come from the local (largely rural) high schools, it could be argued that, their success rate seems to correlate with a lack of academic

engagement, a lack of motivation to study and they eventually drop out. Hence, whilst we acknowledge that it was one of the CHE's requirements to give colour and shape to a new order on the premise that statistical replacement of the old with the new would bring about a future radically different from the past, we argue that the problem is systemic and these institutions need a strong foundation in the core business of HE, which is managing and providing learning and teaching.

Write (2009) asserts that the culture and environment in which children are raised may play a role in the achievement gap. Thus, many students who are poor, regardless of race, come from homes that lack stability, continuity of care, adequate nutrition, and medical care creating a level of environmental stress that can affect the young child's academic development (Tzanakis, 2011). Resultantly, the children have decreased word knowledge that affects their language skills, which influences their experience with books and the creation of different perceptions and expectations in the classroom context (Sullivan, 2002).

In addition, the CHE (2013) painted a gloomy picture of South African Higher Education. Their findings revealed that, despite there being a small intake that had academic potential, performance in higher education was marked by high levels of failure and dropout. For example:

- Only about one in four students in contact institutions (that is, excluding UNISA) had graduated in regulation time (for example, three years for a three-year degree).
- Only 35% of the total intake, and 48% of contact students, graduated within five years.
- When allowance was made for students taking longer than five years to graduate or returning to the system after dropping out, it was estimated that some 55% of the intake would never graduate.
- Access, success and completion rates continued to be racially skewed, with white completion rates being on average 50% higher than African rates.
- The net result of the disparities in access and success was that under 5% of African and coloured youths were succeeding in any form of higher education (CHE, 2013: 15)

These performance patterns are not compatible with South Africa's need to develop the intellectual talent in all its communities. Moreover, there are no grounds for hoping that the patterns are a temporary aberration. They have not changed significantly since the intake cohort of the year 2000, which was the first to be subject to sector-wide longitudinal analysis; and it is evident that, given the conditions in the education system as a whole, they will not improve without decisive intervention argued the CHE task team researchers.

Consequently, most undergraduate students fail to graduate within the stipulated time frame which spans six years. To mitigate this quandary, most universities have instituted programmes, services, and processes e.g. Supplemental Instruction, aimed at enhancing student retention rates and throughput rates (Makura, Skead & Nhundu, 2011; Ning & Downing, 2010; Seidman, 2005a; Tangwe & Rembe, 2014; Zulu, 2008; Barefoot, 2004). Indeed, the impact of student attrition extends beyond institutions of higher learning to the nation itself.

Seidman (2005a) explains that a strong, vibrant, varied, and expanding national economy depends in part on the educational attainment of its citizens. A nation that values and promotes the educational attainment of its citizens is a nation that is concerned with its ability to compete in the global economy. (P. *xi*). These are some of the factors that these two institutions recognised when they decided to embark on this study, seeking intervention strategies that could help solve this problem.

5. INTERVENTION/RETENTION STRATEGIES

The CHE 2013 Task Team Members suggested that an intervention strategy needed to be developed as a matter of urgency. In addition, they advised that, more programme time, more flexibility, more systems self-awareness, and more rigour and steadfastness around the principles designed to hold the system together were needed (CHE, 2013: 9). Their suggestion was not based on the fact that nothing was being done by some institutions of higher learning. The Extended Programme had been designed as a bridging element where faculties enrolled under-prepared students over a minimum period of 4 years opposed to a 3-year period.

The CHE 2013 Task Team view aligned with Brew (2002) who opined that many effective academic development initiatives are conducted by Centres for Teaching and Learning. According to the plan for the transformation of higher education (DoE, 1997), the White paper 3 provides an implementation framework and identifies the strategic intervention and levers for the transformation of the higher education system as the engine driving and contributing to the reconstruction and development of South African society.

Hunter (2006) contends and buttresses the preceding assertion by highlighting that, “Institutions in all sectors of higher education are attempting to increase student success by focusing on student retention” (p. 5). The ability to maintain retention impacts on both the students and their institutions. Both entities experience financial losses as a result of attrition hence should strive to remain within the institutions and programmes.

Berger & Lyon, (2005) and Astin posit that Higher Education Retention or intervention strategies are campus-based phenomena. Different Respective institutions tend to attract a unique cohort of student whose stay within respective institutions is a function of their previous school. The task of the tertiary institution is that of providing new students an academic environment that is cognisant of their prior learning and object characteristics. Henceforth, Berger & Lyon, (2005:3) argue that, “each institution must tailor retention to fit the specific needs of its students and the context of that particular institutional environment” (p. 3). However, Bitzer (2010) argues that the programmes are not being effectively implemented.

Based on the Higher Education intervention strategies, we put forth two questions that academics in higher education institutions need to address. These relate to their understanding of the causal factors to high failure, drop-out and attrition rates in their respective institutions. Secondly, they need to ponder and proffer the intervention strategies (if any) currently being used to

address/improve learner retention and reduce drop-out rates.

5.1 Academic Development programmes and student output

The term academic development is conceptualised by Boughey (2003) as an open set of practices concerned with improving the quality of teaching and learning in higher education. The ultimate aim of academic development activities is to improve the efficiency of the HE system by addressing issues of student disadvantage or under-preparedness. Widely held conceptions of disadvantage or under-preparedness are underpinned by assumptions that depict students as:

- Lacking skills
- Experiencing gaps in conceptual knowledge areas
- In need of language development
- Lacking the ability to think critically

While Brew (2002) notes that many effective academic development initiatives are being conducted by Centres for Teaching and Learning or Centres for Higher Education Development, Bitzer (2010) argues that academic development programmes remain largely marginal in many HE institutions with some universities not having such programmes at all. Consequently, students do not receive an optimum environment for learning with the ultimate effect that many of them either fail or do not graduate within the regulated time.

In the light of the foregoing, sustained development of academic skills and competencies of lecturers remains a critical strategy of improving the quality of graduate outputs. The clarion call for all universities is that they need to develop and maintain effective programmes of academic development so that academics are subjected to a process of continuous professional development achieved through workshops, training and one-on-one sessions. It is important to indicate that such academic development programmes should not just exist in name, but should have noticeable impact on throughput and graduation rates. As articulated by Volbrecht (2003) higher education institutions have a moral and educational responsibility to ensure that they have effective programmes in place to meet the teaching and learning needs of the students they admit. This is critical given the large numbers of underprepared students who enter higher education.

Therefore, academic development programmes play a crucial role in improving the efficiency of the HE system in terms of graduate outputs. This study thus recommends that sustainable collaborations between and across universities could go a long way in mediating challenges related to academic development in South African universities. Such collaborations will enable universities with less experience and expertise in running academic development programmes to benefit from the substantial experience that exists in other institutions. Alternatively, universities and governments can also explore regional collaboration in the development and delivery of academic development programmes in order to ensure that experience and best practices in academic development benefits the system of higher education as a whole.

5.2 University Pedagogy

While it may be argued that higher education experience, especially at undergraduate level, is potentially a time of great intellectual stimulation and

personal growth, a large number of students are diminished by the experience. In terms of Pityana's (2004) argument, the way the academic community chooses to do things in the design and delivery of the curriculum makes a material difference to outcomes. Several local and international studies have shown that institutional ethos and approaches to the education process are a key variable in who succeeds and fails in higher education (Cloete 2002; Cele 2004; Clarke 2007). A study on the performance of minority students in American higher education institutions conducted by Clarke (2007) showed that most successful institutions were those that applied the academic values of empiricism and deep inquiry to their own practices. Thus, the type of pedagogy used in universities is critical as it acts as a medium through which knowledge can be communicated and acquired in the teaching /learning trajectory.

Academics in HE in SA should respond creatively to the diversity of the student body through teaching approaches that cater effectively for the realities and diversity of the student body. As Higgs et al. (2000) observe, relevance and adequacy of learning systems in HE institutions should be given top priority. The traditional education on which so much higher education teaching has depended, has major limitations in meeting the challenges of contemporary South African teaching and learning conditions, which are more complex than ever before (Clarke 2007). The onus, therefore, rests squarely on universities and academics to find fresh approaches to teaching so as to reach the needs and aspirations of most students. The change strategy that is needed to influence the prevailing academic culture in universities is complex and multifaceted and calls for a coordinated approach to issues that relate to pedagogy. Lecturers should, therefore, put in place teaching and learning strategies, structures, systems and processes that improve meaningful participation of learners and enhance leaning potential for all learners. Motala (2005) argues that pedagogy can improve significantly if the challenge of attracting and retaining the best academic talent is overcome. There is, therefore, a need to offer appropriate incentives and rewards to academics in universities so that universities are not deprived of the human resources they so desperately need for their own development through brain drain.

5.3 The issue of underprepared students

While the massification of higher education has helped improve the participation rate in HE, it has the undesirable consequence that many mediocre students, many of whom are least prepared for HE, can now access it in increasing numbers. This paper treats the student level of under-preparedness as another aspect of social exclusion that requires deep analysis. This is so because students who are not fully prepared for higher education studies are denied their right to excel in higher education either through failure, grade retention or dropping out. This section focuses specifically on student levels of under-preparedness as a variable that makes the achievement of equity elusive.

Research by Scott (2009) has shown that a large number of black students in many universities have problems in following the standard degree curricula in its current form. According to Erasmus (2010), this is a clear indication that the structure of the undergraduate qualifications is not effective for the

majority of the current intake. Given the different educational and linguistic backgrounds from which students originate, the need to redesign a flexible curriculum becomes an urgent imperative that needs no further postponement. Erasmus (2010) believes that this argument becomes more credible given the fact that it is unlikely that there is going to be a radically different type of student body any time soon. Admittedly, the need to align the curriculum and HE pedagogy to suit the calibre of the current student population should not be overemphasised.

Nevertheless, the Department of Education (2003) views this issue from an interesting perspective when it argues that the existing cohort of students in HE institutions is not necessarily under-prepared as failure to succeed lies more in systemic weaknesses in HE. Universities and academics are, therefore, urged to develop a deeper understanding of who students are, so as to be able to develop them to their full potential. This line of thinking implies that any strategy for revitalisation should entail a paradigm shift on the part of universities and academics so that students are viewed as individuals with their own identities and who have the potential to thrive in HE (Department of Education1997). Scott (2009: 29) offers an illuminating view when he asserts that, "the assumptions on which traditional first-year degree courses are based originated in a period when the intake was predominantly homogenous and privileged, and have not changed to match the major diversification of the student body over the last three decades." It is most likely that the large number of students who fail or drop out would most likely benefit from a different curriculum. Thus, if the academic curriculum is not adjusted to suit the changing student profiles, then such curricula will act as an obstacle to the success of a large number of students.

The current student profile in South African HE institutions make it incumbent upon universities to create additional opportunities to enable disadvantaged students to succeed in HE. Thus, the provision of suitably structured foundational provision, extended curriculum programmes, bridging courses, access courses where the emphasis is on the total student experience could give the much needed scaffolding to many students. According to Higgs et al. (2000), student support programmes in many universities are fragmented and are not recognised as critical core business. The crux of this paper is, therefore, to instil an awareness that it is not enough to merely ensure that student profiles in higher education progressively reflect the demographic realities of the South African society without providing sufficient resources and support to ensure that student performance meet the required benchmarks.

Astin and Oseguera (2004) argue that student support programmes should directly address the systemic articulation gap by taking account of the realities of students' prior learning experiences. However, it is important to point out that student support should not only be confined to the foundation level because the challenges facing undergraduate students transcend the first year of study into senior phases as well. Building on this argument, Bitzer (2010) succinctly remarks as follows:

"Concentrating exclusively on the introductory undergraduate phase such as foundational provisioning can have the

unintended and highly undesirable consequence of just deferring failure, if articulation with the senior years is not smooth and if the educational process in these years is not effective."

We are, therefore, in solid agreement with Scott (2009) who argues that extended programmes should not be perceived and thus used as a means of extending access to students who do not meet regular admission criteria, but also as a means of improving the success rates of at-risk mainstream students. The shape of the curriculum, therefore, is central to student success in HE. As aptly argued by the South African Department of Education (2003) the nature, content and organisation of the curriculum is fundamental to the educational process as it influences who succeeds and fails in it. This, in other words, means that the way the curriculum is designed can either serve as an enabler or a limiting factor for students from different social, cultural and linguistic backgrounds. This idea is extended by Clarke (2007) who asserts that whether or not students will pass largely depends on the alignment between the assumptions of the curriculum and the preparedness, capabilities and orientation of the students. Thus relevance, appropriateness and adequacy of content and assessment methods are critical to the success of students, particularly those who originate from disadvantaged backgrounds.

According to Cooper and Subotsky (2001), the current university curriculum is de-contextualised and socially removed from most students' lived experiences and this acts as a contributory factor to lower success rates in HE. Goma (1997) goes further to argue from a global perspective that university education refuses to acknowledge the knowledge present in African society. The author substantiates the argument by citing literature, poetry, art, history, religion, culture as typical examples where African philosophy has been ignored and at best tolerated within the content of the higher educational system. This study suggests that strategic planning could be the first most important step that South African universities must take in reshaping their curricula. Strategic planning is an inclusive process of consultation involving the university leadership, representative of the academic staff, industry, students, representative of the state and other constituencies in society. This process should result in understanding and consensus among stakeholders thereby ensuring the support needed for implementing the approved curricula. Alluding to this idea, Matos (1997) asserts that in order to generate responsive curricula, universities should partner with the private sector in the development of curricula. He further suggests that industry-university liaison committees should be set up to ensure regular review of university programmes, to promote their relevance and quality in the light of rapid scientific and technological advances, and skills requirements. This is critical if universities are to acquit themselves from the usual accusation from industry that they churn out graduates who are ill-equipped for the labour market.

6. CONCLUSION

In this paper we have sought to navigate the challenges that HE institutions experience in their bid to make HE of a superior quality, accessible to the majority of students. The issue of access, success and equity in the provision of HE served as the fulcrum around which the

discussion revolved. Adding on to the work of earlier scholars and researchers, the paper established that the HE system is characterised by numerous challenges which make the attainment of equity, access and success more elusive. Nonetheless, we remain convinced that such challenges are not insurmountable. This, we have sought to prove by way of suggesting practical strategies of vitalising the system so as to make it more effective and responsive to a wider student base. The paper has cited the issue of student support, academic development programmes and pedagogy as areas that easily lend themselves to revitalisation and strengthening of the HE system overall.

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PARTICIPANTS' REFLECTION ON WRITING RETREATS AS HELD BY A TEACHING AND LEARNING CENTRE IN A HIGHER EDUCATION INSTITUTION: IMPLICATIONS FOR IMPROVED SCHOLARSHIP OF TEACHING AND LEARNING

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Abstract

The aim of the paper was to explore the role of writing retreats in promoting scholarship of teaching and learning. The study followed a qualitative research approach and adopted a case study research design as a genre. Four Teaching and Learning Centre staff members were purposively sampled comprising less experienced and more experienced staff. Questerviews were utilised to collect data on participants' reflections. Data were analysed thematically and the study found that it was important to have writing retreats in the centre in order to promote the scholarship of teaching and learning. Furthermore, it was found that practitioners experienced some challenges during writing retreats, which calls for training prior to the retreats. The study concluded that writing retreats, in a number of ways, benefited both seasoned and novice researchers through collaboration and learning to write together. The study recommended that universities should have on-going writing retreats in order to promote the scholarship of teaching and learning.

Key words: Academic developers, writing retreats, research, teaching and learning, scholarship of teaching and learning (SoTL)

1. INTRODUCTION AND BACKGROUND

Teaching and Learning Centres in South Africa have the mandate to steer the agenda of teaching and learning. Recently, amongst other activities, these Centres have also been given a mandate to champion Scholarship of Teaching and Learning (SoTL). Amidst much debate, this phenomenon has grown substantially internationally and has since gained prominence as a formal activity even in the South African higher education context. Vithal (2016) advances that since Boyer's (1990) seminal paper, 'Scholarship Reconsidered: Priorities of the Professoriate' in which a case was made for one of the major pillars of higher education, that of teaching, to itself be conceptualised as a scholarship, substantial literature and academic activity has grown over the recent decades in what has come to be referred to as the scholarship of teaching and learning (SoTL). The SoTL discussion is also thoroughly discussed in one of the sections of this paper (Vithal, 2016). As a result, SoTL has since been positioned as one of the major activities in a number of Teaching and Learning Centres in South Africa. As such, the

institution in which the study is based has taken a similar approach. This has, therefore, meant that strategically, Teaching and Learning Centres have had to change their key performance areas to include SoTL. In this vein, Huber and Huctchings (2005) maintain that Academic Developers should teach and work towards transforming institutional cultures grounded in evidence about student learning and scholarly teaching being critical to their work.

In order to assert itself operationally and strategically, the Teaching and Learning Centre under study has employed a Senior Research Professor to steer the agenda of SoTL. One key activity that the current incumbent has cultivated to advance the SoTL is the conducting of Writing Retreat activities with the Academic Developers of the Centre. The intention is to improve participants' research skills and has the ultimate objective of having a joint Special issue on a SAPSE accredited journal. These retreats are done through a formal structure where a facilitator conducts one day training and thereafter Academic Developers are required to write. The paper, therefore, explores how this experience has benefited Academic Developers and by gauging their reflections, possible implications to their SoTL are assessed. Tracing the advent of academic development in South Africa, therefore, is important as a point of departure as the work of Academic Developers has never really had a bigger significant focus on research. Also, SoTL as a growing phenomenon is discussed with the intention of finding its location and significance within Academic Development (AD). Writing retreats as phenomena are also discussed with their implications for continued SoTL by AD practitioners.

2. THE IDENTITY OF ACADEMIC DEVELOPMENT AND THEIR ROLE AS RESEARCHERS

Academic Development (AD) in South Africa came as a result of a range of contending issues, key amongst them being the politics of the country and also higher education politics, as far back as the 1980s. Boughey (2007) paints this picture articulately as she states that the field of Educational Development grew out of an initial endeavour, termed 'Academic Support', which was established in the early 1980s to provide support for black students who gained admittance to the four English-speaking, historically white, liberal universities (Cape Town, Natal, Rhodes & Witwatersrand). These students were deemed to be 'under-prepared 'for tertiary study because of the poor quality of the educational experiences previously offered to them under the apartheid regime.

However, throughout the years subsequent to the 80s, the identity of Academic Developers has often been obscure. As Quinn and Vorster (2013) highlight, there is no definite route to academic development. As a result, Linder and Felten (2015) point out that Academic Developers have scholarly backgrounds in disciplines ranging from engineering, linguistics and psychology to social work and education and many are migrants from a range of academic tribes. Amidst the confusion, their role remains common across higher education institutions - that they are responsible for enhancing the development of academics and students in teaching and learning. Leibowitz (2014)

advances that in her own sense, academic development is about creation of conditions supportive of teaching and learning in the broadest sense. She continues to say that this would include the provision of the support, as well as the generation of conditions that are supportive. So, one could deduce that their core function largely resonates with one of the key roles of university, that of teaching and learning, alongside research and community engagement. The core business in any university is learning and teaching, research and community engagement, but the relationship and connection of learning, teaching and research is often argued in the academic arena (Toni, Maphosa & Wadesango, 2013).

In view of this, there has always been an on-going discussion on which one of the three pillars is credibly recognised among teaching, learning and research. Land (2003) highlights that involvement in research is seen as adding the credibility to the academic development function, despite the often difficult operational climate in higher education in which the privileged status of research often serves to undermine the status of teaching. One of the reasons for this, as Quinn (2012) puts it, is that in European British traditions, promotion depended on qualifications and publication or research and the same views affected South African higher education institutions where she reports that in her study, a Vice Chancellor responded that lecturers were saying 'I didn't get a PhD to help some moron learn first year Chemistry'. Publication is of importance too as it helps the individual with career advancement and, in some cases, for remuneration (Kramer & Libhaber, 2016).

3. SCHOLARSHIP OF TEACHING AND LEARNING: IMPLICATIONS FOR AD PRACTITIONERS

The advent of the SoTL in higher education has been necessitated by a range of factors. Much debate has taken place over the years on its meaning and purpose. One enduring significant thematic thread in the literature is around the definition and meaning of SoTL (Vithal, 2016). However, this has changed in recent years as a plethora of definitions have arisen in an attempt to assist academics to gain a deeper understanding of what SoTL really engenders (Swart, Luwes, Olwagen, Cameron & Carel-Korff, 2016). For the purposes of this paper, however, we will resist to be drawn into those debates, but rather focus on locating the SoTL movement within higher education and how this, in turn, requires Academic Developers to be fully responsive to this initiative.

For many years, research staff have been rewarded by promotion for the quality, quantity and impact of their research (Vardi & Quin, 2011). With this reality remaining a status quo in higher education institutions, certain countries had become adamant that this had to change. As a result, Chalmers (2011) demonstrates that in the 1990s, there were independent movements to improve the status of teaching taking place in North America, UK and Australia respectively. This resulted in higher education institutions changing focus and beginning to value teaching alongside research. In this vein, Chalmers (2011) points out that it was widely acknowledged that the reward and recognition systems of academic work were out of balance and in order to redress this imbalance, teaching

needed to be recognised and rewarded. One could say that SoTL as an academic activity was born out of these deliberations. Vardi and Quin (2011) agree that over the years, these deliberations placed teaching alongside and equal to other scholarly endeavours. Steirer (2008) believes that all lecturers in higher education should be encouraged to take a scholarly approach to their teaching - rather than view teaching as a set of technical skills that they can be trained to execute. Strong statements such as these have gradually solidified the position of SoTL within higher education. As a result, McKinne (2012) agrees that the SoTL movement within higher education has created renewed interest in teaching and learning and has requested an increase in academic professionals' accountability to teaching and learning. The SoTL, therefore, is defined as a kind of norm or ethos which usually defines academics' consciousness and behaviour related to academic work (Toni & Martinson, 2013). The most recent definition states that SoTL is the scholarly inquiry into student learning which advances the practice of teaching by sharing this research publicly (Swart, Luwes, Olwagen, Cameron & Carel-Korff 2016 in Pelts 2015).

