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The role of Tshivenda Indigenous knowledge in formal education in Beitbridge, Zimbabwe

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Abstract

Indigenous knowledge systems (IKS) stem from the immediate environment and remain some of the most valuable resources owned by rural communities. However, they have also been the least used in transforming educational systems in Africa. In Africa, especially in Zimbabwe, while the Indigenous communities always find value in their local knowledge which is part of their education, it was not the same with the colonial administration, which viewed Indigenous knowledge as primitive, anti-development, backward, uncivilized, ungodly and mere repetition of practices without any theory to explain them. Due to this most Africans, turned their backs on Indigenous knowledge systems which in the end led to a decline in their use. Despite the globally surging call that emphasizes the urgent need to embrace, learn and preserve our indigenous knowledge, very little has been done to change their status, especially in African communities. Against this background, this paper explores the role that Indigenous knowledge systems can play in the learning and teaching processes in formal education. The study adopted an exploratory qualitative research design and the Sankofa theory provided the theoretical framework. Vhavenda knowledge holders' views were solicited using semi-structured interviews. The selection of participants was done through purposive sampling. The findings of the study unveiled that Tshivenda Indigenous knowledge has been excluded from formal education and by extension, Indigenous experiences, values, cultures, philosophies, and traditions of the Vhavenda people were equally excluded. The study argues that the inclusion of Indigenous knowledge in formal education would promote socio-cultural, political, economic, scientific, and technological development in BeitBridge.

Key Words: Tshivenda language, Indigenous Knowledge Systems, formal education, Zimbabwe

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Introduction

The paper explores the role that indigenous knowledge could and should play in formal educational systems in Beit Bridge, Zimbabwe and how these roles could possibly influence principles of pan Africanism which are collective self-reliance, self-sustaining development and economic growth. The focus is on the potential role of indigenous knowledge in motivating, raising interest and promoting both innovating thinking and self-consciousness in learners. Indigenous knowledge (IK) is consciousness and perception that are unique to a particular community, culture or society that they have survived on a long time and it has been in existence since pre-colonial times. Many terms such as knowledge of the indigenes, traditional knowledge/ traditional wisdom, local knowledge, people's knowledge, folk knowledge, traditional science and cultural knowledge have been used to refer to indigenous knowledge (Mapara, 2009). The knowledge is generated and transmitted by communities over a long period of time in order for them to cope and address their everyday societal problems. The knowledge is generated through a systematic process of observing local or the immediate environment, experimenting with solutions and readapting previously identified solutions to modified environmental, socio-economic and technological situations (Sinanakane, 2006, p. 87). Indigenous knowledge is passed from generation to generation orally and culturally and has been the basis for education, food preparation and preservation, agriculture health care, and the wide range of activities that sustain a community or society and its environment in many parts of the world for many centuries unscientific (Ezeanya-Esiobu, 2019).Against this background, the history of formal education in Africa is incomplete without including the role played by indigenous knowledge systems. Indigenous knowledge, among other functions, prepared boys and girls for their responsibilities as adults in their respective communities. This is because education in the African context was rooted in indigenous knowledge generated by Africans in response to their different political, economic, physical and social-cultural problems (Sifuna, 2008; Zulu, 2006). It was indeed an education that was responsive to the needs and social problems of society. Mawere (2015, p.58) avers that societies across the world depend on their indigenous knowledge to solve their day-to-day socio-economic problems, address various environmental challenges and adapt to change.

Despite the indigenous knowledge which Africans have, Western knowledge was imposed on Africans. Since its introduction in Africa and other non-

Western societies, the Western worldview of knowledge has lacked an understanding of the holistic nature and approach of non-Western ways of knowing and knowledge production (Kaya & Seleti, 2013; Chavunduka, 1995; Lander, 2000). Nkondo (2012) asserts that the Western perception of African indigenous knowledge as a mere repetition of practices without any theory to explain them is a depiction of Western cultural and intellectual arrogance. Mart (2011, p.190) argues that such views have forced Africans to modify their beliefs, thoughts, and behaviour in order to survive on a planet where they are regarded patronizingly as 'Third World People'. The findings of this study are significant for addressing Sustainable Development Goals (SDGs) for quality education in Beitbridge and ensuring Indigenous knowledge and minority language learners have equitable access to learning. This is asserted in Chapter 4 of SDG 4, namely "inclusive and equitable quality education." The quality of education is specifically examined from four perspectives: school environment, educational attainment, learning achievement, and non-cognitive skills (Urata; Kuroda and Tonegawa, 2023). This access could be enhanced through the inclusion of indigenous knowledge in the curriculum. The article attempts to address the following research question: What role does Tshivenḓa Indigenous knowledge play in the educational system?

