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DANDE

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Editorial Policy

The editorial thrust for this journal is on the publication of articles that focus upon the *teaching and learning* of social science subjects and communication. Related to and closely linked to this objective, is the need to aim to ensure that the academic discipline(s) cater for the needs of all students in the Faculty of Social Sciences and Humanities and other students from other faculties who will read it.

It is therefore intended that other related disciplines that enhance the development of Social Sciences and Humanities constitute these essential publication content of this journal.

The main objectives of this journal, therefore, revolve around analysing and reporting strategies, problems, theories and research findings for teaching and learning how to:

- communicate, through English, academic as well as social information in written or spoken form.
- disseminate research-based information obtained from various subject disciplines in social sciences and communication.

The DANDE Journal of Social Sciences and Communication also aims to:

- publish and disseminate information related to educational theories, teaching methods, research strategies and results of critical analyses of teaching/learning strategies or practices employed in various academic as well as other practice-based learning situations.
- provide a forum for critically analysing and discussing teaching/learning theories and practices in various subject disciplines and the role played by language, English in particular, to facilitate students' understanding and application of such concepts in desired educational or professional disciplines.

Articles in this journal may also critically analyse certain current pedagogical strategies but the publishing committee generally regards views, attitudes and criticisms expressed in such presentations as personal observations and views of writers which do not necessarily represent the beliefs and attitudes of Bindura University of Science Education but would be sanctioned for publication if found publishable for the purpose of disseminating information intended to educate members of Bindura University and Science Education as well as other Universities and communities.

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Editorial Note

To those academics and students of subject disciplines in the social sciences and communication who provided suggestions and advice leading to the successful establishment of this journal, we say 'thank you for waiting so patiently for its launch'. Remember the saying 'more haste less speed'. This was the guiding principle the editor took in order to ensure that, once started, our publishing project would be efficiently and expeditiously run. Now is the time to do so. The journal is here for us all to benefit from its messages that should forever motivate us to systematically analyse teaching\learning situations, documents, data and proven or unproven ideas that arouse and activate our creative and developmental psycho-emotional capacities to produce results. Indeed, results that enhance psycho-social as well as all possible desires and attainments.

The assumption behind the inauguration of this journal is that the Faculty of Social Sciences and Humanities has the responsibility to educate potential readers, make critical observations as well as analyse and communicate desired psycho-social and other humanly behaviour. Such behaviour, it is assumed, enables members of the university and the wider community to understand and develop critical and highly perceptive attitudes that benefit members of their societies.

It is the editor's anticipation, that this newly established journal, through its publication and wide distribution in institutions within and outside Zimbabwe, shall not only raise the academic rating of Bindura University but shall also demonstrate the capacity of this hub of science education to facilitate the realisation of over-desired national socio-economic development objectives.



P. H. Mhundwa (Dr.)
Editor

Post Scriptum

Dr. Mhundwa left Bindura University in August 2015. Dande was at an advanced stage. I had to take over and complete the unfinished task but then it was mere completion. I do not want to claim credit for the sterling job that Dr. Mhundwa left in my hands. It always gave him *joie de vivre*. Dande motivated him and made him feel much younger than his advanced age as the journal comes to life.

We thank Dr. Mhundwa for a sterling job.

A handwritten signature in black ink, consisting of a stylized 'C' followed by a horizontal line and a diagonal stroke.

C. Pfukwa (Prof.)
Consulting Editor

The Role of Culture in Managing Biodiversity: The Case of the Karanga Community in Zvishavane, Zimbabwe

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ABSTRACT

The concept of biodiversity is not new among traditional communities in Zimbabwe. Traditional communities have always ensured biodiversity from time immemorial. They have always co-existed with their environment and have always appreciated the importance of biodiversity in life. As a result, they have employed various measures to ensure this. Much of the measures that have been done are premised on the observations from culture. This paper sought to establish various cultural measures that have been relied upon by the traditional communities in Zimbabwe to promote the concept of biodiversity. The paper tackles the threat to cultural mechanisms in the management of biodiversity. The paper argues that 'totemism', taboos and superstitions have been relied upon as measures employed to safeguard biodiversity among the traditional Karanga ethnic group of Zvishavane. The paper further observes that culture has been a vehicle for promoting co-existence among the different species of the world.

Keywords:

totemism, culture, biodiversity, indigenous knowledge systems

Introduction

Traditionally, biodiversity is a concept that is used to nurture peace and continuity through its mere existence. It is a value that has been imbedded in the social systems of most African cultures, the Karanga people included. Social ideals, norms and customs shape people's relationships with the surrounding existing world, and ethics also play a role in bettering people's understanding. The concept behind traditional conservation of biodiversity focuses on several areas: 'totemism', taboos, superstition and myth amongst others. All these put together are what this discussion will term '*targeted avoidance*' though some scholars tend to either confuse them or interchange their meanings.

Since time immemorial, biodiversity has been employed to preserve the natural environment and the system has worked well over the period till probably the advent of globalisation and modernity when the law trivialized home-grown knowledge and officially disempowered traditional leadership structures that policed and upheld the sanctity of traditions. It is, therefore, the intention of this paper to look at various cultural measures that have been relied upon by the traditional community in Zvishavane, Zimbabwe to promote the concept of biodiversity. Sustenance and the passing down of some of these values and concepts which are collectively termed indigenous knowledge require a systematic mode of management. Indigenous knowledge, as reflected by Attech (1991) is knowledge that is embodied in culture and is an integrated pattern of human knowledge, beliefs and behaviour, customs, taboos, rituals, ceremonies, institutions and folklore. According to Melchias (2001) indigenous knowledge system is what indigenous people are knowledgeable about and perfectly do, and what they have sustainably practised for generations. Indigenous knowledge is thus knowledge that is derived from a people's culture and way of life. This is the information that has been employed by indigenous societies to develop and maintain their lives for so long as they live. This essential band of knowledge is, however, threatened by modern science and globalisation.

Background

The Karanga ethnic group of Zvishavane is one of the many Karanga ethnic groups scattered in Zimbabwe. The Karanga people of Zvishavane have over the years relied on their resources for daily sustenance and development. These resources have been conserved through some socially accepted means; that satisfied everyone as they strongly believed in communalism. The responsibility to police the equitable use of resources was placed on both the people and their local leadership. However, there was also some important spiritual component of the ancestors which played an overall role of administration and management.

The Karanga people of Zvishavane have a deep sense of communalism and a well knit relationship in almost the entire community through the recognition of totems and observation of myths and other inter-marriage systems. That way social, political, economic and all other fronts are maintained cordially. The district is mostly inhabited by people of the Hungwe totem. All these have a common ancestor who can be traced back to the Mutapa Empire. Of late, it has however been realised that some of the traditionally valued natural resources have been waning away through abuse and improper management. The area of Zvishavane is generally endowed with a variety of flora and fauna: *musasa*, *munhondo*, loquat tree, fig tree, baobab, *Lophira alata* and various medicinal shrubs which traditionally provided both medicinal and food requirements. Most of these resources and knowledge systems are very threatened. Besides flora and fauna, there is also a variety of animal species: hare, duikers, pangolins, antelopes, crocodiles, birds and fish that also provided with both meat and medicinal requirements.

Zvishavane District is located in the province of Midlands. It is home to many minerals like gold, platinum, chrome, asbestos and nickel. The area receives very sparse rainfall of less than 650mm per year making the area susceptible to recurrent droughts.

Methodology

An intensive mixed methodology comprising desk study of essential literature that include policy documents, official communiqué, past research journals and other traditional position papers, transect walks in the study area and in depth interviews with key informants were employed to produce this paper. Data gathering stretched over a long period of over a year and half in which in-depth interviews with focal people were done. To analyse the data, the study made use of the content analysis and thematic methods which clearly identified prominent themes from all the respondents and the documents and perused literature.

Some of the earliest studies around the preservation of people's heritage through the use of traditional morays and taboos were researched by Emile Durkheim, and Talcott Parsons, (Marshall 1994). These scholars believed that naturally society needed some superhuman force to regulate behaviours: and these could only be found in the association of some behaviour to some special natural resources and or attaching misfortunes to some socially unacceptable conduct. It is against this conception by Durkheim and Parson that this study was conducted.

Target Population and sample

This study was limited to the Karanga people of Zvishavane. The study employed purposive sampling to come up with a sample size of the respondents. All the three chiefs of the Karanga people in Zvishavane notably chief Masunda, Chief Mazvihwa and Chief Mapanzure were reached in this study while twenty-five village heads were also relied upon to provide information on the role of culture in managing biodiversity among the Karanga people. Key informant interviews were also extended to two 'masvikiro' who served as rain makers and three chiefs' aides renowned for their knowledge of the indigenous people.

Justification of the Study

The Karanga people are one of the ethnic groups in Zimbabwe. Zimbabwe is made up of different ethnic groups that can, however, be broadly categorised into two classes: the Shona and the Ndebele people. The Shona are generally found in the east, central northern and north-western and south-eastern parts of the country and generally constitute about 84% (Sithole and Makumbe, 1997). The Ndebele people are in the southern and western parts of the country constituting about 12% of the entire population (Sithole and Makumbe, 1997, Ndlovu-Gatsheni, 2008). However, on a closer look, the demographic distribution of the same ethnic groups is as follows; Zezuru about 18%, the Karanga about 22%, the Ndebele about 19%, the Korekore about 12% and the Manyika about 13% and the Ndau 3% (Ibid).

The Karanga people are located in the Masvingo province and some parts of the Midlands province. Despite the Karanga people's demographic dominance, this has not translated in their visibility and dominance in most spheres of governance. There is very little that is written and known about the Karanga people's culture in the new era and millennium. This is despite the fact that this is a group of people which has a rich pre-colonial history dating back to the pre Mwene Mutapa era. The Karanga people have lived on the shadows of other dominant groups especially the Zezuru and Manyika resulting in the absence of documentary information and evidence of their lives. The Karanga people of Zvishavane have from time immemorial been in close contact with the Ndebele making them potential candidates to borrow from the Ndebele culture and also affect the Ndebele culture in turn. What has happened from the Karanga people's contact with the Ndebele has not been captured. This particular research seeks to fill the void of providing documented evidence of the Karanga cultural group that has been in constant contact with the Ndebele. Furthermore there has been an outcry from the Zimbabwean chiefs that as custodians of the culture they are overlooked in many development initiatives as people look up to globalisation for development answers yet they remain key and indispensable to development.

Theoretical Framework

This study is underpinned on the Matrix-Based Conservation Theory. The basic premise of matrix-based conservation theory is that it is essential to maintain suitable habitat and populations of native species outside of large reserves, i.e., in the matrix (Lindenmayer and Franklin 2003).

Results and Discussion

Biodiversity

The concept of biodiversity is held in high acclaim by the Karanga people. Focus group discussions and in depth interviews note and recognise the dynamism in traditional governance of natural resources which has seen the interchangeability of terms; environmental conservation, resource preservation, environmental governance and biodiversity: all driving towards the delivery of a common agenda. In the Karanga traditional mode, the concept is carried behind and supported by the association and relationship to prominent living creatures in respective areas as a way of ensuring the preservation of the latter. The respondents pointed out that the chiefs were the custodians of the environment and as such they were mandated to ensure the co-existence of all species. The above facts have also been highlighted by such some scholars as Ranger (2003) and Fabricius (2004) who argue that religious leaders: chiefs and spirit mediums carried out an invaluable responsibility in natural resource conservation. Others like Nhira and Fortmann (1993) in Mukwada (2008) identified the groups of controls through which they argued traditional local institutions managed resources, including sacred controls and pragmatic controls. It is the sacred control alternately presented as norms of control based on myths or natural religion

and enforced by community endorsement or traditional leaders that Gelfand way back in 1979 termed 'rules of avoidance' while several other scholars (Haralambos and Holborn, 2000, Pfukwa, 2001, Chigidi, 2009, and Masaka and Chemhuru, 2011) called it taboos '*contra bonos mores*'. Jones (2002) concludes that the use of natural resources was locally controlled by cultural norms and rules which were enforced through traditional leaders such as the chiefs.

There is also another school of thought that includes the likes of Mohamed-Katerere and Chenje (2002) which argues that community-based natural resource conservation structures that existed in Zimbabwe were brought down by colonialists through the establishment of western-desired land husbandry models: Native Act of 1923, Land Apportionment Act of 1931, Forest Act in 1949 and Land Husbandry Act of 1951 amongst others. These models were intended to displace traditional systems that were considered barbaric by the colonialists Europeans. Interviews with key respondents indicated that Africans have always been conservationists to the core.

Taboos

The belief in taboos is an old approach to the management and regulation of people's behaviour in particular societies. It is a concept which Dodo (undated) has argued as not enshrined in any written law but was simply kept in the traditions and used to instil fear in people as a way of restraining them from an unacceptable activity. Relatedly, Amobola (2013) also concur that taboos were established to control the moral order of the society and are intensely entrenched in the culture as well as the religious beliefs of a society. Taboos apply as a set of social norms and assist to clarify the division between what is suitable and not. Whereas diverse cultures have a variety of taboos, the general rationale for all of them is the same: regulation through an element of danger that befalls those who break it (Ibid).

Despite the fact that taboos are not written anywhere, they are nevertheless passed down to younger generations through some social mechanisms which then socialise them into its religious beliefs, norms, values and collective opinions of the entire society through its traditional ways of knowledge seeding. Whereas there are taboos that are only common in particular cultures, there are some taboos that are believed to be worldwide; incest which prohibits same family sex, cannibalism which is against the consumption of human flesh, swearing, which is about the use of vulgar language, and murder amongst others.

In the Shona people and particularly the Karanga of Zvishavane, taboos present a set of regulations helping as an ethical control in the society to guarantee peace and security and cordial relations across the community. As aptly put by Gelfand, Pfukwa (2001), Tatira (2000b) and Madu (2002), taboos can be classified according to either the things that they seek to protect or the effect that they produce upon infringement like: food, health, environment, death, safety, '*unhu*'-enforcing and wealth. Therefore, in the Karanga community, it is believed that '*ukarova amai unotanda botso*' that if one assaults a mother, misfortunes befall. This is a social regulation that was instituted simply to protect vulnerable mothers from the wrath of their rowdy children. Over time, this taboo has been accepted to an extent that it is almost real. In

Zvishavane, there are selected groves where people usually harvest loquats '*mazhanje*' and stinkbugs '*encosternum delegorguei Spinola*' and are required to harvest only enough for their needs and never take any excess. It is believed that if one exceeds requirement or say out vulgar language, he/she loses directions for the exit route till the family performs some appeasement rituals. In the same groves, culturally, people are not allowed to enter for the purposes of praying. What the regulation tried to achieve was equitable use of resources and proper conservation so that there could be some continuity in years to come. These groves had proved to be secure sources of food especially in times of famine.

Within the Zvishavane Karanga society, some people accept as true that trees and forests are the expression of the authority of the Supreme Being. These people believe that such forests and trees are the ideal sites to meet with their Supreme Being and several other consultations and rituals like '*mukwerera*', rain-making ceremonies. Some of the trees, tree-barks, leaves, roots and grasses are considered medicine to both humanity and animals. It is also believed that any abuse of such sites could invite misfortunes from the spirits of the area. Effectively, this belief helped conserve some of the endangered trees and much needed forests for other developments and projects.

Traditionally, among the Karanga of Zvishavane fishing or killing frogs and crabs in drinking water sources were stringently forbidden. It was believed that it was some of these creatures that safeguarded water and helped to produce more of it. Therefore, killing these creatures meant that the sources were going to dry up. However, what the elders simply feared was the destruction of pond edges by fishing people and that if people killed frogs that was bound to contaminate water. Some tree species have largely been protected owing to the observance of taboos.

Tree Species

All fruit trees among the Karanga people are not supposed to be cut for use in such communal use as firewood or and pole use. According to the respondents, fruit trees are critical in the maintenance of food especially balanced and diverse food. The area is rich with different fruit trees among them chakata (wild plums), nhengeni (*ximenia caffra*), chechete, hubvu (*vitex payos*), suma, hlagahuwe also known as sosoti and mapfura (marula). In addition to the above such rainmaking trees such as muchakata and mubvamaropa are prohibited from being cut. The respondents also noted that the cutting down of very 'big and old' trees requires authorisation from the chief or his immediate emissary. According to the respondents trees also known for their medicinal, nutritional, domestic and cultural value are forbidden to be cut. These include mubvamaropa, musasa, muchakata and murumanyama believed to cure stomach ailments.