Writing Retreats have been seen as an ideal capacity development exercise, especially in bolstering research. The Research Associate Professor employed in the Centre has used this as a form of capacitating Academic Developers as they adapt to scholarly work since this has become imperative. Little (2014) emphasises that Academic Developers need to continue to seek ways of making our scholarly projects more useful and their useful projects more scholarly. Similarly, Toni and Martinson (2013) advance that scholarly teaching for Academic Developers is an intellectual activity intended to bring about documented developments in student learning and academic staff development, and those developments should be shared publicly.

4. UNDERSTANDING WRITING RETREATS

Coughlin (2012) recognises that becoming a scholar- after years of study or work in other roles- is a major shift in identity and practice and if it is not well managed, it can be painful and aversive. Barriers to writing are said to include the lack of self-confidence and difficulty with anxiety of failing, finding writing to be intimidating and having writers block. In addition, lack of time, interrupted time and workload are often identified as major obstacles to writing (Kramer & Libhaber, 2016). In fact, Murray and Mutton (2009) in Murray (2011) note that many academics in current university environments feel they lack the experience and expertise in writing for scholarly publication. Writing retreats have been seen as an ideal opportunity to change this reality. Murray and Mutton (2009) posit that a writing retreat could be seen as a legitimately peripheral activity, in the sense that it was used to move academics from a position of pheripherality. Retreats, therefore, are designed to create an atmosphere of trust, safety and empowerment, increased motivation and have the potential to transform learning (Coughlin 2012, 80 in Gant & Knowles 2000; Moore 2003; Wittman 2008). Moore (2009) attests that writing retreats produce a community of writers who are likely to learn faster about the conventions and

challenges of writing. Writing retreats allow participants protected time to change pace and find space to think, plan, write and dedicate themselves to productive outcomes, which ultimately increase research output (Cope, Sundin, Smyth, Wang, Baum, Ewens & Foxall, 2016). In addition, writing support groups such as retreats give the participants an opportunity to work together to improve one another's writing and outcomes (McGrail, Rickard & Jones, 2006). Writing retreats provide the opportunity for the attendees to be supported by their colleagues and mentors. A group of writers gathered in one setting allows for different perspectives about writing and individual skills to be discovered and shared. Therefore, this in turn means that close and on-going relationships are formed that may not have happened in the educators' daily lives at the university (Cope, Sundin, Smyth, Wang, Baum, Ewens & Foxall, 2016).

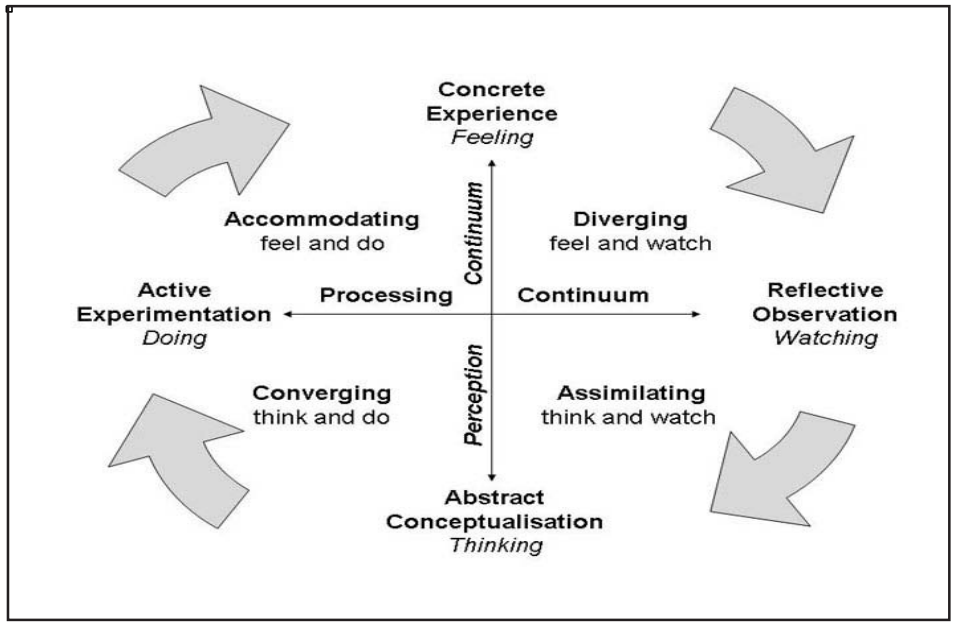
Conclusively, retreats provide benefits for the participants. The Academic Developers involved in the study are relatively new to the sphere of writing and scholarly writing. Their understanding of the writing retreat process is fundamental to the success of the activity. The more academics actively engage in SoTL, the more effective they will become in their teaching with a corresponding boost in student learning (Swart, Luwes, Olwagen, Cameron & Carel-Korff, 2016). This would then apply to Academic Developers as well in that, the more they reflect on their activities in a scholarly manner, the more effective and responsive those activities will be in enhancing teaching and learning. Scholarly teachers are armed with the skills and expertise in curriculum adaptation, teaching, learning, assessment, among others and they have sound understanding and appreciation of the diverse needs of students (Maphosa & Wadesango, 2014).

5. THEORETICAL FRAMEWORK

5.1 Brief description of Kolb learning style in the context of higher education

Kolb's Learning theoretical framework (1974) views learning as an integrated process with each stage being mutually supportive of and feeding into the next. It is possible to enter the cycle at any stage and follow it through its logical sequence. In the context of higher learning, the common practice is that of starting with theory before practice. However, effective learning only occurs when a learner is able to execute all stages of the model. Therefore, no one stage of the cycle is as effective as a learning procedure on its own. Kolb explains that different people naturally prefer a certain single different learning style. Various factors influence a person's preferred style. For example, social environment, educational experiences, or the basic cognitive structure of the individual.

Figure: Kolb's Learning Style adopted from Kolb (1974:32).



Kolb believed that we cannot perform both variables on a single axis at the same time (e.g. think and feel). Our learning and writing style is a product of these two choice decisions. In the context of higher learning, writing is centered on thinking and feeling. In the context of teaching and learning centers, academic development practitioners write about teaching and learning issues that concern higher education. Academic development practitioners are encouraged to think critically and research about issues that affect teaching and learning in higher education. It is often easier to see the construction of Kolb's learning styles in terms of a two-by-two matrix. Each learning style represents a combination of two preferred styles. The diagram also highlights Kolb's terminology for the four learning styles: diverging, assimilating, converging and accommodating.

6. RESEARCH QUESTIONS

- What kind of research and writing skills do participants acquire through their participation in writing retreats?
- How important is it to have writing retreats for Teaching and Learning Staff members in the Universities?

7. RESEARCH METHOD

This study explored the utilisation of writing retreats in the promotion of scholarship of teaching and learning using a qualitative research methodology. The researchers used qualitative research as the methodological approach which is used for in-depth investigations. Qualitative research seeks a detailed understanding of a central phenomenon; it represents an inquiry about a field and explores the participants' experiences and understanding of these experiences (Creswell, 2009). In this study in-depth investigation was done to find out the role

of writing retreats in improving Scholarship of Teaching and Learning. According to Ary et al. (2010), qualitative inquiry "seeks to understand and interpret human and social behaviour as it is lived by participants in a particular social setting". This case study was designed to investigate the experiences and reflections of academic developers during and after writing retreats. A case study involves an in-depth analysis of a single or small number of units (Merriam, 2009). Research questions that address critical thinking and critical pedagogy are best suited to qualitative inquiry (Janesick, 1994).

Therefore, in the context of this study, critical pedagogy was suitable to investigate academic developers' experiences on writing retreats to improve their research and writing skills. The choice of methodology was guided by the philosophical stance of the researchers to see knowledge as personal and, therefore, to encourage the involvement of the researchers with the research participants to capture the uniqueness of the context, without attempting to change it. The sample was made up of four staff members of the Teaching and Learning Centre who attended the last two writing retreats in the centre. Purposive sampling was used to select experienced staff members and less experienced staff members. The type of qualitative research used was a basic interpretive study. According to Ary et al. (2010), this type of study "provides descriptive accounts targeted at understanding a phenomenon using data that might be collected in a variety of ways, such as interview, observations, questerviews and document review". The purpose of this study was to get an understanding of the experiences of the target population and the meanings they assign to them.

8.1 Data collection and analysis

Data were collected through questerviews to enable the participants to provide their responses verbally and in writing. This type of data collection accommodates both participants that are good at expressing their views in writing and verbally. Therefore, researchers have managed to gather rich information since some of the information that was not captured verbally was captured in written form. From the data presented, themes were identified and analysed using a thematic approach. From the themes identified**,** discussion and analysis were generated. In the presentation of results, keys were used to represent participants of this study. The keys were used as follows:

- P1: Participant one (experienced staff member)
- P2: Participant two (less experienced staff member)
- P3: Participant three (experienced staff member)
- P4: Participant four (less experienced staff member)

For the sake of gender balance, two participants were male while the other two were female.

9. RESULTS

The results of the study are presented in the form of themes. The following themes were extracted from the participants' responses.

Table 1: Summarises themes and issues raised as extracted from participants' responses to questerviews.

Themes	Sub-themes	Issues raised
Understanding of writing retreat	Cooperation	Assisting one another
	Enhancing writing skills	Practising writing
Attendance of writing retreat	Everybody's contribution	Co-authoring
	Active participation	Working together
Purpose of writing retreats	Writing	Skills in conducting literature searches Identifying appropriate methodologies Writing for publication
	Research	Research skills
Skills Acquired	Academic writing skills	Addressing journal requirements Use of appropriate research discourse in writing
	Research skills	Skills in conducting literature searches Identifying appropriate methodologies Actual writing of articles
	Collaboration skills	Identifying colleagues with similar research interests Identifying and working with mentors Co-authoring papers
Further training to supplement writing retreats	Article development	Continuous sessions
Strengths and weaknesses of writing retreats	Developmental; non-threatening environment	Assist one another; create user -friendly environment

Table 1: Themes, sub -themes and issues raised

Theme 1: Understanding of writing retreat

Writing retreats are conducted differently by universities and they serve different purposes for universities. Participants in this study have also presented different understandings and experiences of writing retreats. P1 has presented a very clear understanding of a writing retreat and mentioned that:

> "*I understand a writing retreat to be a session wherein academics gather together as a group from the centre and dedicate time to write articles*".

A similar understanding was advanced by P2 who argued that a writing retreat is a "*sort of gathering for a common goal which is writing academic research papers for publications. That is where discussions of the steps and procedures of academic writing are done*".

Both participants were of the view that writing retreats are arranged for the purposes of writing papers for publications. However, P2 has further stretched his understanding by highlighting that during writing retreats, practitioners assist each other by clarifying common approaches to research which allow them to learn from one another.

On the other hand, P3 presented a straight response when he responded that a writing retreat is:

> "*A way of enhancing writing skills of a researcher".*

Considering the fact that P3 was a junior staff member in the centre, one would understand that his understanding was very limited and was very reflective on his

personal experience. P4 was of the view that being in a writing retreat space gives one an opportunity to write without any distraction. In his response, he mentioned that:

> *"A writing retreat is just a setting where researchers or writers get an opportunity to engage with other researchers or writers to produce papers away from any distraction. Everyone focuses on the work at hand".*

Reflecting on this response, one can sense an element of maturity in this participant. This participant does not only view a writing retreat as a space where everyone sits and writes, but there are some engagements and collaborations that are also taking place. From participants' responses, two sub-themes were revealed: collaboration and enhancing writing skills. Such sub-themes are discussed in detail in the discussion section.

Theme 2: Attendance of writing retreat

Participants were asked who should participate in the writing retreat in the centre. In this regard, participants shared a similar view that all members of the centre should attend the writing retreat. When quoted verbatim, they mentioned that:

P1: "*everyone in the centre should attend and be guided on how to write*".

> P2: "*I think members of the centre should attend the writing retreat because in one way or the other, members will be involved in writing. Therefore, they need to learn academic writing skills since it is important to know how to put ideas on paper/in writing in order to promote the scholarship of teaching and learning".*

On the other hand P3 and P4 shared a very similar response, when they argued that:

> "*Everyone should attend a writing retreat because that is the space where much work is done. Unlike in the offices, during writing retreats there are no distractions. One is able to focus and do a great deal of work."*

Looking at the above quotations, participants understand that to promote the scholarship of teaching and learning, all members of Teaching and Learning Centres need to come together and write. The space wherein the scholarship of teaching and learning can be promoted is at a writing retreat. From participants' responses, one sub-theme emerged: everyone's contribution counts. This sub-theme was discussed in detail in the discussion section.

Theme 3: Purpose of writing retreats

Writing retreats may serve different purposes for many universities. In this study, participants were asked their views about the purpose of writing retreats after reflecting on their own experiences. P1 in his response mentioned that the purpose of a writing retreat is to write a monographic article. On the other hand, P2 gave a detailed response that the purpose of a writing retreat is to:

> "*Gain knowledge on the writing of articles, and also to offer an opportunity to novice researchers to actually learn from seasoned researchers".*

Similarly, P2, P3 and P4 also shared the same view that the purpose of a writing retreat is to write and engage more on research issues. P3 mentioned that the purpose of a writing retreat is to:

> "*Understand deeply what a monograph is all about and to be exposed to how to write articles and also understand how articles differ from monographs".*

On the other hand, P4 mentioned that the purpose of a writing retreat is to:

> "*Prepare for conference papers and to seek advice on the preparation of papers to be presented at a conference.*"

Reflecting on the above responses, one can argue that the purpose of a writing retreat is to provide practitioners with writing space to get their research done, without disturbances that may take place in their offices. Furthermore, it came out from these responses that a writing retreat equips participants with research and writing skills. Such sub-themes are discussed in detail in the discussion section.

Theme 4: Skills acquired from writing retreats

Writing retreats may expose practitioners to multiple skills. In this study, participants were asked the kind of skills they had acquired during attendance of a writing retreat. In their responses it was found that they had learnt academic writing skills and research skills. P3 responded that the skills acquired included:

> *"How to write a book, journal and articles."*

In addition, P1 mentioned that during writing retreats, she had learnt to write an abstract – a skill which she had not felt very confident about and she had enhanced some research skills that included searching for information on the internet and also how to reference the sources. The other two participants were not confident enough to point out that they had learnt during a writing retreat and this translates into understanding that a great deal still needs to be done. However, all in all, participants learned and acquired some research skills and academic writing skills during their writing retreats. The two sub-themes (research skills and academic writing skills) are discussed in detail in the discussion section.

Theme 5: Further training to supplement writing retreat

Participants were asked if they still needed more training on writing for publication, in addition to the writing retreat they had attended. Participants were of the view that more training was needed. P1 mentioned that:

> "*The other retreats should be based on developing an article, since writing needs to be a continuous thing. More writing retreats and training will be need for us to be familiar with the scholarship of teaching and learning".*

On the other hand, P2 was also in need of training as he mentioned that:

> *"Yes, until we have produced more than three articles, we need more training on academic writing. Writing retreats provide an opportunity for practitioners to write and if they experience some writing challenges it will be difficult for them to be productive. Therefore, it is important to be offered training".*

P3 also agreed that training is also needed since not everything had been covered during the writing retreats. Looking at the above responses, one can argue that more writing retreats are needed to promote writing and research skills of practitioners that would ultimately promote their scholarship of teaching and learning.

Theme 6: Strengths and weaknesses of writing retreat

Participants have presented some strengths and weaknesses of writing retreats that emerged from their experiences of writing retreats that they had attended. Some weaknesses advanced by P2 were that:

> *"If one is not knowledgeable about writing/research, it becomes a challenge for one to put ideas together. Therefore, for that reason one tends to become discouraged that one will not fit well into academia or grow in the scholarship of teaching and learning"*

On the other hand, P1 mentioned some of the strengths of writing retreats as "*encouraging people in the scholarship of teaching and learning, and also to instil some confidence in them*". At the same time, P1 advanced some weakness that during writing the element of mentoring does not come through strongly and as a result, it only benefits those that are experienced in research and writing. Reflecting on the above mentioned responses, one may argue that during writing retreats it is important to assist the novice researchers more so as to capacitate them and get them on board.

10. DISCUSSION OF FINDINGS

The discussion of the study is guided by the following themes: Understanding of writing retreat; Attendance of writing retreat; Purpose of writing retreats; Skills Acquired; Further training to supplement writing retreats; and Strengths and weaknesses of writing retreats. Writing retreats can be understood differently, especially if one has to reflect on one's experiences. During data collection, the researchers asked a question that was based on the understanding of a writing retreat in order to determine if participants understood writing retreats. To fulfil the main purpose of this study, questerviews were used to collect in-depth information. Participants discussed their understanding of writing retreats based on their own experiences. Some of the sub-themes derived from this theme were: collaboration and enhancing writing skills.

Collaboration is the process in which two or more people or organizations work together to realize or achieve something successfully. During research and writing retreats, collaboration becomes very important to promote the scholarship of teaching and learning. For both seasoned and novice researchers, collaboration becomes important for one to promote scholarship of teaching and

learning. In line with this argument, Malatji (2016) argues that cooperative learning has a positive effect on academic achievement, inter-ethnic relationship and development of writing skills. In this study, the word `collaboration' came through very strongly when participants were discussing their understanding of writing retreats. Some participants explained a writing retreat to be a sort of gathering for a common goal which is writing an academic paper for publication/presentation at conferences. Reflecting on the above response, it becomes clear that collaboration becomes central during writing retreats which, in turn, promote scholarship of teaching and learning.

Different understandings were advanced by participants on the issue of writing retreats since they were discussing these activities based on their own personal experiences. At the university under study, the teaching and learning centre employs eight staff members. From eight members, four are senior staff members while the other four are junior staff members. Therefore, there is a need for senior staff members to mentor the junior staff members with the view of enhancing their writing skills. James (2015) argues that writing in a collaborative project which offers the benefit of learning from one another and improving the writing skills of individuals as compared to individuals writing on their own. As a result, a writing retreat becomes an on-going process that is aimed at capacitating writing skills of junior staff members to promote the scholarship of teaching and learning. Therefore, writing retreats become relevant platforms for staff developers to develop their skills and promote the scholarship of teaching and learning.

On the other hand, other participants described a writing retreat to be a setting where practitioners can focus on writing without any distractions. Therefore, this translates into writing retreats providing opportunities for practitioners to be engaged in the scholarship of teaching and learning.

If academic developers have to be regarded as academic, they have to promote the scholarship of teaching and learning by writing papers on teaching and learning. Also, they must assist with supervision of postgraduate students as academics do. Participants in their responses have argued that everyone in the centre should attend writing retreats because that is where they get much work done, unlike in the offices where there are many distractions. Since they are an academic support unit, they experience many interruptions since they service all the departments of the university. It was revealed that through writing retreats, members were able to learn from one another and were able to share their practices. Based on this argument, one can argue that writing retreats promote quality in terms of writing and publications since practitioners are able to learn from one another. Researchers such as Peters (2016) argue that in most cases collaborative research projects are likely to produce a higher quality of work as compared to individual projects. Therefore, it can be concluded that everyone in the teaching and learning centre should participate in the writing retreats in order to promote the scholarship of teaching and learning.

The purpose of writing retreats may differ from one university to another, but in the study the purpose was to

establish, from participants' views, how writing retreats promoted the scholarship of teaching and learning. Participants were asked what they thought was the purpose of writing in their university. It was found that the purpose of a writing retreat included being exposed to how an article is written; to gaining some knowledge and skills on writing for publication; to developing novice researchers in the area of the scholarship of teaching and learning. Based on the arguments advanced above, writing retreats serve a developmental purpose and promote collaboration among practitioners. It was further found that through writing retreats, practitioners are able to learn how to write in an academic way and, as such, skills were evidence enough when they published their papers. There is a need for practitioners to reflect on the quality of the work they are producing in order to improve their research skills. Malatji, Maphosa and Mavuso (2016) argue that self-reflection helps individuals improve their actions and professional practice. Therefore, it can be argued that the role of a writing retreat is to develop emerging researchers and promote the scholarship of teaching and learning.

We have learnt about writing and language from secondary school up to post-secondary school, but not everyone is taught how to write in an academic way. Therefore, through writing retreats practitioners are able to acquire some academic writing skills that become very important in the pursuit of the scholarship of teaching and learning. Research collaboration was found to be one area in which practitioners are able to learn some writing skills from one another. In the university under study, junior academic developers were paired with some seasoned researchers who then guided them on how to write for publication (academic writing). Therefore, such skills were transferred from experienced writers to notice writers.

In order for the Teaching and Learning Centre to promote the scholarship of teaching and learning, there is a need for on-going development on research and writing. It was found that practitioners needed training until they were able to publish three or more research articles. The argument above translates into universities needing to do more workshops and training on academic writing and writing for publication in order to promote the scholarship of teaching and learning.

Some of the strengths of writing retreats revealed that a well-arranged retreat with a clear purpose is likely to promote the scholarship of teaching and learning. However, participants were also asked to mention some of the weaknesses of writing retreats that they had observed or experienced. Some participants found it difficult to search information and also to align their writing with the requirements for writing for publication. Furthermore, it was found that the university provided them with writing retreat space without them being equipped with some knowledge on academic writing. Therefore, it was difficult for them to conceptualise and come up with complete papers that were publishable. When participants were asked what could be done to address such weakness presented above, they mentioned that the university should offer a research module at an early stage (undergraduate) for students to familiarize themselves with the scholarship of teaching and learning. Furthermore, it was found that being attached to a mentor

that would assist the emerging researcher on academic writing might be one way of promoting the scholarship of teaching and learning in the university.

11. CONCLUSION

The study concluded that writing retreats promote collaboration that enables academics to learn from one another. Furthermore, writing retreats have enhanced both writing and research skills of participants. It was also highlighted that it is important for practitioners in the Teaching and Learning Centre to attend writing retreats. However, beside the attendance of writing retreats, it was found that there is a need for further training on research and academic writing. Overall, it was concluded that writing retreats promote the scholarship of teaching and learning.

12. RECOMMENDATIONS

- Writing retreats should not be once off thing, but on-going;
- The universities should offer workshops on academic writing and research prior the writing retreats;
- Junior staff members should be mentored into the scholarship of teaching and learning;
- Everyone in the Teaching and Learning Centre should attend writing retreats and be engaged in the scholarship of teaching and learning.