Brief background about the Tshivenda language, the people and their belief system

Tshivenḓa language is a language spoken in the eastern part of Matabeleland South Province of Zimbabwe and also in the Limpopo Province of South Africa. The dialectal components of Tshivenḓa in Zimbabwe are Tshiphani, Tshironga, Tshiiḽapfuri, Tshilembetu, Tshimbedzi, Tshimaanḓa and Tshinia (Mafela, 2006 p. 826), with Tshiphani as the standard dialect studied from basic to tertiary education in both South Africa and Zimbabwe. The speakers are referred to as Vhavenḓa. The Vhavenḓa area is predominantly agrarian with most of the population being farmers who engage in both in ploughing and rearing of cattle. Aside from farming activities, the Vhavenḓa people also delight in trading traditional artifacts such as winnowing baskets, Vhavenḓa brooms, traditional cups, and traditional mats to supplement their livelihoods. Some of the Tshivenḓa speaking communities can also be found mostly in the western part of Beit Bridge in Zimbabwe.

In the traditional Tshivenḓa communities, just as in many African cultures, their folktales, proverbs, taboos, songs, traditional games, traditional dances is their main asset to invest in the struggle for their survival, to produce food, to provide

for shelter and to achieve control of their own lives. Indigenous knowledge systems are a complex structure of how the Vhavenḓa people live and interact with their environment. Within Tshivenḓa culture, social, economic, political and cultural factors are embedded in their Indigenous knowledge. Vhavenḓa people, just like other African ethnic groups, have their own way of living, solving economic and cultural problems, and passing knowledge from the old to the present generation through the use of Indigenous knowledge among the Vhavenḓa people. The Vhavenḓa people believe in their local knowledge which is their belief and practices in solving day to day socio-economic, political, environmental and technological problems. This knowledge has been used for knowledge production 'education' since time immemorial. Of significance is that Tshivenḓa indigenous knowledge goes beyond their beliefs. It also includes practices as well as knowledge about nature and the universe.

Tshivenḓa Indigenous knowledge systems are diverse and complex. Despite the diversity and complexity, they are often neglected in epistemological development and production environments, being generally described with words such as primitive, backward, savage, rural and unscientific (Ezeanya-Esiobu 2019, p. 7). The unique knowledge and interpretations of reality produced by indigenous communities through a complex process of cultural construction, end up being made invisible, marginalized, and regarded as an inferior social experience, against a hegemonic epistemological model that produces and legitimizes a true monoculture of knowledge (Santos, 2015).

Colonisation and African Indigenous knowledge systems

In discussing the role played by Tshivenḓa indigenous knowledge as a tool of learning and teaching in formal education and transmission of knowledge in Beitbridge, it is significant to discuss the colonial miseducation of Africans as people without their education system, culture and history which subtly predisposed the continent to accept the imperialist presentation of the world through language manipulation of Africans. The colonialists educated Africans in a way that would undermine what it meant to be African. They also trained Africans to serve the interests of the empire. This was done by the colonizers as an attempt to remove the colonized people from their indigenous learning structures and draw them towards those of the colonizers (Mart, 2011; Bonella, 2010; Chung & Ngara, 1985; Kanyongo, 2005; Nhundu & Makoni, 1999; West, 2002). The imperialist miseducation also sought to withhold from Africa the memory of and true definition of African history, traditions and culture in formal

education instruction and knowledge transmission. It was this miseducation of Africans which sought to substitute whatever travesties Europe chose to present as the African past. It was this miseducation which encouraged Africans to glorify all things European and cultivate in them an inferiority complex. It was this miseducation which sought to indoctrinate Africans with colonizers' ideology, values, beliefs and train Africans to automatically uphold and habitually employ the colonizers' viewpoints in all matters by African university scholars and textbooks for educational instruction and transmission of knowledge in science, technology, architecture, literature, designs, manners, cuisine, painting and other studies of world civilization (Eneanya, 2021). Post-colonial school curricula in Africa, which are mostly dominated by Western values, knowledge and pedagogies at the expense of indigenous knowledge and epistemologies, remain a major area of concern in education (Ronoch 2017). Msila (2016, p. 57) in support of the aforementioned point avers that schools will never be truly Africanised unless the teacher education curriculum is embedded in an Indigenous Knowledge System (IKS) biased institutional culture and faculties become open to new ways and new philosophies. Goduka (2000, p.134) best sums up the impact that colonialism and westernization have had on indigenous knowledge. She argues that since their contact with Europeans, the history of indigenes has been a story of silence, invisibility, conquest, marginalization and powerlessness.