Totemism

According to African beliefs, totems give way for ethical codes to promote peace and order in particular societies. Totems are a component of everyday life and are passed down from one age group to another watched over by society, primarily to direct the

behaviour of members (Kilonzo et al, 2009). They serve a unifying function amongst descendants of the same clan and regulate their relations with natural resources. Like taboos, totems also serve to preserve fauna and flora in the forest and have therefore helped guarantee ecological biodiversity. Karanga people in Zvishavane all carry an animal or bird totem which inherently disqualifies the person from feasting on that respective animal or bird. This is a measure of protecting biodiversity. What totems simply do in society according to the key respondents is restrain members of a particular clan from “kudya mutupo” (eating their “totem) with the those that go against the advice told of the dire consequences such as falling of the teeth. Those of the Hungwe totem (Bird) are forbidden from eating the bird and the Mpofo people are supposed not to eat the eland. Clans whose totems for examples are of predatory animals consider all predatory animals sacred. Respondents also noted that on the strength of the individual’s totem, one should never harm his or her ‘totem animal’.

Totems also prohibit the same clan from either marrying or engaging in sex as a way of maintaining relations and sustaining the clan. In other words, totemism tells us that once-upon-a-time, people sharing the same totem would have originated from the same family branch if not the same great grandfather. Even if people were to meet in a foreign land, engaged for possible marriage, the moment they discover sharing a similar totem, that love relationship is supposed to cease. Marrying a relative is said to ‘defile the land’ with dire consequences on the lives of various living organisms chief among the effects is drought. In this respect, people still maintain biodiversity in their areas. However, if they proceed because of some other reason, the husband is expected to pay a beast as a gesture of severing a ‘previously existing’ relationship ‘*mombe yecheke ukama*’ so that a new marriage may be recognised.

Regarding the relationship between people and animals, totemism also plays an important role towards the protection of some animals from mankind especially the most endangered species. The concept simply direct that people of a particular totem cannot take it as meat neither can they play around or abuse it for anything else. This position was designed primarily to ensure that particular groups of people have some responsibility to conserve a particular type of animal. In most cases, animals chosen for taboos were the most endangered ones in that area; therefore implying that they were now saved from potential hunters.

Totem	Animal/ Plant	Area	Implication
Soko	Monkey (<i>tsoko</i>)	Masunda chieftainship	If one eats a monkey, he/she loses teeth. This has helped preserve monkeys in the area. Because <i>tsoko</i> (monkey) and <i>gudo</i> (baboon) are assumed to be ‘brothers’ those of the <i>Soko</i> totem do not feed upon the baboon as well.
Hungwe	Bird	Masunda chieftainship	Teeth fall and this protects the fish eagle.
Hove	Fish	Mazvihwa chieftainship	Teeth fall and this has been used to protect the fish species

Sacred Reptile Species

There are sacred reptile species that must not be killed in this Southern area of Midlands. The sacred reptile species include some snakes such as shanga nyoka and shato as well as frogs. They are revered and must not be killed under any circumstances according to the respondents. Frogs are supposed not to be killed with respondents noting that if one does that water sources are bound to dry. The above belief is reinforced in the cultural thinking that “*hapana mvura isina chura/zura/datya*” implying that there is no water without a frog.

Shanga nyoka (house snake)

This snake type is said to be tied to ancestral worship and is considered very friendly. People in this area are thus prohibited from killing this snake species. Anyone known to have killed this snake is summoned to the chief’s kraal and heavily censored for such an abomination according to key informant respondents.

Python

The python like the shanga nyoka is said to be a very human friendly snake and is tied to ancestral worship as well with the snake also noted to have great attachment in rain making ceremonies. Anyone who goes against the decree to protect this ‘friendly’ snake faces great censorship from the chief and is fined very heavily. Respondents noted that undue killing of the snake could result in unforeseen calamities falling the area that include droughts and animal pest and diseases break out. That way the python species is protected.

Wild Life Protection

The Karanga people of Zvishavane enforce wildlife conservation through a number of measures that include the banning of wildlife traps (*zvidzingi*) and avoidance of indiscriminate hunting of animals. Key informants reflected that it is believed that wanton killing of animals and birds invoked the anger of the spirits resulting in the communities falling to omen. In this way Booth et al (2004) observe that this act enables societies to conserve their natural resources without any written legislation. Respondents noted that the leopard is another endangered species that is not supposed to be killed in this area. They noted that one needs authorisation from the chief to kill a leopard in this area. Furthermore, the respondents said that in the community certain sacred places were closed to hunting especially the areas believed to be home to the remains of the chiefs. Plants and grass around the grave sites are perceived to be sacred and should not be burnt or cut. The researcher observed a case that was brought before the chief’s dare of a man who had cut down “*mumvuri wamai vedu pavakarara*” (a shade where our mother is interred). The man was subsequently fined three cows for the offence for breaching traditional rule.

Superstition

This is a belief that is derived on falsehoods or actions that cannot be proven (Kagan, 2012). Superstitions basically signify the fundamental innate fright of mankind, caused by the uncertainties of this world (Kumar 2009). It is an illogical conviction that an act not reasonably connected to a course of proceedings influences its conclusion. Therefore, superstitions are diverse in nature and definition as they are found in religious, personal and cultural domains.

Superstitions have traditionally been used to some extent, to protect the wellbeing of some endangered elements in societies. These have also been applied to children as a way of deterring them from engaging in criminal and other immoral activities. In the Shona culture in general, there is a belief that if you are travelling and a squirrel attempts to cross your path/road, it is a sign that your journey is likely to face serious misfortunes. What is generally known is that squirrels are naturally fast animals that find it easy to cross roads before human traffic pass them. Therefore, it is rare for one to turn back or make an attempt before it is convinced that it will successfully cross.

Relevance of Biodiversity in the Contemporary World

Biodiversity has been a relevant facet of the traditional society as it has managed to help conserve traditional heritage in its all forms. A long time ago, local people did not rely on the western forms of social services like health and education. Rather, they made use of their traditionally developed mechanisms which worked wonders (Meakin, 1993). These forms of knowledge were transmitted down to younger generations by word of mouth and simple role plays. This system of knowledge management complimented by the use of taboos indeed managed to preserve some of the most important institutions and resources in society.

Some of the natural resources that have been conserved up till this day have become very important in the contemporary economy. Specifically, the ironwood (*Lophira alata* or '*mubvamaropa*' in Shona) trunk is being used as a medicine for back pain and toothache. What probably lacks is the formal commercial harvesting of the medicine into the laboratories. Traditional medicines are taking a more prominent role in Zimbabwe's primary healthcare delivery system mainly because of the worsening economic challenges. The growing population and the destruction of wooded areas for the creation of agricultural land are exerting more pressure on the sources of traditional medicines leading to a dire shortage of the end-products.

Challenges to Biodiversity

Colonialism restructured indigenous knowledge and conservation systems so much so that what people know about some of the traditional systems today comes from the ideologically tinted lenses of colonial researchers who recorded some African cultures as backward, raw and archaic in an effort to defend colonisation (Eyong et al., 2004). It has been documented and is widely appreciated that, colonialism basically subdued the growth of indigenous technology in Africa and weakened a

number of of the existing processes of technological development and the indigenous conservation systems. This in the Karanga area of Zvishavane was perpetuated through the removal of genuine traditional leaders and replaced by colonial puppets who had no capacity to police and preserve local heritage systems.

Biodiversity has also been heavily affected by economic challenges. What has generally happened in most African states is that economic down-turns have forced people to ignore their traditional systems for the contemporary ones which are thought to bring sustenance and quick development. Zvishavane has not been spared either in this crisis. Due to economic challenges, most youth have migrated to the urban areas in search of employment leaving their rural areas and all their knowledge systems. Closely akin to the above is the problem related to globalisation. Globalisation and modernity have crowded the world market with information and knowledge about the developed world systems suffocating the developing especially Africa (Polikanov and Abramova, 2003). Failure to support local material and systems, the western media will obliterate indigenous culture and rob all potential cultural growth.

Human displacement has been observed to be another challenge bedevilling the growth of traditional systems of conservation in the developing world (Eyong et al, 2004). Zvishavane like any other district in Masvingo has been undergoing some infrastructural development since the political independence in 1980. Therefore, some of those developments have seen people forcibly moved leaving their cultural heritage naturally dying. For those spared from development and forced relocation, they suffer from social exclusion by either political or sub-ethnic factions. The practice of foreign religiosity in Zvishavane district and the entire Masvingo province has also worked to the obliteration of the concept of traditional conservation of biodiversity. Some Christian religious groups regard traditional culture as evil and barbaric and even discourage their membership from following their ancestral traditions. That way, traditional cultural systems are either eroded or suppressed.

It has been realised that there are some policies by government that are inclined towards excluding the participation of the local populace in the preservation of environmental resources. As a result, people tend to naturally want to sort of rebel and deliberately break all the existing laws.

Contemporary Conservation

In view of the globalisation processes experienced the world over, conservation methods have equally transformed over the period to match the contemporary dictates on resource management. Therefore, state actors and some municipal laws have been roped in to support contemporary conservation efforts. With regards to the conservation of natural resources and institutions; the Zimbabwean government passed the Traditional Medicines Act of 1981, dedicated itself to the decentralization of the management responsibilities of natural resources to local communities through programmes like the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) and District Environment Action Plan (DEAP) amongst others.

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Parental Influence on Pupils' Conflict Responses: A Case Study of Tangenhamo Secondary School in Mt. Darwin District, Zimbabwe

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ABSTRACT

The study investigated the influence of parents on pupils' conflict responses at Tangenhamo secondary school basing on the Social interdependence theory and Lederach's Moral Imagination theory using the case study method. Parents directly intervene in pupils' conflict and can indirectly influence gender considerations, religion and the extended family interrelationship matrix. The peer influence of adolescence is extensively divorced from parents' factor. Although parents shape gender and religion considerations, individual pupils use them to shape future conflict responses independent to parents. Diversity in factors influencing conflict responses is becoming more pronounced due to media influence and the guidance and counselling offered in schools and the researchers recommend a more diverse conflict resolution partnership including parents in shaping conflict responses of pupils at school. The researchers believe that collaboration between parents and teachers can bring about peace oriented conflict responses in school.

Keywords:

conflict, conflict response, parents, interdependence, moral imagination

Introduction

Mahatma Gandhi once stated, "If we are to reach real peace in this world we shall have to begin with the children" (Johnson and Johnson, 2009). If we are to develop lasting peace, children need to be educated into competencies, perspectives,

attitudes, values, and behavioural patterns that will enable them to build and maintain peace.

Parents are important socialization agents that impart social values and social norms. Social norms and values that are desirable influence healthy relationship based on the recognition that within the web of relationships everyone is linked to everyone else (Shonhiwa, 2012). Pupils social norms and values are determined by examples set by significant others and the attitudes they convey to them.

The ways in which parents interact with their children greatly affect later social competencies as guided through reflection-enhancing communication, a considerably effective form of parent-child communication. In reflection-enhancing communication, parental messages encourage children to think about the causes and effects of their actions. These enhancing messages maybe verbal or an action that enable the child to engage in processing how an action emerges from, and also serves to create, the affective and psychological environment that follows the action. Parents engage in explicit encouragement of reflection when they encourage their children to think about causes and consequences of their behaviour as explicitly stated by the parents. After children examine the causes and consequences of their behaviour, they will be able to modify that behaviour in future. The following is an example that demonstrates parental use of reflection-enhancing communication with a child who is struggling with how to respond to a problem with a friend:

When people hurt us we want to call them names. It doesn't do any good though. Next time why don't you tell them you're angry at what they did. Then maybe they won't do it again. If they do, then just don't play with them. Just calling someone a name doesn't make you feel better or your friend. (Applegate et al., 1992, p. 16)

Reflection-enhancing communication refers to the degree to which the parent provides reasons that involve psychological consequences to inspire children to change or understand their behaviour. In the families, the ability of children to modify their own behaviour and to understand the behaviours of others has clear implications for social competence. The literature is replete with information about the critical role of social competence in shaping children's school success (e.g., Johnson and Johnson, Okotoni and Okotoni,) thus making it important for parents to engage in positive communication styles with children that can promote social competence.

Whereas reflection-enhancing communication is inductive and therefore appeals to the pupils internalized beliefs, the alternative type of communication style would be power assertive. The power-assertive style relies on coercion to direct the pupil to change the behaviour in question the pupil is likely to respond negatively to conflict. Studies have suggested that power-assertive communication is associated with more aggression in pupils, whereas inductive communication is associated with self-sacrifice and humane way leading to internalization of moral principles. This creates room for positive interaction based on the moral imagination gained from parental guidance. Reflection-enhancing communication has been described as complex behaviour that promotes the development of more advanced behaviours and thought processes, such as perspective-taking skills, reasoning, and logic (Applegate et al., 1992), as well as positive peer relationships and psychological well-being (Wilson,

Whipple, & Grau, 1996). A home environment characterized by a reflection-enhancing communication style is an important protective factor for pupils in building the blocks for positive conflict resolution in school.

Very few researchers have considered the roles of parents in influencing conflict responses of pupils at school through reflection enhancing communication. For example Johnson and Johnson researched on the influence of interdependence model to find out the conflict management practices in United Kingdom schools. While Desforges and Abouchaar (2003: 20) acknowledge that “parental involvement is a major force in shaping pupils outcomes”, they researched on influence of parents on pupils’ academic achievement. Neither Johnson P who described parents’ parental involvement in school as a “school” input nor Kester K who researched on peace education in Japanese high schools could focus on influence of parents in conflict behaviour of their children at school. Nor do they include any reference to pupils’ conflict responses at school. Carr and Hussey researched on collaborative effects of parents and teachers on student behaviour yet the main focus is on bullying.

In circumstances in which literature that link peace education and conflict resolution mechanisms with pupils in the school, the approach towards peace in the school is limited focusing on the school as the socializing agent. Most of the literature focuses little on the role of social attribute obtained formally and informally from the parents. The focus nowadays is mainly centred on the school, leaving a disaggregated intervention in pupils’ conflict management.

Conflicts at school and their impact

Schools should be relatively safe places, but violent incidents and fear of violence are rampant in schools, yet they have a profound effect on the education process. Schools with high incidences of unresolved conflicts and violence are less effective in educating learners (de Wet, 2007). These schools have lower levels of achievement, higher dropouts’ rate, and higher rates of absenteeism (de Wet, 2007). Victimized behaviour has been found to inhibit learner’s educational, emotional and psychological orientation, yet pupils who interdepend on each other positively has shown a positive growth in educational, emotional and psychological development (Manguvo et al, 2011). Conflicts in the school breeds both change and further conflicts. Conflicts managed destructively or left unresolved, escalate and consequently interfere in the learning process and playground disharmony (Longaretti and Wilson, 2000). Analysis by Marshall in de Wet (2007), has shown that a response to conflict determine whether the conflict is resolved peacefully or it will explode into violence. According to her, learners who are picked on, made fun on, harassed and humiliated by fellow learners “... build up anger and hatred and explode into violence. On the other hand, a learner facing a similar situation who reports to a peer or teacher is exposed to alternative conflict resolution approaches, leading to a peaceful resolution of the conflict.

Built- in conflicts in learners does not only have immediate negative effects, but often persist into adulthood and support an intergenerational culture of coercion and

violence (McGregor, 2001). Long term cultured conflict responses in schools; through the “culture of silence” is a training ground for long term conflicts.

The problem

Death and uncomfortable injuries continue to be recorded in schools. Media in Zimbabwe is replete with violent incidences of children who violently respond to conflicts at school. Incidences of murder, assault, sexual violence and stressful coping mechanisms like dropping out of school continue to be recorded in schools. The violent responses and stressful coping mechanisms not only have immediate effects, but often persist into adulthood and support an intergenerational culture of coercion and violence. Parents are increasingly being excluded or exclude themselves from conflict resolution involving their children leaving it all to the teachers yet Jabri (2006) describes of the need to explore “conflict and change in relation to the specificities of context and not in generic terms” hence the need to investigate the role of parents in influencing both positive and negative reflection enhancing communication in responding to conflict and resultant coping mechanism with a view of paving way for integrative and collaborative pupils conflict responses that too include parents. Parents’ collaboration with teachers in influencing pupil conflict responses seem to be the most probable way to reduce the negative effects of conflict in schools.