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RECONCEPTUALISING TEACHING FOR QUALITY LEARNING AT UNIVERSITY OF NAMIBIA

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Abstract

Teaching approaches in contemporary universities around the world need to be underpinned by new theories of how students learn, and the role of academic developers in shaping and influencing institutional culture in this regard cannot be overemphasised. This study investigated the methods used by lecturers at University of Namibia (UNAM) in their teaching and what informs the choice of these methods. The study also gauged lecturers' views on their involvement in academic development activities. This study employed a phenomenological research design; and a mixed-method approach was used whereby qualitative and quantitative approaches were combined. Structured interviews were conducted with at least 49 lecturers at various levels across 12 UNAM campuses. Participants were purposefully approached to be interviewed because we knew they have experience of the phenomenon explored. The study revealed that lecturers were more comfortable with using traditional lecturer-centred approaches in their teaching. They expressed the need to be equipped with skills that would enhance their ability to facilitate, manage and assess student learning using approaches that have been proven to be effective. Furthermore, they acknowledged the academic development interventions provided by the Centre for Professional Development Teaching and Learning Improvement (CPDTL) in the form of short courses and the recently implemented Postgraduate Diploma in Higher Education for Academics. Only a handful of participants did not support the idea of offering a full academic programme through short courses. The study recommended that CPDTL should capitalise on the willingness of most of academics to engage in academic development activities to intensify its operations and make such activities compulsory in order to promote their effectiveness and fast track their impact.

Key words: Academic development, epistemological access, learning theories, university teaching, quality learning

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1. INTRODUCTION

All over the world, teaching in universities has for decades been taken for granted as practice has been based on the 'common-sense' view that any person with a master's or PhD in a certain discipline can teach effectively in a university. Unlike in general education where people study for years to learn how to teach children, one does not need a qualification in pedagogy to become a university lecturer. This state of affairs undermines the complex nature of teaching and gives little consideration to the ways in which students learn (Kruger, 2012).

From our experience of general education, a teacher remains unqualified if he/she practises teaching on the basis of a disciplinary qualification only, irrespective of how much experience they have. It is common practice that a university lecturer becomes a recognised academic from the first day they sign an employment contract with a university. To substantiate this claim, we have seen holders of master's and PhDs in different disciplines, being thrown in the deep end of teaching students when entering the world of academia. This is despite the fact that teaching is an art that needs to be learnt and mastered. This state of affairs puts the poor lecturer, who may have sufficient discipline knowledge but lacks approaches to effective teaching and student learning, on the spot. Ironically, these practitioners are expected to perform wonders in terms of ensuring effective learning. The reality of the matter is that most lecturers end up facilitating poorly and only a few end up becoming good teachers, more or less by accident, as they learn to teach simply through the act of teaching.

Our view in this regard is in line with Knapper (2010:17), who argues that

> … there is an impressive body of evidence on how teaching methods and curriculum design affect deep, autonomous, and reflective learning. Yet most academics are largely ignorant of this scholarship, and instructional practices and curriculum planning are dominated by tradition rather than research evidence. As a result, teaching remains largely didactic, assessment of student work is often trivial, and curricula are more likely to emphasize content coverage than acquisition of lifelong and life-wide learning skills.

Similarly, Common (as cited in Kane, Sandretto, & Heath, 2004: 24) points out:

> Master teachers are not born; they become. They become primarily by developing a habit of mind, a way of looking critically at the work they do; by developing the courage to recognise faults, and by struggling to improve.

Young, enthusiastic, excited and passionate about their new role in academia as they may be, the majority of lecturers tend to emulate the didactic approaches used by their own lecturers from their own educational experiences, thus teaching the way they were taught, which is often didactic and teacher-centred (Kruger, 2012; Williams, Nixon, Hennessy, Mahon, &

Adams, 2016). Even for those who take up a lecturing career from industry or the corporate world, industry experience alone does not necessarily guarantee teaching competence. Kruger (2012) points out that as gatekeepers of knowledge and the directed learning process, they tend to control students' access to information and merely transmit material; thus information, facts and ideas are accepted uncritically. These methods tend to render the retention of information superficial and do not promote a deeper approach to learning (Kruger, 2012).

Nowadays, the situation has deteriorated because many universities, especially in Africa, have to deal with many challenges such as the massification of tertiary education and the diverse nature of the student body, to mention just a couple. Students are not a homogenous group; they have individual learning preferences, varied life experiences, and individual needs, values and abilities. Students differ in terms of race, socioeconomic status, gender, language, ethnicity, sexual orientation, disability, work commitments, family responsibilities, and geographical isolation (Morley; and Worthington, as cited in Kruger, 2012). However, many lecturers do not have the capacity to deal with the diverse needs of the student body owing to a lack of formal training in higher education pedagogy. As a result, they end up approaching teaching from a common-sense perspective, even though this approach to teaching in higher education does not seem to be offering epistemological access and academic success to the diverse student body.

If lecturers do not produce desirable results under this arrangement, the blame is always shifted to the school system, with the poor student being perceived as undeserving of academic success through having entered the university environment 'underprepared' (Scott 2009); this despite the fact that many of the students who struggle with higher education are not just those from poor, under-resourced schools. This leads to the question of where the responsibility for addressing the so-called 'under-preparedness' and improving student performance lies; does it lie with the school system or the universities and lecturers? What is normally referred to as 'under-preparedness' is actually the articulation gap and lecturers need to understand what this gap is. They need to come to terms with the reality of the student body and to design curricula and teach in ways that 'look both ways'. University lecturers need to understand that the majority of students are not coping because the university is a new context for them: new disciplines, new ways of thinking about knowledge, knowledge construction and learning; and new literacies - academic literacy. Students need to be inducted into these new ways of being - discourse.

Academic developers and quality assurance practitioners in universities have a role to play in terms of influencing a cultural shift and transformation in teaching to meet the legitimate learning needs of diverse students. They may do so by devising capacity-building interventions that will help lecturers to become reflective practitioners and use teaching methods that are informed

by contemporary learning theories and approaches to ensure students' epistemological access and success. However, according to Quinn (2012), the real challenge is that many academics suffer from an identity crisis as they want to identify themselves only with their disciplinary profession and neglect the academic side in terms of teaching practice. Even the type of research they undertake, which eventually offers them promotion to senior lectureship or professorship positions, tends to be mainly in their discipline or specialisation rather than researching the best ways of teaching and learning in those disciplines. It is, therefore, not surprising that most academics resist involvement in academic development initiatives (Quinn, 2012), and UNAM academics may be no exception.

2. BACKGROUND

Teaching and learning are essential activities for any university. The quality of teaching has a direct impact on the quality of graduates a given university produces. At University of Namibia (UNAM), quality teaching and learning is high on its agenda as this forms a major component of its core business alongside research and community engagement. Unlike research-intensive universities such as Cape Town, Pretoria, Rhodes, Stellenbosch and the Witwatersrand, UNAM is a teaching-intensive university. Given the context in which it operates, UNAM is expected to provide immediate human resource capacity for the country. According to MacGregor (2010:1), "research-intensive universities produced the bulk of postgraduates and future academics, and have high student success and graduation rates, high proportions of academic staff with PhDs, high research outputs, high income and low staff-student ratios".

On the other hand, teaching-intensive universities such as UNAM are characterised by relatively lower postgraduate enrolments, success and graduation rates, qualified staff, research outputs and income but high enrolments in science, engineering and technology and high staff-student ratios (MacGregor, 2010). However, this does not mean research in teaching-intensive universities is less highly regarded. It simply implies that the country at the present moment requires the production of skills for the market to make a contribution to economic development. Against this background, UNAM cannot afford to neglect this area as, apart from one university of science and technology, this is the only public university in the country.

Evidence of valuing teaching and learning at UNAM is seen in its academic workload formula in terms of which this activity is allocated 60% of academic staff time. The remaining 40% is allocated to research and community engagement activities, that is, 30% and 10% respectively. Commitment to teaching and learning is also seen in the University's higher level statements, for example its vision and mission as spelt out in its Strategic Plan and several other official documents (UNAM, 2016). The UNAM's vision is "To be a beacon of excellence and innovation through teaching, research and community service". Its mission is "To provide quality higher

education through teaching, research and advisory services to our customers with the view to produce productive and competitive human resources capable of driving public and private institutions towards a knowledge-based economy, economic growth and improved quality of life" (p. 2). The vision and mission clearly show the University's commitment to quality teaching and learning, research, and community service. However, the emphasis seems to be on teaching rather than learning as there is no mention of 'learning' in the University's higher level statements. Against this background, this study examined methods used by UNAM lecturers in the practice of teaching, what informed the choice of these methods, the challenges confronting lecturers in executing their teaching roles, and the capacity building needs of the lecturers.

2.1. Theories underpinning teaching in contemporary universities

Contemporary literature on teaching and learning advocates for a shift in focus from 'teaching' to 'learning' if universities are to be regarded as 'knowledge factories' rather than being seen as 'knowledge supermarkets'. According to Boughey (2015:2), traditional ideology regards a university as "a place with lots of different packages of knowledge on its shelves which can be picked up and placed in a trolley, and studying at a university is like buying a tin of sociology, a packet of physics, a bottle of economics and so on and the university is the place that sells these things". Boughey goes further to explain that if both university teachers and students hold this view, obtaining a degree is then like getting a receipt at the checkout to prove that a student has acquired all the knowledge. In this regard the degree is the receipt to prove that the student has paid for this knowledge. This sort of understanding is what has led to many lecturers and students thinking that lecturers are there to transmit knowledge to passive students and some students are more intelligent as they absorb the knowledge faster than others. For those who do not have the ability to absorb this knowledge and those who cannot cope, it is normal for the system to eliminate them through failure.

Contemporary ideology regards the university as a factory or a place that produces knowledge rather than one which sells it (Boughey, 2015). Therefore, academics involved in teaching need to have the ability to devise strategies that will involve students in an interactive manner that focuses on the active co-production of knowledge rather than the transmission of knowledge. It is the role of academic developers to facilitate the development of these skills among academic staff.

According to Essays, UK (2013), there are many theories that offer different accounts of how individuals learn, each with its own strengths and shortcomings in terms of how it informs teaching for quality learning. The reason why there is variation in theories of learning is because each theory presents its own definition and view of learning. While most of the work has been done in the area of general education, little evidence is available on the focus of learning in higher education before the 21st century. However, in recent years there has been an increased focus on how learning

takes place in the higher education environment. This is due to the recognition that teaching in higher education can no longer afford to be viewed and approached from a common-sense perspective if quality learning is to be maintained.

This discourse has led to a shift towards the professionalisation of higher education teaching, as may be seen in the development of centres for higher education studies and/or academic development in some universities (Quinn, 2012). The main focus of these interventions is to promote reflective teaching practices that would ensure quality learning. Such interventions are based on learning theories as informed by research, thus expanding lecturers' teaching and learning horizons by devising strategies that focus on diverse students and inclusive teaching practices. To enable this, lecturers' teaching skills and conceptions of teaching and learning need to be grounded in theoretical frameworks that promote student-centred approaches.

According to Essays, UK (2013), learning theories can be used to foster effective teaching practices, and ultimately align teaching with positive learning and educational experiences. Learning is the "process that results in a relatively enduring change in a person" (Essays, UK, 2013:2) and teaching is by definition the promotion of learning and ought, therefore, to be informed by the best of our knowledge about learning. Learning and teaching form a synergistic relationship; that is, teachers need to teach using an approach that reinforces how students naturally learn. Our understanding of how learning takes place can allow for shaping of the teaching methods and approaches that match the theoretical frameworks underpinning the way knowledge is processed or created to ensure effective learning.

2.1.1. The behaviouristic theory of learning

According to Pavlov (as cited in Stewart, 2012), a Russian psychologist who conducted his experiments on dogs, learning from a behaviourist perspective is viewed as the acquisition of new behaviour or an observable change in behaviour (Stewart, 2012). Learning from this perspective is characterised by the absorption of a predefined body of knowledge by a passive student who responds to environmental stimuli; this is promoted by repetition and positive reinforcement. The focus of behaviourism is on the 'conditioning' of observable human behaviour and is based on the principal conception that a reaction is made in response to a specific stimulus, and this reaction leads to a consequence. If the consequence is pleasant or positive, the behaviour change becomes reinforced. With consistent reinforcement, the behaviour pattern becomes conditioned and is automatically activated upon stimuli presentation. A behaviourist approach advocates reinforcement, which is employed to condition behaviour, and is therefore essentially the tool which brings about effective learning.

The implications of a behaviourist perspective for teaching and learning lie in the belief that learning takes place when the student's activity is reinforced through reward and positive reinforcement (Sotto, 2007). Correct behavioural responses are transmitted by the lecturer and absorbed by

the students. Positive reward strengthens behaviour while negative punishers weaken behaviour. This suggests that reinforcement takes place when the lecturer encourages desirable behaviour by praising it or motivating a student through reward, or discourages undesirable behaviour through punishment or negative reinforcement. The reward associated with this conditioning is what is called reinforcement. Positive reinforcement is the application of a stimulus and negative reinforcement is the withdrawal of a stimulus.

Research by Vygotsky (1972) criticised the behaviourist approach, as he viewed it as being too teacher-centred and directed and devoid of meaningful learning. In addition, in terms of this approach, learning is more individualistic than collaborative. Research into learning theories suggests that although behaviourist theory has some benefits, its limitations outweigh the benefits as it does not offer students the chance to develop deep meaning and understanding, but instead has a tendency to promote superficial learning of skills (Essays, UK, 2013). According to Sotto (2007), it is insufficient to claim that learning occurs purely as a reaction to external stimuli. Activities such as recognising objects and sorting through them to form an order are classed as 'mentalist' activities; they occur in the head and this cannot be ignored. Making a correct response and remembering content does not necessarily imply understanding, and consequently the actual understanding achieved through behavioural approaches is challenged. This perspective is characterised by rote learning, which represents a learning approach involving a surface level of understanding.

Furthermore, behaviourism does not take into account learning that takes place without reinforcement, for example, learning of a new language. It also does not recognise the ability of the brain to independently process knowledge without external stimuli. This implies that if students are given a task to do for which they are not being praised or rewarded, learning will not take place. However, it is wrong to assume that a behaviourist approach to learning is all wrong as it may have some benefits to offer. For example, rote learning and memorisation may be more useful when teaching factual concepts and where clarity in understanding is not required. Rote learning may be used to help students cope better with some aspects of the work that they find difficult. Reinforcement may also be used to encourage students to do their best work and to encourage improvement. However, lecturers need to note that rote learning alone is not an approach to develop understanding and, therefore, should be combined with constructivist approaches which encourage understanding.

2.1.2. The constructivist theory of learning

The works of Pavlov have been criticised by Piaget (1976) and Vygotsky (1986), as they argue that a behaviourist approach to learning is too teacher-centred and directed and devoid of meaningful learning and that the teaching process focuses too much on the individual learner rather than collaborative group work. To challenge Pavlov's behaviourist perspective, Piaget and Vygotsky suggested a

constructivist perspective which aims at the separation of mental processing and knowledge, which has to be bridged by the role of a teacher.

According to Harris (1994), a constructivist perspective views learning as the effect of mental construction, whereby learners combine their existing knowledge with new information to construct meaning and formulate their understanding. Furthermore, this theory suggests that learning is an active process, a social activity, contextual, centred on constructing meaning and views the learner as a responsible agent in their knowledge creation (Christie, 2005). In the constructivist classroom setting, the focus tends to shift from the teacher to the students. The classroom is no longer a place where the lecturer, as the expert, pours knowledge into passive students, who wait like empty vessels to be filled. Students draw on their experience of the world around them and work to make sense of what they perceive in order to build an understanding of what is surrounding them (Stewart, 2012). Since constructivist learning involves students' interaction with their immediate learning environment, learning has been considered to be a situation-specific and context-bound activity. Unlike a behaviourist approach where the lecturer is seen as the primary resource of knowledge and is influenced by his or her interests and perspective, constructivism offers the opportunity for learning to become dynamic and varied, as opposed to being static and prescribed. Constructivism is an overarching term encompassing two branches of constructivist perspectives, namely, cognitive constructivism (Piaget, 1968) and social constructivism (Vygotsky, 1986).

2.1.3. Cognitive constructivism

According to the Essays, UK (2013), Jean Piaget, a Swiss psychologist, is regarded as the father of constructivism. Piaget's theory of cognitive development states that humans are not given information which they immediately understand and use, but that they rather construct and build their own knowledge through experience. He maintains that learning is an active process and people construct new knowledge from their prior experiences through the processes of accommodation and assimilation. For Piaget, people assimilate when they integrate a new experience into their already established mental framework and accommodate when they reframe their mental representation of the world to incorporate their new experience. Piaget believes that learning takes place according to stages of cognitive development whereby increased maturity leads to increased learning ability or a developed ability to acquire more complex knowledge (McInerney & McInerney, and Loyens, as cited in the Essays, UK, 2013).

The implication for teaching and learning is that cognitive constructivism pays attention to what goes on in the student's mind. The teacher facilitates learning by providing an environment that promotes discovery and assimilation and accommodation. Although this theory was drawn from experimentation with children, its application also has a bearing on adult learning. Cognitive constructivist theory

focuses on mental processes rather than observable behaviour. According to this theory, knowledge is seen as something that is actively constructed by learners based on their existing cognitive structures. Therefore, learning is relative to their stage of cognitive development; understanding the learner's existing intellectual framework is central to understanding the learning process. Learning is believed to take place in schemata or frameworks of development from the known to the unknown or from the simple to the complex. Cognitivist teaching approaches focus on assisting students to assimilate new information into existing knowledge, and enable them to make the appropriate modifications to their existing intellectual framework to accommodate that information (GSI Teaching & Resource Center, 2016). The principle of this theory that informs teaching and learning is based on the belief that learning is an active process that should be meaningful and based on the real world. Lecturers influenced by cognitive constructivism devise teaching and learning approaches that encourage students to become active constructors of their own knowledge.

According to the GSI Teaching and Resource Center (2016), Piaget's theory was widely accepted from the 1950s up to the 1970s. Although this theory is not now as widely accepted as it was previously, it has had a significant influence on later theories of cognitive development. For instance, the idea of adaption through assimilation and accommodation is still widely accepted. This theory has also influenced the age at which children start formal schooling, namely, seven years, as it focuses on the stages of cognitive development where it is believed that the mind must be ready to learn certain things. However, in my view, this perspective could be challenged by social constructivism in that nowadays children are exposed to formal education before the age of seven due to technological advancement. We like giving the example that today's children acquire language and certain sophisticated knowledge even before they start Grade 1 through the cartoons they watch on television. The other pertinent criticism of this theory is that it is too egocentric as it does not take into account the social aspect of learning. Although Vygotsky, a Russian psychologist, was a supporter of Piaget, he criticised the ideology for focusing too much on the individual internal construction of knowledge and neglecting the contextual social environment in which learning takes place. Therefore, Vygotsky developed a social constructivist theory to challenge and improve on Piaget's philosophical ideology.

2.1.4. Social constructivism

Social constructivism emphasises the way meanings and understandings grow out of social encounters. Social constructivism emphasises the integration of students into a knowledge community and the role of language in the process of intellectual development. Vygotsky is a cognitivist, but rejects the assumption made by Piaget that it is possible to separate learning from its social context. He argues that all cognitive functions originate in, and must be explained as, the products of social interactions and that learning is not simply the assimilation and accommodation of new

knowledge by learners, but is a process by which students are integrated into a knowledge community (GSI Teaching & Resource Center, 2016). Vygotsky accepted Piaget's claim that students respond not to external stimuli but to their interpretation of those stimuli. However, he argues that Piaget has overlooked the social nature of language as an essential enabler of learning. As a result, he claimed that Piaget failed to understand that learning is a collaborative process. According to Vygotsky, language and culture play essential roles both in human intellectual development and in the way humans perceive the world.

Vygotsky considered dialogue, usually but not always, with a more knowledgeable other (MKO), for example the lecturer, as a vehicle by which concepts are considered, shared and developed. The dialogue, which is based on learners' pre-existing and current knowledge (schemas), is then exploited to develop and construct new ideas and understanding. Vygotsky advocates that the process of learning involves moving into and across a zone of proximal development (ZPD), which is aided by the intervention of another through support. The ZPD is a theoretical space of understanding which is just above the level of an individual's current understanding. The process of giving support to learners at the appropriate time and level of sophistication to meet the individual needs is termed 'scaffolding'. Scaffolding can allow the movement from one zone to another and assists in passing through the ZPD.

The implications of social constructivism for teaching and learning are that lecturers must devise learning approaches that promote collaborative learning. Collaborative learning is facilitated and guided by the lecturer through approaches such as group work. Therefore, collaborative learning methods require students to develop teamwork skills and to acknowledge individual learning as essentially related to the success of group learning. Constructivist learning approaches may include, but are not limited to, discussion, active learning, problem solving, analysis, visual learning, group work, role play and simulation.

However, if not clearly understood, social constructivism may be abused by lecturers who may forget their roles and feel that knowledge construction is an activity that is left entirely to the learner and that what is constructed cannot be controlled by the teacher. Instead, the learner has autonomy and self-regulates what understanding is established. As disciplinary experts, lecturers need to realise that a student's constructed understanding may not be in line with that of other students, with reality or with the lecturer's construction and understanding. Therefore, lecturers must not assume that the construction and understanding of a concept is universal among all students. Instead, they must be actively involved in the students' learning process by creating a community of practice. In fact, there is a need to focus attention on a learning-centred rather than a learner-centred approach. The former puts learning first before teaching while recognising teaching as the core component of learning where the lecturer who is a subject specialist is seen as the facilitator. The latter may give the impression that the lecturer neglects his

or her duty by hovering in the background, not paying attention to the learning process. According to Northedge (2003), the lecturer as a subject has three key roles to play in enabling meaningful learning, namely, lending capacity to participate in a meaningful manner; designing well-planned excursions into unfamiliar discursive terrain; and coaching students in speaking academic discourse.

The role of academic developers in this discourse is to develop and implement programmes that will capacitate lecturers to have the know-how to facilitate academic knowledge in an effective and meaningful manner to diverse students. It takes effort to ensure a common understanding that university learning is not only about gaining knowledge, but about producing it. Biggs (2012) suggests that helping academics improve their teaching is best done using theories that help them reflect on their practice.