Whitehead (2005) argues that Indigenous people were brainwashed to discard their own cultures and embrace Western ones which were supposedly superior, a situation which resulted in a culture of dependency, mental enslavement and a sense of inferiority (Whitehead, 2005). By altering the history and culture of Africa, the colonizer created new values for the Africans. The education which was implemented by the colonizers is important in facilitating the assimilation process. As Kehinde (2006) asserts, Western colonialism is not content with pillaging human and material resources to sustain and consolidate its power over its colonies; it has to destroy the Indigenous cultures and values nd supplant them with distorted and totally ambivalent versions (Kehinde, 2006).

Several researchers and practitioners concur that effective teaching involves the use of learners' prior knowledge and that it is paramount to take into account the background and culture of the learner throughout the learning process and this is embedded in the learners' IKS (Sherman & Sherman, 2004; Holiday, 2000 (Hewson & Hewson, 1982). The above inference is also asserted in Deis' (2000) argument that the integration of IKS into education is to recognize that

different knowledge can co-exist and can complement one another, and also that knowledge can complement and conflict at the same time.

Any genuine African civilization must grow out of the African traditions, history and culture just as Western civilization has grown out of Western traditions. A modern African education system must integrate the role of Indigenous knowledge as a medium of instruction. The process must be a continuation of old African History, African traditions and culture that can be used in today's world. Gaotlhobogwe (2012, p. 192) had the following to say about the significance of Indigenous Knowledge in education: "Recognizing the value and role of IKS is an important first step in addressing problems experienced in Botswana, Kenya, Swaziland and other African nations as a result of adopting western models of Design and Technology related curricula". Hence, the role of Tshivenḓa indigenous knowledge must be revised as part of formal education in Beitbridge, Zimbabwe and Africa at large.

Understanding Indigenous Knowledge systems and education Mapara (2009) studied indigenous knowledge systems in Zimbabwe as juxtaposing postcolonial theory. He argued that IKS in Zimbabwe was more than a case of a sudden realisation on the part of the international community (especially from the Western scholars of the former colonised people's knowledge), which instead asserts that the indigenous people themselves have and continue to bring forth new insights and new knowledge systems and thus beyond just a quest of a people who want to bring their knowledge to the attention of global membership. Mapara (2009) further argued that IKS are an extension of the postcolonial theory through in highlighting the knowledge systems and successes of the formerly colonised that had been condemned or denied by colonialists. The author also established in his findings that IKS as a postcolonial theory have significance information that is embedded in proverbs, myths and some religious rituals particularly to those who understand the languages that carry these practices can at best appreciate them.

Mawere (2015) did a study on indigenous knowledge and public education in sub-Saharan Africa The paper explored the role that indigenous knowledge could and should play in public educational systems across Africa, and how this role could possibly influence the three principles of Pan-Africanism namely, collective self-reliance, self-sustaining development and economic growth. The focus of the paper was on the potential role of indigenous knowledge in motivating, raising interest and promoting both innovative thinking and a sense of self-consciousness in learners. The study reflects that Indigenous knowledge,

including intangible heritage, can contribute immensely to the learning process of the African people as long as value and a modicum of respect are accorded to them. The study concluded that as long as indigenous knowledge fails to find full recognition within and real integration into curricula and the mainstream knowledge discourse, the lofty Pan-African ideals of collective self-reliance, self-sustaining development and economic growth will remain an unrealised dream.

Mutekwe (2015) examined how indigenous knowledge education systems can be used to foster an Afrocentric philosophy of education in Africa. The author explicates that the advent of modern type of Western education has resulted in the death of the importance of indigenous forms of knowledge in Africa. The study concluded that the integration of African Indigenous Knowledge Systems in all of the education curricula for Africans needs to be carefully and appropriately carried out in virtually all learning situations. The results further reflect that the Eurocentric mind-set that tends to regard IKS as an integral part of the arts and culture. Learning curriculum needs to be revisited with a view to making IKS a compulsory part of all teaching and learning, consistent with the sociological view that all knowledge, whether Indigenous or Western, is spawned within a particular segment of society based on power or class. The author also concluded that an over-emphasis on the superiority of Western hegemonic forms of knowledge tends to relegate AIKS to an inferior position leading many Africans to shy away from it.

Gaotlhobogwe (2012) examined the role of Indigenous knowledge systems in addressing the problem of declining enrolment in design and technology focusing on decline in the enrolment of students in secondary schools in Botswana, Kenya and Swaziland that must be enrolled in design and technology as a result of they were founded on the culture, history and philosophies of Euro-Western thought and are therefore indigenous to western culture and its institutions. The study concluded that recognition of the value and role of IKS was an important first step to be implemented in order to address challenges experienced in Botswana, Kenya and Swaziland and other African countries as a result of adopting Western models of design and technology related curricula. The results of the study revealed that scientific / Western systems are not only capital intensive and expensive to African economies but they disconnect people from their identity and as a result of this indoctrination Western knowledge which are viewed and accepted as superior to IKS, Africans systems including education are always playing the catch up game with western systems.

