

**FORM AND USAGE OF INDIGENOUS KNOWLEDE IN TEACHING AND
LEARNING IN SECOUNDRAY SCHOOLS**

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Abstract

The advent of colonial masters truly affected our perception about teaching and learning which were solely centered on speaking and writing only. This western value left our indigenous knowledge irrelevant. With the negative trend in level of education in our Nigeria and Africa in general, there is a serious need to shift to indigenous knowledge to see secondary schools function properly. This paper discussed knowledge, indigenous knowledge and secondary school. It also looked at forms of indigenous knowledge to be incorporated in teaching and learning, distinctive characteristics of indigenous knowledge from western knowledge, the differences in mode of transmitting indigenous knowledge and western knowledge. It equally pointed out importance of indigenous knowledge and uses of indigenous knowledge. The paper highlighted challenges hindering indigenous knowledge in secondary school with possible findings and conclusion on how they can be incorporated in secondary school teaching and learning.

Introduction

Knowledge is the fact or condition of knowing something with familiarity gained through experience or association. Knowledge is understanding of something; it is also referred to as information, facts, skills, and wisdom acquired through learning and experiences in life. Knowledge is further related as facts, concepts, theories, principles that are taught, or skills such as reading, writing or researching that students learn in academic courses. Oxford Dictionary,(2017) defined Knowledge as sets of information, facts, ideas, skills, expertise, and awareness or familiarity acquired by a person through education or experience for the theoretical or practical understanding of a subject. Knowledge will be also referred to as socially accepted understanding of a subject, which offers an individual or a group of people the ability to use it to

attain a specific goal (Ezeany-Esiobu, 2019). Therefore, knowledge is power and ability that one acquires through series of experience that gives one mastery or edge over others.

Indigenous people are distinct social and cultural groups of people that share collective ancestral ties to the lands and natural resources where they live and occupy. Indigenous people are found in every region of the surface of the world. McCallum, (2014) defined indigenous knowledge as the ways that those indigenous people make sense of the world around them, and how they recognize, value, share and use knowledge in their daily lives. This indigenous people have their definite ways of meeting their everyday need from generation to generation which is known as indigenous knowledge. Indigenous knowledge is what indigenous people know and do, and continue to do for their existence and are passed to younger generations and younger generation also passes to other generation, and this practices have continued to sustain them. Little, (2009).

Indigenous knowledge is knowledge used by local people to make their living in a given environment; it is that type of knowledge developed by a group of people by generations of living in close environment by nature. Greiner in Ezanya-Esiobu (2019) refers indigenous knowledge as the unique, traditional, local knowledge existing within and developed around specific conditions of women and men indigenous to a particular geographic area. UNESCO, (2018) asserts Indigenous knowledge as that knowledge local community accumulates over generations of living together in a particular environment, it also includes technologies, know-how, skills, practices and briefs that enable them to achieve a suitable and sustainable livelihood. Therefore indigenous knowledge is that knowledge that helps a society make decisions about their daily activities away from an informal school.

School is a place where a child or children go to be educated, School is a secondary agents of socialization. Onuchukwu, (2005) defined school as that agent that enables learners to internalize societal values for them to function well on graduation, further, he said school at formal level of socialization prepare students to be professionals in various fields and to modify existing potentialities in localities towards solving social problems. This means, school is where people are taught how to develop their innate potentials and thus able to be better citizens. School or education in its entirety, should not be based on some perfected system of truth, but should be strong to enshrine a system of knowing that is rooted in experimentation; existing and emerging reality learner should be exposed to as much as possible of all the world not just a fraction of it. Dewey in Ezeanya-Esiobu (2019). The school seek to assist learners within a society to understand their lived life reality because education is life on its own and should not be a prerequisite to life. Therefore, every individual learner should learn through experiencing real life in order to develop freely and be able to fit in and contribute for the development of the society.