3. METHOD

This study used a mixed-method design whereby qualitative and quantitative approaches were combined. Structured interviews were conducted with at least 49 lecturers at various levels across 12 UNAM campuses. This study employed a phenomenological research design which aimed at understanding and interpreting the meaning that participants ascribed to their experience of the phenomenon under study, that is, new perspectives for teaching and learning in higher education. Participants were purposefully approached to be interviewed because we knew they had experience of the phenomenon we were exploring. The study investigated methods currently used by lecturers at the UNAM in their teaching and the theoretical underpinning of their practice. The study also gauged lecturers' views on their involvement in academic development activities to enhance teaching for quality learning. To address the objectives of the study, the following research questions were asked:

1) What methods do you use in your practice of teaching; and what or who informs the choice of methods used in your teaching?
2) What challenges do you encounter in your practice as a university lecturer; and how do you overcome these challenges?
3) Do you think there is a need for lecturers to undergo some formal training in preparation for teaching in higher education; and what form do you think the training should take?

4. RESULTS AND DISCUSSION

Participants in this study provided rich accounts of their experiences of teaching at the University. The findings illustrate critical aspects including the various methods of teaching, the theoretical underpinnings, the challenges and the capacity development needs of UNAM lecturers. In the discussion of the results, the number of respondents identifying each issue is provided to indicate the relative strength or frequency of occurrence of that issue.

4.1. Teaching methods

Various teaching methods were mentioned by the participants, but the most common ones used by UNAM lecturers, as reported repeatedly in the interviews, are as follows:

Table 1: Frequencies of responses on the teaching methods used by lecturers in percentage (%), N = 49

Methods	Frequencies	Percentages (%)
Lecture	49	100
Projects	11	22
Field trips	6	12
Assignments	37	76

It is clear from the results that the method mostly used by the lecturers included didactic lectures (100%) and assignments as a form of facilitating independent learning through formative assessment (76% of respondents). Depending on the nature of the disciplines, 22% and 12% of the respondents incorporated projects and field trips respectively into their teaching. From these results one may deduce that the average lecturer is still using traditional lecturing methods for teaching. These methods are informed by behaviourist perspectives and are regarded in the literature as being less effective and as promoting surface learning. When asked what informs the choice of their teaching methods, they mentioned things like the teaching and learning policy and the curriculum. When asked what informs their teaching practices, most of the lecturers who participated in the interviews indicated that there is a curriculum document to guide assessment practices at UNAM, but they seemed not to be conversant with national quality assurance and regulatory frameworks and how these influence the practice of teaching in higher education institutions. Participants further saw the existence of curriculum documents as a strength, as they felt that they serve as a blueprint that sets common standards for teaching at UNAM. However, it was felt that there is a lack of guidance from the institutional leadership on how to teach efficiently and effectively.

From this analysis, one may deduce that many lecturers are either unaware of the existence of national and institutional policies and regulatory frameworks, or that they do not really pay much attention to them. Therefore, there is a need for academic developers and quality assurance practitioners within the institution to collaborate with lecturers, and play a

complementary leadership role in building capacity, not only in curriculum development and assessment, but also in teaching and learning. They need to do so by using their personal properties and powers to influence institutional cultural change by helping lecturers comply with policy that provides guidelines for good practice. They should also offer capacity building opportunities that would equip lecturers with the theoretical underpinnings for teaching in contemporary universities. The majority of the lecturers had been taught through lecture-centred approaches and they are fairly comfortable teaching the way they were taught. As Scott (2009) puts it, if teaching does not produce desirable results under this arrangement, the blame is often shifted onto the poor student, who is perceived as undeserving of academic success by having entered the university environment 'underprepared'. This is despite the fact that many of the students who struggle with higher education are not from poor, under-resourced schools. Lecturers need to come to terms with the reality of the diverse needs of the student body and thus design curricula and teach in ways that would ensure epistemological access and success.

However, the real challenge is that, as Quinn (2012) puts it, most lecturers have disciplinary knowledge but not pedagogical knowledge. While acknowledging disciplinary knowledge, academics need to appreciate, and be capacitated with, the know-how on effective learning approaches. Regrettably, academic development initiatives are often resisted by academics who feel that they are the experts in their disciplines of practice and no one can 'teach' them 'how to teach'.

Furthermore, it seems that the lecturers who participated in the interviews do not approach their teaching from a student-centred perspective as informed by the constructivist theories identified in the literature (Essays, UK, 2013). Learning and teaching form a synergistic relationship; that is, teachers need to teach with an approach that reinforces the way students naturally learn. Our understanding of how learning takes place can allow the shaping of teaching methods and approaches that match the theoretical frameworks underpinning the way knowledge is processed or created to ensure effective learning. As has been pointed out earlier by several authors, such as Biggs (2012), GSI Teaching & Resource Center (2016) and Stewart (2012), constructivist theories, especially social constructivism, are important in that this perspective acknowledges that knowledge is constructed through social interaction and is the result of social processes (Gergen as cited in Maphosa & Mudzielwana, 2014). Social interaction plays a pivotal role in knowledge creation. Learners construct their own knowledge in a social context. Constructivism gives students ownership of what they learn, since learning is based on students' questions and exploration.

In a social constructivist learning environment, lecturers must devise approaches that promote collaborative learning methods for teaching that enhance quality learning. Social constructivism is one of the theories underpinning these methods and approaches. Collaborative learning is facilitated and guided by the

lecturer through approaches such as experiential learning (i.e. learning by doing); inquiry, discovery, and problem-based learning; collaborative and cooperative learning in groups; writing to learn; research; service learning; and instructional technology. This requires students to develop teamwork skills. The implication is that more effort is needed to capacitate and empower lecturers to devise strategies that meet the diverse needs of the student body to ensure epistemological access and the success of the majority of students.

4.2. Challenges

When asked to mention the challenges that confront them in teaching and how they overcome these, lecturers mentioned a number of issues which are summarised in Table 2.

Table 2: Frequency of responses on challenges encountered by lecturers in their practice of teaching in percentage (%), N = 49

Challenges	Frequencies	Percentage (%)
Large classes	41	84
Heavy workloads	27	55
Inadequate resources	39	80
Students' negative attitudes	17	35
Underprepared students from high school	45	92

As can be seen from the results in Table 2, lecturers are confronted with several challenges in their teaching practice. These range from large classes (84%), heavy workloads (55%), a lack of facilities, and a lack of human and financial resources (80%), student indiscipline (35%), to students with deficits gaining admission to the university. Issues of large classes, heavy workloads resulting from inadequate financial and human resource capacity are not peculiar to UNAM, as these are a common phenomenon in most universities in developing counties, especially in Africa. The perceived lack of discipline in today's youth is also a grave concern. It takes a well-grounded lecturer in disciplines such as educational psychology to be able to deal with such behaviour, and this is the capacity that most of the lecturers do not have. Students are not a homogenous group; they have individual learning preferences, varied life experiences, and individual needs, values and abilities. As Kruger (2012) put it, "students differ in race, socioeconomic status, gender, language, ethnicity, sexual orientation, disability, work commitments, family responsibilities, and geographical isolation", but most lecturers do not have the capacity to deal with the diverse needs of the student body owing to a lack of formal training in pedagogy.

When asked how they overcome the challenges they identified, respondents indicated that they employ mechanisms such as making students share resources, dividing

students into groups and if it is a practical session they halve the number of practical sessions. While lecturers are encouraged to find innovative ways of resolving the challenges confronting them in their practice, some of these solutions may compromise teaching for quality learning.

Therefore, academic developers have a big role to play in equipping academics with skills to help them deal with such challenges. Lecturers, both novice and accomplished, will always face challenges when teaching. These challenges may or may not be unique, depending on the institutional, departmental or disciplinary context (Biggs, 2012). Such challenges may include resource availability; students with a wide range of skills, abilities, and experiences; student behaviour; the classroom environment; and issues relating to the classroom environment in the sense that the students they deal with differ in any of a number of ways, including gender, race, ethnicity, sexual orientation, religion, urban/rural, economic, or political affiliation (Scott, 2009). Again, academic developers and quality assurance practitioners have a complementary role to play by equipping lecturers with skills that will enable them to effectively overcome those challenges.

Regarding the issue of so-called student 'under-preparedness', Biggs identifies three levels at which lecturers may operate in their academic career, namely, a focus on 1) what the student is; 2) what the lecturer does; and 3) what the student does. The first scenario is based on the blame-the-student theory where the lecturer sees the students as the problem if they are not learning and the lecturer has no influence on how students learn. This is a common approach observed at UNAM. The second scenario is when a supervisor tends to blame the lecturer if students are not learning effectively. The third scenario focuses on whether student activities lead to appropriate learning. This identifies the lecturer as simultaneously a scholar and a teacher who keeps improving as a reflective practitioner. Biggs (2012:44) maintains that "if students are to learn desired outcomes in a reasonable and effective manner, then the lecturer's role is to get students to engage in learning activities that are likely to result in their achieving those outcomes".

The lecturer plans effectively what students must learn and engages them fully during the learning process to direct them into academic discourse by fostering a community of practice. It is the role of those who are tasked with being academic staff developers to work in productive ways with lecturers to decolonise the institutional culture (Vorster & Quinn, 2015) by implementing developmental initiatives that take the lecturers to this level. They are the key agents who can change the culture of 'business as usual' within institutions. While respecting individual lecturers' disciplinary expertise, they may still ask tough questions about the kind of knowledge they are imparting to students. Academic developers must try hard to convince the lecturers with whom they work that they must always be reflective practitioners and that their teaching practice needs to be informed by contemporary theories of learning in higher education such as social constructivism.

4.3. Trajectories for addressing academic development needs at UNAM

Lecturers were asked to give their perspectives on whether they think there is a need for lecturers to undergo some formal training in preparation for teaching in higher education. They were also asked to suggest the form they thought the training should take. Overall, respondents supported the academic development initiative initiatives offered by the Centre for Professionals Development Teaching and Learning Improvement (CPDTLI). They felt that most academics lack the requisite skills to deliver in higher education. Even those with a teaching background find it extremely challenging to move from teaching school children to teaching adults in higher education. Others go to the other extreme of leaving students alone in the mistaken belief of student-centredness, that is, that students should not be 'spoon fed'. The challenge is that some lecturers, especially in science, ridicule academic development activities, claiming they are experts in their disciplinary areas and nobody should teach them how to teach; therefore, academic development should be made compulsory. One respondent wrote:

> *I suggest the training to be on how to set up meaningful assessment activities that suit the needs of the students. They need to be equipped on how to handle large classes from handling 50 students and less to handling 200 and more students.*

It is evident from this argument that lecturers need to be capacitated to overcome challenges in implementing quality assessment practices and teaching large classes. This argument was echoed by another respondent who pointed out that

> *… not all lecturers are educators. Some are specialized in certain subject areas, yet they lack teaching skills. They do not have pedagogic skills that enabling them to impart information to students. Consequently, expertise needs to be complemented with appropriate teaching skills in order for a student to derive full benefits from both.*
>
> *Any teaching needs training, what more so at a tertiary level where higher order thinking skills as opposed to simple recalling is taught. We also need skills in how to teach/ work with adults – andragogy.*

Another one stated:

> *I do agree that there is need for lecturers to undergo formal training in preparation for teaching higher education. This is so because most lecturers start teaching straight away after graduating, without exposure to the teaching methodologies and other means of managing classes. Most lecturers depend entirely on their instinct as well as emulating professors who taught them not necessarily following any methodological ideologies. It would greatly benefit many lecturers as this would close the gaps in knowledge delivery and assisting students who need more attention.*

This is so true, especially because we live in a world that is constantly changing and, as such, lecturers should be trained to use the latest applications and methodologies in higher education teaching. Lecturers need to know the educational theory, instructional methodology and educational technology used in higher education teaching. There is a need for training for a full teaching role to develop practical teaching skills. This will help lecturers to teach in an expert way with the ability to diagnose, analyse, evaluate, prescribe relevant materials and, most importantly, improve the quality of teaching and learning. Therefore, academic development initiatives will increase lecturers' pedagogical ability to teach and equip them to make informed decisions that benefit learning and teaching practice. In addition, this will also improve lecturers' professional and academic approaches to teaching and lecture management, and how they interact with students.

Based on how strategically the courses are designed, it can also assist lecturers in understanding, managing and coping with the dynamics of student behaviour as a function of time and technologies, in different academic environments. The majority of the participants suggested that such training could be in the form of short courses, seminars and specialised capacity building workshops which must be made "*a must for all lecturers who are not in possession of a professional teacher's qualification and subsequently no teaching experience. Some lecturers in certain subject areas are competent in those subject areas, but were not trained to teach. Such initiatives will help them acquire the basics in the teaching industry"* (Respondent).

These mandatory short courses should build up into a fully-fledged Postgraduate Diploma in Higher Education (PGDip) programme leading to a formal qualification. To avoid encroaching on the mainstream teaching schedules of participants, these could be offered via block release, online or distance education through the blended mode.

5. CONCLUSION AND RECOMMENDATIONS

This study revealed that the current state of affairs in many universities including UNAM is that teaching is approached from a common-sense way of thinking. Academic staff tend to approach teaching and learning in their discipline from a common-sense perspective. Academics often resist engaging in activities aimed at professionalising academic practice. Based on these findings, the following recommendations for consideration are offered:

- Higher education institutions need to take a holistic approach to academic development that brings together all initiatives geared to empowering academic staff to fulfil their role of being reflective practitioners. The focus of such practitioners should be on ensuring epistemological access of a diverse nature for students throughout their academic careers that would ensure their success.
- Lecturers in higher education institutions need to employ teaching

approaches and methods that are informed by contemporary theories of teaching and learning in higher education, thus equipping students with the requisite knowledge, skills and values.

- Lecturers need to acknowledge and come to terms with the reality that traditional approaches to teaching are not working, even in higher education institutions where most students are from disadvantaged backgrounds. Therefore, teaching and learning processes need to be adjusted to the real needs of the majority of students.
- Higher education institutions need to strengthen academic development by having in place the right structures, cultures and agencies that drive the teaching and learning agenda; and build the capacity of academics to be able to implement with confidence the contemporary theories of teaching and learning in higher education.
- To ensure teaching for quality learning, academic development initiatives should focus on ensuring the constructive alignment and responsiveness of the curriculum in terms of curriculum development, pedagogy and assessment that acknowledge the diversity of international, national, institutional and disciplinary contexts.

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CHALLENGES IN THE IMPLEMENTATION OF CORRELATION AND INTEGRATION OF KNOWLEDGE IN SECONDARY SCHOOLS IN A DEVELOPING COUNTRY

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Abstract

This study examined the challenges faced in the implementation of correlation and integration of knowledge as well as the role of correlation and integration of knowledge in curriculum planning in four secondary schools in Chivi District, Zimbabwe. Booker T.Washington's Philosophy of the 'Grand Trinity' in Education and the Marxist-Leninist philosophy informed this study. The research employed a qualitative research paradigm in which the descriptive survey design was used. A purposive sample of four heads of schools, sixteen teachers as well as a stratified random sample of fifty students participated in this study. Data were collected through questionnaires, face-to-face interviews, documentary analysis and sites visits. The study revealed a lack of correlation and integration of knowledge in curriculum planning and implementation due to failure by schools to marry theory and practice for the maximum benefit of students. The study also revealed a lack of orientation of staff through school-based in-service programmes. It is recommended that in-service training for both teachers and heads be held in schools on the implementation of correlation and integration of knowledge. The development of a common philosophy and common objectives should be employed after educators at all levels participate in joint discussions of school programmes.

Key words: Implementation, correlation, integration, knowledge, theory, practice.
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1. INTRODUCTION AND BACKGROUND TO THE STUDY

During the colonial era, education in Zimbabwe experienced a crisis (Nhundu & Peresuh, 1999; Carnoy & Samoff, 1990). The crisis was characterized by; major inequalities, high school drop-out and high failure rates, failure to marry theory with practice, poorly qualified teachers, an examination-oriented curriculum with a major emphasis on rote learning and unimaginative teaching methods (Zvobgo, 1996; 1999). Education for Africans was very poor without clear objectives in terms of acquiring appropriate entrepreneurship and survival skills which would enable them to perform all social, technical, civil or moral duties (Carnoy, 1978; Raftopaulos & Mlambo, 2009). As a consequence, the education system instilled and reinforced in learners a negative attitude of despising manual labour (Gwarinda, 1985).

When Zimbabwe gained its independence in 1980, attempts were made

to reform education in ways that took seriously the aspirations of the majority and the new political realities (Barker, 1996). Education with Production (EWP) is an innovation which was planned for and implemented within the framework of the government's ideology of Scientific Socialism based on Marxist-Leninist principles (Dzvimbo, 1991). The objective was to establish an egalitarian, democratic society and thus redress the injustices of the colonial past.

One of the fundamental principles that characterized the philosophy of Education with Production was that of combining theory and practice (Zvobgo, 1996). Marrying theory with practice helps to produce learners who are broad minded, have entrepreneurship and survival skills which help them to lead self- supporting and purposeful lives (Siyakwazi, 2014). This was in support of the recognition of the importance of correlation and integration of knowledge as noted by regional and international studies. For instance, West (2006) found that the creative and regenerative power of work will mean that every learner is no longer alienated from the main source of his 'humanization' and will ensure that there are sufficient materials for all to enjoy a healthy and self-fulfilling existence. The major emphasis was the development of positive attitudes towards the dignity of manual labour which is greatly cherished by Booker T. Washington (Siyakwazi, 1999). Every person from the earliest years of life was called upon to value both education and labour and to see them as having an in intimate and inseparable connection. Manual labour became an integral part of school life and he or she who despised manual work was said to despise his own stomach (Zvobgo, 1996).

In the Zimbabwean education system today, integration of theory and practice has not yet been achieved (Siyakwazi, 2014). This is because in the implementation of Education with Production, the Ministry of Education, Arts, Sport and Culture realized there were problems as evidenced by its evaluation. Results of that evaluation found that there was wide support for Education with Production as a philosophy which informed educational practice in Zimbabwe, but levels of understanding of the philosophy and its implications were highly varied (Gwarinda, 1985). During the initial years of the implementation of Education with Production (EWP) a number of problems were encountered, namely, lack of resources and above all the philosophy was misinterpreted, misunderstood and confused, just to mention a few. As a result, one of its major objectives of marrying theory and practice has been a failure (Barker, 1996). Gwarinda (1985) elaborates that there was a failure by educators and researchers to understand the philosophy of Education with Production. In publications, such as journals and textbooks, very little has been written by researchers on Education with Production.

The Presidential Commission of Inquiry into Education and Training (1999) noted that the linking of theory with practice in education is compromised. The Commission found that, among other shortages, there in a lack of syllabus documents in schools, insufficient textbooks in schools and a lack of teaching material support from the Curriculum Development

Unit. The major problem was that the contemporary education system falls short in equipping learners with the requisite survival and entrepreneurship skills which are indispensable in life. This points to challenges in the implementation of correlation and integration of knowledge in education.

It is against this background that this study focused on the challenges faced in the implementation of correlation and integration of knowledge in four secondary schools in the Chivi District. Students are the future of the country and equipping them with survival and entrepreneurship skills ensures that they lead functional, purposeful and self-supporting lives.

2. STATEMENT OF THE PROBLEM

The Presidential Commission of Inquiry into Education and Training (1999) expressed a concern that the linking of theory and practice in education is still compromised. The Commission found that the contemporary education system falls short in equipping learners with the requisite survival and entrepreneurship skills which are indispensable in life due to failure by schools to link theory and practice (through the implementation of correlation and integration of knowledge). The central issue here is that in this philosophy of marrying theory with practice, not much has been done in its implementation which suggests that there are challenges faced by teachers and students. The researchers were interested in examining what had really gone wrong since theory without practice is meaningless and practice without theory is blind.

3. RESEARCH QUESTIONS

Against the backdrop of the above statement of the problem, the study sought to answer the following research questions:

- What are the challenging experiences faced by teachers in the implementation of correlation and integration of knowledge in schools?
- What are the challenging experiences faced by learners in the implementation of correlation and integration of knowledge in schools?
- What is the role of correlation and integration of knowledge in curriculum planning and implementation?

4. OBJECTIVES OF THE STUDY

The following objectives of this research were easily reached:

- To investigate the challenging experiences faced by teachers in the implementation of correlation and integration of knowledge in schools.
- To investigate the challenging experiences faced by learners in the implementation of correlation and integration of knowledge in schools.
- To gain insight into the role of correlation and integration of knowledge in curriculum planning and implementation.

5. DELIMITATIONS OF THE STUDY

The study was undertaken in Masvingo Province in Chivi District where four rural secondary schools were selected. Conceptually, the study was confined to an examination of the challenges faced in the

implementation of correlation and integration of knowledge in four secondary schools in the above physical delimitation.

6. THEORETICAL FRAMEWORK

Booker Washington's Philosophy of the 'Grand Trinity' in Education and the Marxist-Leninist philosophy provided a theoretical framework for the study.

6.1. Booker Washington's Philosophy of the 'Grand Trinity' in Education

Correlation and integration of knowledge is a concept which has its roots in Washington's Philosophy of the Grand Trinity in Education. This is a philosophy of the three 'Hs' that is the head, heart and hand working in unity for self- support [Siyakwazi (1999; 2014)]. Washington elucidates that the most complete and thorough education is that the head, heart and hand should become of service to each and every individual. According to Washington, correlation and integration simply means that a student would be given work in various academic- related subjects that have relevance to the work he might be learning in a particular subject (Generals, 2000). Correlation shows the reciprocal relationship between concepts and various subjects of the curriculum for making the knowledge concrete and permanent (Saxena, 2011). The rationale for the process of dovetailing literary and academic work is that in this way, educationists are able to breathe a new life and interest into what was dry bones of Mathematics, grammar, composition, Chemistry and other traditional curricula (Washington, 1904 in Siyakwazi, 1999). The success of the implementation of the 'Grand Trinity' lay in what Washington called 'correlation', or sometimes 'dovetailing', which was the essence of his educational philosophy noted by Harlan, the distinguished American historian (Siyakwazi, 1999; 2014). As Washington elucidates, the concept of correlation and integration to trustees, dovetailing related to dovetail joints in carpentry, blotting out differences between the literary departments and the individual department. The idea was that students would practise Mathematics in the Carpentry shop and write essays on cultivating fields in the English class (Harlan, 1983; 1999).