Mapara and Nyota (2009) also discuss language as Indigenous knowledge focusing on language as an important tool for people's identity. The authors argue that without language there is no knowledge of oneself since language itself is a carrier of culture. The paper further argues that in communities there is so much hype and talk about the importance of Indigenous knowledge systems, but this hype will soon die out if the languages within which that knowledge is embedded are not elevated to official and business status. The authors further argue that language is a confidence builder and it enables the speaker to look back at activities and achievements of the past and build on that past and be in a position to launch new development initiatives.

Eneakanya (2021) worked on the role of indigenous languages as a tool of educational instruction and knowledge transmission in Africa. The paper argues that the adoption of indigenous languages for education and knowledge transmission would promote socio- cultural, political, economic, scientific and technological development in Africa. The author further argued that adopting of indigenous language as a tool of education instruction would stimulate scholarly discourse on African epistemology and establish theoretical construct for educational development policies in contemporary Africa. The study results showed the exclusion of Indigenous languages and their experiences, values, cultures, philosophies and traditions in knowledge transmissions and scholarship. A recommendation of the study was that African scholars should rethink and redirect educational instruction and knowledge transmission by incorporating African values and experiences in their search for knowledge on social, economic, political, scientific and technological development.

Education is the transmission of knowledge, relevant skills and values to ensure development for that reason a system of education should be guided by the values and aspirations of its beneficiaries. Mosweunyane's (2013) paper, the African Educational Evolution from traditional training to formal education focused on approaches that were employed by Africans in their knowledge, skills and attitudes acquisition before, after and during colonisation of the continent. The author explored if it was true that Africans did not have any form of education before the advent of the colonialist and their educational establishment or organisations. The results of the study reflect that Africa had its own form of education that made African societies to survive.

Theoretical frame work

The study utilized the Sankofa theory as presented by the Akan people as a principle of going forward to the future but having retrieved things that are in the past which are at risk of being lost for it is not wrong to go back for that which you have forgotten. The word 'Sankofa' is an African word that originated from the Adinkra tribe of the Akan people in Ghana who speaks the Twi language. The word San means to return to; ko means to go; and fa means to fetch, to seek, to look for or take it. The entire word is translated as "Go back and get it" or "Go back and take it". The author used the Sankofa theory as the theory of the study because it underpins the fact that Africans Indigenous people must use their African Indigenous knowledge in a bid for a sustainable road map to the future (Dei 2012). The Sankofa theory stems from the Adinkra symbol, Sankofa bird mainly found in West Africa looking behind itself while flying forward with an egg in its mouth. The theory construes the egg as a precious treasure in the form of historical wisdom that has been passed from generation to generation and this treasure which is the egg should be preserved for future generations. In anticipation this precious treasure ought to be handled with care lest it break and deprive future generations of such valuable knowledge (Kugara & Mokgoatsana, 2022). Although, the word *Sankofa* is an Akan word from Ghana, its philosophical and ideological dispensations cut across borders, ethnicity, race and continents. The thought of going back into history or traditions for creativity does not only pertain in Ghana and for that matter, Africa (Appiah- Adjei 2011: 2).*Sankofa* is an Akan word that means, "We must go back and reclaim our past so we can move forward; so we understand why and how we came to be who we are today." In other words, it is a symbol of pride in one's past and culture (Agbo 2012). The bird looks behind and looks ahead while flying meaning in order for Africans to proceed sustainable we have to go back and reclaim our identity then we can successful proceed. We have to return to the source as at the source there are the people, our people who created the ontological and epistemological basis for who we are and what we can know about ourselves (Alkalimat, 2021).

The Sankofa Principle is a fundamental feature of how we think to live, to affirm our humanity. We apply it not only to honor our elders and ancestors but also because their wisdom is wealth that our young need to survive and prosper. In their very early years, Black children are part of the promise of humanity that all children represent Alkalimat (2021:7). Slatter (2019) provide an imagery of the Sankofa bird and the Sankofaism:

This bird had its feet planted firmly on the ground, and the head is turned backwards. The symbol and the word, when translated together, literally mean "it is not taboo to fetch what is at risk of being left behind". This symbol has been interpreted and re-interpreted in several different ways, but what it really symbolises is that the Akan people's search for knowledge is based on critical reasoning, as well as intelligent and patient investigation of the past. The Akan people are of the opinion that the past serves as a guide when planning for the future and obtaining the wisdom of the past enables planning for a strong future. Visually and symbolically, Sankofa is expressed as a mythic bird that flies forward while looking back with an egg (symbolising the future) in its mouth, or sometimes portrayed as a stylised heart.