The development of attitudes and skills begin in the home (Newman, 2005), yet the peace education and conflict resolution approaches at school has little roots in parents involvement. The paper’s main objective was to find out the influence of parents on the conflict response style chosen by pupils in a school setting. This is achieved by exploring and assessing pupils’ conflict responses at school and the socialization such pupils have received from parents. This is important especially in present scenarios where duties of shaping pupils is almost being completely entrusted to teachers leaving out parents and the family, the first line of socialization.

Methodology and Research Design

The Participants

Six out fifteen diploma holder teachers of considerable teaching experience and dealing with children were interviewed based on both formal and informal interviews. Individual interviews were held with 20 pupil participants systematically selected from pupils observed from the field participating or taking part in a conflict. Standardized open ended interviews were guided by three universal questions that were universal were: describe a conflict you have experienced in this school, how did (the pupil) you resolved or intent to resolve the conflict and describe the role of parents in influencing the type of response described?

The case study approach allows for “how” and “why” questions to be sufficiently addressed. The case study strategy is an “empirical inquiry that investigates a contemporary phenomenon within its real-life context, (where) boundaries between phenomenon and context are not clearly evident, and (one in

which) multiple sources of evidence are used”. A case study focuses on a bounded system, under natural conditions, so that the system is understood in its habitat. Zainal (2007) contend that, the case study is applicable method in a small area or in situations with a very limited number of individuals as the subject of study. The true essence of using a case study according to Zainal (2007), drawing from a view from Yin, is “to explore and investigate contemporary real life phenomenon through a detailed contextual analysis of limited number of events or conditions, and their relationships”. Yin in Tellis (1997) and Zainal (2007) defines case study research method “as an empirical inquiry that investigates a contemporary phenomenon within a real life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.”

The case study based on pupil and teacher interviews carried out together with participant observation and document analysis. The use of multi-methods generated a comprehensive understanding of the complexity of pupils’ social interactions and pupils conflict responses.

The credibility of the research was increased through an extended period with informants. The informants were accustomed to the researchers. A high rapport existed between informants and the researchers. In addition to rapport, in some instances the researcher used hypothetical cases and the reframing of questions in order to elicit more personal responses. Triangulation of methods involved using the interview and observation methods.

Literature Review

In discussing the influence of parents on the conflict responses as based on reflection enhancing communication, the moral imagination model was employed. The model links a person’s social geography to conflict and the responses employed as influenced by such social geography. The term “moral” is concerned with goodness or badness of human character or behaviour or a concept that makes a distinction between what is wrong and right. “Imagination” is a mental faculty forming images or concepts of external objects with the ability to paint persuasive mental pictures of good and bad human character and behaviour and to be creative in so doing (Kyoona, 2009).

Moral imagination in conflict situations is described by Lederach, as the capacity to recognize turning points and possibilities in order to venture down unknown paths and create what does not yet exist (Lederach, 2005). Conflict responses must be rooted in day-to-day challenges of conflict designed to transcend destructive conflicts as motivated by parents enhancing communication. Moral imagination gives capacity to capture reflection enhancing communication that lead to generation of constructive conflict responses.

Parents who possess the capacity of moral imagination transfer reflection enhancing communication that leads to pupils imagining themselves in a web of relationships, that includes even perceived enemies in “mutuality and interconnectedness” (Lederach, 1995). The reflection enhancing communication in moral imagination cultivated by parents shapes the ability of individuals in conflict to

rise above the “we” and “them” divisions and reach beyond accepted expected responses, meanings and values (Maise, 2010). Accordingly, parents that fail to confer reflection enhancing communication fail to impart paradoxical curiosity in their children- paradoxical curiosity that confer the ability to respect social complexities of events, then seek relationships that are beyond those in existence and helping to discover aspects that holds apparently opposed social forces together. Human being is a product of the way people interpret their worlds (Yates, 2004: 157; Maise, 2010).

The theory of moral imagination is a relational centred theory, that views human community as a matter of crisscrossing connections between people, their lives, activities and patterns that shape new ways of life. Pupils' social geography through parents' reflection-enhancing communication shapes their moral geography that capacitate them to deal with events including conflicts. The conflicts occur within the web of relationships hence the reflection enhancing communication opens up social space or social geography in which responses are shaped from every strand and linkage of the web. Peace oriented responses should be based on available attachment points that make the relationship stick. Oppositely, parents reflection enhancing communication may fail to capture the available attachment points that make relationships stick. Does the parents' social geography and reflection enhancing communication have effect on pupils' responses at school?

Social Interdependence Theory

Cooperation and competition are the two dimensions that underlie the social interdependence theory. Social interdependence is a condition accomplished only when each individual goals is affected by the action of the other (Coleman and Deutsch, 2001; Johnson and Johnson, 2009). There are two types of interdependence: positive interdependence based on cooperative relationship and a negative interdependence based on competition.

Central to the creation of cooperative relationship are psychological processes of firstly, substitutability- the degree to which actions of one person are substituted for actions of another person. Secondly, the aspect of inducibility- an openness to being influenced and to influence others and thirdly, psychological aspect of positive catharsis, which describes an investment of positive psychological energy in objects outside of oneself (Coleman and Deutsch, 2001; Johnson and Johnson, 2009).

Parents induce behaviour and choice of behaviour on their children through reflection enhancing communication. Children, in future has the potential to substitute behaviour from the one imparted by parents through reflection enhancing communication or can give a cathartic responses that exists outside social and moral geography.

Conceptual Clarification

Conflict

Lederach (1995:17), defines social conflict as a, "...phenomenon of human creation, lodged naturally in relationships. It is a phenomenon that transforms events, the relationship in which conflict occurs, and indeed its very creators. It is necessary element in transformative human construction and reconstruction of social organization and realities." It can affect self-esteem, emotional stability, and capacity to perceive accurately, components that affect negatively responses to conflict.

Therefore, social conflicts emerge and develop on the basis of meanings and interpretation which attach people action and events and secondly, social conflicts are rooted in people's culture- peoples' accumulated and shared knowledge that is used to respond to social realities.

Within the school context, conflict is defined as a verbal or physical struggle between two or more children trying to achieve their own goals. It is this definition which will be used throughout this project (Longaretti and Wilson, 2000).

Conflict response

A behaviour exhibited by an individual towards another individual in response to a conflict. The behaviour can be physical or verbal.

Peace

Peace can be defined as an existence of harmonious relationship. Peace confers stability, happiness and tranquillity to an individual.

Peace-making is the action taken to bring hostile parties to an agreement through peaceful means.

Pupils' Perceptions of Conflict

Attitudes and skills can be nurtured in pupils at school and home. Nurturing self-esteem, developing social relationships and building self- autonomy and self-discipline are the foundation of peace education. Self-esteem is necessary for anyone to care for others; no pupil can be compassionate towards others unless he/she is secure about his/her own self-worth. Self-esteem enables for positive relationships in social interdependence relations, allowing for tolerance of others opinions and differences. Self-esteem begins with the development of trust in oneself, and in significant others, exposing one's inadequacies and their ultimate acceptance, learning to deal with emotions of fear, anger and jealousy positively communicating in verbal and non-verbal language, listening patiently and actively, acquiring autonomy and responsibilities. Self-esteem is modelled and affirmed through provision of choices, guidance towards self-discipline, encouragement and support.

Avoidance of the situation that causes the conflict is an example of an interpersonal approach (Dodo et al, 2010). Another way of coping with conflict is through smoothing, emphasizing the areas of agreement and common goals and de-emphasizing disagreements. A third way according to Kyoon, 2009 is forcing,

pushing one's own view on others; this, of course, will cause overt or covert resistance. A traditional way of coping with conflict is to compromise, agreeing in part with the other person's view or demand. The biggest problem in developing the institutions of conflict control in organization is to develop an action of plan to identify conflicts at its initial stage.

Conflict situations are frequently allowed to develop to almost unmanageable proportions before anything is done about them, by this time it is often too late to resolve the conflict by peaceable and procedural means.

Longaretti and Wilson (2000), argued that the best way to handle conflicts objectively is to follow six process Thomas- Kilmann model that involves describing the conflict situation to the other person, asking the other person how he sees the conflict situation, responding the way the other person sees the situation, jointly deciding how to resolve the conflict, making commitment to resolve the conflicts, and promising to be committed in future to continue resolving conflicts, which might arise. Another way of coping with organizational conflicts is to make structural changes. This means modifying and integrating the objectives of groups with different viewpoints.

Relational problem solving

In resolving conflicts, actors may use collaboration, bargaining and the power play methodology in reaching consensus. Collaboration involves people surfacing their differences (get them out in the open) and then work on the problems until they have attained mutually satisfactory solutions. This approach assumes that people will be motivated to expend the time and energy for such problem-solving activity. Bargaining on the other hand assumes that neither party will emerge satisfied from the confrontation but that both, through negotiation, can get something they do not have at the start, or more of something they need, usually by giving up something of lesser importance. One party generally wins more than they need, usually by giving up something of lesser importance. One party generally wins more than the other; by the skilful use of tactical trades, he can get the maximum possible from the other side. Third approach is Power Play, which differs from the other two approaches because its emphasis is on self-interest. Whereas, in collaboration and bargaining the two sides come together to try to resolve their problems, when power is the dominant mode, the actions are unilateral or in coalitions acting unilaterally.

Conflict responses as used by pupils in schools

Research indicates that different people use different strategies and responses to manage conflict (Longaretti and Wilson, 2000). Kilmann and Thomas in Longaretti and Wilson (2000), suggest that conflict is goal oriented; hence the importance of personal goals affects a person's decision to use a particular response.

Factors which influence the development of pupil perception and responses to a conflict include past experiences, socialization and exposure to and modelling of different conflict responses. Pupils' conflict responses may be influenced by how he/she sees disputes handled around him/her.

Pupils do not come to school with social skills; they need to collaborate effectively. Pupils physiologically respond to conflict by “taking anyone who comes their way” or by “getting away from the conflict.” Thus the importance of peace education in the school with the teacher as the role model.

Research findings

Type of conflict occurring at school

The type of conflicts vary in their occurrence. Gender based conflicts occur with boys expressing power as a coercive measure to induce compliance on girls. Value conflicts were also identified in cases involving the religious sect members who refused to work in tobacco operations. But most of the conflicts that occur between pupils and other pupils are uncomplicated conflict of possession and belonging to a group.

The results show that pupil to pupil conflicts are usually spontaneous resulting from emotions especially anger that build up during the conflict. The responses to such conflict are also spontaneous making contention and competition the most used responses.

Teacher to pupil conflicts are more structured resulting from disobeying orders and not doing school work. The conflicts are premised on asymmetries in power relations.

Pupils conflict responses at school

Pupils mostly use contention and avoidance as the main conflict responses. The contention responses mostly include hitting and swearing, not shaking hands, not greeting, not responding while maintaining a condescending eye contact and shouting vulgar. Most of the respondents use externalizing responses that are linked to delinquent activities, aggression, and hyperactivity. Violent responses include episodes of punching and kicking that result in somatic injury.

Violent responses were found not to always lead to physical injuries; it was often associated with intimidation, threats and perceptions of fear and vulnerability. Distinguishable categories of violent responses which emerged are; physical compulsion and physical injury where in conflict between two or more individuals in which at least one of the parties use bodily force or weapons to cause intentional harm, or at least threaten such harm to the other side for example the case of Temptation and Bernard. The spectrum of the harm ranges from a slap in the face, a box in the head and bruises. The other categories involves verbal aggression especially degradation of an individual by use of insults.

Influence of parents on pupils conflict responses

The influence is diverse. Parents influence gender considerations, values with the main one being the religious values and the societal considerations of interwoven relations. Parents also intervene directly in physical fights with the other conflicting party. Violent behaviour such as punching and kicking are often learned from

observing others (Newman, 2005). The influence of parents on pupils' conflict responses is consistent with Gerald Patterson's social interaction model that explains a context in which a mother's coercive behaviour leads to child's counter application of the same coercive behaviour on other children. "Abusive home environments can inhibit growth of social cognitive growth skills needed to understand the intentions of others" (*ibid*).

Pupils' perception of conflict

Conflict was implicitly viewed as an actively aggressive event that involved "*clapped him twice*", "*kicked me as he wishes*", "*hit me with a slasher*" and "*grabbed her by the collar*". Conflict reported by pupil respondents was also an explicitly an event that leads to discord, situations of "*we are no longer in talking terms*" and result in distressing outcomes that include "*anger*", sadness and sometimes frustration.

Conflict is viewed as bad. It spoils relations and lead to emotional and somatic injury. Incidences of "*crying*", living under "*intense emotional stress*", "*hatred*" and living with bruises and wounds for is common among pupils. This is in line with findings by Okotoni and Okotoni (2003: 34) who found out that students and teachers in Nigerian schools they studied view conflict as "unwanted disagreements". Parents promote "*usahwira*" relationship that is mediatory. After a physical scuffle a boy and a girl "*sahwiras*" buried the hatchet. Indeed, conflict can be a sign of basic pathology, but stability in itself may be a symptom of social stagnation with potential to produce decadence (Obiekwe, 2009).

Conflict responses used by pupils at school

Conflict responses exhibited by pupils are modelled along past experiences, socialization and exposure to and modelling of different conflict responses. Conflict responses are influenced by reflection enhancing communication. Pupils use a variety of simple, rather than complex and advanced conflict responses and that they responded to conflict rigidly and reflexively.

Contention

The use of force, both physical and verbal threats and fighting is common. Scenarios of "*punched me twice*", "*slapped him twice*" and "*yelled at me...scolding me to attract attention of teachers*" shows the intent to protect self-interests. Parents slap, scold and yell at their children in times of disagreements. In events where balance of power in power relations favours one side, the stronger party use influence to assert authority (Coleman and Deutsch, 2001). Contention is an example of imposed peace described by Johnson and Johnson (2006: 224) as a form of negative interdependence based on domination, power, imposition, and enforcement. Parents directly encourage hostilities by joining fights, encouraging violent responses by girls towards more dominant part, males and indirectly influence contention by yelling, kicking and scolding their children when in conflict.

Smoothing

Parents influence “*truth speaking and asking for forgiveness*” as a way of ending a conflict and move on. Mothers are reported to encourage lowering the “*high pitched voice*” which implies conflict smoothing in order for one to get on well with others. Furthermore, parents influence peace-making in children by nurturing self-esteem and self-discipline. These peace-making concepts are nurtured at a very young age, beginning in infancy (Quisumbing, 2000). Peace-making concepts like “*truth speaking and asking for forgiveness*” are examples of reflection enhancing communication that promote mutual interdependence.

Avoiding

Avoidance leaves conflicts unresolved in the long term. Parents influence avoidance by directly telling their children to keep quiet and to ignore the conflict. Parents give comments like “*what will you gain*” or “*what will you lose*”. In homes parents do not confront each other in front of children. Avoiding conflicts this way is a form of reflection enhancing communication. Pupils become socialized and use the skills in future as a team or as individuals. As a group soccer players remove soccer uniforms and move out of the pitch in protest and as individuals pupils “*run away*”, “*report the case to the teacher*” or are “*absent for two days*” to avoid conflict. Research done by Smith, Inder and Ratcliffe in United States of America found out that in about one third of the conflicts, pupils withdrew from the conflict (Longaretti and Wilson, 2000). Studies carried out by Johnson and Johnson (1996) on primary aged pupils found out that the most frequently used responses used by the pupils in conflict were telling the teacher and withdrawing from the conflict.

Peace is a relationship variable, not a trait and require positive interdependence of individuals in establishing and maintaining it. Parents encourage interdependence basing on the extended family concept. A pupil who avoids conflicts end up with intense emotional stress and possibly fights. The pupils “*settle score*” with each other. Johnson and Johnson (2006: 224) and Obiekwe (2009) provide a refreshing description on peace as “*an encounter*” between conflicting parties. As a relationship, peace cannot be maintained by separation, isolation or building barriers between conflicting parties. Avoidance of a conflict may temporarily reduce tensions but will not establish positive interdependent relationship implied by Deutch theory of social interdependence.