The principle of correlation or integration of studies is implied in the notion that great stress should be laid on the points of resemblance between cognate subjects, and all things that are naturally connected ought to be taught in combination (Harlan, 1988). Teachers teaching various subjects should make conscious efforts to show similarities or the dependence of one subject on another (Generals, 2000). This is because no subject is ever well understood and no art is intelligently practiced if the light, which the other studies are able to throw upon it, is deliberately shut out. It is quite clear from the above statement that Booker T. Washington's methods of instruction aimed at correlating and combining academic studies and practical work was a key element of the philosophy of the 'Grand Trinity' (Siyakwazi, 1999). The central issue here is that theory must never be divorced from practice. Theory without practice is meaningless and practice without

theory is blind. When theory and practice are married, learning becomes functional and purposeful.

In the Aristotelian view, education should enable learners to live the good life, one in which their potentiality is brought to its fullest fruition (Lawhead, 2007). Correlation and integration of knowledge is at the heart of Booker T.Washington's scheme of education since it emphasises the centrality of integrating theory and practice, education and training, academic and practical work (West, 2006).The study borrowed ideas from the school of thought above to carry out an evaluation on the implementation of correlation and integration of knowledge in the chosen secondary schools.

6.2. The Marxist-Leninist Theory

Correlation and integration of knowledge is also rooted in the Marxist-Leninist idea of combining theory and practice. The Marxist-Leninist school of thought recognizes the gulf between theory and practice. This is the much criticized divorce between theory and practice in education and, more broadly, between education and life (Dzvimbo, 1991). Literature shows educators' awareness of the dangers inherent in the fragmentation of knowledge. Shumba (1993; 1994; 1999) urges the eradication of this fatal disconnection of subjects which kills the vitality of the modern curriculum. This suggests the need to systematically combine intellectual study with physical work. Marrying theory with practice is a key that unlocks many doors to the uniting of what has been artificially separated in the past. Correlation seeks to integrate theory and practice, mental and manual labour, academic and practical work.

According to Makarenko the great Soviet educator, the Marxist-Leninist philosophy seeks to make a correct educational application through a process whereby every person from the earliest years of life comes to value both education and labour, is able to see the intimate and inseparable connection between them and that a good society will emerge only in the degree to which this achievement is made by everyone (Bowen &Hobson, 1974). Correlation of a subject with daily life creates interest and makes the subject relevant instead of being theory with no practical applications.

Along similar lines, Castro (1971) stresses the importance of marrying theory and practice as evidenced by the following statement;

This school is consistent with our pedagogical concepts, it corresponds

with reality; it meets true needs. It is based on most profound Marxist-Leninist

thought, which conceives of education and training of the individuals as

closely related to productive and creative work…This kind of school

provides a real opportunity for… combining education, study and work…

This is a school in which students begin to carry out productive activities,

create things with their own hands, and engage in productive manual work

in addition to intellectual work. In other words, they begin to learn the

techniques for producing the material goods needed by men, and to acquire

the habit of working as the most natural and elementary duty of every citizen,

together with the habit of studying.

Therefore, this study was informed by the above schools of philosophical thought to carry out an evaluation on the implementation of correlation and integration of knowledge as a way of improving the linking of theory and practice in education so as to produce functional and self-supporting individuals who will be able to lead purposeful lives in future.

7. RESEARCH PARADIGM AND DESIGN

This research used the qualitative research paradigm which employed the descriptive survey design in studying challenges faced in the implementation of correlation and integration of knowledge in secondary schools. Gray (2009:58) defines a survey as `an investigation into one or more variables in an organized attempt to analyze, interpret and report the present status of social institutions, groups or areas'. Cohen, Manion and Morrison (2010:256) add that `surveys gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared or determining the relationships that exist between specific events'.

The descriptive survey research design was advantageous in that it enabled the researchers to gather information from a representative sample with relative ease over a wide geographical area. It was the best method available to collect original data for describing a population too large to be observed directly, as was the case in this study.

7.1. Population

A population is any group of individuals that have one or more characteristics that are of interest to the researcher (Haralambos & Holborn, 2014). School teachers, Heads and students of four secondary schools in Chivi District provided the population for this study. The four schools had a population of four Heads, a teaching staff of sixty-three and four hundred and thirty-seven students.

7.2. Sampling Procedure

A sample entails a relatively small number of individuals drawn from a population for inclusion in a study (Bordeus &Abbort, 2008: G8). The participants were drawn from Heads, teachers and students. The researchers used purposive sampling to select a total of four school Heads and sixteen teachers who supplied information on the challenges in the implementation of correlation and integration of knowledge by responding to the interview questions. When using the purposive sampling technique, the researcher has to pick up only such a sample which is relevant to the study and leave out all others so that the purpose of the study is not defeated (Sidhu, 2001:265). The school Heads and teachers participated as critical sources of information with regards to the implementation of correlation and integration of knowledge at their respective schools. Stratified random sampling was

used to select a total of fifty Ordinary Level students who participated in the study by responding to questionnaires. It is a sampling technique which ensures that the number of items in each stratum would be in proportion to their frequency in the population (Muchengetwa, 2005:43).

7.3. Research Instruments

This study employed a closed and open-ended questionnaire for students who were many in number and vast data could be gathered in a short period of time. The open ended questionnaire helped students to elaborate on their responses. Semi-structured interviews were administered to teachers and Heads because they were fewer since they required more time to administer. Site visits and the study of documents (schemes of work, plans of work, and minutes of staff meetings, staff supervision reports and students' exercise books in all subjects) were useful for corroborating and augmenting evidence from questionnaires and interviews.

7.4. Data Analysis Procedure

The researchers applied Miles & Huberman (1994)'s qualitative data analysis technique in this study. Analysis of data was done at two levels. Data were analyzed continuously to determine the main themes that emerged from them. This gave the researchers an opportunity to verify with the respondents if the analysis was indeed portraying their responses during the interview, or whether it was a correct interpretation of what had been observed, while still on the sites. In a way, this satisfied the need for member-checking which is described by Lincoln & Guba (2005) "as the most crucial technique for establishing credibility". The analysis of data during its collection assisted the researchers to develop follow-up questions for clarification of respondents' views and the observational experiences of the researchers.

8. RESULTS AND DISCUSSION OF FINDINGS

This section discusses the findings of the study in line with the major themes derived from the research questions.

8.1. Challenging experiences faced by teachers in the implementation of correlation and integration of knowledge in schools.

Evidence obtained from this study showed that resources for use by teachers and learners were totally inadequate. Shortages of textbooks, library facilities, teaching materials, course guidelines and outlines plus teaching equipment were considered very critical problems. Below are some sample responses from teachers:

Respondent 1: *There is a critical shortage of textbooks. At least three students share a textbook in most subjects at this school.*

Respondent 2: *There is no library at this school and there are no plans to have one in the near futu*re.

Respondent 3: *Teachers teaching different but related subjects rarely share common resources and information so as to allow for integration of knowledge. I think there is need for staff development and in-service*

training for teachers on this important aspect.

Respondent 4: *Most teachers specialized in one or two subjects to teach at secondary school level in Zimbabwe. This makes it difficult for them to relate what they teach to other subjects in the curriculum because they lack a sound knowledge base of other subjects or how to integrate them.*

The study revealed that the lack of resources militates against integration of subjects and the teaching and mastery of psychomotor skills as there would be no information that backs up the topic that the teacher is facilitating. In support of the above idea, Beeby (1996) asserts that some teachers find it difficult to implement correlation and integration of knowledge due to non - availability of resources and poor classroom conditions that are not conducive for the teaching and learning of psychomotor skills.

This study, however, went on to establish that in addition to Beeby's (1996) findings, proper procedures are not being employed by teachers to help secure effective continuity in schools. There is little or no collaboration among teachers teaching various forms and subjects. Teachers rarely adequately confer with one another to collate their educational programmes.

The study came up with the conclusion that there is minimal or no development of instructional plans which ensure that teachers work together in the production of schemes of work and lesson guides. Schools, for example, could not bring together all teachers of the total school system in joint studies and discussions of the school programmes. The study highlighted that exchange of visits by teachers of different schools is compromised due to a lack of funds to finance such programmes. It also concluded that there is little or no orientation of staff through school-based in-service programmes in order to improve their understanding of correlation and integration of knowledge. It was also noted that school Heads use staff meetings mainly to deal with administrative matters and little attention is given to curricular and instructional activities directed at improving the quality of educational experience in schools. Nothing was being done to get input from staff on how to provide solutions to problems in the schools, to involve staff in the development of schemes of work in various subjects, to provide in-service training and involve staff in the selection of learning materials other than textbooks.

The study found that school teachers are inadequately supervised. Teachers who lack supervision tend to emphasize whatever they desire and this does not facilitate mastery of concepts and skills by learners.

The study revealed that some teachers find it difficult to promote horizontal articulation of subjects due to lack of a sound broad base of knowledge which hinders them from referring to a wide range of subjects during teaching and learning. In addition, the study concluded that some teachers are unimaginative since they fail to relate concepts and subjects during teaching and learning. The study found that most teachers did not specialize in many subjects at college and this limited their ability to link concepts in various subject areas.

8.2. Challenging experiences faced by learners in the implementation of correlation and integration of knowledge in schools.

Like their teachers and administrators, students also revealed that they experienced challenges in learning as shown in sample verbatim responses from open-ended questionnaires below:

Student 1: *Our school wants us to improve the pass rate which has been too low for some time, therefore we have to read, memorize and revise regularly so that we pass examinations.*

Student 2: *We have the problem of a shortage of textbooks, library facility and other equipment for our learning in different subjects. The school has no electricity too for computer studies.*

Student 3: *Teachers from other subjects are rarely invited to assist in our learning.*

Student 4*: I can't remember us having a field trip. Most of our learning has been done in the classroom.*

The study revealed that the current curriculum places more importance on academic subjects rather than practical subjects. The major preparation of students is driven by academic examinations. More emphasis is placed on marks rather than skills and concepts acquired by learners. The study concluded that teachers who put more emphasis on examinations do not widen and deepen concepts and this militates against the mastery of concepts and transfer of learning.

In the implementation of correlation and integration of knowledge, some teachers do not relate new tasks to what the learners have already experienced or are experiencing as noted in earlier studies by Lawhead (2007). Teachers do not analyze the skills and concepts in terms of the learners' abilities and developmental level. It was also noted that some teachers do not use learning aids which help to concretize learning and facilitate mastery of concepts and skills by learners. In addition, some teachers do not expose learners to the environment through the use of field trips to facilitate learning. This is condemned by Dewey who advocates for interaction between the learner and the environment (Shumba; 1999).

The study concluded that teachers provide learners with inappropriate opportunities and little time for practice of psychomotor skills. It was revealed that providing learners with adequate time for practice facilitates the learning of psychomotor skills through eliminating errors and strengthening and refining correct responses and form.

The study found that teachers use unimaginative teaching methods such as the lecture method which hinders the mastery of concepts and psychomotor skills by learners since such methods stifle creativity and limit learners' involvement in the teaching and learning process. There is limited use of progressive teaching methods which emphasize 'hands- on' learning and active participation of learners through field trips, group work and the project method which are central in facilitating mastery of skills and concepts. Related to the findings above,

Siyakwazi and Siyakwazi (1999) established that traditional teaching methods regard learners as passive recipients of wisdom from the teacher. Students neither contribute to the class through discussion nor engage in critical thinking or problem-solving.

The researchers further established through studied documents (see section on research instruments) that learners were given inadequate written work and little homework which was unchallenging. This showed that there was little or no evidence of psychomotor activity in most lessons. The marking was irregular and learners were given negative comments which do not motivate them to learn.

The study indicated that some schools do not make use of resource persons such as subject specialists from within and outside the school during teaching and learning. This does not expose learners to other sources of knowledge other than their teachers. This is unfortunate as resource persons can provide a wealth of knowledge and skills which facilitate learning.

8.3. The role of correlation and integration of knowledge in curriculum planning and implementation

The study revealed a lack of correlation and integration of knowledge in curriculum planning and implementation. Evidence obtained in this study showed that in many of the larger schools, where more than one teacher instructs the subjects at the same level, there is little or no articulation between the teachers. Similar findings were also reported by Saxena (2011) and Siyakwazi (2014). The researchers further noted that a lack of continuity does not facilitate mastery of concepts and psychomotor skills by learners. The study also highlighted that horizontal articulation is compromised since teachers teaching various subjects do not plan and implement the curriculum jointly.

The study revealed that some of the strengths of correlation and integration of knowledge in curriculum planning and implementation are that it: -

- Encourages unity and cooperation among teachers both in curriculum planning and implementation;
- Develops mental abilities like imaginative power, logical thinking and analytical thinking of learners because they can easily correlate one acquired knowledge with the other;
- Broadens and widens the learners' knowledge by reference to many other subjects;
- Promotes creative thinking on the part of the teacher since he refers to several subjects in his teaching; and
- Helps to achieve unity of knowledge and develops worthy interest and attitudes in learners for acquiring knowledge because it provides the practical and life-related learning to students.

9. CONCLUSIONS

This study concluded that secondary teachers are not well equipped in their training and in-service programmes to implement correlation and integration of knowledge. Those who teach different but related subjects rarely share knowledge and the limited resources in their schools. The

learners are rarely exposed to pragmatic learning, that is, in the form of field trips to help concretize learning and facilitate mastery of concepts. As a result, learners learn by rote for the purpose of passing the examinations. The study revealed that correlation and integration of knowledge has the challenge that it demands a great deal of time from teachers and learners, especially in planning and practice of psychomotor skills. There is little or no articulation between teachers who teach different subjects since they do not plan and implement the curriculum jointly. The above discrepancies were found to militate against the implementation of correlation and integration of knowledge thereby greatly disadvantaging students who may have great potential in their learning.

10. RECOMMENDATIONS FOR THIS STUDY

In the light of evidence obtained through this study, the researchers would like to make the following recommendations in an effort to improve the implementation of correlation and integration of knowledge in schools:

- Corrective measures, which must improve the meagre financial resources of schools, should be immediately instituted in order to reduce the severe shortage of books, equipment, teaching and learning material in schools.
- In-service training for both school Heads and teachers should be held on the implementation of correlation and integration of knowledge in schools. Only through such in-service efforts can the capacity of the schools increase so that critical issues in the domains of curriculum planning and instruction be dealt with.
- Development of a common philosophy and common objectives through the participation of teachers at all levels in joint studies and discussions of the school programmes is of paramount importance.
- Joint primary and secondary school conferences and workshops bringing together all teachers of the total school system should be instituted in schools.
- Exchange of visits by teachers of different levels and transmission of comprehensive cumulative records from each level of the school system to the next higher level should be encouraged in schools.
- Comprehensive programmes for the orientation of learners as they progress to higher divisions of the school system should be developed.
- Organization of general curriculum committees serving the entire system with sub-committees set up on a vertical basis should take centre stage so that teachers from each level serve on a special area committee dealing with such matters as communication, health, moral and spiritual values and social living.
- The major preparation of students should not be driven by academic examinations as is presently the case. More emphasis should also be placed on skills and concepts acquired by learners, rather than marks.
- Learners should be exposed to the environment through the use of

progressive teaching methods which promote active participation, such as, field trips to facilitate mastery of concepts.

- The learning structure of most diplomas and degrees of prospective teachers should be changed radically. The prospective student teachers should be encouraged to take a wide range of subjects such as Geography, Mathematics, Religion, Chemistry, Economics, Shona and other subjects. This is likely to help teachers have a sound and broad base of knowledge which helps them to refer to a wide variety of subjects during teaching and learning.
- Instructional plans which ensure that teachers work together in the production of schemes of work and lesson guides should be developed.
- Library facilities should be equipped with more textbooks with updated information.
- Course guidelines and outlines, which theoretically could greatly improve the articulation within courses, should be made available to teachers.
- The Head's supervision in teacher effectiveness is crucial. Heads, therefore, should increase the number of supervision visits they pay to teachers.
- Teachers should improve continuity by planning lessons that take into account what the student has studied before and what he will study in future. They should also review a certain amount of information that learners would have learned before so as to enhance mastery of skills and concepts.
- Teachers should provide appropriate opportunities for practice of skills by learners.
- Learner-centred teaching methods which emphasize 'hands-on' learning, such as the project method and guided discovery, should be promoted in the teaching and learning of concepts and psychomotor activities.
- Schools should make use of resource persons, such as subject specialists in teaching and learning, since they provide a wealthy of knowledge and skills which facilitate learning of concepts and skills.

11. RECOMMENDATIONS FOR FURTHER STUDIES

- Researchers should carry out further investigations into policies on the implementation of correlation and integration of knowledge and various strategies which can be instituted in the education system to reshape the current curriculum which places more emphasis on examinations.
- Other researchers should carry out comparative studies to find out if there are any differences and similarities in the implementation of correlation and integration of knowledge between urban and rural schools. This is likely to provide educators and policy makers with more evidence which might have been overlooked in this study.

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CONSTRAINTS AND ENABLERS OF ARTICULATION FROM FURTHER EDUCATION AND TRAINING COLLEGES TO UNIVERSITIES: PERCEPTIONS FROM SOUTH AFRICA

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Abstract

To help shed more light on issues of student access through the articulation route, the authors conducted a study aiming to determine South African higher education stakeholders' perceptions of articulation enablers and constrains from the Further Education and Training (FET) sector to university. Using a qualitative research design, four purposively selected key informants from some Eastern Cape Province higher education institutions informed the study through in-depth interviews. Data were qualitatively analysed to discern themes and patterns. Respondents agreed that there was blurred policy on issues of articulation from FET to university. Few respondents were aware of the South African Qualifications Authority's (SAQA) current career development pathways and initiatives that enhance such articulation. Apparently, students were not aware of various articulation routes available in South Africa. Hence, they suggested a need to mount training and awareness workshops and professional teacher development initiatives on articulation from FET to university. Curriculum mapping is also suggested as a means of establishing relevance, correspondence and equivalence between FET and university curricula.

Key words: Articulation, collaboration, Technical Vocational Education and Training, Curriculum Mapping, higher education

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1. INTRODUCTION

This paper is premised on the notion that students from historically disadvantaged backgrounds of a region of South Africa, like most South African learners confront issues of higher education access. The massification of higher education space and provision has witnessed invigorated interest in education and competition for university space by Matriculation graduates. Ex-Further Education Training (FET) (now called Technical and Vocational Education and Training Colleges - TVET) students wishing to

acquire a university qualification also compete with others for access. Moreover, on admission, students are confronted by academics ill-prepared to face educational transformational challenges such as articulation and access. Career guidance services in schools and universities have not helped matters in advising, particularly former FET/TVET graduates, on available enablers on vertical articulation into university. Moreover, little is documented on South African higher education stakeholders' perceptions of FET graduates' articulation constraints into higher education (Maringe, & Osman, 2016; Mayombe, 2017; Petersen, Kruss, McGrath, & Gastrow, 2016; Powell, & McGrath, 2013). It is with these issues in mind that the authors sort to shed light and add to the debates on higher education access and articulation using South Africa as a case in point.

2. BACKGROUND

The massification of education regarding increased space and provision has witnessed invigorated interest in education, as has the competition amongst Matriculation (Matric) graduates for available places in South African Higher Education Institutions (HEI) (CHE, 2016). This post-school education, just as secondary school education, is becoming a universal aspiration for the 'wandering scholars' (Steyn, 2009). Students from historically disadvantaged backgrounds confront issues of lack of access to Higher Education Institutions. On accessing such an education, students still confront issues of vertical and horizontal articulation. Moving from one Further Education and Training band to the next does not seem to be a smooth sailing affair for most students. While Rubie-Davies (2010) demonstrated that students' expectations of their teachers are in certain instances misaligned, the scenario is, in the authors' opinion, exacerbated by a misaligned system; that which does not seem to support the student that wishes to pursue further studies. As such, ex- Further Education Training (FET) College students wishing to acquire university qualifications also compete with these regular graduates for access. Initially, Matric students or graduates prefer to go straight into university. Matriculation is the last level of South Africa's high school students learning prior their entry into higher education (Napier & Makura, 2013). Paradoxically, FET Colleges, though cheaper, and having lower entry requirements, seem to be an unattractive destination, probably due to the non-degree programmes they offer.

Research actually shows that students move from one institution to another on their way to acquiring a degree (De los Santos & Sutton, 2012) especially from a FET to a university. This binary system appears to pose some challenges for the learner that wishes to progress within the higher education system. The Higher Education Qualifications Sub-Framework (HEQSF) system has elevated FET colleges into the Higher Education and Training (HET) band. However, the inclusion of FET Colleges in the HET band alongside the universities raises questions which have HEQSF alignment implications for FET colleges. The then existing binary system seemed to work against the aspirations of the students as each system worked independently. These institutional types had distinct mandates, academic cultures and governance differences that were not aligned. Carter, Coyle and Leslie (2011) propose credits

transfer and using learning outcomes that identify students' skills and knowledge. These outcomes would have to be pitched appropriately and aligned to the HEQSF if articulation is to be achieved. As such, non-degree work is perceived as less rigorous. The perception that FET College work is less onerous and rigorous resonates well with Jaschik's (2009) observation that there is an assumption that there is less rigour in College programmes. Matea (2013) advocates the establishment of formal skills development partnerships between colleges and the private sector to ease articulation and responsiveness issues.

On admission, university students are confronted by academics ill-prepared to face educational transformational challenges such as articulation and access. Such challenges manifest themselves in the quality of graduates from the various institutions. The ramifications of the above are noted by the DHET (2009) as confusion among the target group and difficulties in the recognition of achievements of students from different institutions constituting the FET College band. These problems are attributed to poor articulation between the HET and the FET bands, as well as the misalignment of the FET Colleges with both the school and the HET system. Career guidance services in schools and HEI have not helped matters in advising - particularly former FET graduates - on available enablers for possible vertical articulation into HEI. The DHET (2009) report laments about the lack of information and guidance for students who then must navigate their way through the education system and make decisions about work and higher education. Such students may not know, off hand, the articulation prior to them joining particular HEI programmes.