Contextual, the general belief is that indigenous knowledge is becoming extinct and there is no hope of preserving it if scholars in indigenous languages and other discipline do not come up front to gather, preserve and disseminate the information. Through this theory the author calls for African indigenous communities to be brave enough to revisit their past and ensure they take hold of all indispensable knowledge that can be useful in the future and for sustainable development. The theory resonates well with this study as the study requires African people and the Vhavenḓa not an exception to go back and fetch the wisdom of the past which is the indigenous knowledge in order to plan for a strong future. Therefore a strong engagement with the past in order to ensure informed and sustained progress into the future is of paramount for the survival of African communities.

Data and methods

A qualitative methodology was adopted in this study as a method of inquiry to analyse data from purposively selected from unemployed adults, villagers, teachers and learners to explore the role of indigenous knowledge in formal education at Beit Bridge. Jwan & Ong'ondo (2011) aver that a qualitative method is a flexible approach that seeks to generate and analyse holistic data on an issue of interest systematically using sufficiently rigorous, trustworthy and ethical methods and techniques in a manner that pays attention to the unique circumstances of the context and participants, and acknowledges the options available to the researcher. Ong'ondo (2011) concurs with Mertens's (2015) perception that qualitative methodology is based on a naturalistic phenomenological philosophy that perceives reality as a multi-layered, interactive and shared experience. Chisaka, Mamvuto, Matiure, Mukabeta,

Shumba & Zireva (2013) argue that qualitative research uses a natural setting as the direct source of data. In this study natural settings were used as direct sources of data collection. The credibility of qualitative research is enhanced by the use of multiple data collection tools, methodological and analytical rigour, re-reading of data collected and grouping it into broader themes which were finally analyzed. The use of multiple data generation tools is known as triangulation and it is an effective way of dealing with inherent shortcomings which could be in a single data generation tool (Jenjekwa 2021, p.8). Semi structured interviews were used to gather data informing the study from the interviewees. The interviews were held with custodians of the language that are unemployed adults, villagers, teachers and selected learners. Participant observation was also used by the researchers to widen their understanding of data which was collected through interview engagement and this is the bedrock source of human knowledge about the social and the natural world (Barker 2006, p.171). To add on the above, document analysis as a data collection tool was also employed to generate data. This was meant to augment other data collections tools used, such as mentioned above. Thus, the research is exploratory in nature and sought to determine if what was being observed may be explained by an existing theory. Exploratory research in its nature lays the ground for future studies, and the researcher's conviction is that there is still a huge gap which still needs to be covered in terms of accounting for the role of Tshivenḓa Indigenous knowledge in formal education.

Tshivenda Indigenous Knowledge in Educational Systems: What role can it play?

Teaches indigenous culture and worldview

Indigenous culture and world view are fundamental attributes for community identity, interpretation of educational outcomes and learning. In this sense, cultural practices could contribute to pedagogy and curriculum, and the latter could, in turn, also help in the affirmation of cultural practices. The curriculum should not only aim to increase scientific literacy, but should strive to contribute to the well-being of the community, foster an aesthetic appreciation of nature, and strengthen an interconnection with the learners' world. While much worldview research focuses on the difficulty science students face when they embrace a non-Western worldview, they ignore the rich resource that these worldviews can bring to science and to education. By including local knowledge in science education, children would benefit from the inclusion of their cultural heritage, and this process would respect the wishes of the elders of the community participating

in this research, who seek an education that enables development linked to the cultural preservation of their community science content. In this sense, cultural practices could contribute to pedagogy and curriculum, and the latter could, in turn, also help in the affirmation of cultural practices. The integration of Tshivenḓa indigenous knowledge systems(IKS) into formal education has positive opportunities to students which include providing students with the opportunity to learn appropriate community attitudes and values for sustainable livelihoods (Battiste, 2002). This is due to the fact that Tshivenḓa indigenous communities have lived in harmony with their environment and utilised natural resources without impairing nature's capacity to regenerate them. IKS in formal education can help to develop and promote these sensitive and caring values and attitudes for the environment for example taboos which teaches about conservation of the natural environment, indigenous knowledge enables students to learn through culture because Tshivenḓa indigenous knowledge is stored in many cultural forms for example taboos, proverbs, idioms, folk tales, traditional songs, dances, folk drama, legends, myths and many others. Indigenous institutions of knowledge production, conservation and sharing such as initiation schools, indigenous games, agricultural systems, dances and songs, storytelling, proverbs, et cetera, still remain pillars of indigenous African ways of knowing. The wealth of knowledge that still exists among the elders and other knowledge holders in African local communities demonstrates the vibrant intellectualism to which African researchers and intellectuals should turn. It needs to be documented and shared with the youth for sustainability (Seleti & Kaya, 2013). The use of these cultural resources in formal education can be very effective in bringing Tshivenḓa IKS alive for students. It enables them to conceptualise practically, places and issues in both the local area and beyond their immediate experiences; involving community knowledge holders in research, teaching and learning enables learners to learn across generations hence making them appreciate and respect the knowledge of knowledge bearers which are elders and other members of the community. In this context, formal education is an agency for transferring culture from one generation to the next and this highlights the importance of recognising the world views of the students in the classroom.