Secondary school is school for young people between the ages of 11 to 16 or 18 years, Secondary education is that form of education received after the primary education. This level is said to have both consumer and producer status in that it receives graduands from primary school and prepares students for higher education. The following are broad objective for secondary school education: To prepare (a total child) for useful living within the society, and, to prepare (a total child) for higher education. Uzodinma, (2005). The aim of teaching and learning whether in indigenous or in a western form of school setting is to affect positive, behavioral and thinking change in learners/students. However, western school system assist its beneficiaries in setting up some modern culture which were presented to a learner with conflicting values and ideas like

memorization, abstract learning, drill and the learning of fixed subject matter. It is the job of the teacher or educator to establish clear goals for survival.

Teaching and learning activities are those basic educational activities that teachers are engaged in school or educational institutions to foster change. Teachers are the bedrock of any teaching and learning processes. Iwunna, et-al (2021) sees teachers as the head of all educational activities that are conducted at schools, he further said that teachers' responsibility includes: training, educating and imparting knowledge to young learners, using various aids and educational facilities provided for specific subject areas. The teacher plays a crucial role in ensuring that individual learners within a society are not carried away by popular culture by constantly displaying the picture of the truth of through indigenous knowledge in the front of society.

Forms of indigenous knowledge to be incorporated in teaching and learning in specific subject areas in secondary schools:

Songs are useful tools in the hands of a skilled teacher; in the midst of abstract study of ideas, the proper use of songs can enhance and aid the learning process, internalization and in the recall of facts. Nwachuku, (2011) agrees that a teacher can generate excitement by injecting musical words into a lesson topic. The blending of indigenous knowledge in form of songs in school lessons, makes both teacher and students to be creative and innovative as much as possible and foster teacher student interaction. Group contest among the students where the best group is honored with prizes is incorporated through team building that foster friendship among students, teachers and their environment. Nwachukwu, (2011). The Alaskan Native knowledge network further narrates that traditional knowledge is passed down from one generation to another via songs, stories, rituals, ceremonies, legends, and languages. This enables their

understanding of ways of life passed down in the past by their ancestors so they can live in harmony with their environment and each other.

Story is understood as a fundamental means through which people can learn in all aspects of life. The idea of learning through story also enables learners to organize new concepts that evolved from their learning. Chrona, (2014) saw that story for language arts in the first people's context, has a different meaning than it does in this post-industrial Euro-centric contexts. Stories are narratives that is traditionally oral, and some written that are used to impart skills, transmit cultural values and morals, convey news, record family and community histories and explain our natural world Barnhardt and Kawagley (2007). The story is an evolving form in indigenous cultures, as remarked by powerful work of many contemporary story-tellers who created story through spoken word, songs, writing and music. Onyebuchi, (2022) defined storytelling as a very old tradition that was culturally practiced by our forefathers which started as a result of the need for people to express their emotion and experience. Storytelling is like cultural inheritance passed down from generation to generation. Story helps in interaction, in instructing and imbibing morality and cultural ethics in children and younger people. The incorporation of indigenous literature in several form in schools and classroom will enhance literacy, listening and thinking skills of learners. Scott, (2013) sees stories as helping indigenous people to have proper understanding of their origins, movement of people and richness of indigenous histories prior to and post.

Music this is another form of indigenous knowledge that should be properly incorporated into teaching and learning in secondary schools as it will serve for the purpose of relaxing the minds of young learners in tensed situations. Nwachukwu (2011) imagined what the teaching

would be with one of Nelly Uchendu's classic songs 'okwu di nlo' is being played in a very low tune and 'sweet mother' song being played; just view the therapeutic effect it will have on the students. It will convey in the heart and minds of listeners a message of love and not of war. This buttresses the saying that a good music does good to a soul like medicine. Songs can be used to convert mathematics ideas into familiar experiences that students can solve with ease. The act of singing does relieve boredom and keep the classroom alive while learning, Nachukwu (2011). A known Igbo Mathematician Prof. Chike Obi uses songs to introduce, teach, solve and internalize mathematical equations in a popular TV programme at Nigerian Television Authority, Channel 8 Enugu; that NTA program was a must watch for both children and parents at the time it aired. Lawuo in Ezeanya-Esiobu (2019) noted that certain games such as 'dara' or 'dili' or wouri, or awele are real exercises in mathematics which involves geometry, combination, and the properties of numbers and those games played in traditional African societies were educational in nature and at the same time, intellectually stimulating.