Anger in conflict

Emotions are a factor shaping conflict responses that has to be considered. Parents directly or indirectly influence emotions and anger through reflection enhancing communication. Anger is present in every conflict (Doer 2004: 71). It may be hidden or obvious but it is present. Depending on the depth of the conflict, other emotions may also be present with pupils being frustrated on several instances. As the emotional level increases between social actors, the conflict responses tend to competitively and violently inclined resulting in physical and further emotional injury. The physical injury is usually not an exception since rational thought

processes are usually at minimum during altercations involving higher emotional levels.

Influence of moral geography and perceptions to the conflict as a factor shaping conflict responses.

Perceptions play an important role, as emotions spiral upwards or downwards. Doer (2004:72) is of the opinion that the important influence on emotions is the perception of intentionality. This may determine if the social actor chooses anger or empathy towards the other conflicting party. Conversely, the choice of emotions may be the deciding factor in whether or not the conflict escalates or de-escalates.

Parents shape the perception of intentionality which is expressed through conflict responses. Children are not born with preconceived ideas of alienation or marginalization, with feelings of superiority or inferiority, with discrimination, bias or prejudice, with hatred, revenge or violence (Quisumbing, 2000). They learn these through interaction with adults, media and their culture.

Parents shape the moral geography of their children so as to coexist with the greater community. Parents cultivate the living together concept "you are because we are" a concept that is relational. It is within this locus that the pupil approach conflict with teachers and other pupils hence the prevalence of smoothing as his most used conflict response.

Self-autonomy and self-esteem are taught and encouraged by parents, attributes that are help in conflict smoothing since the individual is able to deal with others, is tolerant to diverse opinions and differences (Quisumbing, 2000).

Comments presented by teachers about pupils who "... *want to bring war veteran mentality into the school*". Of boy pupils who want to bring "their fathers behaviour" into the school and of pupils who exhibit their parents behaviour shows that parents influence behaviour of their children when in conflict. The influence of parents on pupils' conflict responses is consistent with Gerald Patterson's social interaction model that explains a context in which a mother's coercive behaviour leads to child's counter application of the same coercive behaviour on other children. "Abusive home environments can inhibit growth of social cognitive growth skills needed to understand the intentions of others" (*ibid*). According to Harris (undated) violent behaviours such as punching and kicking are learned by observing significant others who are usually one's parents.

Furthermore in resolving rumours mothers asks children to "keep quiet about it" and parents confront the other conflicting party. Most children socialized in such a matter usually let go and later confront the issue usually leading to scuffles.

In a pregnancy rumour, when asked about the state of their interpersonal relationship a pupil commented that: "*I can't talk to a (derogatory). If my mother cannot talk to her and her mother then why should I?*" Parents use the laissez faire approach when bringing up their children. Such pupils who are "given their positions" tend to respond violently to conflict.

According to Kyoon (2009) the significant individuals invoke negative memories of relationships perpetuating or breeding further conflict. The relational

space will be closed making positive interaction difficult. In the heat of a conflict parties may entrench positions and place themselves in positions where they fail to transcend the conflict or to invoke the moral imagination leading to scuffles.

Parents influence on gender considerations

Parents shape immediate perceptions of their children who are in conflict through perception enhancing communication. One of the perception issues shaped by parents is that of gender. Gender is defined by Newman (2005: 150) as a term that “designates masculinity and femininity”. Gender stereotypes developed by children are used to guide their perceptions and activities. Parents designate violent conflict responses based on gender commendable especially when done by girls towards boys. A girl who clubbed a boy with a broom stick was recommended to have “*done right to avoid more beating*” since the other conflicting party was a boy. A pupil commented saying “*I used force against him*” because “*he is male*”. This concurs with the observations by Newman (2005: 152) parents tend to encourage more gender-typed activities (and responses to conflict) as their children grow older.

Parents influence on cooperative approach

Pupils conflict responses are influenced by the nurturing they get through their childhood. According to the description of Newman (2005: 134), “We are who we are because of the way we were treated while growing up”. Human beings reflect society influences. Parents according to McGregor (2001) nurture self-esteem, self-autonomy and self-discipline. Parents encourage peaceful resolution of conflict not “*to end conflict through use of hands*”. Further, parents encourage negotiation for the pupils to “*discuss and resolve the matter*” with the other conflicting party. Success of resolving conflict by negotiation is achievable given that pupils are neighbours who must cultivate peaceful relationship and peaceful images. Research by Longaretti and Wilson (2000) found out that teachers believed that encouraging pupils to collaboratively talk to each other over a conflict stopped unpleasantness and negative behaviour.

Lederach in Kyoon (2009) describes social space as shaping conflict responses through the nodal points of the relationship strands. The laissez faire approach by the parents has been described by the teacher as “*giving the children their positions*”. The status conferred result in pupils’ responses being contending in nature. Contemporary research conducted in schools in the United States America and New Zealand highlighted contending as the most preferred strategy used by pupils’ who come from families lacking cohesion (Longaretti and Wilson, 2000).

Influence of parents and religion on conflict responses

Religion produces one of the most contentious identity based conflicts and followers tend to be aggressive and unyielding- assertive (Coleman and Deutch, 2001). Pupils withdrew from an assigned duty and approached the emotionally asking him to reverse the decision to make them work in tobacco operations. Parents’ protestations have been registered in the school asking for their children exclusion from tobacco

operations. This response was described by Okotoni and Okotoni (2003: 31) and Coleman and Deutsch (2001) compulsively revealing response that is common in identity based conflicts.

Religion confers people with values which differentiate between right and wrong or good and evil (Doer, 2004: 79). These values include religion and develop through the process of enculturation. The values derived from parents govern the actions and reactions of children at school. the values also dictate appropriate and inappropriate behaviour in school for example most of the Johane Marange boys jumped through the windows *"to avoid"* being injected with a vaccine during a nationwide vaccination campaign in schools. Pupils are given instructions by parents to *"run away"* from being vaccinated or risk being beaten and shamed at home. Parents do this to safeguard their positions and status in the church. Religion influences creation of an *"in- group"* and *"out- group"*, resulting in parents influencing their children to foster this division even at school.

Influence of presence of other pupils

The presence of others has shown to sometimes enhance a positive conflict response and sometimes enhances a negative response. A pupil *"grabbed another's collar"* and told her to *"stand up"* with confidence because her *"team stood by"* waiting to intervene in the fight. Contention and avoidance are the two most likely resultant responses resulting from presence of others. Pupils shout vulgar words in order to attract attention of other pupils and teachers around. Comments by other pupils encourage violent reactions for example a comment by several pupils of a *"hurtful clap"* resulted in a violent reaction that ended up in a scuffle and injuries. Performing positively in presence of others is termed the social facilitation effect and performing negatively in presence of others is termed social inhibition effect (Hlatswayo et al, 2010:69).

The storm and stress

Most of the informants were adolescents who are in the period of storm and stress. A teacher commented *"if you ask them why they did it (shouting obscenities at the teacher) they cannot convincingly explain"* otherwise they state *"it just happened"*. The adolescent period is characterized by excessive anger and outbursts. Pupils *"having a lot in my head"* and *"swirling head"* have unresolved problems both at home and in the school.

Conclusion

Parents influence gender considerations, religious considerations and moral consideration of conflicting parties' relationships. Parents influence reflection enhancing communication through imparting and reinforcing social skills and the development of identity. Identity consists of our membership to various social groups that include gender and religion. These characteristics are social constructions- a product of our social geography and the significant others in in our lives (Newman, 2005: 134).

Parents have the capability of influencing a compromise response from conflicting pupils. By invoking imagination that links the pupils' relationships, parents influence "thinking over a conflict" by pupils leading to conflict smoothing (Doer. 2004; Johnson, 2003: 35).

Most of the pupil- pupil and pupil- teacher conflict are responded to by pupils using contention. Most of the pupils' conflict responses involve the use of power and aggressive behaviour in attaining their self ends in a conflict. Johnson describes the behaviour in contention as involving "hostility and sarcasm, force one's feelings, beliefs and ideas on others" and "shifting responsibilities by blaming others". Intense and tenacious enmity emerges as a result of contention conflict response. Although parents influence avoidance, it only postpones conflict which needs to be solved in future. Avoided conflicts will continue with potentially disastrous consequences in future which lead to broken down relationships, physical injuries, breaking down of furniture, brooms and torn books.

Recommendations

The influence of parents in conflict responses need to be recognized and incorporated in influencing positive interdependence of pupils' relationships. Parents are an important school input whose collaborative influence in the school settings in influencing pupils' conflict responses should be utilized to achieve peace. Collaboration should include engendering of parental empowerment. Moreover, peace education with a human rights dimension should be integrated into the school curriculum to teach pupils peace issues and conflict resolution approaches.

The research was carried out on one rural school. It would be advantageous to expand this kind of research to include several other schools. It would be helpful to compare dynamics of parental influence on pupils' conflict responses within a rural school and urban school. Further, the influence of the media on attitude, myth, values and stereotypes need to be explored given the proliferation of mobile phones and internet.

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Communicating Mathematics and Science in the Classroom: Exploring the Interactive Route

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ABSTRACT

Communicating mathematical problems and scientific concepts is considered as a complex and difficult endeavour. Teaching, whether of complex mathematical problems and scientific concepts or of 'straightforward and clear' ideas in the humanities, is a process of communication. This paper argues that communication skills are an integral part of the teaching of Science and Mathematics. Communicating Science and Mathematics in the classroom involves thorough explanations and, because the concepts dealt with are in themselves complex, this may involve going over the concepts repeatedly. This ability to put across the mathematical or scientific message is the ability by the teacher to communicate. Research has insisted that the ability to communicate and to pose questions are central attributes of an effective teacher. This paper argues that more than being able to communicate and ask questions, for effective teaching of Mathematics and Science the teacher needs to employ interactive teaching techniques to involve learners; this way the teacher actively involves learners in communication and therefore in both the teaching and learning process. The teacher and learner roles in the contemporary classroom need not be distinctively outlined as this creates an obstacle to understanding. This allows both the teacher and student to understand concepts from each other's perspective. Through interaction between teacher and student, the teacher is able to explain the mathematical problem to the student from the student's perspective. Through a semi-structured interview and observation the study involves a sample of 32 students from four secondary schools in the two provinces of Midlands and Bulawayo.

Keywords:

interaction, science, mathematics, classroom micro-culture

Introduction and Background

Students' performance in science subjects, specifically mathematics, is reported to be poor in Zimbabwe. This is a major issue of concern as Zimbabweans, maybe more than any other nationalities in the past decade, have increasingly had to compete for jobs in the international market. Studies on mathematics in Zimbabwe dominate research on performance of students in sciences and they include Wadesango and Dhliwayo (2012), Jaji (1991) and Nkoma et al (2013). Wadesango and Dhliwayo (2012) have conducted a study on ten rural Gweru district schools to determine the causes of poor performance in Ordinary level mathematics in Zimbabwe and they have cited poor teaching methods by teachers and negative attitudes towards mathematics by students as some of the causes of poor performance in the subject. They also attribute poor performance in mathematics to the fact that in most cases teachers have very little (less than five years) experience of teaching and they do not stay at the same school for long.

While this study was on the teaching of science subjects in general, it recognises that Mathematics is a significant science in the Zimbabwean context. Besides facilitating the learning of the other subjects in the school curriculum, passing of Mathematics at Ordinary level in Zimbabwe is a requirement for one to proceed to tertiary education. There are just a few degree programmes in Zimbabwean universities for whose study Ordinary level mathematics has not been made a mandatory requirement. As a result much of the exemplification will be on mathematics.

This paper argues that classroom interaction, which involves class-talk at several levels, is central to improving students' performance in their courses, including sciences. It is through interaction that students build their confidence in specific topics of the curriculum and start to participate in class. Required of the teacher is a trained reaction to students' errors and bizarre contributions, which in turn inculcates the same spirit in the other learners. The teacher then has a very important role of creating a learning environment in which learners participate and engage with each other and with the teacher actively and in interesting but progressive ways. This, the study argues, is achieved through several strategies that include question and answer sessions, group work, class-talk or dialogue and diverse classroom activities. The smaller the groups are, the more the chances that all the students will participate in group-work. Both formal and free-flowing debates can also be used as a form of interaction to promote students' participation and create interest in the subject matter.

Related Literature

Research on teacher-student classroom interaction and on the relationship between students and teachers include Brown and Hirst (2007) and Davis (2003/2006). Richmond, Wrench and Gorham (2001/ 2009), Mottet, Richmond and McCroskey

(2006) and Huntley et al (2000) have also done research on the role of interaction in the classroom. These discussions of the interactive relationship between teachers and students and among students in a classroom set up all point towards communicative methods of classroom instruction. Research has shown that problem-solving and conceptual understanding of mathematics is greatly improved through classroom interaction (Huntley et al 2000). Shumba (1988) also found a significant link between teaching methods used and the performance of pupils.

Mottet, Frymier & Beebe (2006) propounded what is known as the Rhetorical/ Relational Goal Theory of Instructional Communication. In this influential contribution they argue that traditionally both teachers and students share two types of goals in the classroom context; the rhetorical and relational. Developing from this, Richmond, Wrench and Gorham (2009) argue that students have “academic needs (ability to make good grades) and relational needs (feel affirmed as a person) also (p. ii). On the rhetoric level, teachers “focus on influencing students to learn and understand the content as presented by the teacher” while on the relational level teachers have specific types of relationships they want to create with individual learners; either closeness or distance (Mottet, Frymier & Beebe 2006, p. 267). Teachers have different approaches when it comes to the relational goals; some choose to create a distance from the students while others create closeness with students in an attempt to promote students’ interest in the subject. These relationships, however, do not work the same way for all learners hence the need to constantly engage students in interactive activities in order to ascertain what kinds of relationships work for what kind of students and what teaching methods would work for particular individuals.

Mottet, Frymier & Beebe (2006, p. 269) argue that as most learners grow and mature their relational needs get lesser and lesser but some students will still depend on the affirmation from their instructor “and need ego support to maintain motivation for the course”. On the other hand, Richmond, Wrench and Gorham (2009, p. ii) argue that “too often teachers believe that they are hired to teach a specific subject not to get students to like the subject,” which is retrogressive as research shows that not liking the subject greatly diminishes the level of cognitive and psychomotor learning. Wrench et al (2008) also concur that if a learner does not have positive affect for the content or the instructor in a classroom set up it will be very difficult for that individual to learn. The picture being painted here is such that if an instructor attends to just the rhetorical goals and ignores the relational goals of the students, which call for interaction with them and specific communication skills, the learning process will be compromised. What this translates into is a situation where the teacher or the instructor should thrive to engage and “communicate with their students as supportively as possible ... regardless of whether their students are performing at a standard that is less than ideal ... create an environment where students also engage in these behaviours, supporting their classmates” and criticising them positively (Hurt et al, 1978, p. 186).

Taking from the submission by den Brok et al (2009) that even cultural differences between teacher and student can result in “miscommunication or conflicts, especially if both parties have little knowledge of the viewpoint and experiences of the other” (p. 120), it is imperative for teachers to make an effort to understand their students individually. Research shows that this can easier be done through engaging students in interactive activities that allow them to open up, in the process giving feedback to teachers.

Research on interactive teaching methods or the role of interaction in the learning process by students exists outside of the sciences classroom. In studies carried out in Applied Linguistics, researchers (Long 1990, Krashen 1987, Rodgers 2001) have argued that learners of a second language need to be in conducive learning environments and “to be in situations that provide maximum personal involvement in the communication and ... social interactions” (Albakri 2005, p. 112). Widdowson also argues that appropriate pedagogy involves “an approach to teaching which combine authenticity with an appeal to universal natural learning and humanistic approach” (1994, 388-389). According to Richards and Rodgers (2001), interaction with students allows teachers to be needs analysts as interaction gives them a chance to understand the learning needs and weaknesses of individual learners through feedback provision. Interaction is thus defined in linguistics as the discourse jointly constructed by the learner and his interlocutors (Ellis 1985) and learning as a process of creative construction that involves trial and error (Rodgers 2001).