In this sense, cultural practices could contribute to pedagogy and curriculum, and the latter could, in turn, also help in the affirmation of cultural practices. The curriculum should not only aim to increase scientific literacy, but should strive to contribute to the well-being of the community, foster an aesthetic

appreciation of nature, and strengthen an interconnection with the learners' world. While much worldview research focuses on the difficulty science students face when they embrace a non-Western worldview, they ignore the rich resource that these worldviews can bring to science and to education. By including local knowledge in science education, children would benefit from the inclusion of their cultural heritage, and this process would respect the wishes of the elders of the community participating in this research, who seek an education that enables development linked to the cultural preservation of their community (Da Silva, Pereira & Amorim,2024). Thus, by using indigenous students' worldviews as a basis in the teaching environment, teachers can motivate these students' interest, improving their academic performance, as 'teaching units must take into account the different cultural perspectives of the cultural group in question, and teaching materials need to be developed to suit that particular group because their knowledge is place-based, not universal' (Lee, Yen & Aikenhead 2012; Cortesao & Cuale 2011; Seehawer 2018; Govender & Mutendera 2020).

Teach language and instil a sense of self determination and cultural identity

Language is the heart of every community and without language we have lost our culture, our self-consciousness, our identity and who we are. Language is the most fundamental component that cultural information is communicated and preserved and within it our indigenous knowledge is embodied. We cannot talk of language without referring to our indigenous knowledge as in language, culture which is our iks is found. Therefore this indigenous knowledge system is closely related to language and culture and the loss of a language is the loss of iks and our culture at large. The loss of language means the loss of human diversity and all the knowledge contained therein (Settee 2008, p.1). Of significance is that both community based and formal education, with the support of communities and governments, work together to preserve the cultural diversity of indigenous communities through the support of indigenous languages. This can be achieved by valuing Indigenous languages through using indigenous knowledge to teach language, recount history, reclaim humanity, diginity and promote a sense of self determination and cultural identity in learners. This is critical, as people andculture are intertwined entities which cannot be separated. In fact, we are distinguished from other ethnic groups through our distinct cultures. Even our learning will contribute more to our society if what we know and experience on a daily basis is incorporated into our school curricula (Mawere

2015). Thus, education should be rooted in Africa's own cultural heritage and values and have relevance to African societies, therefore formal education can only preserve and transmit this indigenous knowledge by maintaining African language. Woolman (2001, p.41) emphasises the same when he says that the cultivation of oral and written fluency in local African languages is important in building self esteem, preserving culture and advancing the literary output and identity of African peoples. According him (ibid), the importance of African language development is further underscored by the historical reality that early nation building in Europe was closely linked to the cultivation of vernacular languages and literature. Under the broadened concept of inclusive curricula and teaching materials promoted by UNESCO (2005), the local community is encouraged to contribute to active learning that responds to the cultural and physical environment of the school. Inclusive education also implies a relevant and responsive curriculum that takes into account indigenous languages along with other languages. UNESCO Position Paper (2003, p.17) stated that, the requirements of global and national participation, and specific needs of particular, culturally and linguistically distinct communities can only be addressed by multilingual education. Studying Tshivenḓa Indigenous knowledge Systems, learners can easily appreciate their language, cultural identity, history and the wisdom and contribution to knowledge and technological advancement of their ancestors. In fact, the re evaluation of traditional education is part of a process of reclaiming cultural identity with deeper roots in authentic African traditions as opined by Woolman (2001, p.31). The teaching of indigenous knowledge such as traditional songs and games for example helps learners not only to be creative, morally sensitive and innovative but also to appreciate the contribution of forebears crative genius and indigenous epistemologies in the world of language, songs, games and physical education. A good example of Tshivenḓa traditional song that can be used in learning environment is: Zwinoni zwi ṱanu, zwo kavha nṱha ha muri.