Little is documented on South African Higher Education stakeholders' perceptions of constraints faced by FET graduates when articulating into HE. Ng'ethe, Subotzky and Afeti (2008: xvii) view articulation as referring to "mechanisms that enable student mobility within and among the institutions that comprise the tertiary system." They go on to mention these as including academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, et cetera. The above authors articulate on the drivers and inhibitors of articulation. They mention these as (1) demand for access, (2) national policy, (3) internal governance structures, and (4) industry and the labour market. Another issue that has a bearing on the articulation of FET Colleges to universities concerns the "transition routes that are less clear" (DHET 2009:29). Most American and European universities have in place models or templates for the evaluation of articulation agreements or Memoranda of Understanding (MOUs) for subject areas and programmes (Hodge, Anderson, Kirsch, & Kelen, 2011; Lowe, 2010). Such models spell out the contents which articulation agreements between universities and colleges should contain. These include gaps between the curricula covered at each of the levels, redundancy in curriculum across the levels, gaps between what is taught and what is assessed, gaps in student performance expectations, teaching models, and grading structure (Paez, Byrnes, Blacker, Jackson, & Dwyer, 2011).

The overarching idea behind articulation is the seamless transition or progression for students across learning

outcomes, programmes, phases, and bands within the education system (Gultig, *et al* 2002; Petersen *et al* 2016). According to Scarborough (undated) articulation requires a system for co-operation in the planning, evaluation, and improvement of educational programmes. To this end, articulation agreements or links between TVET Colleges would enable the leverage of decision-making processes around selection and appropriate placement in the university (Watson, 2016). For these agreements to work, Nel (2013) suggests curriculum mapping as a methodology that would enable the design of articulation pathways in similar or associated fields of study between TVET Colleges and universities. The mapping exercise would accordingly enable the identification of strengths, gaps and overlaps in the curriculum; facilitate entry into, as well as credit towards a qualification; ensure clarity and transparency to all; enable the establishment of equivalence in terms of volume and complexity; and eliminate bias in the process of gaining access into the qualification. Paez, *et al* (2011) further suggest that mapping should be a "critical, non-negotiable and motivational basis for credit transfer agreements or arrangements". If the articulation agreements are to work, and a curriculum mapping exercise is to be embraced by both TVET Colleges and universities, an important model of articulation would evolve there where institutions collaborate.

3. Collaboration: A Theoretical Framework

The issue of collaboration in higher education is very important in assisting students articulate from one institution to another. To collaborate is to cooperate, aid, join, collude, concert, and concur or to get together. This coming together by organisations or a group of individuals can be for a positive purpose. Collaboration stems from a conscious endeavour by human beings to pursue an ideal regarded as an imperative in a social organisation (Kennedy, 2008). Subsequently, other social imperatives crop up, hence the need to address these as they arise. Collaboration is recognised as a cardinal aspect of teaching and research excellence. When people collaborate, they share a common goal. Collaboration in a higher education context is a must. Regrettably, universities for instance, confront multifaceted challenges that call for resolute responses from their ranks. This paper explains why collaboration between universities and TVET Colleges is an unavoidable imperative given the multiplicity of its perceived benefits to those students that wish to scale the academic heights.

Collaboration is not a new phenomenon (Solomon, Boud, Leontios, & Staron, 2001). The basis of collaboration is the family unit where the husband and wife cooperate to fend for their offspring. It is from this unit that the values of cooperative behaviours are inculcated. Consequently, the human self only exists in relationships to its surroundings and with other persons (van Rensburg, 2007). People are social beings and have a need to communicate and interact with other people (van Deventer & Kruger, 2005). Their desire to satisfy needs, such as Maslows' hierarchy of needs, is a great motivating factor in the formation of groups (van Rensburg, 2007) because these needs are interlinked. In a broader context, cooperation between countries in various fields of endeavour such as defence, culture, health, and so on, is not a

recent phenomenon and has been found to work (Bourgeois, 1949). Hence, people often hear of 'Memoranda of understanding' and 'Bilateral or multilateral agreements'. The need for social reforms has been found to promote collaboration (Tschannen-Moran, 2001).

In higher education, collaboration takes various forms. It could be between or among staff members, between institutions, staff-students, administration and the community at large. The purpose of collaboration in higher education is to create, share and disseminate knowledge and resources for the benefit of students, among other reasons. Researchers, for instance, create a means within which collaboration can occur (Tschannen-Moran, 2001) by networking on common areas of research interest and then publish articles from such groupings. Overly, collaboration is a term that has come to have very positive connotations (Solomon et al 2001). Some authors see these as the foundations of collaboration research (Barratt, 2004). Universities and Further Education Colleges seem to yearn for collaboration in order to present students with more articulation options.

However, collaboration has its own limitations too. Van Rensburg (2007) likens collaboration to communalism. The inverse is individualism, he contends. Both concepts are on a continuum and are perceived as desirable for society. Regrettably, the extreme positions are said to be undesirable (*v*an Rensburg, 2007:62). Extreme individualism leads to poor relationships and extreme communalism (collaboration) leads to a lack of personal accountability (van Rensburg, 2007). The propensity towards individualism stems from lack of trust between collaborators. This normally happens when collaboration ceases to benefit both parties and becomes a one sided affair whereby some participants just benefit without making any contributions to the issue at stake (reaping where one has not sown!). Barratt (2004) has argued that there is a fundamental lack of trust particularly among business partners. Beckett (2005) echoes this sentiment by positing that many people are keen to enter collaborations, but are concerned about issues of trust especially where the time to forge such a link is limited for the partners to learn about each other. They probably harbour ulterior motives or are bent on creating a parasitic relationship. Such issues were interrogated in seeking to explain the relationships between some HEI and FET colleges in the Eastern Cape region of South Africa. There is need to investigate such a link or trends since National governments the world over make budgetary allocations for academic endeavours at universities.

In order to achieve a seamless system, that enables articulation within institutions, there is need for "…the kind of collaboration that is intentional, self-forming, and based on values and goals, bringing together institutions, with limited competitive interaction…Collaboration necessitates thoughtful co-ordination to bring more value to each institution that is taken from each institution…" (Burns, Crow & Becker, 2015). Thus, TVET Colleges and universities should view themselves as equal partners that actively influence one another towards ensuring a smooth articulation. In this regard, collaboration is thought to be a useful theoretical lens that promises to reveal the perceptions around articulation arrangements. Through collaboration, well-meaning intentions of articulation

arrangements, which would not necessarily come out in articulation arrangements that are mandated by policy, with no meaningful goals and shared common values as the basis for their formation, would be flushed out.

4. METHOD

This study adopted a qualitative research design. Four key respondents (L1, L2, L3 and L4), one each from four conveniently selected institutions of Higher Learning (two HEI [XU and YU], and FET Colleges [AF and BF] respectively) in the Eastern Cape informed the study through in-depth interviews. The ethical protocols were outlined and adhered to hence the use of pseudonyms. Data were qualitatively analysed to discern themes and patterns, but guided by the research questions.

4.1. Objectives

- To determine Higher Education stakeholders' perceptions of articulation enablers and constraints for learners articulating from the FET sector into Higher Education Institutions.
- A secondary objective was to proffer solutions for the seemingly rocky route between FET and HEI, particularly in the South African context.

4.2. Research questions

- What perceptions are held by FET and HEI staff regarding the articulation of students from Further Education and Training Colleges to University?
- How can institutions enhance student articulation from FET Colleges to Universities?

5. RESULTS

5.1. Perceptions Held by FET and HEI Staff Regarding Articulation

Interview data from the four respondents showed congruency of opinion on certain aspects of articulation. With regards to policy, an official (L1) at a FET college (AF) revealed that there was no articulation policy she was aware of. She observed that FET colleges occupied a low status within the education sector. As such, most high school graduates aspired to go straight to university.

Most candidates distasted the vocational nature of FETs and went to them as a last resort. Officer L1 revealed that there had been on-going talks to find an articulation formula since about 2004. The respondent noted that articulating within the FET was possible. After acquiring the National Certificate in Vocational Studies (NCV) pegged at NQF 4, the graduate could move upwards. Respondent L2 based at institution BF revealed that most of their students at the institution enrolled for the three-year NCV (Matric equivalent). As such, universities were reportedly reluctant to take NCV graduates because the qualification was equal to Matric. Respondent L2 disclosed that the Nelson Mandela Metropolitan University enrolled ex-FET graduates wishing to pursue an Agricultural diploma, but did not give full credit to prior learning. The respondents agreed that students face articulation challenges [stemming from a blurred policy issues on articulation from FET to Higher Education institutions].

Respective tertiary institutions in the Eastern Cape Province of South Africa are reportedly having localised articulation agreements with sister institutions. The respondents revealed an apparent lack of awareness about policy provisions on articulation from FETs to HEIs, despite the availability of policy on this matter, particularly, those for the NCV and N4-N6 qualifications. The L4 respondent from the XU University revealed that FET bridging programmes that have no articulation considerations compound the factor of articulation between FETs and HEIs. The L2 official from AF also revealed that articulation agreements that are not formalised and reduced in writing, but are "gentlemen's agreements" between the FET College lecturers concerned and co-ordinators of programmes in the universities concerned are problematic if a student wants to articulate to a programme in a university that has no articulation agreement with the FET College. Results show that respondents are agreed that there is competition for places at FETs and Universities. Respondent L3 and L4 opined that most ex-Matric graduates prefer taking the university route though this desire is regulated by one's performance. "*With the rise in the Matric pass rate, we see a graduate fight for limited places in universities"* said L3. The articulation route available for those taking the FET route was blurred according to the respondents.

5.2. How institutions can enhance student articulation from FET colleges to universities

Related to the above finding is the issue of some colleges forming partnerships with universities. These partnerships are as a result of negotiations among the partnering institutions and, in most cases, consideration is not given to substantive articulation issues such as the alignment, scope, depth, relevance and rigour of outcomes. The authors believe that the formalisation of agreements through MOUs and collaborations between institutions at programme and course levels would help dispel the perceptions that FET college programmes are less rigorous and pitched inappropriately. The apparent lack or absence of articulation in the form of specifications on the admission requirements for National Certificates (NCs) or National Technical Certificates (NTCs) in the university programmes in most university faculty prospectuses, calendars, or career information, and student academic advisory services constrains articulation in that university admissions personnel have no reference point when confronted with applicants from the FET Colleges.

The other articulation issue revealed concerned the crediting of students with FET College qualifications. In some instances, universities apply the recognition of prior learning (RPL) policy and "blanket credit" students for one semester, in some instances a year, particularly those with NQF level 6 qualifications. Respondent L3 revealed that in some instances, the students with FET College credits or qualifications are not credited at all. They simply gain admission into the university programmes despite having spent a year or two of post-matriculation studies. This is where the lamentation of FET college graduates is grounded. Almost all of the respondents concurred that they were not aware of the DHET (Department of Higher Education and Training) and SAQA (South African Qualifications Authority) current Career

Advice Services' initiative that could potentially enhance such articulation. As indicated above, the articulation routes available to the ex-FET graduands are not uniform. Some university students do foundation provisioning, whereas other FET College students are admitted into mainstream qualifications. Such admissions and registration guidelines for admitted students in the mainstream courses in the university programmes are based on one's Matric certificate (and not on an FET qualification).

The respondents revealed that there were *ad hoc* career guidance efforts by FETs and HEIs and lack of focus on articulation issues in most career guidance programmes. Respondent L1 professed ignorance of the existence of structured career guidance efforts at his institution (XU). "*I am not sure if our career development marketing during our career week cover issues of articulation"*. Two other respondents, L3 and L4 indicated that they were unaware of institutional-based articulation efforts. Said L3 "*If these exist, I am not sure if they are well coordinated*". Respondents suggested a need to organise training and awareness workshops, and professional teacher development initiatives, focussing on advice towards articulation from FET Colleges to Higher Education Institutions. By constantly reviewing and aligning institutional policies that promote articulation it is assumed that this would facilitate articulation in developing contexts such as South Africa and elsewhere.

6. DISCUSSION

Our results reveal localised but congruent narratives saturated with unique perceptions regarding articulation from technical colleges to university. Interview data showed convergence of opinion on certain aspects of articulation. Data revealed that no articulation policy was in place in some of the colleges. Powel and McGrath (2013) have advocated a need for such policies in higher education institutions. The respondents recognised the existence of articulation challenges faced by students, ostensibly from blurred policy-related issues. Hence Maringe and Osman's (2016) contention that transformation has not been fully embraced with the South African education policy framework. Some participants observed that FET colleges occupied a low status within the education sector. As such, most high school graduates aspired to go straight to university, where completion was stiff. Some universities were reportedly reluctant to take NCV graduates arguing that the qualification was equivalent to Matric. Bridging programmes were instituted to ease the articulation from FETs and HEIs and help dispel the negative perceptions held by employers especially in the private sector (Matea, 2013). Most respondents concurred that they were not aware of the DHET and SAQA current Career Advice Services' initiative that could potentially enhance such articulation.

On the issue regarding how institutions could enhance student articulation from FET colleges to universities, the study participants suggested the creation and formalisation of partnerships with universities. This could be through MOUs and collaborations between institutions at programme- and course levels (Mayombe, 2017). This would also help dispel the notions that FET college programmes are less rigorous

and pitched inappropriately. The study also revealed that articulation could be eased through crediting students with FET/TVET College qualifications for those with appropriate qualifications. Participants conceded that institutions had in place *ad hoc* career guidance programmes, though these lacked focus on articulation issues. They suggested that institutions needed to organise training and awareness workshops, and professional teacher development initiatives, focussing on advice towards articulation from FET Colleges to Higher Education Institutions. By constantly reviewing and aligning institutional policies (Maringe & Osman, 2016) that promote articulation it was assumed that this would facilitate articulation in developing contexts such as South Africa and similar areas. This is where the Collaborative model of articulation advocated by Kennedy (2008) comes in handy. In crafting such policy, educational administrators should avoid the temptation of what Bush (2014) calls "policy borrowing", especially adopting Western models that are unsuitable particularly in African contexts. And, as Kennedy (2008) says, "there is no formula for successful collaboration, but success should be defined in terms of the original intent of the collaboration".

7. CONCLUSION

On careful analysis of the findings, the paper concluded that perceptions about the rigour and the relevance of FET College programmes impedes articulation into the university programme and that conscious effort needs to go into sorting out the perceived misalignments between FET College and university programmes. There is a lack of awareness (among HEI academics) about the National policy on the admission of NCVs and NTC students into the university programmes. Academics appear to hold blurred notions about the articulation routes within and between institutions. Career advisory centres/units do not necessarily extend their services to include articulation advice to both prospective students and admissions and registrations personnel. Such career efforts are ad hoc and do not appear to address articulation issues per se.

There is a lack of cooperation between the Universities and the FET Colleges on articulation issues, and hence the need for collaboration on substantive issues of alignment of programmes and articulation. Current institutional arrangements are not binding to similar institutions. There is implied 'non-cooperation' due to the absence of clear policies. The authors also concluded that issues of articulation need to be attended to holistically in respective institutions. This necessitates a collaborative arrangement between all the entities concerned such as admissions, registrations, academic development, career counselling, and the RPL units. The need to have a clear and common articulation policy that addresses articulation process at local and National level was felt. Such a National policy would offer guidelines on how to attend to articulation issues and help institutions take cues in the formulation of their institutional articulation policies.

8. RECOMMENDATIONS

The universities' admission policies and registration guidelines need to be strengthened and updated to include FET/TVET College qualifications, exit points and their university equivalences in the university programmes. Curriculum mapping should be adopted as a means of

establishing relevance, correspondence, and equivalence between FET and university programmes. Spelling out these articulation pathways would enable students who study FET College programmes to focus and energise their efforts and study with a view to articulating into the University programmes. On the issue of strengthening career guidance at institutions, it is recommended that the career counselling units should offer advice on articulation matters not only to FET College students who aspire to study university programmes, but also, to admissions and registration personnel so that FET College students not only access but also that they are placed appropriately in the university programmes. Collaboration on articulation issues between units within the university such as career counselling, admissions, registrations, academic development centres, and the RPL units need to be encouraged. This would ensure that articulation issues and their implication access and success are looked at holistically by all parties involved. These need to work together and with other institutions for the benefit of all students.

Moreover, collaborations between the Universities and the FET College registrars on articulation matters need to be promoted, and that articulation agreements between these institutions need to be formalised through Memoranda of Understanding (MOU) and formalised agreements at institutional and programmes levels. In this way issues of alignment, relevance, and rigour of outcomes could be attended to and programme levels shared so that articulation could be enabled. As such, universities and colleges need to work with SAQA and other stakeholders in coming up with formal policies and arrangement that have legal clout.

This paper, therefore, implores institutions to engage in collaborative activities particularly on articulation in order to increase throughput rates. This paper proposes a collaboration model among HEIs if they are to justify the promulgation of policy and their social existence. Such policy on collaboration should be rooted in the South African educational context. The paper, therefore, challenges institutions of higher education to vigorously engage in collaborative initiatives and practices that are desirable and beneficial to the masses.

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THE EFFECT OF A DISTANCE EDUCATION TEACHER TRAINING PROGRAMME ON THE PERFORMANCE OF TEACHERS OF NOMADIC LEARNERS

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Abstract

The study addresses the question:

> What effect does a distance education teachers' training programme have on teacher discourse effectiveness in the classroom?

This is with reference to classroom situations in nomadic communities of the Basarwa in Botswana. The Zimbabwe study, based on the pretest-posttest control group design, focused on the enhancement of oracy to achieve cognitive intentions. Results were analysed quantitatively and qualitatively to determine the extent of teacher dominance, teacher effectiveness, and learner initiative regarding the use of discourse. Comparison of pre-intervention and post-intervention discourse practices led to the conclusion that teachers who participated in the intervention programme dominate interaction less and choose more effective discourse to promote learning. In turn, learners show a higher degree of initiative than their counterparts. Some of the recommendations are that an in-service course taking into account the culture and language of the Basarwa should be designed and offered as a way of enhancing teacher discourse and increased learner participation in the learning situation.

Key words: Nomadic communities, interaction, constant migration, marginalise, construction of knowledge

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1. INTRODUCTION

Learners from disadvantaged communities are in a plight regarding accessing of education as well as benefiting from attending classes. In the broader sense, disadvantaged learners are those separated by extensive distances from service centres and those commonly referred to as nomadic populations. According to Professor Tahir (2006) nomadic communities have no fixed home, and their movement is necessitated by culture and economic demands such as hunting and gathering, cattle rearing and fishing. It is estimated that nomads in Africa constitute about 6% of the total population, and are to be found in 20 African countries.

Without exception, all governments share a common goal regarding the education of nomadic communities. The goal is to integrate them into national life through relevant education, and thus increase survival skills through improved methods and practices. In one form or the other, the communities in question display

certain characteristics that we readily associate with nomadism, and these include:

- Constant migration,
- Geographical isolation,
- Restricted social interaction with the larger society,
- Language differences, and
- Cultural differences.

Basing his argument on the above-mentioned characteristics, Tshireletso (2001) identifies some of the negative behaviours of learners from the Basarwa communities of Botswana. Traditionally, these are hunter-gatherers, and as will be explained later, are being encouraged to adopt a sedentary type of life. It is reported that the children desert school; see nothing wrong with absenteeism; do not communicate freely in class and prefer to be silent; are slow to learn; do not know certain ideas and concepts; and want to talk in a language that the teachers do not understand.

Clearly, there is a problem, which has to do with learners who fail to learn and teachers who fail to teach. My assumption is that teachers fail to teach because they do not know how to handle the situation mainly because pre-service teacher training does not deal with the pedagogy of nomadic learners. More than enough has been said about the negative behaviours of learners, the poor implementation of national policies to deal with such learners, and how marginalised these populations are. It is now time to examine how best the facilitators or teachers can be prepared to teach more competently under nomadic circumstances.

I, therefore, hypothesise that systematic intervention can equip classroom practitioners to address the main problems. I have in mind the offering of an in-service course for teachers through distance education. It is assumed the language course will have some positive influence on teacher performance, and in turn on learner capacity to benefit from the curriculum. On the basis of the assumption about the potential of interacting more systematically, the following question guided the investigation:

> What effect does a distance education teacher-training programme have on teacher effectiveness in the classroom?

A brief theoretical background will be given to shed light on the research environment in which the present study was conducted.

2. IDEAS ABOUT CLASSROOM INTERACTION

Teachers and facilitators are at the heart of the teaching profession, and the quality of education imparted is dependent on the quality of training they receive. With particular reference to disadvantaged classes, a non-antagonistic understanding of the culture of nomads and their language plays an important role in retaining children in school.

Classroom interaction is conceptualised as the way teachers and learners negotiate learning during the teaching-learning process. Interaction theory recognises that comprehensible input and appropriately contextualised

second language data are necessary for learning to occur (cf. Krashen, 1982; Long, 1990). Thus, focusing the attention of classroom practitioners on ideas about teacher talk is expected to enhance teacher-learner interaction. It is assumed that teachers exposed to such ideas will be able to see their language responsibilities in a new light, and interact from a position of linguistic enlightenment. Ellis (1986, p. 12-13) is of the opinion that when the teacher consciously selects the language of instruction, this can go a long way towards promoting active learner participation. A further elaboration of language and learning is offered by Al-Garawi (2005) who observes that learning a language in the classroom is a consequence of the exposure of the learner to the linguistic environment manifested in the interaction between the participants in that context. It is noteworthy that such interaction will be across the different subjects that use English as the medium of communication.

Active learner participation entails the acquiring of knowledge from school subjects during the process of interaction, and knowledge is acquired through the teacher's linguistic influence in the process. This makes constructivist theory relevant to the study. The theory posits that knowledge is socially constructed, meaning that learning is a process that involves dialogue as a joint activity. Collaboration is mediated through language in which the teacher provides support to the learners so that they can eventually stand on their own. For that reason, Mercer (2004, p.139) observes that "educational success or failure may be explained by the quality of dialogue, rather than simply in terms of the capability of individual students or the skill of their teachers". It is on the basis of this view that in any pedagogic situation, it is accepted that the construction of knowledge is a guided activity. The origins of this sociocultural view repose in the work of Vygotsky (e.g. 1978), which treats communication and thinking as related interactive processes leading to the learner's self-regulation. Put differently, the teacher's language, in the form of questions, clues, prompts, and clarification requests, helps in the achievement of insights that learners by themselves seem incapable of (www.funderstanding.com/theory/constructivism/).