Research Methodology

Interview Protocol

The researcher interviewed secondary school pupils in four schools drawn from two different provinces in Zimbabwe. Two schools were selected from the Midlands Provincial capital Gweru while two were from the metropolitan province of Bulawayo. Purposive sampling was used as the researcher targeted specific Ordinary Level candidate classes doing at least three science subjects, including Mathematics. The schools chosen all used student screening methods in which, after form two, students are put into three different classes according to general performance and therefore grouped into Sciences Class, Commercials Class and Arts Class.

The screening method used in these schools is such that when pupils come for form one they are given classes according to who secured the form one place first and when one class is full pupils automatically go into the next class until their three classes are full. The classes in which lower form learners in these schools find themselves have nothing to do with their individual performance at grade seven. However these schools have what they call cut-off points where the schools say it only takes students with units ranging from, say, six to four. What this means is that at form one and two the pupils are doing the same subjects and

the same number of subjects. In three of the four sample schools pupils in the same level are taught by the same teachers in the specific subjects. Then after the form two mid-year or end of year examinations teachers look at all the results and the pupils are given positions according to how many marks they have scored, regardless of which subjects they passed and which they failed. The first third, with the highest marks, goes into the Sciences Class while the second third goes to the Commercials Class and the third goes to the Arts. Entailed assumptions are that: "Ability to score highest in many subjects equals the Ability to do better in Science Subjects" and "Lowest marks from a total of many subjects equal inability to handle Science subjects". As indicated earlier in the study, science subjects are generally considered to be more complex and difficult than arts.

Four of the eight classes in the sample majored in Arts but were also doing Mathematics and some science subject like Integrated Science, Geography or Agriculture. However, in all the sample schools Science Subjects like Biology, Physics and Chemistry were a preserve for the Sciences Class. Pupils from the Sciences Class also did more subjects than the Commercials and Arts classes in all the four sample schools. The other four classes majored in Sciences and were also doing one or two Art subjects, including the languages; English and Ndebele for Bulawayo Province or English and either Shona or Ndebele for Midlands.

The primary data collected and used for this study includes a sample of 32 interviews. A total of eight pupils from each of the four sample schools were interviewed. Of the eight pupils sampled at each school four were from the Sciences Class while four were from the Arts Class. The 32 interviewees comprised 19 boys and 13 girls, each of whom participated in a semi-structured interview. Pupils were interviewed individually by the researcher at their schools and each interview lasted an average of 30 minutes. Two visits were made to each school on two consecutive days. The data also includes interviews with the head teachers of the four schools sampled in the study. The school head teachers were included in the study in order for the researcher to source background information about the pupils and how they got to be in the classes they were. This is where information about the methods of student screening was sourced. At one school the head was on leave and data was sourced from the deputy head teacher, who was acting in his place.

Observation

The observation method was also used to collect data. Information relating to school infrastructure; the state of desks, pupil-textbook ratio, entertainment equipment, sporting equipment and other extra curricula activities, availability and state of laboratories and libraries was sourced through this method. The researcher used observation prior to the study to select sample schools. Only those schools that the researcher adjudged had good infrastructure were selected for the study. This was assumed to increase the accuracy of the results of this particular study as the state of infrastructure could also contribute to factors affecting students' performance in general. This stems from research that argues that the quality of the

physical environment affects students' performance (Fisher 2000, Horne 2004), that the quality of the infrastructure around which students spend 'a good deal of their time learning does in fact influence how well they learn' (Earthman, 2004:18). Bunting (2004) and Lance (2002) have also argued that there is a link between the physical school environment and learning. Inadequate text books are also a major cause of poor performance by students generally (Fagbamiye 2004, Ale 2002). The researcher chose for the study those schools where such factors were likely to have little contribution to the level of performance by students in any subject, especially the science subjects.

Data Collection

A semi-structured interview was used for the school head teachers. Generally from these the researcher sought to establish the general learning environments that the pupils were exposed to, the schools' traditional treatment of the 'sciences and arts divide' in their day to day activities. The researcher also sought to establish how many Ordinary Level candidates each school had, how many were doing science subjects, how many were doing commercial subjects and how many were in the arts classes. General questions were also asked about each school's pass rate and the student-to teacher ratios for individual classes. The study also sought to establish from the heads which subjects were being offered to which classes, which ones were compulsory for all students and what criteria was used for vetting and screening students into different classes at form three.

School head teachers were also asked to provide information on which teacher taught what subject and to which classes. This information was useful to the researcher as he could then crosscheck with his list without asking students who their teacher for a specific subject was as students described their teachers. The researcher's assumption on this aspect was that students would be at ease to say "My Geography Teacher", "Our English Teacher" or "The Biology Teacher" than to say Mr or Mrs X. Another assumption was that having a list of teachers for specific subjects would help the researcher establish patterns from students' responses on teaching methods and ascertain whether or not a student's dislike of a subject had anything to do with teaching methods or teacher attitudes.

At the beginning pupils were asked a general question on what grades the pupils had attained on their Form Two mid- year examinations in those schools that used the mid-year examinations for screening of students and on their end of year examinations for those schools that used the end of year examinations. Performance was asked in relation to three specific sample subjects and these are Mathematics, Integrated Science and Geography. These were selected on the basis that they are the three science subjects commonly done by form one and two pupils at the sample schools. Other branches of science, usually breaking away from topics done in Integrated Science or General Science, are introduced at form three. This approach was meant to establish the students' inclination towards liking or disliking science subjects before the screening process and to ascertain their performance in science subjects before screening into either the Sciences

class or the Arts Class. As has been submitted already, screening into either the sciences or arts classes at these schools has nothing to do with a student's performance in individual subjects. Another reason for choosing the three subjects was that they are the only three science subjects that both the Ordinary level arts classes and sciences classes in the sample schools commonly have access to. While students in the sciences classes in the sample schools are introduced to other subjects like Chemistry, Physics and Biology at form three, they still do Integrated Science.

Several questions were included to ascertain what methods the teachers used in the class to teach and create, promote and maintain students' interest in the subjects they taught; what strategies the teachers used to motivate students and to create positive affect towards the specific science subjects, what influence the teachers had on the learning process and on the learners. The researcher provided a common definition of the terms 'influence' and 'motivate/ motivation' to allow the participants to respond in a common context of the linguistic usage of the terms. Initially a student was asked what subject he/she liked and a follow-up question required them to state why they liked that particular subject more than others. This research question sought to establish if there was a link between a student's liking of the subject and their liking of the teacher or the teaching methods.

After issues to do with the confidentiality of the information they provided were settled, students were asked to give character descriptions of five of their teachers. The five included the teachers of the three subjects in the sample (Mathematics, Geography and Integrated Science), the teacher of their favourite subject and the teacher of their 'least favourite' subject. The favourite and least liked subjects were included in the study to ascertain what students found interesting and progressive and what they found boring or retrogressive about both teaching methods used and teacher characteristics and behaviour. This is in line with Richmond, Wrench and Gorham's (2009) and Wrench et al (2008)'s arguments that interest in and positive affect towards the subject content or the subject teacher has influence on the students' learning of that particular course or subject. Questions were followed up to get a clear picture of what the students were describing and to direct them towards providing material that spoke to teaching methods and student-teacher relational aspects.

Discussion of Findings

From the data sourced from departmental records availed by the head teachers, students in the science classes dominated in the three sample subjects and from interpretation of responses secured from participating students this could be attributed to issues of attitude towards the sciences by students in traditional arts classes. Analysis of data point towards the fact that because the students in the arts classes are 'arts students' they major in arts and consider the science subjects, with considerable exception of mathematics, as extra subjects. This attitude is created by the schools' administrations in the first place through screening as classes are labelled 'arts', 'sciences' or 'commercials'. Further, the structuring of these classes

is such that students from the arts class, while doing one or two science subjects at Ordinary level, cannot do sciences at Advanced level. Knowledge of this makes students in the arts classes not worry a lot about the science subjects. The Zimbabwean education system is such that at form four students are as worried about passing five subjects as they are about passing subjects that will allow them to get a 'combination' at Advanced level. A mini-survey carried alongside this study established that there is an increase in the number of students who are re-taking Ordinary level mathematics alongside their Advanced level studies.

The average size of the classes at the sample schools is 50 students per class and three classes per level. However, at three of the four schools in the study the Sciences classes were the smallest of the three. At one school the sciences class had only 42 students while the arts and commercials had 54 and 52 pupils each, making them accommodate 12 and 10 students more than the sciences class respectively. While they said it in different terminology, the three head teachers responded that the science class deserved a lower student-teacher ratio because they were more demanding and it was more important for them to be passed than the other subjects. On follow-up questions why it was more important that Science subjects be passed than it was for other subjects the head teachers implied that the modern community demanded more science than art. The picture painted by this is one where a predetermined relationship between the teacher and the students is preordained by the administration before the instructor gets to the classroom. The student-teacher ratio phenomenon is more to do with the teacher being able to have beneficial relationships with each student in order to understand their academic needs and to give each student individualised attention than it is about how many essays or assignments the teacher marks (Azim Premji Foundation 2010, Diaz et al 2003). If this is true then there is need for even a better student-teacher ratio in those classes where students are struggling, especially with Mathematics and the one or two other science subjects they are learning.

This attitude of the administration, the study established, is communicated down to the teachers and the teachers carry it to the classrooms. In schools where the same Math teacher taught Math to both the Sciences and Arts classes, pupils from the two classes described their teacher in ways that evidenced two different types of teacher-student relationships. While pupils from the Sciences class professed closeness to their 'friendly' Mathematics teacher in the case of School One, pupils from the Arts class generally described the same teacher as 'always angry' and 'tired'. Taking from the example provided above what this translates to is a 'tired' relationship between the teacher and 106 students in the Arts and Commercials Classes and a good and healthy relationship between the same teacher and 42 Mathematics pupils in the Science class. While the intention of the system might be to develop the identified potential of the students in the Sciences, the scenario described leads to passing of Mathematics and Sciences by fewer pupils mostly from the 'A' (science) class as most pupils from the other two classes are likely to develop negative affect towards the subject. The result of such a situation is excellent access to sciences by only a third of the student population.

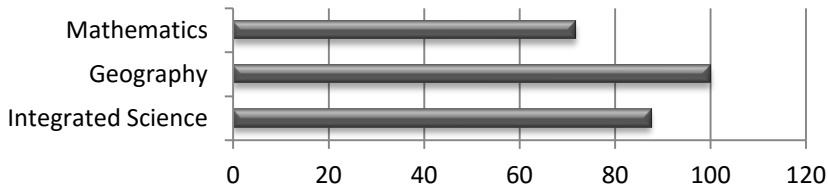
The screening of students into the classes, as already described, is not based on students' strength on particular subjects anyway. Integrative methods where students are not screened but are allowed access to the same subjects might work better for complex subjects like Mathematics and other sciences but this is subject for another research. Mathematics is complex enough already without the negative learning environment, which would most likely lead to negative affect towards both the teacher and the content.

A comparative analysis of the four schools' treatment of the sciences-arts divide established that sciences are considered both more important and more complex than the arts. At one school the researcher asked the head teacher a general question about his school's performance the previous year and the head teacher responded, "There was a huge improvement and we are happy. At A' Level the highest had 13 points and he was doing MPC (Maths, Physics and Chemistry). We also had someone from the Arts who had 15 points". According to him there was someone from the arts with 15 points but the highest had 13 points because he was doing sciences. Whether these assertions are accurate or not is subject to another study but as far as this study is concerned this situation works in favour of the science subjects as it means a lot of effort will be directed towards improving of the pass rate of these subjects. The question is; what effort is being increased because if teachers increase the time they meet the sciences pupils and the number of exercises or experiments they make the students do without attending to the question of teaching methods this effort will be fruitless. As shall be discussed later, the study established that students from both the science and arts classes prefer those teaching methods that allow them to interact with the teacher, with other students and even with students from other schools.

Collectively, 71.8% (23) of the participating students had attained grade B or better in Junior Certificate Mathematics examinations, which examinations were used for screening of students into form three classes. What is interesting is that only 52.1% (12) of these are in the science classes while the remaining 47.8% (11) are in the arts classes. Even more interesting is the statistics relating to Integrated Science where 87.5% (28) of the participating students had attained grade B or better in Junior Certificate and 57.1% (16) of these are in the arts classes, with only 42.8% (12) in the science classes. What this means is that 100% of the participating students from the arts classes in the four schools attained grade B or better in the form two examinations used for screening students into form three classes. In Geography all the participating students attained grade B or better at Junior Certificate examinations. What this points at is that had students screening methods been such that students' potential in individual subjects was identified and followed up or such that all the subjects, whether sciences, commercials or arts, were offered to all the students at the same level, performance in the science subjects would improve in all the students. Whichever way, the performance of students in the sample subjects before screening, was significantly good (see fig 1 below). This could be attributed to the integrative approach used at

form one and two or to the fact that certain attitudes teachers adopt when classes are labelled arts or sciences are absent at form one and two.

Figure 1: Performance of Students in Sample Subjects at Form Two



Source: Primary Data Collected For Study

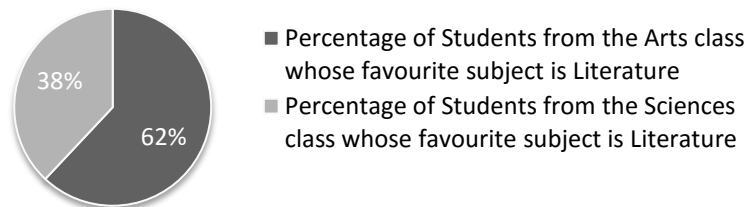
One of the research questions sought to establish the kinds of relationships that teachers have with their students in the classroom and whether these aided or impeded the learning process. On the general 59.3% (19) of the participating students described their Maths teachers as ‘distant’ and easily angered by students’ failure to respond well to content. The pupils said this made learning of Math very difficult and very often they felt discouraged. Students indicated that this was a result of the fact that it took time for the class in general to understand certain concepts in Math and they needed the teacher to move slowly and go over the concepts repeatedly. This was established through follow up questions to their description of individual teachers. The common understanding of ‘distant’ as used by the students ranges from teachers maintaining a distance between themselves and the students to being unapproachable. Analysis of data revealed that in certain circumstances some Maths teachers are frustrated by students’ failure to understand ‘simple’ concepts and as a result lose patience with students. If the learning atmosphere in the classroom is too serious for the comfort of the learners the learning exercise is thus rendered retrogressive.

The Case of a Favourite Subject

The research question on students’ favourite subject resulted in interesting responses from both the sciences and arts classes. 65.6% (21) of the student participants of the study indicated that their favourite subject was Literature in English. On face value one would quickly think that because Literature is an art, 16 of the 21 pupils who indicated that their favourite subject was Literature are from the arts classes and the rest (five) are the lost sheep from the sciences classes. This is not so as only 13 of the 21 students whose favourite subject was Literature were from the arts classes while eight were from the sciences classes. Interpretation of data revealed that what the students liked most is that the teaching methods in Literature involve role playing in the plays under study, turn-taking reading of novels in class, free flowing debates and watching of films on television during class time. Several students also cited the concept of exchange visits between schools and the fact that “the teacher tells us that there is no wrong

answer as long as you can support yourself convincingly from the novels”. This concept can be used across all the subjects, including the sciences and it is predicted to increase students’ participation and by extension their interest in the subject. What such approaches to teaching have done is to allow the student to relate to the subject in a realistic way as she/he gets to interact with other students, with the teacher and with the course content in a social manner. On the other hand least liked subjects were associated with ‘boring’ teaching methods and ‘mean’ teachers or learning environments that students felt were ‘discouraging’ or ‘demotivating’.

Figure 2: Percentages According To Favourite Subject



Source: Primary Data Collected For Study

Future Directions

While several other factors contribute to low pass rate in mathematics and other science subjects, teaching methods that do not seek to engage students in interactive ways in the classroom seem to worsen the situation as they create learning environments not favourable to the learning exercise. Interactive teaching methods help teachers in identifying each student’s learning needs and matching them with the most appropriate teaching styles. This can easily be achieved through interaction, broadly understood in this context to refer to the creation of progressive relationships with students individually. While secondary school teachers are necessarily hired to teach specific subjects to students, they can do this better and more effectively if they also make it part of their duties to understand the academic and relational needs of the individual learners that they teach. This can only be achieved through interacting with students and employing classroom activities that allow students to interact with each other. As they interact with each other and with the teacher students gain trust of the teacher and improve in confidence. This also improves students’ participation in the learning activities, and has positive results for students’ performance.