Tshiṅwe tsha ri muthu khouḽa

Tshiṅwe tsha ri u na tshigidi

Tshiṅwe tsha ri kha ri dzumbameni

Tshiṅwe tsha ri nṋe a ri shavhi rinṋe,

Tshigidi tsha ri thuuu, zwiṋoni zwa balangana zwoṱhe

(Five birds on top of tree. Another one said there is a person coming

Another said, the person has a gun

Another one said lets hide

Another one said we are not running away

Then a gunshot sound was heard and the birds all run away)

This song is a traditional song which can be used in teaching of mathematics in the classroom and be understood better by learners since they knew the song from home. The song teaches addition and subtraction of numbers which is done in mathematics. For this IKS to be incorporated into formal education an elder person can be invited to teach this song at school were learners can easily grasp what is being said from the elderly wisdom which they are used at home to tell them stories. Mathematics concepts and processes would be easier and better understood by learners when they are related to socio cultural contexts as well as real life situations. This is likely to make the subject more accessible to learners as they can relate it to many of the activities and experiences outside the classroom. When this happens, mathematics reduces from being an abstract subject that has no connection to what the learners experience in a real life situation to a subject whose content finds application and relevance to socio cultural experiences (Mosimege, 2022; Nkopodi & Mosimege, 2009; Laridon, Mosimege & Mogari, 2005:147).Therefore using indigenous knowledge in teaching learners will not only motivate them but it will mentally liberate and build self esteem of learners as they are taught using examples of their indigenous knowledge systems which they already know from the home environment. The institutionalisation of learning based on western liberal values ruined both the freedom of the individual and his/her respect for the elder's wisdom. It led to the marginalisation of the role of the family and the community in the education of children at all levels of education including higher education. The inferiorisation of African traditional education including the role of family and community in formal education by a standardised western education curriculum, places emphasis on an individual's success in a broader consumer culture instead of on an ability to centralised control over learning is seen as natural and consistent with the principles of freedom and democracy (Matike, 2008).

The integration of Tshivenḓa indigenous at all levels of education in Africa will be beneficiary to learners as it will enhance the relevance and effectiveness of education by providing an education that adheres to their customs, history,

experiences, language and perspectives. In terms of educational content, the inclusion and interfacing of indigenous knowledge and modern knowledge systems within the curricula, instructional materials and textbooks will help to prepare students and learners for greater world as opined by Kante 2004. International agencies such as the World Bank and the United Nations have also, in recent decades, stated that indigenous peoples face substantial barriers in maintaining their cultural identities, among which they highlight lower access to quality education compared to non-indigenous students with curricula and teaching methods that minimise, demean, or ignore the knowledge and stories of their communities. In addition to these factors, they also emphasise the deprivation of schooling in their mother tongues, a situation that harms the learning of these peoples and constitutes a clear violation of human rights, both the rights to culture and to self determination (Mcclain-Nhlapo etal 2009).

Motivate and generate interest in learners

Due to the fact that indigenous knowledge is knowledge derived directly at learners real life experiences, its inclusion into formal education can motivate and generate interest in learners as learners could realise that what they already do, know and say in their communities is being recognised at schools. Indigenous knowledge being knowledge the learner have before enter into academy, will no doubt inspire and stimulate their minds to abstract and even seek solutions to the problems they face daily using locally generated solutions for example problem such as the use of fertilizers in crops can be solved through the use of manure which is prior knowledge which the learners already have from home (Mawere, 2015). This knowledge can be incorporated to the school curricula as there is a surging call for greening the curriculum meaning what is in the curriculum must show that its being conscious of the environment, do no harm to the environment. Vhavenda people are well known for their Iks, a traditional method of brewing beer ''thothotho'. The method is similar to the distillation process students learn in science at school. This traditional method of brewing was invented as an income generation project among the Vhavenḓa families. The beer is brewed using sugar and water. The water is boiled in a big pot then a dozen of brown sugar is poured into the pot then stirred vigorously and when its cooked it is transferred to a big pot which is connected to a pipe. The pot is covered with a sack and all the steam moves from the pot through the pipe in the form of a colourless liquid. The colourless liquid will be dripping from the pipe bit by bit *thothotho'* will comeout in the distillation process in tiny drops, therefore the word '*thothotho*' was derived from this distillation process

meaning the beer will be coming bit by bit from the pipes. . The *'thothotho'* is the Vhaveṇḓa traditional beer with an alcohol content which is higher than similar products manufactured commercially like Chateu. The beer is very dangerous, just consuming a little bit the consumer will be drunk thoroughly. When students are exposed into learning the science of distillation already having a prior knowledge of the thothotho traditional beer system, abstraction is much easier to achieve, and students are motivated and interest in technology and development issues is generated.