Bruner (1986) has referred to this support as a kind of scaffolding, described as a particular quality of cognitive support that an adult can provide through dialogue so that the child can more easily make sense of a difficult task within a given cultural context. Constructivist theory thus postulates that vicarious consciousness provided by the adult is essential in the acquisition of curricular knowledge. In that respect, classroom discourse will, in the words of Mercer (1995, p. 79), "be used to carry out the social and intellectual life" of the classroom as a speech community. This view is corroborated by Pea (2009). Teachers, therefore, need to be trained that classroom language follows specific conventions in order to achieve specific goals, one of them being to make learners more interested and more involved in the learning agenda (cf. Council of Europe, 2001).

Systematic language input by the teacher, necessarily eventuates in systematic language output by learners. Teacher input motivates free expression of views, opinions and perceptions of a given topic (Taylor, 2006). Canale and Swain (1980) have referred to this as communicative competence, described as linguistic ability to produce or understand utterances that are appropriate to the context in which they are made. Communicative competence, according to (Finlay, Tsou, & Sugimoto (2015), the dynamic nature of communicative competence has produced a need to create a clear position on what more effective discourse entails.

These theoretical ideas from the field of applied linguistics are foundational to the present study mainly because they are facilitative of the crucial discussion of how best to retain learners from disadvantaged communities, whose learning is often disrupted by constant migration, geographical isolation, restricted social interaction, language and cultural differences. The ideas support the important effort of maximising classroom engagements, for it is in the classroom that the purpose of coming to school is consummated. These theories underpin procedures for the present study, and as Spolsky (1990, p. 4) puts it, "the effectiveness of practice depends on relevant theory; the relevance of theory depends on effective practice".

3. THE RESEARCH DESIGN

A study was conducted in Zimbabwe to establish the effects of an intervention programme aimed at upgrading teaching skills, especially teacher competence in the discourse of learning. The programme was taught by distance for already qualified teachers who had a lower qualification, and operating at secondary school level. The primary focus of the study was on classroom oracy, best described as optimum structuring of interaction to maximise learning (cf. Modesto, 2000). Tshireletso (2001, p. 177) in his argumentation observes that systematic structuring of classroom interactions could empower the Basarwa children to process knowledge more autonomously. However, he found it difficult to specify the effectiveness of the approach since, at the time of his investigation, "research was rather scanty particularly in the African context". It is fortunate that research in the area is steadily gathering strength (cf. the study conducted in Botswana by Kasule and McDonald, 2006 and Modesto, 2007).

The results of the more extensive study in Zimbabwe were published in 2008 (cf. Modesto, 2008). The study captured typical classroom interaction between teachers who were doing the course by distance and learners under their care in conventional classrooms. It is a defensible argument that the principles of effective interaction are universal and apply to any situation where interactants have the negotiation of learning as the objective. Due acknowledgement is made for contextual differences, the age of learners, and the level of teaching and learning in any given situation. Upon that rationalisation, it is assumed that

the findings of the study will be applicable to disadvantaged classrooms such as those for nomadic populations. In short, the present study is structured as follows:

- There will be a brief description of the context where ideas from the study ought to be applied. The context is the Kalagadi area of Botswana with specific reference to classrooms for Basarwa.
- Procedures of how the study was conducted in Zimbabwe will be outlined.
- The findings of that study will be discussed.
- Implications of the findings regarding the Basarwa classrooms will be presented
- The article will conclude with a discussion in which the potential applicability of findings from the study is shared

4. THE APPLICATION CONTEXT

The findings will be applied to schools for the Basarwa community. They are also known as the San. Basarwa are an ethnic minority in Botswana, and according to Wilmsen (cited in Nthomang, 1999, p. 54) "it is generally believed that they have from time immemorial lived a predominantly nomadic mode of life centring on hunting and gathering". They are referred to as remote area dwellers (RADs), a label which identifies the group by its socio-economic conditions.

The government of Botswana has introduced RAD settlements to bring the bands of hunter-gatherers together into one geographical location where they can have access to facilities such as schools, clinics, tribal administration offices and fresh reticulated water. The RAD settlements are, therefore, "a transitional phase of the Basarwa from the nomadic hunter-gatherer lifestyle to sedentary living" Tshireletso (2001, p. 170). This development makes the life of the population semi-nomadic, a fact, which renders the present study feasible because there are schools established to especially cater for the children. Of immediate interest are the attitudes held by parents towards the education of their children. Tshireletso (2001) reports that some parents view the school as a place where the young can have a meal, and are less concerned about their children's attendance. On the other hand, parents and children alike have also expressed enthusiasm for school because it prepares them for a good future after learning how to read and write. This positive attitude is influenced by developments they see happening among the dominant Tswana populations they interact with. For that reason, it is worthwhile capitalising on the positive attitude when training facilitators.

At the same time, language remains a barrier to performance and progress for Basarwa children in school. They have to learn Setswana, the medium of communication, and English, the language of the classroom. For the learners, Setswana becomes their second language, while English is

their third language. Against this background, teachers bring into the classroom their own cultural views of teaching and learning, mainly because the teachers are from the dominant ethnic groups of Botswana. Inevitably, teaching becomes teacher centred, with less regard for the learners' background, especially with reference to language and culture. The situation is further compounded by a curriculum that is divorced from the culture. Problems of communication take centre stage with numerous barriers resulting in conflicting expectations, where meaningful learning, involving concept formation and situating knowledge in the cultural context become problematic. This, inevitably, leads to the high rate of attrition. Notwithstanding the semi-nomadic lifestyle, nomadic tendencies still persist.

In the classroom the question of power assigns unequal conversational strengths between the interactants. Conversations reveal the power of the teacher in determining what knowledge to teach, and how to teach it. Typically, transmission of information while learners are expected to simply listen is a familiar feature. Allocation of turns to speak and arbitration of what answers are correct or wrong repose with the teacher. Research has shown a culture of silence on the part of the learners (e.g. Tshireletso, 2001). At the same time teachers have developed a high level of frustration, not knowing how best to involve learners, to make them contribute to class discussion, and to make them interact without coercion.

It is this state of affairs that needs to be addressed systematically from a more informed position of how language can be used to make learners think and be productive, rather than to make them parrot and reproduce what teachers say. The aspect of language focused on in the present study is oracy as verbal interaction when the teacher and learners engage together in an episode of learning.

5. RESEARCH CONSTRUCTS

Three constructs were tested, namely, teacher dominance, teacher effectiveness, and learner initiative.

Presuming that the welfare of learners is taken care of regarding physical comfort, food, clothing, and transport to school, it is important for the teacher to handle classroom interaction and the discourse of learning more systematically. Where this occurs, learners will see purpose in learning, thus reducing absenteeism and withdrawal. The teacher is expected to be less dominant and allow learners to take more control of the learning event. It is, therefore, argued that enhancement of teacher discourse, with special focus on interaction, will impact positively on learner initiative.

Discourse effectiveness is directly linked with reduction of teacher dominance during interaction. Dominance refers to the situation where the teacher talks more than he/she should within a given lesson. It is a feature of classroom interaction characterised by the lack of shared aims between the teacher and learners (cf. Fisher, 1996), and failure to appreciate the culture of learners. Teachers are said to be dominant when

they use discourse that is marked by the transmission of content at the expense of meaning and form. For most of the time teachers ask polar and display questions with answers in mind, and on their part learners are expected to listen or give short formulaic answers in the same words used by the teacher. Characteristically, therefore, interlocutors rarely build on the talk of previous speakers. With regard to quantitative operationalisation, dominance can be measured in terms of the proportion of teacher discourse acts to those of learners.

Effectiveness, on the other hand, refers to the conscious choice of language that enables the discourse participants to achieve learning goals. It is manifested through the way teachers select language to negotiate learning. One of the features of effectiveness is comprehensibility of teacher input in which clarifications are sought through the use of open-ended questions (cf. Cullen, 1998). With regard to quantitative operationalisation, as will be elucidated later, effectiveness is measured in terms of the proportion of certain discourse acts, used by the teacher.

Initiative refers to the willingness of learners to participate in the classroom discourse. Quantitatively, it is measured in terms of the frequency of specific turn types and discourse acts. Typically, initiative can be measured by counting the number of times learners bid to respond to teacher elicits, as well as how often they self-select (cf. Van Lier, 1988). Learners who show initiative tend to participate more actively, and this will be tested in terms also of the proportion of certain discourse acts they use. These include extensions, clarifications, and counter-informs. In as far as quantification is concerned, initiative is, therefore, defined in terms of a subset of the discourse acts used by learners including those that do not reveal particular initiative.

Two variables around which operationalisation of the three constructs is centred are the intervention programme (the independent variable) that was aimed at causing changes in the discourse behaviour of teachers and, concomitantly, that of learners (the dependent variable). I was cognisant of the fact that there are other factors that could have a moderating effect on the discourse behaviour, and these include maturation and history, but steps were taken to control them by using the pretest-posttest control group design.

6. METHOD

A number of procedures were followed, starting with the *pre-intervention* stage, which involved sampling of participants and deciding on subject grouping. This was followed by the *preparation* stage. It involved contacting school heads and in-service teachers participating in the course. *Pretesting*, which was the next stage involved recording two lessons for each one of the teachers in the experimental and control groups. The *intervention* stage was the next one during which course tutors discussed content from the course modules with in-service teachers. The *interim testing*

stage focused on recording the four lessons taught by each teacher (one after each module). Finally, the *posttesting* stage involved recording of the lesson taught after the final examination. Altogether a total of 40 lessons was transcribed and analysed qualitatively. For statistical purposes only the nine pretest lessons, and nine posttest lessons were considered for analysis.

6.1. The participants

The sample was made up of the experimental and the control groups. The discourse of these two was recorded and assessed before intervention (the pretest), and after intervention (posttest). The assessment measures derived from an analytical framework specifically developed to test the hypotheses so as to establish the presence of dominance or the lack of it; the effectiveness of discourse; and evidence of learner initiative.

From the two groups, the control group comprised one teacher of English, one of Geography and one of Mathematics and their classes, while the experimental group comprised two teachers of each of these subjects and their classes. A total of nine teachers participated in the experiment. All teachers taught classes doing first year of high school (Form One) during the first term. The groups are said to be non-equivalent because the classes had differing numbers of learners. There were no changes in the composition of classes for the duration of the experiment. The groups thus remained intact.

For each teacher, two lessons were recorded at the pre-intervention stage. The intention was to establish whether there was any initial equivalence in the patterns of discourse used by the two groups, as well as to determine the proportion of discourse acts used by teachers compared to that by learners. Four lessons were recorded during intervention (interim tests), and one at post-intervention stage over a period of nine months.

The teachers were supposed to be practising in high school with a minimum of five years' teaching experience. Only certificate holders were selected so that after undergoing the in-service training they would receive a higher award, the Diploma in Classroom Text and Discourse. This would be an incentive for doing the course as it led to professional recognition that attracted two additional salary notches.

There are 10 administrative regions in Zimbabwe's education system. For the in-service course, taught by distance education mode, each region enrolled 50 participants, giving a total of 500 in-service trainees countrywide. It was not feasible to identify research subjects randomly given the daunting geographical distribution of schools. Random sampling was, therefore, ruled out.

I, therefore, opted for purposive case study sampling. In this research, the term case study is used to refer to a detailed account of the development of a small group of individual teachers (cases) over a period of nine months. Purposive sampling refers to the identification of participants on grounds of convenience and participant accessibility.

For purposes of identification, reference and analysis of lesson transcripts, the teachers are referred to as T1 and T2 for each subject (as shown below). For example, Mathematics T1 simply means the first Mathematics teacher, and Mathematics T2 means the second Mathematics teacher:

Mathematics – T1 and T2
Geography – T1 and T2
English – T1 and T2

Three teachers (control group), as opposed to six in the experimental group, were identified to teach the selected three high school subjects. These teachers were not exposed to the intervention programme, and identified as follows:

Mathematics – (C)
Geography – (C)
English – (C)

In this case (C) stands for 'control' lesson.

The rationale for having two groups was to control for history and maturation, thereby enhancing reliability and validity.

6.2. Hypotheses testing

Three constructs were tested, namely, dominance, effectiveness and initiative.

6.3. Testing for dominance

One of the hypotheses tested was:

Teachers who participate in the course will dominate discourse less than teachers who do not.

In their discourse analytical account of classroom interaction, Sinclair and Coulthard (1975) highlight the turn-taking pattern of moves that has come to be known as Initiation- Response-Feedback (I-R-F). On the basis of this pattern, they describe the speech act as the smallest functional unit of interaction. The pattern implies that the teacher talks for two-thirds of the time when interaction takes place around a given topic. My study, therefore, sought to determine the extent to which exposure to the intervention course resulted in reduced dominance if the I-R-F pattern remained largely in place. Testing involved comparison of the proportion of teachers' versus learners' discourse acts before and after intervention. Basically, quantities of discourse acts were objectified as a reliable measure of dominance.

Dominance is a feature of classroom interaction in which the teacher affords limited opportunities for self-expression, and is characterised by the prevalence of extensions, question tags, polar interrogatives and display questions. The comparison of the proportion of the acts was made using the chi-square statistical test. Fifteen minutes of oral interaction for a given lesson were recorded to ensure reliability and validity of the results. It was assumed that the lower the proportion of discourse acts by learners, the more dominant the teacher was.

7. RESULTS

The following results were obtained regarding dominance

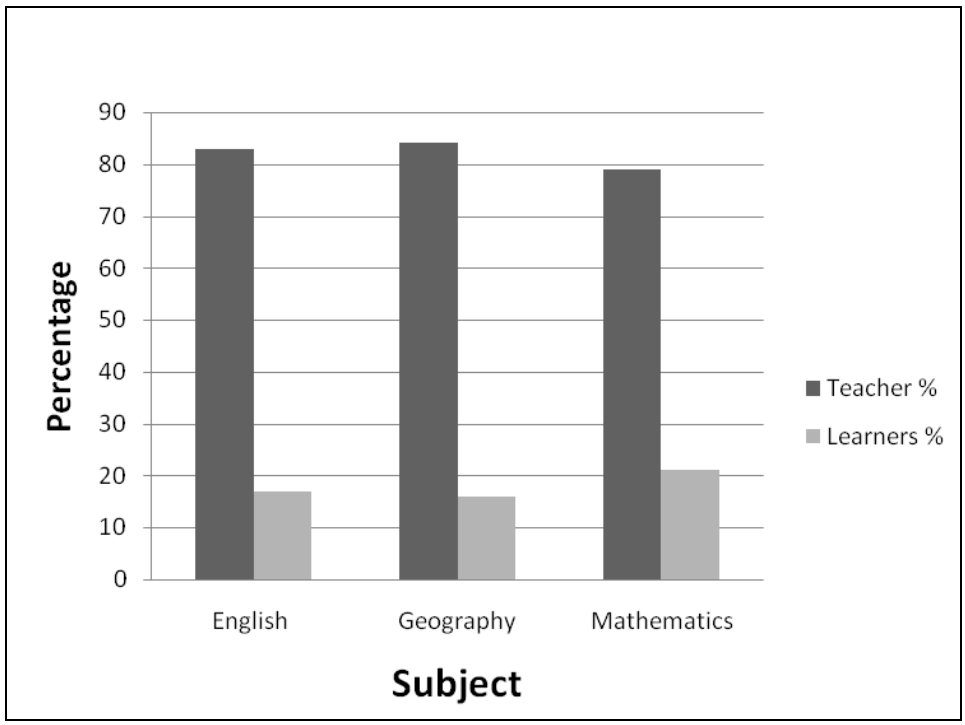

Figure 1: Dominance measures – control group (pretes)

It is clear that the proportion of teacher discourse acts in each of the three subjects is much higher than the two-thirds to one-third ratio established by Flanders (1970), with the Geography (C) lesson, for example, having the highest teacher-learner proportion of 84% to 16% respectively.

The performance of the experimental group at pretest shows a close similarity with that of the control group. The Geography (T1) lesson has by far the highest teacher dominance level at 89% to 11% as illustrated in Figure 2.

For both groups the ratio of teacher discourse acts compared to that of learners is much higher. This shows that before teachers from the experimental group were exposed to the intervention course their discourse performance was comparable to that of teachers from the control group, hence there was initial equivalence.

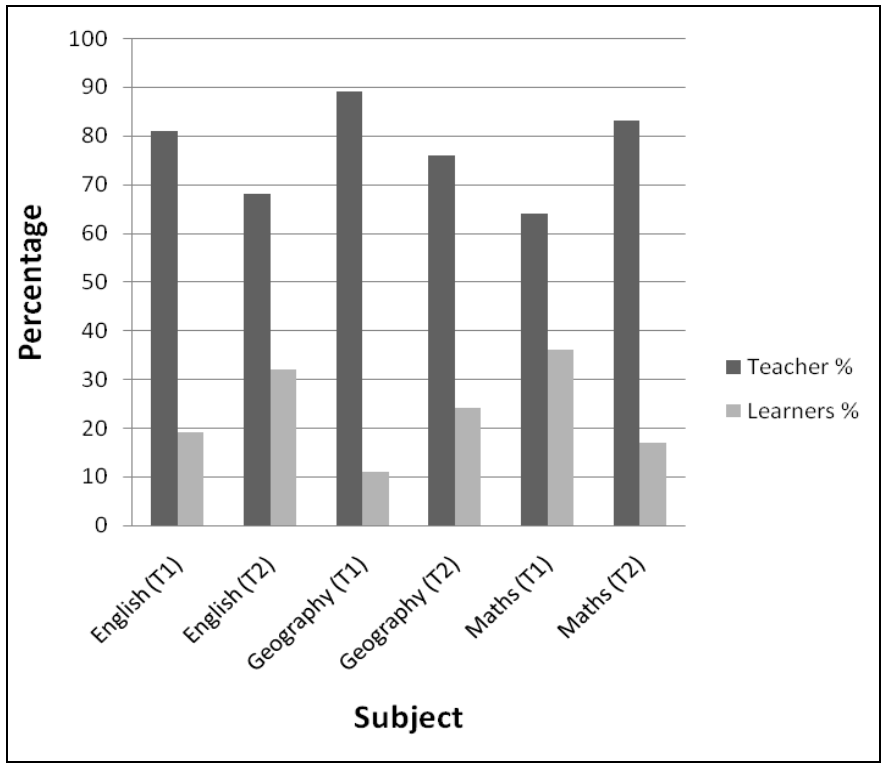

Figure 2: Dominance measures – experimental group (pretest)

At posttest there was no significant change in the level of dominance by teachers from the control group. With reference to control group teachers (English (C), Maths (C) and Geography (C) the proportion of teachers' discourse acts was much higher than that of learners, and remained unchanged at both research stages. For example, in the pretest, Geography (C) teacher accounts for 84% of the discourse acts, and learners for only 16%. The ratio of the posttest is even higher, at 95%, showing that teachers continued to dominate interaction. This is illustrated in Figure 3 where the other two results show an equally high level of teacher dominance.

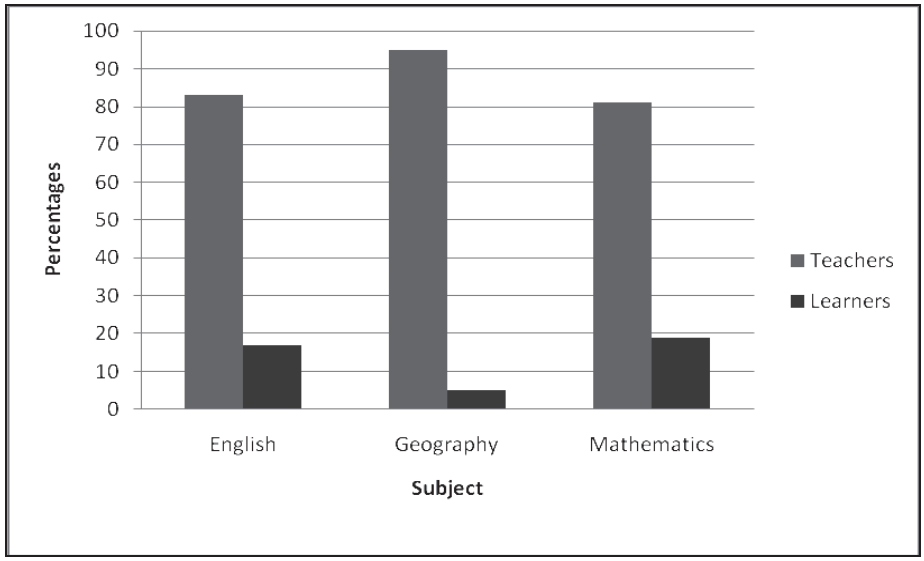

Figure 3: Dominance measures – control group (posttest)

For the experimental group, the statistics show a different trend. In the pretest, the proportion of discourse acts by teachers is higher than that of learners. However, there is a significant reduction of acts in posttest lessons as in Geography (T2) where the ratio is 76%: 24% (pretest), and 49%: 51% (posttest). The one exception, however is the English (T2), which has remained high at 77% discourse acts for teachers compared to 23% for learners. This variation shows that there are exceptions regarding the amount of teacher discourse. It varies from lesson to lesson depending on a number of factors. One such factor is the objective of the lesson, and what role the teacher should play to ensure that intervention produces the desired results. Figure 10 illustrates the teacher-learner discourse proportions at posttest.