Through interaction, students are persuaded to learn from each other, from each other’s perspective and the teacher has the opportunity to make each student understand a problem or concept from the individual student’s perspective. Just as Bruce (2007) contends, the role of the teacher does not diminish in interactive teaching methods but gets even stronger as the teacher plays the pivotal role of

shaping the learning environment and guiding students to work in groups for achievement of the desired goals. The teacher, through interacting with and engaging students, creates what has, in other research, been called a classroom micro-culture (Reyes & Stanic 1998, Strickland & Asher 1992).

Interaction in classroom can be achieved by coming up with interesting learning activities for students and allowing them to work in small groups. Psychologists argue that it is in a group, more than individually, that an individual understands the situation at hand best (Nyanungo, 2002). This applies even more to the learning of sciences as students' skills to process and interpret both verbal and non-verbal information from others need to be developed (Windschitl 2009). Moving away from "the-teacher-knows-it-all" military approach to the teaching of especially mathematics allows students to do away with what Lance (2002) and Hanfi (2008) call mathophobia, mathematics anxiety that makes students dread the subject and anything they consider mathematical hence they develop a negative attitude towards mathematics. This study argues that by extension students also develop negative affect towards other science subjects they consider to have mathematical concepts in them.

Therefore, employing interactive teaching methods, which involves strategic creation of positive affect towards both content and instructor in the teaching of complex subjects like the sciences, constant motivation of students and getting feedback through class talk would greatly improve students' performance in the sciences, including mathematics. Changing the views and attitudes of students towards mathematics and the sciences is as much important as is imparting knowledge to them. As Diaz et al (2003) have argued, students' attitude towards a particular subject has the effect of changing the attitude of the subject teacher towards the students. As a result, effective methods of teaching will be those that seek to impart knowledge of a particular subject by creating interest and positive affect in the learner towards both the subject and the knowledge source-the teacher. As this study established students are likely to learn better if they consider the teacher as a role model, someone they can trust and someone they can approach easily and ask questions in and out of class. Interactive teaching methods, including having students work in small groups, also diminishes the effect of the big classes that are found in Zimbabwean schools as the teacher reduces the class into small sub-sets of the whole. Without this strategy a significant portion of the class is likely to drown in the numbers and remain uninvolved in the learning process.

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Enhancing Oral Communication Skills in Mathematics

Teaching: Lessons from Research

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ABSTRACT

This paper explores research on the enhancement of oral communication skills in mathematics teachers. The author reviewed four articles on the improvement of teaching and learning of mathematics. Research in this area is expanding rapidly. However, to date, few studies have critically investigated this body of work. The author reviewed key findings from influential studies. The author's analysis revealed that although these studies are subject to limitations, mathematics teachers' oral communication skills can be enhanced to improve the teaching and learning of the subject. Contemporary literature on the issue hypothesizes that the enhancement of oral communication skills promotes effective teaching and learning of the subject. The article concludes by identifying potential areas for further research.

Keywords:

oral communication, classroom communication, communication skills, instructional innovation, learning activities, teacher improvement.

Introduction

Due to the rapid advancement of science and technology as well as the importance of mathematics in education and industry, teachers need to be better educated in the teaching of the subject than their previous counterparts sought to be. They must be able to interpret and use mathematics to make sense of information and complex situations. They also need to develop and hone their skills through deeper understanding of mathematical concepts and processes as well as solve problems through rational analysis and communication. This paper also advocates for developing theories from studies such as the one discussed in this study. This is on the premise that oral communication is one of the most effective methods of improving classroom instruction in all subjects. The paper focuses on the teaching of mathematics in situations that regard the grasping of

concepts as essential to student learning. It provides a rationale for oral communication across the curriculum. Furthermore, the paper draws from research studies, suggestions for using oral communication in the teaching/learning of mathematics.

Theoretical framework

In this paper, the writer adopts the theory used in mathematics communication by Vygotsky (1962), who asserts that language is indispensable in learning as it is the logical and analytical thinking tool. This is because thoughts are not merely expressed through the linguistic units such as words but are created through it. Although language may not be essential for the creation of basic concepts, it is needed to build higher concepts. Vygotsky (op.cit) further advocates that learners can reconstruct objective mathematical knowledge as subjective knowledge through social negotiation with knowledgeable others, books, or their peers and students. In this study, as the researcher reviews literature relevant to the study, the question whether teachers' oral communication can be enhanced to build or reconstruct mathematical knowledge would be asked.

Why oral communication is important in the mathematics classroom?

The importance of oral communication skills in the mathematics classroom can never be over emphasized; undervaluing it will be at one's own peril. Communication is important for students' learning and teaching. The communication skills that students learn now can benefit them in the future. Students need to be able to communicate with their teachers and their peers. Understanding vocabulary can help them to become better communicators. Because of this, this section of the discussion is going to explore the importance of oral communication skills in the mathematics classroom as well as across the curriculum.

Gamble & Gamble (2010) rightly argue that oral communication refers to words and articulations. Therefore, it is important that an educator is able to understand students' knowledge of a mathematical concept. One way to do this is by asking open-ended questions and teachers can stimulate students' growth of mathematical knowledge through the ways they ask and respond to questions (Piccolo, Harbaugh, Carter, Capraro, & Capraro, 2008, p. 380). Thus, an articulate teacher can indeed ensure this.

It can be argued that teachers must help students clarify their statements, focus carefully on problem conditions and mathematical explanations, and refine their ideas. Students need to feel comfortable talking about their understanding in order to become better students. As an educator, it is important that one does everything that one can to help students be comfortable in the classroom. The more comfortable they are, the more they may be willing to communicate. Therefore, Sherin (2000, 122), rightly argues that teachers are encouraged to provide opportunities for students to discuss their ideas about mathematics and to listen closely to what students say. It is important to listen to students when they

communicate so that they can be encouraged and helped in their task of solving mathematical problems.

Communication is not just vital for the mathematics classroom, but in all classrooms. Therefore, all educators must be aware of the importance of being able to communicate with students, to have students communicate with one another, and to have students understand what they are communicating about. Kabasakalian (2007, 843) correctly contends that “the need for meaningful classroom discourse is now universally accepted among educational researchers and teachers are encouraged to use ‘higher order’ questions.” Thus, oral communication skills are key for any teacher and student alike. Educators have to be willing to push students to become good communicators.

The following quotation is telling to answering the question or proposition on the importance of oral communication skills in the mathematics classroom:

“Oral Communication includes talking, listening, questioning, explaining, defining, discussing, describing, justifying, and defending. When students participate in these actions in an active, focused, and purposeful way, they are furthering their understanding of mathematics.” (Ontario Ministry of Education, 2006, p. 66)

From the above, it is evident that indeed oral communication is important as it furthers students’ understanding of mathematics.

Further, Baroody, (1993) and Gardner, (1983) also view communication skills and the ability to think and solve problems scientifically as the most valued skills in educational practices globally presently. Hence, teachers need to communicate mathematics effectively while they are engaged in the process of active construction of knowledge as mathematics is a language and science of patterns (Washington State Instructional Materials Review, 2006) and its symbols and vocabulary are a universal means of communication about relationships and patterns. It is a mode of inquiry that relies on logic, observation, simulation and experimentation to challenge and extend our current understanding. Therefore, mathematics teachers need to learn to share ideas and clarify their understanding of mathematics while they form mathematical ideas when they reflect, discuss, modify, and explain the conceptual structure to their peers and pupils. This cycle of analytical and systematic reasoning will eventually reinforce and strengthen the pupils’ knowledge and understanding of mathematics, thus causing them to think deeply and this could help in their teaching and learning.

Scholars have strongly argued that teachers’ growth evolved interactively through a process of enaction and reflection, when they think and communicate (Huang & Bao, 2006; Clarke & Hollingsworth, 2002). The following quotation is more revealing:

“At the heart of mathematics is the process of setting up relationships and trying to prove these relationships mathematically in order to communicate them to others. Creativity is at the core of what mathematicians do.”(Fosnot & Dolk, 2001, p. 4)

Therefore, the secret to successful teaching is being able to determine what students are thinking and then using that information as the basis for instruction. Teachers learn what students are thinking through student communication. When students communicate mathematically, either orally or in writing, they make their thinking and understanding clear to others as well as to themselves. In the early grades, students’ thinking about mathematics is often difficult to explore, primarily because students’ skills in talking and writing are just beginning to develop and because their experience of communicating about mathematics is new. Throughout the primary grades and into the junior years, however, students gain more experience and are given many opportunities to acquire an increasing number of strategies for demonstrating what they understand mathematically and demonstrating the process they used to find a solution. Having students communicate mathematically helps teachers to:

- gauge students’ attitudes towards mathematics;
- understand student learning, including misconceptions that students have;
- help students make sense of what they are learning;
- recognize and appreciate another perspective.

When communication is emphasized in the mathematics program, students also have many opportunities to develop and reinforce their literacy skills. In order to investigate mathematical concepts and solve mathematical problems, students need to read and interpret information, express their thoughts orally and in writing, listen to others, and think critically about ideas. Most of the communication strategies described in this article are not unique to mathematics learning – they are instructional techniques that can be used across the curriculum.

In summary, oral communication skills can be argued to be essential, not only in the mathematics classroom, but across the curriculum as it fosters students understanding and learning. Through questioning, explaining, sharing ideas, describing, justifying, and defending; students participate in these actions in an active, focused, and purposeful way. By so doing, they would be furthering their understanding of mathematics.

Review of literature on the enhancement of oral communication skills for teachers of mathematics

This section of the discussion reviews four articles of research in the teaching and learning of mathematics. These articles have been chosen purposefully as they deal with the enhancement of oral communication skills in the teaching and learning of mathematics. In reviewing these articles, the researcher is particularly concerned

with that part that is telling and informing when it comes to ways in which the oral communication skills of teachers of mathematics can be improved.

Peterson's (2005) "Student Teaching In Japan: The Lesson," shows that it is clear from the observations he made that the focus of student teaching in schools is on the lesson. In using the term lesson, he argues, it would be valuable to use it in the context of the Japanese word for lesson which is *jugyo*. In Japanese, *jugyo* means teaching, instruction and school work as well as lesson. Thus, to say that the lesson is the focus of Japanese student teaching, does not mean just the physical, written out lesson plan, but the whole process of teaching a lesson from preparation to teaching to reflection. In this process, student teachers also gain experience observing lessons where they focus on student thinking, the content of the lesson, the sequencing of ideas and not just the presentation of the lesson. One component of the interactions between the cooperating teacher and student teacher was a continual emphasis on how the students were making sense of the problems and questions presented. Cooperating teachers frequently asked questions like "How will the students answer that question?" or "what was the student's understanding when he made that comment?" These types of questions shaped the direction of each lesson and meeting between cooperating teachers and student teachers.

From the above it is also clear that indeed the interactions (thus oral communication skills) are indeed vital in the development of the teachers as they also go a long way to aid students learning of mathematics.

In an article, "Enhancing Communication Skills in Mathematics Teachers through the Lesson Study Collaboration: A Pilot Study," Ong, Lim and Ghazali (2007) argue that due to technological advances, mathematics teachers must be able to interpret and use mathematics to make sense of information and complex situations. They go further to attest that these teachers must develop and hone their skills through deeper understanding of mathematical concepts and processes, solve problems by reasoning and communication. They intended to improve teachers' communication skills through what they term 'a lesson study process'. Their study found out that indeed teachers' verbal communication skills were improved through group discussions, teachers' participation, discussion, arguments, reactions, compromises or consensus, changes attempted and realized or aborted. They also argued that through this lesson study collaboration, students would become more confident, inquisitive and enthusiastic for the job market. Again, they attest that the teachers involved in the study could then think critically and creatively, solve problems and have the ability to adapt themselves to an ever-changing global environment.

This study has shown that Lesson Study collaboration helps primary school mathematics teachers improve their verbal communication skills. They build their confidence in expressing ideas, improve their reflective practices and enhanced their questioning strategies. It was also noticed that when the teachers were excited and wanted to prove a point, they reverted to code-switching especially in their first language, when they wanted to justify why they used

certain teaching and learning strategies. They also communicated in their first languages to encourage their colleagues who were not confident to use English and this has helped to build collegial ties as a few teachers have many good ideas but were constrained in expressing them initially. After the collaboration process, they managed to share eloquently. The practice of “throwing back” questions to encourage thinking was clearly demonstrated and teachers enjoyed this intellectual discourse tremendously. In their group discussions, teachers’ participation and discussions, communication among mathematics teachers has been enhanced. Further explanation on how ‘Lesson Study’ collaboration enhances mathematics teachers’ communication skills is given below.

Research has shown that lesson study can indeed enhance mathematics teachers’ communication skills. The two articles so far reviewed attest to that effect, that lesson study does enhance mathematics teachers’ oral communication skills in particular and communication skills in general. Thus, the researcher felt it could be pertinent to elaborate how lesson study collaboration enhances mathematics teachers’ communication skills.

To begin with, Yoshida (1999) first coined the word “lesson study”, which is derived from the Japanese word “*jugyokenkyuu*”, i.e., “*jugyo*” means lesson and “*kenkyuu*” means study or research. Lesson study provided a platform of systematic inquiry into teaching practice. It became a quality cycle for establishing long-term goals, where each piece of work is measured against the goals, thereafter; changes are made accordingly (Fernandez & Chokshi, 2002; Richardson, 2001; Yoshida, 1999). Lesson study is not merely a professional development activity (Watanabe, 2002) but rather became a culture whereby teachers communicated with one another, resulting in deep reflection on subject, students and instructional approaches. Lesson study enhanced and generated new knowledge through practical inquiry (Franke, Carpenter, Levi, & Fennema, 2001; Stigler & Hiebert, 1999).

In addition, lesson study helps teachers build conceptual knowledge, especially when they explored different ways to approach the subject or a particular topic. Teachers started by examining the contents deeply to find connectedness across grades by searching between lines in text-books so that they can integrate the details and content for the lesson (Clarke, 2006; Takahashi, 2006). This collaboration provided the teacher the time and structure to focus on her students and develop appropriate strategies based on their needs, besides analysing and improving teaching and learning of even the most challenging unit (Ball & Cohen, 1999).

Furthermore, Lesson Study enabled teachers to collaborate and internalize learning to teach (Watanabe, 2002; Peterson, 2005). His peers and knowledgeable others could contribute to his growth (Ross & Bruce, 2007). Through this process, teachers became more observant and focus on meaningful problems, which are linked to real-life, which students can relate to. Therefore, from the above it is evident that research has shown that one way of improving mathematics teachers’ communication skills is through the lesson study mode.

Another article reviewed, “Look Who’s Talking- Incorporating oral presentations into mathematics” by Anne B D’Arcy-Warmington (2008, 2) argues that “...simply speaking, the problem is *we are not speaking* (writer’s italics).” The solution is a true collaboration by both student and mathematics educator which may require a radical change in the administration of tutorials. This change is required for two-way conversation to take place. Students need to be aware that the first step to mathematical comprehension is talking about mathematical concepts rather than a written solution. Public speaking is enemy number one in mathematics sessions as students would gladly attempt endless written questions rather than have to find words to explain their mathematical ideas. To overcome fear and shyness, students must be introduced slowly to the idea of discussing concepts instead of solutions. Emotions play a major part in learning, especially in mathematics, so a top priority is to create a friendly social atmosphere from day one where students employ their interpersonal and linguistic intelligences. Both tutor and student need to adapt to this social aspect not as an ‘add-on’ component but as an integral enhancement to learning.

D’Arcy-Warmington also goes further to argue that it is important to consider the merits of oral presentations in mathematics service units as students’ educational needs are diverse. Reaching parts of the brain that usual educational methods do not reach may be the answer to those poor students who do not have a ‘mathematical brain’. The theory of multiple intelligences and brain-based learning may be the tool that will aid these students to be more confident about their mathematical ability. A broad knowledge and appreciation of mathematics is required. So examination questions that are easily solved by rote learning and algorithms will not have any educational advantage to these students in their chosen field. Oral presentations provide all students with a chance to display their knowledge in fun and creative ways. The interest aroused when researching the topic may give rise to a new curiosity about mathematics. With the declining numbers of students wishing to study mathematics perhaps an injection of creativity in service units may spark an interest in mathematics in students.