Evaluate the Effectiveness of Teaching/ Learning of Geography and Indigenous Knowledge

Indigenous knowledge is an intangible heritage with various forms of knowledge ranging from local community traditional technology, social, economic and philosophical learning grounded in spirituality skills, practices and ways of being in nature (Tanyanyiwa 2019). The intangible heritage being part of indigenous knowledge that deals with beliefs and practices, could be used by learners in geography classes to evaluate the effectiveness of indigenous knowledge into formal education, thus learners are afforded the opportunity to compare and contrast different forms of knowledge for their own good and that of the society of which they are part. Purposively IKS' focus should range from daily home activities ranging from farming to law, psychology and mathematics. In formal education IKS can be integrated in the teaching environment through studying astronomy, weather and weather patterns, climate change, technology, agriculture, rivers, food and plant uses and also relate all of these local community activities as to create a relationship between what is taught in schools with activities done in communities since they cannot operate in isolation. Change is hard, but necessary, transformation is necessary in Zimbabwe although the current reality in schools shows that it is painful, frightening, optimistic and long overdue (Tanyanyiwa, 2019). In the same sense, it should be acknowledged that there are limitations if the world is seen in one perspective that is western science. The world can be seen in other lens through paying particular attention to the restoration of indigenous knowledge to the education system. Student questions and experiences are part of learning or teaching therefore there is valuable and authentic wisdom in indigenous knowledge system. Unfortunately in Zimbabwe, the school and community are different altogether, what is learned at school by learners, is for the school and what one learns at home is for the home. .IKS is viewed by Geography teachers as locally knowledge peculiar to a specific place, the kind

of knowledge is generated and transferred from one generation to the other.. As a result such knowledge cannot be subjected to proof testing. Unfortunatelly in the Zimbabwean context, teachers are guided by a syllabus that is examination oriented and therefore, does not clearly recognize IKS as a critical component in the teaching/ learning process. Hence, there is very limited use of folk stories, riddles, music and song in teaching/ learning. In the same vein, most learning takes place indoors, with very limited, if any, contact with the external environment, for example, using old people to explain yesteryear climate. IKS plays a critical role in understanding climate change studies; however, the current O-Level Geography Syllabus does not have any components of IKS. This is an anomaly because to understand climate change, the local context should be understood (Tanyanyiwa 2019). Indigenous knowledge can and should both act as a tool for promoting the teaching or learning process in Africá's public education and address the inexorably enigmatic amalgam of complex problems and cataclysms haunting the world (Mawere, 2015). Actually if a close look is taken one notices that many so called traditional communities have the same content areas as those found in formal education. For example in Tshivenḓa communities members are taught about plant conservation, the impact of defforestration to the community, afforestration and many others, climatology, weather and weather patterns. All these areas are also taught at school in geography subject which means indigenous knowledge represents an important component of the so called global knowledge but on different issues. Thus combining indigenous knowledge and geography in the formal education curriculum, learners are therefore better empowered to shake off the chains of imperial domination, make their own decisions and chart their own destiny based on what they learn both at home and at school.

This was a way of controlling, maintaining, protecting and developing traditional knowledge, cultural heritage and traditional cultural expressions. This indigenous heritage and culture can be taught at school hand-in-hand with other indigenous lessons where learners can be equipped with their indigenous knowledge using knowledge which is already there. Jacob, Sabzalian, Jansen, Tobin, Vincent and LaChance (2018, p.160) aver that indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and

visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

Conclusion

Incorporating Tshivenḓa indigenous knowledge into the curriculum is crucial for promoting cultural diversity, equity and relevance in formal education. By recognising, acknowledging and valuing indigenous perspective we can create a more inclusive and holistic learning environment. This integration not only enhances academic achievement but also fosters cultural identity, community engagement and sustainable development.

Recommendation for curriculum planners, developers and teachers:

Curriculum Planners:

Tshivenḓa Curriculum planners must conduct thorough needs assessments to identify indigenous knowledge gaps in existing curricula.

The should collaborate with indigenous communities, elders and knowledge holders to develop culturally responsive frameworks.

Curriculum planners must ensure inclusive representation of indigenous histories, cultures and contributions.

Curriculum Developers:

Infuse Tshivenḓa indigenous knowledge into core subjects for example in science, language arts, maths and geography.

Develop contextualised place based learning materials.

Incorporate Tshivenḓa indigenous pedagogies for example folk tales or storytelling and hands on learning.

Teachers:

Engage in professional development to understand indigenous cultures and perspectives

Incorporate indigenous texts, resources and guest speakers.

Foster critical thinking, reflection and empathy through indigenous themed discussions for example

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