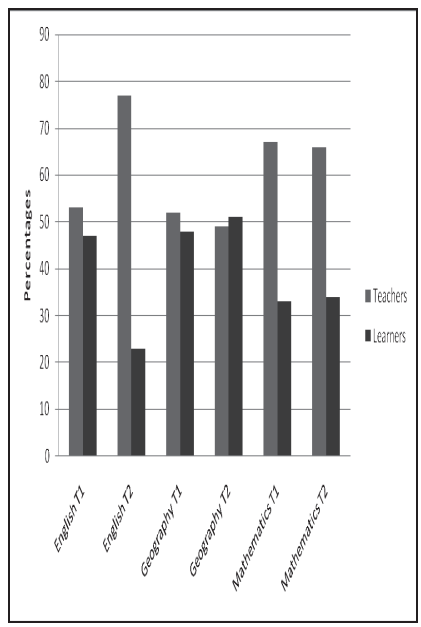

Figure 4: Dominance measures – experimental group (posttest)

The teacher dominance hypothesis, like the other hypotheses, was tested statistically by way of Chi-square tests (source: *Vassarstats*: *Web site for statistical computation at* http://faculty.vassar.edu/lowry/VassarStats.html). Here, the tests compared the pretest and posttest totals of the set of teacher discourse acts identified relative to the learner discourse acts in each group. The result for the control group confirmed that there was no significant difference between the two stages. Statistically, where the value for Chi-square is 1.13, and so at 1 degree of freedom the significance level (p) is 0.2878, which is far too high for the required significance threshold of $p \leq 0.05$. The result for the experimental group, on the other hand, revealed a very significant difference between the pretest and posttest. Statistically, this indicates a value for Chi-square of 33.92, and so at 1 degree of freedom the significance level is $p < 0.0001$, well below the significance level required. In combination, given also the broad equivalence of the control and experimental groups prior to intervention, the two statistical tests thus provide strong support for the dominance hypothesis.

It is worth noting that a decrease in the quantities of discourse acts does not necessarily mean that teachers used more effective discourse. The decrease, however, implies a higher level of awareness of oracy principles. Thus, for teachers to be less dominant it is necessary for them to develop explicit knowledge of the language of teaching and learning, and Rutherford (1987) has referred to this as input enhancement.

7.1. Testing for teacher effectiveness

One of the interaction hypotheses to be tested was:

Teachers who participate in the in-service course will be more effective in making better use of discourse to promote learning than teachers who do not participate in the course.

Effectiveness is a construct involving the conscious selection by the teacher of language to achieve learning goals in terms of the following discourse acts:

Clarification requests, used to call on learners to explain their points; referential questions, which are asked without specific answers in mind; evaluations, used positive feedback that spurs learners to speak on; prompts, which are used by the teacher to encourage more contribution; clues, which are hints given to help the learner to speak on; and instructional pauses, which are momentary silences to afford the learner time to think before giving a response. These acts were then used to measure teacher discourse effectiveness.

7.1.1. Results

When comparison of the use of the more effective categories by the two groups at pretest stage was made, it was clear that there was limited use

of such acts. For example, from Geography lessons (Geography (C) and Geography (T1) pretest), the percentages of effective discourse (defined here in terms of the occurrence of the six acts) in the 15-minute interaction time, is 12% and 7% respectively. However, for the posttest, there is a marked difference between the discourse performance of the two. Geography (C) makes use of 0% of effective discourse, while Geography (T1) shows a jump from 7% to 33%. More generally, it appears from scrutiny of the frequencies for other lessons that teachers belonging to the control group consistently used less effective discourse at both stages, while the opposite is true for members of the experimental group.

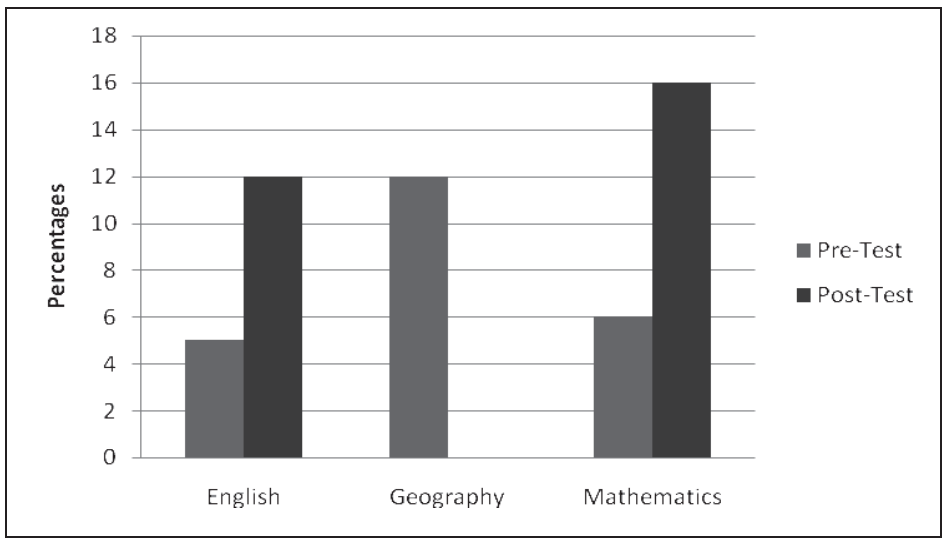

Figure 5: Effectiveness measures – control group

Figure 6 illustrates the performance of teachers from the experimental group in terms of effectiveness measures. It will be clear from the statistics that those teachers who had exposure to the in-service course showed some consistency in the selection and use of more effective discourse. This is the exact opposite of their counterparts in the control group. In a sense, therefore, the results show that the course on classroom text and discourse has some effect on teacher discourse.

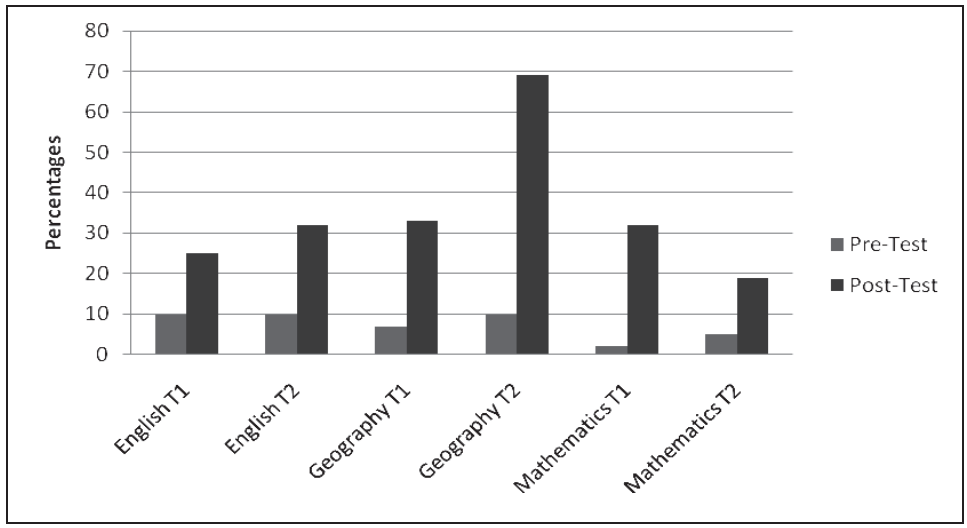

Figure 6: Effectiveness measures - experimental group

The teacher effectiveness hypothesis was tested statistically by way of Chi-square tests that compared the pretest and posttest totals of the set of teacher 'effectiveness' acts identified relative to the remaining teacher acts in each group. The result for the control group confirmed that there was no significant difference between the two stages. Statistically, the value for Chi-square is 0.23, and so at 1 degree of freedom the significance level (p) is 0.6315, which is far too high for the required significance threshold of $p \leq 0.05$. The result for the experimental group, on the other hand, revealed a very significant difference between the pretest and posttest. Statistically, it indicates a value for Chi-square of 63.11, and so at 1 degree of freedom the significance level is $p < 0.0001$, well below the significance level required. In combination, then, given also the broad equivalence of the control and experimental groups prior to intervention, the two statistical tests provide strong support for the effectiveness hypothesis.

In sum then, the discussion in this section pointed out some of the consistent differences in the choice and use of discourse acts between pretest and posttest lessons for teachers in the experimental group. Four important more general characteristics of effective talk can be inferred from the transcripts. Firstly, there is an appreciation of the purpose of talk by teachers; secondly, there is a shared understanding of relevant vocabulary between participants; thirdly, much more talk was focused on a task in which knowledge is shared; and lastly, the teachers consciously used discourse acts to negotiate learning. These findings confirm the more effective use of discourse by teachers who participated in the course in classroom text and discourse. Rex, Steadman, and Graciano (2005)

confirm that when specific manipulations of teacher behaviour are made to strategically change the interactions in class, this creates more productive negotiation of learning as has indeed been the case in my study.

7.2. Testing for learner initiative

Later in the study, focus shifted to the third hypothesis, namely:

Learners taught by teachers who participate in the course on classroom text and discourse will show more initiative than those taught by teachers who do not.

Initiative, which in this study is a measure of the quality of participation shown by learners. The more general term 'participation', is simply the proportion of learner acts relative to the teachers'. Not all acts of participation, however, necessarily indicate initiative. The discourse acts: extensions, clarifications, and counter-informs were identified as the most typical indicators of initiative. In turn initiative is also shown when learners bid for turns and when they self-select. These turn-based categories, in conjunction with the three discourse acts, were also posited as further evidence of the active participation that one associates with the idea of initiative during interaction.

A clarification is output that follows a request for further information, or elucidation of a point made previously. A counter-inform is used by the learner to dispute a position, and probably signifies the most initiative because it is evaluative and introduces a new element, which takes the discourse in a new direction. An extension is reflected when the learner provides additional information to topic initiations, while remaining within the same topic sphere.

A statistical test is then applied to establish whether there are significant differences in use of discourse acts associated with initiative between pretest and posttest transcripts.

7.2.1 Results

Statistics confirmed that the proportion of teachers' discourse acts in both the control and experimental groups was much higher than that of learners at pretest. The findings can be interpreted to mean that learner participation at pre-intervention stage was minimal. On the other hand, the proportion of discourse acts by learners, whose teachers had participated in the intervention course increased very significantly given that the findings on the teacher dominance hypothesis are at the same time findings on learner participation.

Figure 7 shows that there is little evidence of discourse acts reflecting either participation or initiative.

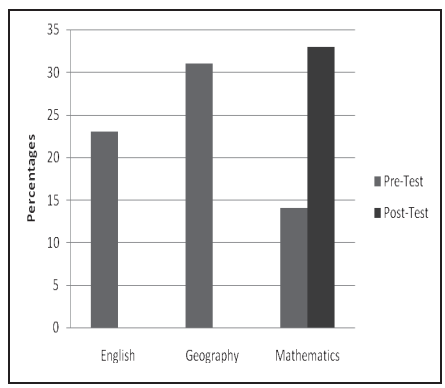

Figure 7: Initiative measures – control group

Turning to statistics, which deal with the experimental group, the pattern is similar to that of the control group at pre-intervention. There was a lower proportion of discourse acts of initiative. Statistics, therefore, showed that the level of initiative for the two groups is comparable before intervention. On that premise, it was logical to do intra-group comparison with the experimental group to establish whether learners displayed improved initiative at posttest (having been taught by teachers who participated in the intervention course). This is shown in Figure 8.

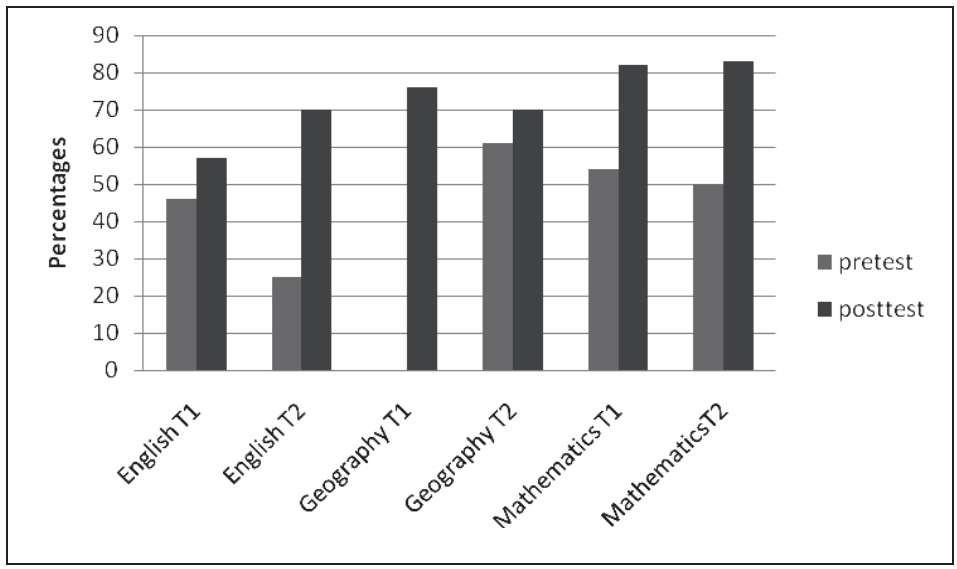

Figure 8: Initiative measures learners-experimental group (Pre-test and Post-test)

The learner initiative hypothesis was tested statistically by way of Chi-square tests that compared the pretest and posttest totals of the set of learner 'initiative' acts identified relative to the remaining learner acts in each group. The result for the control group confirmed that there was no significant difference between the two stages. Statistically, where the value for Chi-square is 0.24, and so at 1 degree of freedom the significance level (p) is 0.6242, is far too high for the required significance threshold of $p \leq 0.05$. The result for the experimental group, on the other hand, revealed a very significant difference between the pretest and posttest. Statistically this indicates a value for Chi-square of 25.08, and so at 1 degree of freedom the significance level is $p<0.0001$, well below the significance level required.

In combination, then, given also the broad equivalence of the control and experimental groups prior to intervention, these two statistical tests

provide strong support for the initiative hypothesis.

It was proved that learners under those teachers who underwent in-service training developed the ability to participate more actively in classroom dialogue. Their counterparts, on the other hand, continued to use discourse as they did at pre-intervention, reflecting little evidence of initiative. In qualitative terms, the analysis of lesson transcripts confirmed evidence that learners taught by teachers exposed to the in-service course also actively used discourse of initiative.

8. CONCLUSIONS

Overall, the study confirmed that systematic intervention leads to the reduction of teacher dominance, while at the same time making teachers who took part in the experiment choose more effective discourse acts to achieve learning goals. Conversely, the study also confirmed that learners under such teachers demonstrated a heightened initiative level at post intervention stage than before.

Pretest results arising from testing for the dominance hypothesis showed that in both groups the proportion of teachers' discourse acts was considerably higher than that of learners. Transcripts showed that learners were listening most of the time, while teachers talked more than they should have. Post-intervention results, which in the experimental group showed a very significant reduction in the proportion of teacher discourse acts and a concomitantly very significant increase in the proportion of learner acts, thus provided strong support for the hypothesis and testified to the positive influence that ideas from the intervention course can have on teacher discourse.

More qualitative examination of the data in context supported this conclusion as it showed that before intervention teachers tended to use many more discourse acts that stifle origination of discourse. The I-R-F pattern characterising much of the pretest interaction reflected a pattern of teacher-led recitation, which tended to reinforce the teacher's authority as the transmitter of received wisdom, while imposing restrictions on student initiative.

The teachers' changed perception about oracy was confirmed by the findings on teacher discourse effectiveness as operationalised in terms of the total proportion of six teacher-specific discourse acts relative to all other acts in a given episode of speech. The difference in the proportion between the analysed pretest and posttest lesson transcripts for the six teachers taking part in the course, showed a statistically very significant change, thus reflecting improved discourse effectiveness through a more conscious choice and use of discourse acts.

The more qualitative analysis of teacher discourse effectiveness also reflected how improved language awareness, derived from the course, led to more conscious attempts by the teacher at interaction evident, for example, in the use of open-ended questions that stimulated original language based on personal experience.

Results about the operationalisation of the initiative hypothesis confirmed that in the experimental group, learners at posttest stage showed statistically very significantly more initiative. At the same time qualitative discussion showed learner initiative to be supported when teachers gave explicit instructions for group work, asked more referential questions and made clarification requests, a type of scaffolding. However, counterparts in the control group did not manifest this change in discourse behaviour. The findings help to confirm the theoretical viewpoint that knowledge is socially constructed and is mediated through language (cf. Mercer, 1995).

9. APPLICATION OF RESULTS

Teacher-learner interaction is a universal phenomenon in situations where the objective is to achieve learning goals on the basis of a formal curriculum. This is a mitigating factor for the limitation that the research context from which the results emanate was different from that of the Basarwa where application of such results is recommended. Results deriving from the experiment are as applicable to the original context as they are to classes for nomadic or semi-nomadic learners.

It is also admitted that the size of the research population was small, therefore limited. However, in terms of my analytical framework, discourse had to be analysed intensively in order to arrive at reasonably objective quantitative measures for testing the hypotheses, as well as to enable me to interpret the statistical findings more qualitatively. Breadth of scope was therefore sacrificed for depth.

The study has application potential in the schools of Basarwa and any other nomadic communities in terms of its contribution at theoretical-methodological, descriptive and applicational levels. At the theoretical level, the study has contributed by developing a framework for explicating, in a reasonably objective manner, the notions of teacher dominance, teacher effectiveness and learner initiative from a discourse analytical perspective. This framework was applied within a quasi-experimental research design to establish the effects of an innovative course on classroom text and discourse in terms of these three key constructs, and the findings that emerged feed ideas back into theory about what types of act characterise classroom discourse that enhances the negotiation of learning.

The study can be applied to the Basarwa schools because of its descriptive strength. At the descriptive level, one is more concerned with description of a particular situation, in this case the detailed analyses of the classroom discourse of certain groups of teachers and learners that are made available, as well as the account of changes brought about in the discourse behaviour of some of these teachers and learners by the in-service course. Context specific descriptions could then be made from a more informed position to influence pedagogy in comparable situations.

Insights from the study have the potential to also make a contribution at a more applicational

level. In showing that by focusing on oracy teachers achieve better learning results with their learners, it implies changes needed in teacher education, especially in-service training responsive to specific challenges such as those of nomadic learners.

In sum, exposing teachers of Basarwa to the intervention programme would raise their level of awareness at both the linguistic and cultural levels, thereby enhancing a more professional sense of purpose. Additionally, systematic interaction would inevitably result in intellectual benefits observable in the ability by learners to control knowledge more autonomously, independent of the teacher. Given the above, the more defensible argument can be made that when learners see results, learning becomes more enjoyable, and as a direct consequence the absenteeism or withdrawal noted by Tshireletso (2001) is likely to be reduced. In other words, the intervention programme has the potential of transforming the failure to teach and the failure to learn to successful teaching and learning.

10. RECOMMENDATIONS AND FURTHER RESEARCH

The foregoing discussion carries numerous implications, and from those, recommendations compatible with nomadic pedagogic situations will be made. To begin with, the present study summarised an experiment conducted elsewhere, arguing that its results have transfer value that can benefit the Basarwa. Although that is a sustainable argument, it is strongly recommended that the study be replicated *in situ*, with typical teachers of Basarwa and learners.

As already noted, researchers have observed that the curricula used in the Basarwa schools tend to be authoritarian, and comprise knowledge that is largely alien to the learners. It is, therefore, argued that the Botswana government, as a matter of urgency, should make the first move to come up with curricula that take into account the culture of the Basarwa, for culture, far from being an obstacle to development, is its active ingredient.

Researchers have accurately identified language as a barrier to communication. The majority of the teachers in Basarwa schools are from the dominant communities of Botswana, who speak different languages. They have little clue, if any, about the San language. They, nevertheless, have to teach learners Setswana and English, and at the same time teach alien content. This is a very complex matter as the eminent novelist, Ngugi wa Thiong'o (1986, p.13) has pointed out, "learning for the English second language child becomes a mere cerebral activity, and not an emotionally felt experience". It will be noted here that the problem is even more complex. English is a third language, and not a second for Basarwa. The logical recommendation is that, the government of Botswana should develop a language policy instrument to see to it that children of these nomadic communities are taught in their mother tongue, at least during the first three years with Setswana and English as school subjects. When they get to Standard Four, English would then be used as the medium of

instruction. As far back as 1953, UNESCO recommended that children should be educated in their mother tongue. This mammoth project, obviously, implies funding to get the language written by language experts who may not be available, but it is nevertheless a worthwhile undertaking.

Arising from the above, one recommendation is that a language course for teachers of the Basarwa should be offered together with a course on the basics of Sarwa culture. This is obligatory, more especially that the teachers are not from the community where they happen to be teaching. A basic understanding of the culture will go a long way towards more meaningful interaction in the classroom. On the other hand, it is also recommended that school authorities organise regular trips for Basarwa learners to places within the communities of the dominant ethnic groups. These socialisation trips will expose learners to different lifestyles, and this will result in their appreciation of economic activities that sustain, the other communities, types of entertainment, communication patterns and different cultures.

Finally, it is recommended that the Botswana Ministry of Education should structure an in-service course to address this urgent challenge, and deliver the course as a matter of urgency. The risk of keeping the Basarwa marginalised and having limited access to education is real. Similarly, colleges of education should revisit their teacher education curricula and infuse language and cultural issues pertaining to remote area dwellers.

11. GENERAL CONCLUSION

Classroom interaction has been singled out for this particular study because as language use, it is the most crucial strategy of accessing learning. My experience in the classroom is that learners anywhere tend to write better what they have talked about, and that they also listen better when they are aware of what somebody is talking about. In actual fact, some of the most creative thinking takes place when people are talking together. One of the opportunities that the school can offer Basarwa learners is the chance to use dialogue to develop their own thoughts, and this with the vicarious support of the teacher.

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TO WHOM IT MAY CONCERN

I have 42 years' experience in the teaching profession, both at high school and tertiary level. In my last position before retiring in December 2016, I was a Teaching and Learning Consultant employed by the Teaching and Learning Centre (TLC) of the University of Fort Hare. As such, I facilitated modules on the Post Graduate Diploma in Higher Education and Training (PGDHET) and also evaluated lecturers' teaching and their courses. My skills set allowed me to focus on management, language, research and student development. Activities which speak to this included coordinating the Language and Writing Advancement Programme for a number of years, being the editor of the TLC's bi-annual newsletter for approximately eight years and being the person responsible for the writing of most TLC's evaluation reports on the East London campus.

I hereby certify that I have acted as the external proofreader of the articles submitted to me by the Editor –in- Chief of the new journal being launched by the University of Limpopo, Prof. N. Wadesango. I trust that the language used accurately and consistently reflects the intended meaning of the data tabulated by the authors and that the narrative is aligned with the aforementioned. Every effort has been made to enhance clarity of expression and avoid confusion or misunderstanding. The principles of anonymity, confidentiality, accountability and reliability were respected by all parties concerned.

Should there be any questions that arise from this exercise, kindly contact me on lscheckle@gmail.com.

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