In addition, another article: “Integrating Oral Presentation into Mathematics Teaching and Learning: An Exploratory Study with Singapore Secondary Students” by Fan Lianghuo Yeo Shu Mei was also reviewed. In this paper, the writers introduced an exploratory study on the integration of oral presentation tasks into mathematics teaching and learning in five classes taught by different teachers in two Singapore secondary schools over a substantial period of time. From the results obtained from this study, it appears that although both teachers and students encountered initial difficulties and challenges, with necessary experiences and skills over time they can overcome them and become quite effective in using oral presentation in their teaching and learning. Therefore, oral presentation can be reasonably implemented in mathematics classrooms. The results also showed that both teachers and students overall developed positive views about the benefits and usefulness of using oral presentation tasks into their daily mathematics teaching and learning.

These positive views, it can be argued are related to the nature and pedagogical values of oral presentation activities. It was also observed in the study that, to effectively integrate oral presentation into the process of mathematics teaching and learning, both teachers and students should take various roles and responsibilities during the engagement. In particular, teachers' beliefs, behaviour, reaction and verbal responses to students' speech attributed to the effectiveness of using oral presentation in mathematics teaching. Teachers need to recognize that opportunity for students to be involved in active and meaningful verbal communication is an essential process for their learning and knowledge acquisition. They also need to give students necessary guidance (including making clear the expectations) especially at the initial stage, and more importantly, create encouraging classroom environment for students to engage themselves in such communication.

Finally, given the fact that the use of oral presentation tasks is relatively new to many teachers and students, and in fact, to the general school system about teaching and assessment in Singapore classroom settings, it seems clear that timely evaluation, fine-tuning work and systemic reform in school assessment are important for the effective integration of oral presentation in teaching and learning in the long run. Nevertheless, from this study it can be argued that given necessary help and guidance for teachers and students, it is not only meaningful but feasible to integrate oral presentation tasks into mathematics teaching and learning.

Discussion

The studies analysed above have been consistent in demonstrating that many of the constructs hypothesized in communication skills studies can be implemented. The lesson study has been affirmed by the first two researchers analysed to contribute immensely to the improvement of teaching and learning of mathematics. Peterson (2005) in an earlier study contends that the lesson study collaboration used as part of teacher training in Japan has commendable benefits in the enhancement of mathematics teachers' oral communication skills. These benefits have been clearly outlined in a later study by Ong, Lim and Ghazali (2008) when they argue that the lesson study collaboration improved the teachers' verbal communication skills through group discussions, teachers' participation, discussion, arguments, reactions, compromises or consensus, changes attempted and realized or aborted. They also argued that through this lesson study collaboration, students have become more confident, inquisitive and enthusiastic for the job market. Again, they attest that the teachers involved in the study could now think critically and creatively, enhanced their questioning strategy, solve problems and have the ability to adapt themselves to an ever-changing global environment. Furthermore, after the collaboration process, it is argued that teachers reduced code-switching and managed to share eloquently.

The second set of similar research in the enhancement of teachers' oral communication skills through oral presentations also made interesting and informative reading. Firstly, Lianghou and Shu Mei (2007) in their argument for

the integration of oral presentation tasks in the teaching and learning of mathematics to secondary school pupils, propound that this integration has proven vital as oral presentation tasks help students understand and learn mathematics. The teachers interviewed generally felt that as long as an oral task was appropriately designed to measure students' specific learning outcomes, then the oral task could be used as a measurement about students' learning. These teachers also felt that some of the conventional tasks could be replaced by oral presentation tasks. For instance, one teacher pointed out that "[oral presentation tasks are] a reliable source to find out from students whether they had internalized what they had learnt rather than just solve questions" (Lianghou & Shu Mei, 2007).

Secondly, D'Arcy-Warmington (2008) advocates for the enhancement of oral communication skills through a radical change in the administration of tutorials to encourage a true two-way conversation, that is, between the tutor and among the students. In addition, the scholar argues that students comprehend mathematics through talking about mathematical concepts rather than a written solution thus oral communication skills become handy for the teacher and eventually the student. This is so as the teacher then encourages the students to discuss the concepts instead of the solutions. These discussions have been seen to create a friendly social atmosphere to counter emotional barriers that might hinder learning as students employ their interpersonal and linguistic intelligences to aide them in their learning. Further, D'Arcy-Warmington (2008) also argues that oral presentations can help students understand mathematics better as they provide students with a chance to display their knowledge in fun and creative ways.

Therefore, it is evident from the above discussion that oral communication skills can be enhanced in the mathematics classroom for the improvement of the teaching and learning of the subject.

Conclusion

The study has been a highlight of the lessons that could be drawn from research in as far as the enhancement of mathematics teachers' oral communication skills. Four articles have been reviewed. Two of these mainly emphasized that indeed mathematics teachers' oral communication skills can be enhanced through the lesson study collaboration process both in the teacher-training programmes as well as a way of upgrading and developing practising teachers through refresher courses. The other two studies have argued for the integration of oral presentation tasks in the teaching and learning of mathematics so as to enhance both the student and the teacher's oral communication skills as they entail a creative and fun filled way of learning. Be that as it may, these findings are yet to be documented in as far as the Zimbabwean context is concerned. Therefore, the researcher is calling for scholarly inquiry into filling of this lacuna.

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‘Relevancing’ Communication and Study Skills Courses

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ABSTRACT

Defined in contexts of general theories and practice of education, the terms *relevant* or *relevance* are used to indicate whether or not educational activities or processes involved in teaching-learning situations add value to or enhance students' psycho-social as well as intellectual skills in the analysis, application and communication of the knowledge or skills they acquire or develop during the learning process. It is generally understood that the acquisition of knowledge in specified disciplines is facilitated by students' communication proficiency levels in the use, not only of the medium of communication used, but by, also, their familiarity with the discourse studies used to communicate information in specified disciplines. The discourse strategies used in different subject disciplines are generally referred to as, English for Specific Purposes (ESP).

Introduction

The focus of discussion in this article is related to the need for ensuring that subject content taught in universities or other institutions of learning are linked to students' anticipated professional needs. In this article, the word 'relevancing' is used in the active form to refer to processes that institutions should put in place to ensure that courses offered are in keeping with or recognise the professional aspirations of students. This observation suggests that Communication Skills courses should, in addition to teaching students how to communicate through English, focus on the specific types of English they are likely to use in specific professional or social situations. It is with the intention to achieve this objective that in this article, the writer suggests we review the Communication Skills Courses we offer in order to package into them, study topics and teaching strategies that help students develop notions of the meaning and skills for applying relevant and or appropriate communication skills in scientific written or spoken discourse.

Definition of the Concept ‘Relevance’

Communication is a broad psycho-sociological concept. Definition of the term '*relevance*' is therefore, conceptually relative, in that situational or communicative notions definitions of the term can, depending on the texts in which it used in this discussion, the writer suggests we define 'relevance; with reference to the academic context in which Communication and Study Skills Courses are taught at

Bindura University of Science Education. Understanding the implications of the phrase 'Science Education' implies that scientific theories and content are taught, perhaps differentially, in different faculties and departments but whatever differences we might find between and or among such sub-disciplines should be perceived as having scientific justification.

In this context, *scientific teaching strategies* could be distinguished from *scientific learning content* but ideally the two approaches to definitions of science as content or scientific as a teaching learning strategy would be issues lecturers make and apply in contexts determined by their conceptualisations of students' academic needs.

'Relevancing' Communication and Study Skills

In contexts of Communication and Study Skills, relevancing teaching/learning content can be defined as the establishment of links or connections between what is to be connected (i.e. content) and the mode or transmission code considered appropriate and effective for communicating the desired information or content (i.e. linguistic mode or its characteristics in terms of lexical items as well as syntactic structures used and the information or semantic implications of the language used). The positive relationship between the *mode of communicating scientific concepts* and *the concepts communicated* leads to our understanding of the term English for Specific Purposes, a term which Richards et.al (1997: 125) define as:

“The role of English in a language course or programme of instruction in which the content and aims of the course are fixed by the specific needs of a particular group of learners. For example courses in English for Academic Purposes, English for Science and Technology and English for Nursing.”

In this context “Relevancing Communication and Study Skills” involves focussing the study towards ways in which language is used to express ideas or exchange information using language forms such as lexical items as well as syntactic structures that effectively and appropriately communicate the intended content. Studies in English for Specific Purposes reveal that certain words, phrases or sentences can be used differentially or identically in certain situations.

Defining English for Specific Purposes in this manner further suggests that the varieties or types of language or communication used in different social or academic situations (such as science, agriculture, engineering or nursing) require that writers or communicators select linguistic units, that is words or sentences that appropriately communicate desired information. In their Dictionary of Language and Linguistics Hartmann and Stork (1976: 95) define the term *relativity* as the communicator's ability to select linguistic features that accurately reflect a speaker or writer's view of the world or notions that they communicate to their audiences. It is the communicator's ability to carefully select and appropriately use linguistic units that adequately and successfully communicate ideas to the audiences

addressed. We can, therefore, simply refer to the term *linguistic reference* as implying that language users should ensure that the language used when communicating information is relevant or appropriate lexically, syntactical and semantically, hence, the use in this text of the term *relevance*. In the context of discussion in this article, readers are therefore advised to define the term *relevance* as suggesting that the communication of concepts in spoken or written discourse has features that clearly and accurately take cognizance of the fact that in communication lexical and syntactic structures are used to appropriately communicate ideas or information in given discussion or reported topics. What this implies is that subjects such as science, art, philosophy call for use of certain lexical, syntactic and semantic desired information. In other words certain sets of meaning or certain usage this way or ensuring that the language used in different contexts subject disciplines should be relevant.

In this context, therefore, the term relevancing is used to refer to the writer's ability to use language ensuring that the style of language used appropriately communicates ideas in the general field or register of discourse in this context, the term 'register' can be defined as:

"Linguistic varieties that are linked ... to occupations, professions or topics... Registers are simply a rather special case of a particular kind of language being produced by the social situation."
(Trudgill 1983:101)

The discourse style used is, in some cases, influenced by the status of the speech participants as in the case of daughter-in-law speaking to a father-in-law.

e.g. How are you doing? (father to daughter).

How are you doing? (husband to wife).

How are you doing? (boyfriend to girlfriend).

In such cases, utterance meanings can be defined as being contextually differentiated.

Course Outline Suggestions

Course outlines for teaching students in different institutions generally vary depending on:

1) Learner's Background

Academic or experiential background analysis requires that prior to establishing learning or teaching course outlines, instructors should study or investigate the background information students would have acquired prior to coming to school or university. It is necessary that we establish students' background information in order to appropriately link previous learners' knowledge or experiences to that which they would be taught at school or university. Apart from such findings enabling teachers link previous and new knowledge.

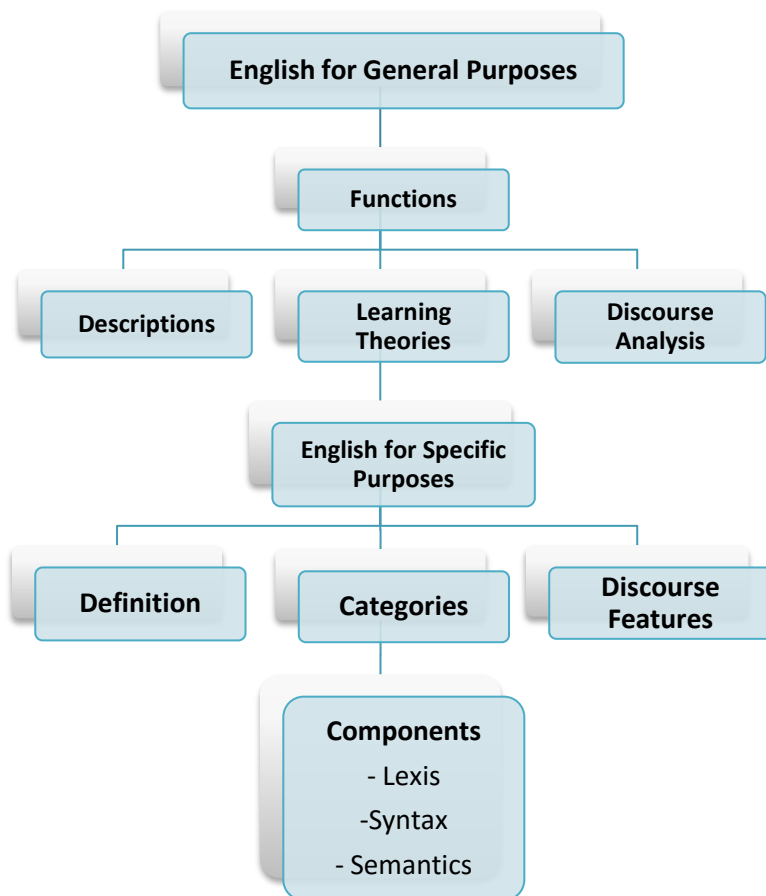
Background knowledge enables syllabus designers and lecturers determine:-

- a) Learner's assumed previous knowledge.
- b) Ways of linking previously acquired and new knowledge.
- c) Determine, on the basis of findings/observations of a) and b), how to teach students to acquire new knowledge and ways in which new knowledge can be linked to previous knowledge.
- d) On the basis of previously acquired linguistic knowledge or communication through previously learned languages proceed to determine:-
 - The language students need to use in studying specific topics.
 - The language that appropriately communicates ideas in given disciplines or subjects i.e. ESP.

2) Course Components

N.B. No fixed approach

Section A: General English (EGP)



‘Relevancing’ Communication and Study Skills Courses

The preceding brief description of the concept “English for Specific Purposes” (ESP), suggests that, it is high time Communication and Study Skills Courses get revised to ensure that the core content of the courses offered is based on developing students proficiency in communicating scientific information in ways that we generally assumes to be acceptable to members of the scientific discourse community. The review suggested here should focus on the linguistic needs and proficiency levels expected from graduates in a university of science education or science and technology (i.e. Bindura University of Science Education). Such linguistic focus on needs and discourse typology in which language is used ensures that course outlines in Communication Skills courses are generally based on the theory of relevance. A theory that can be defined as - The acquisition and application of such linguistic discourse ensures that our Communication Skills Courses respond to, over and above proficiency in Communication Skills, competency and fluency in the communication of subject based or professing subject based skills using appropriate or professionally acceptable discourse.

As we consider this proposal, we should be aware that the definition of science as an academic discipline may mean and suggest analysing pedagogical theories and practices that require defining communication from different angles. We might therefore, in our efforts to define scientific spoken and written discourse identify what we might ourselves be referring to as “Varieties of Scientific Discourse” applied in the teaching of different scientific disciplines in different faculties.

Implications

The information presented in this brief article is a tentative suggestion that Communication and Study Skills Courses for a Zimbabwean University should be more ESP oriented or learn more closely towards the study of scientific discourse with reference to the following sub-fields of study.

- Scientific lexis
- Scientific syntax (including all possible variations)
- Scientific semantics e.g. SVO, OVS, SV, OV.
- General characteristics and stylistic variations of scientific and or other discourse types used in different faculties and departments.

Instead of adopting a communication and study skills approach that focuses entirely upon ESP communication, we can provide courses that introduce students to different communication and study skills courses. Such courses would aim to introduce first year students to communication and study skills content that is presented, differently, in sections such as the following:

Section A: Study Skills

1. Reading for Academic Purposes.
2. Analysing Question Elements.

3. Listening Skills (receptive skills).
4. Speaking Skills.
5. Writing Skills.
6. Essay writing/presentation.

Section B:

1. Written Communication
2. Oral Communication
3. Varieties of Discourse Oral and Written Discourse types

Section C:

1. ESP – meaning and Definition
2. ESP – varieties e.g.
 - i. Scientific discourse.
 - ii. Social Discourse.
 - iii. Medical Discourse.
 - Topic sentence.
 - Topic sentence developers.
 - Paragraph conclusions.
 - iv. Academic Communication vs. Social Communication.
 - v. Introduction to Discourse Analysis (i.e. meaning and practices.

Section C constitutes an important unit or section of communication skills in a university of science education. Whichever way we define science in science education, it is, imperative that we orientate our communication and study skills towards teaching English for Specific Purposes. In this case we claim to focus on studying science based courses irrespective of the definitions we give to the discipline 'science' we used to provide communication skills courses that focus on what we, in this context, refer to as science. Such an approach would compel us to focus on designing ESP Communication Skills courses.

Admittedly, there would be need to add other functionally related topics to ESP courses in order to ensure that the Communication Skills courses, under instruction, respond to the communication needs of learners. Richards et al. (2014) defines this LSP as follows:

Second or foreign language used for particular and restructured type of communication (e.g. for medical reports, scientific writing, air traffic control). Other linguistic features which are different from ordinary language. In language teaching decisions must be made as to whether a learner or groups of learners requires a language for *general purposes* or for special purposes.

It is, however, advisable that in ESP Communication Skills courses, that content should be sectionalised as follows:

- meaning of communication skills
- varieties of communication skills
 - i. social communication skills
 - ii. interactive communication skills
 - iii. academic communication skills
 - iv. discipline based communication skills or professionally based communication skills (i.e. ESP)

ESP discourse can vary from situation to situation depending on the discourse topic chosen by speakers. Generally ESP is a term used to refer to a variety or type of language used in situations where ideas or meanings are linked to or relate to certain categories of meaning. Hutchinson and Waters (1987:19) provide the following definition

ESP must be seen as an approach not a product. ESP is not a particular kind of language or methodology nor does it consist of a particular type of teaching material. Understood properly, it is an approach to language teaching, which is based on learner need.

The foundation of all ESP is the simple question: why does this learner need to learn a foreign language? From this question, will flow a whole lot of further questions, some of which will relate to the learners themselves, some to the nature of the language the learners will need to operate *some to the given learning context*. ESP, then, is an approach to language teaching in which all decisions as to content and method are based on learner's reason for learning.

Readers might wonder why the writer got motivated to provide this lengthy citation in a *simple* article focussing on the relevance of communication skills in a subject that is generally considered minor among other university courses. The reason for the writer's motive to do so can be briefly stated as follows: the role of language in teaching and learning situations, in its various ESP forms, is an important constituent if not facilitator of all effective learning activities. It is this view of the role of language in communication that has led to the elevation of communication skills to the high academic status we find it.

This offers learners the opportunity to understand that Communication and Study Skills courses can vary from institution to institution, depending on whether the academic courses offered are scientific or non-scientific. What academic approach selected by schools, the need to combine General Communication Skills content or English for Specific Courses such as science, theology, agriculture etc. maybe found desirable. It is this suggestion that led Richards et al. to advise that:

In language teaching, decisions must be made as to whether a learner or group of learners require a language for general purposes or for special purposes. Richards et.al. (op cit. 204).

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Communicating Through Music: An Analysis of Selected Songs from the Second Chimurenga

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ABSTRACT

Every community has its own songs and performance styles that communicate, among other issues, its culture, ideology as well as its whims and fantasies. It can be used to communicate parts of all cultural activities and beliefs ranging from joy to the sombre tones of a funeral. Music becomes a social/ideological thread that holds a community together and facilitates all cultural activities in any community in the world. In this article, the writer discusses some effective ways in which music was effectively used to communicate and arouse positive feelings towards the Zimbabwean liberation struggle.

The Zimbabwean Liberation War – The Second Chimurenga

Zimbabwean anticolonial struggles have been given the umbrella term Chimurenga which is derived from a Zimbabwean patriarch Murenga Soro Renzou. This patriarch is a predecessor of Munhumutapa, Changamire and others (Beach, 1989). The first Chimurenga was the first war of resistance against the establishment of Rhodesia as a colony of the British empire, a group of European adventurers who called themselves pioneers.

The settlers took up large tracts of land for farming thereby displacing the local populace whose terms of land ownership were very different from the white settlers. This led to the first wars of resistance launched by Zimbabweans between 1893 and 1896. These wars are generally referred to as the first Chimurenga.

Black people were alienated from their land after the passing of the Land Apportionment Act of 1931, the Animal Husbandry Act of 1959 and the Land

Tenure Act of 1969. The traumas that went along with these forced removals were never fully recorded and they gave the mistaken impression of consensus. The black population was beaten into submission. It is against this background that Zimbabweans took up arms against the Rhodesians. The first shots were fired at Chinhoyi in 1966 and the armed struggle against Rhodesians went on for another fourteen years and came to an end in 1979 (Ellert 1989; Bhebe 1999; Moorcraft and McLaughlin 1982).

Significance of Chimurenga Songs

Chimurenga songs communicated different themes such as the history of Zimbabwe, the purpose of the armed struggle, its conduct and efforts to link the people with their world. Songs were part of the ideological struggle. Some of these songs were so moving and were deeply embedded in the subconscious of both performer and audience. These songs also motivated the guerrillas to engage the enemy even when it meant sacrificing their lives. Some songs according to Pfukwa (2008), expressed resistance, defiance or were used to taunt the enemy.

Other songs were part of the recruitment drive to attract support from the people and to recruit new cadres (Pongweni, 1982). Others were sung during political orientation sessions as historical narratives in the typical traditional fashion of *kuimba ngano* (singing stories). In some cases, the songs were intended to communicate feelings that would ultimately motivate guerrillas to encounter traumatic experiences and to ease the burden of painful memories of the nightmares of the battlefield.

The collective spirit

In line with African tradition, Chimurenga songs were collectively composed and performed to encourage freedom fighters and villagers to collectively ensure that the obligations of the liberation struggle got collectively achieved. Such collectivity was one of the major objectives that guerrillas brought to the struggle from their communities. They used it as a powerful weapon against the enemy. The collective element communicated through music is also well researched by Vambe (2004).

Performance of a Chimurenga song was always collective, bursting with energy maybe except when singing the “anthem”. There was no distinction between audience and performer. There was often a lot of dance, ululation, whistling and other paralinguistic elements to enrich the songs. Song and dance were an act of triumph over adversity. Chimurenga songs became narratives of the past, shared and experienced in the hunger, squalor, disease and death in camps and battlefields to communicate notions of bravery and self-sacrifice in the execution of liberation struggle.

This paper therefore argues that most Chimurenga songs can never be accredited to an individual. Western music separates performer or writer from the audience. Chimurenga songs did not have such boundaries. The audience and the

performer fused, complementing each other as the performance unfolded. With each performance a song was recomposed, modified and enriched. This marked the power of collective composition and collective performance to communicate the desire to succeed, militarily, under difficult conditions.

Song as historical narrative

A song can be seen as a text that presents experiences that are sometimes difficult to narrate in other forms. In song, fact and fantasy can fuse to create some form of historical and cultural reality of a given people. In such situations, songs map out nodes of Zimbabwean history such as the second Chimurenga. Like any other war, the second Chimurenga it had its triumphs and tragedies, pain and passion which were communicated through song.

Javangwe, (2011) argues that all narratives are partial: they are always fragments of a bigger tapestry which can come as metaphor or symbols. The narration process in such situations become powerful representations of the past. War experiences are often traumatic and the songs are replete with bitter memories deeply imprinted in the mind (Mutambara 2014). Because of this, it is not easy to put together a coherent narrative, so song becomes a viable narrative form to communicate painful experiences.

The songs

The songs referred to in this article collected over several years. Some of them were taken from Pongweni (1982) and Pfukwa (2008). Others were taken from unstructured interviews with guerrillas and war collaborators who participated in the liberation struggle. For each song, a brief analysis of memories and histories is given. The selected songs discussed below illustrate the narrative force of the songs adopted to motivate people to support the liberation struggle. The songs are put in three categories to facilitate analysis and discussion. These are the “*ngano*/epic”, the elegy and the song sung in motion.

Some limitations of this collection

Firstly, the songs are post-1975, yet the history of the Second Chimurenga goes back to the 1960s. After 1975, guerrilla numbers increased sharply in both Mozambique and Zambia (Tungamirai, 1996). Secondly, the songs were drawn from only one of the liberation armies, ZANLA. The other liberation army ZIPRA had an equally strong musical tradition which still needs to be documented. Thirdly, the songs are drawn from one Zimbabwean language, Shona. There are many Chimurenga songs in other Zimbabwean languages which still need to be recorded.

The “*ngano*/epic”

Sendekera mukoma Takanyi is a long epic that was well documented by Pongweni (1982). A version of this song is also recorded on a website. This paper does not

repeat the song but lifts excerpts of this long sonic narrative. In typical call and response style of traditional song, it narrated the whole Zimbabwean story, the history, the natural resources, the pain of colonial oppression, the suffering of the villagers who supported the war and many other horrors that Zimbabweans went through:

“...*Vanamai vanonetswa
nemabhunu vanobvunzwa vana
varipiko...*”

“...Our mothers are harassed by the
boers as they are asked where are
your children...”

It carried the inspiration and determination of the fighters in the struggle. In the same way that Mozambicans defeated the Portuguese, Zimbabweans were determined to defeat Ian Smith.

...*Kaitano aimbovhaira baba
akarohwa nemaCamarada
Iye Simithi ari kuvhaira baba
arikurohwa ne makhomuredhi...*

Caitano used to boast before he was
defeated by the Camaradas
Smith is boasting, but he will be
defeated by the Comrades...

In the same breath it sang about the treachery of Morris Nyati who led the Selous scouts to Nyadzonya camp in Mozambique and earned himself eternal infamy. The lines simply repeated the name:

...*Pasi naNyati, Pasi naNyati
Pasi naNyati, kani amai
Pasi naNyati ...*

Down with Nyati ...

The Nyadzonya massacre is one of those great tragedies of the liberation war where nearly one thousand refugees were killed and buried in mass graves.

Mukoma Takanyi never lost its freshness and emotional force because with each performance the song was perpetually recomposed, improved and modified. It did not need hours of practice but ability to infuse new elements, new ideas as the narrative built itself up. It was sung by the fireside in the evenings or at political gatherings.

Another epic which also narrated the Zimbabwean story was *Maruza vapambepfumi* (*you have lost imperialists*) which is also a call response song. It marks its start with the story of Chaminuka:

*Kwanga kune mumwe murume
Zita rake Chaminuka
Aigara kuChitungwiza...*

There was a certain man
His name was Chaminuka
He lived in Chitungwiza

It also narrated the coming of the Europeans

...hevoka mapioneer...

Ndokudzikisa mureza wavo

wainzi yunyeni Jeki...

...then there were the Pioneers....

They raised their flag called the Union
Jack...

The song goes on to narrate the colonial experience and the resolution to go to war. It is sharp, piquant, hurling deep insults at the colonial power.

...Mazigadzi aneunyope,
Mazimhanza anokuya dovi!

Lazy wives,
Bald heads that grind peanut butter!

And, with tongue in cheek, it poked the Rhodesian enemy in eye

...tereraika munzwe,
ZANU chiororo!

...listen, carefully,
ZANU is a bane!

This song was composed and performed by a choir with Chinx Chingaira as lead singer.

Chinx, supported by the Zanla Choir came to prominence with *A message to the queen*. This was a deliberate effort to sing in English but the music followed the call and response found in *Mukoma Takanyi* and *Maruza Vapambepfumi*. It also narrated the Zimbabwean struggle. Whereas the other songs were full of lamentation and suffering, the *Message to the Queen* was full of defiance. It was a song of triumph and was sung around the time of independence when Prince Charles came to officiate the Zimbabwean independence on 18 April 1980. So the song asked him to carry a message to the queen.

Maruza vapambepfumi was a song that was never really sung with the same ease as *Mukoma Takanyi*. The latter was composed in the pain and squalor of the refugee camps of Doroei and the training camps of Takawira and Tembue (Mutambara 2014). It was difficult to embellish and modify *Maruza Vapambepfumi* in the manner that every singer could recreate *Mukoma Takanyi*. The former was ultimately cast in stone when it was recorded after 1980. The origin of *Mukoma Takanyi* is difficult to trace. It probably was older than Nyadzonya, but it is not clear where it was created, whether in Zambia or in Mozambique. On the other hand, *Maruza vapambepfumi* was composed by the Zanla choir in Mozambique between 1978 and 1979 and went on to be recorded. So, while it was still collective, its collectivity was not as wide as that of *Mukoma Takanyi*.

Songs on the double - *toi toi*

Pfukwa (2008) suggests the term *toi toi* originated in the camps of Mozambique and Tanzania. Zimbabweans might have borrowed it from troops in these respective countries. Pfukwa (op. cit.) also identifies some *toi toi* songs whose main features are discussed and explored below. They were short sharp dittys. They had the call and response to ensure rhythm in the march. Everyone was part of the song which had a lead voice and the rest responded in unison in voice and in step. Some were light hearted chants while others were deep insults. *Toi toi* was a collective experience often full of emotion and bursting with energy. It was a performance in motion and the performer was also the audience. *Toi toi* was a statement of the resilience and determination of a guerrilla force fighting against a well armed adversary. Rhythm in motion was as important as meaning in song.

Lead singer: <i>Chiuya, chiuya</i>	Come, come
<i>chiuyawo mukoma</i>	Come brother
Singers: <i>Ramba wakadaro</i>	Keep on coming
<i>chiuya</i>	
<i>Hehahe chiuya</i>	Yes come
<i>Rambawakadaro chiuya</i>	Keep on coming
Lead singer: <i>Chiuya, chiuya</i>	Come, come

In the same breath, the lyrics could be quickly changed with rhythm in sync with the step:

<i>Musana musana musana</i>	The back (x3)
<i>Musana unodzimba maiwe</i>	The back is painful
<i>Zorodza musana</i>	Rest the back
<i>Zorodza musana</i>	Rest the back

And still more change

<i>Chiororo chiiko</i>	What is a 'Chiororo'
<i>He ha he</i>	He ha he
<i>Chakasara kuZimbabwe</i>	It was left in Zimbabwe
<i>Changu chimwe chana</i>	My other child
<i>He ha he</i>	He ha he
<i>Chakasara kuZimbabwe</i>	Was left behind in Zimbabwe

A string of these short ditties could be put together as long as the *toi toi* lasted, this could go up to an hour or more without anyone losing breath or getting exhausted. The striking thing is that *toi toi* was done by a force that was poorly equipped with half of it barefoot and there was never enough food. It is astonishing where these guerrillas, often malnourished, got the energy to bellow:

Ndoichekacheka yebhunu!
Heyo!
Hondo iyo!
Heyo!
Hondo iyo!
Oye!
Oyiyerewo!
Hondo iyo!

I will cut to pieces that of the Boer
Hey ho
The war!
Hey ho
The war

Ndoicheka cheka ndouraya!
Heyo!
Hondo iyo!
Heyo!
Hondo iyo!
Oye!
Oyiyerewo!
Hondo iyo!

I will cut to pieces and kill
Hey ho
The war!
Hey ho
The war

(Pfukwa, 2008)

This *toi toi* song was a deep insult to the enemy and I cite Pfukwa (2008) here:

“It is full of innuendo and carries veiled obscenities...*Cheka cheka* means cutting to pieces and whatever it is, it belongs to the Boer. By adding *s* to *hondo*, the word becomes *shondo* the Shona word for penis. The words then make sense: “I will cut up the penis of the Boer”, which is a deep insult...”

Any guerrilla would delight in cutting up an adversary who wrought so much misery and death.

An elegy

To pay homage to the fallen the guerrillas sang ‘*Mwoyo Wangu*’.

My heart
has pledged to die for Zimbabwe
My blood
will flow in the rivers

Mwoyo wangu
watsidza kufira Zimbabwe
Ropa rangu
nemunzizi richavavamo

In the mountains
and in the rivers I shall sleep
eternally
To fulfil the task that was left
to me.

Mumakomo,
nemunzizi ticha ravamo

Kuzazisa basa randaka siirwa.

The song was sung in a very solemn manner, with the right fist raised facing Zimbabwe. This song was a “last post” that was sung when a comrade died in camp and on important occasions. Ideally, it would have been sung even in the front but circumstances often did not permit decent burial let alone any kind of internment. It goes without saying as casualties rose the song became frequent but it never lost the solemn note.

Conclusion

This paper has given a brief overview of the power of the narrative communication used to communicate notions and feelings of the liberation fighters. The songs reflect and illuminate the pain, the losses, the squalor and all the other hardships of Chimurenga.

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