Folksongs, poetry, folktales, are more forms of indigenous knowledge that should be seriously incorporated in teaching and learning in secondary schools in Nigeria. Lazarus et al (2020) agreed that folksongs were types of stories available with indigenous people that increased the quality of life of these indigenous people. People are taught and instructed through these means for better and harmonious living within a community. Ahimsa in Handayani, (2018) agreed that indigenous knowledge contains experiences that continue from generation to generation, which are in form of history, myth, legend, art, culture, music, speech, language, writing that aids in scientific discoveries, social networking and life skills. The incorporation of indigenous knowledge in teaching and learning as supported by Handayani, (2018) can be expressed in the figured places, action and using of symbols, arts, stories, songs, metaphor,

proverbs, unique objects for the structure to share their culture while western knowledge is more in abstraction. Folklore entertain, tells deep and stimulating philosophical truths. In indigenous knowledge the education of the children involves hours of sitting down under the moonlight listening to folklores told by the elders, grandmas and grandpas in the compound. Bharara and Seeland in Materer, etal (2002) compared folklore memory and actual rainfall data of past years but found out that folk memory provided an insight in how indigenous people perceived their past years and how they will remember with their traditional indicator and how it will assist in the future year. This will certainly be of serious assistant to these people in the crop productivity. These stories are for educating, recreating all these stories cut cross all field of learning in life.

Proverbs are other form of indigenous knowledge, is a traditional saying or phrase that expresses a perceived truth. Proverbs gives practical advice and are based on the shared human experience. This is mostly spoken by the native people. African proverbs are deep philosophical truths encompassed in one single statement. Proverb is full of intellectual experiences that indigenous people made use of in the precolonial time and should be even now. A proverbs of the Igbo people which says one should look for the black goat while there is day light depicts that is need for one make haste in whatever one is doing and too that there is time for everything on the sun Ezeanya –Esiobu (2019). Yoruba proverb that says that the world has turned upside down when an egg drops into an earthen pot and breaks the pot. Meaning the happening of impossible. Akan Harbor said in Abraham 1968, said that lizard fell from coconut tree, nodded his head up and down and asked the earth if it felt dizzy’ Ezeanya-Esiobu (2019) The Chinese proverbs says, if you are planning for a year, sow rice, if you are planning for a decade, plant tress if you are planning for a life time, educate people.

Ceremonies these are some forms of indigenous knowledge in communities that teaches and add values to these people from generation to generation. Harvesting of crop, new yam festival and traditional marriage Lazarus et al (2020) noted that these ceremonies help to improve quality of lives of these community people. These ceremonies teaches our young learner in secondary school the value of hardworking, and that there is time for everything under sun (Planting and harvesting of crop) this should be inculcate in them, value of patience and endurance. Moumouni in Ezeanya- Esiobu (2019) Supported that a little boy who started by assisting his father to farm the family plot of land and who goes hunting for glasscutters and smaller animals, soon will learn how to farm a sizable plot of land all for himself and also hunt for bigger game. He further said that the girl child remains under the primary care of her mother and at every stage, the child is gradually introduced into the life of adults, she is called upon frequently to perform various tasks for the adult within the community. This young girl by assisting her mother to cook certain dishes, and going to the market to buy and sell, soon learn how to be both good homer keeper and astute trader, and independent of her mother and ripe for marriage The value of marriage is inculcated in them right early from observation during traditional marriages conducted within their communities, Teaching young learner that marriage is sacred adventure for adult not anybody. Teaching our girls the value of being a married woman and necessary roles they are expected to perform in their various homes. Moumouni in Ezeanya-Esiobu agreed that in indigenous knowledge fathers and mothers play major roles in the upbringing of their children from birth, mothers undertakes the sole duty of caring and giving adequate attention to children, with the father assuming the main responsibility for the educating the children indigenously. Further said it is by accomplishing productive tasks that the child and adolescent familiarize themselves with adult jobs and initiated into different social aspects of

their lives. This aims at imparting knowledge at the same time build solid, conducive and cordial relationship within the members of the community.

Indigenous knowledge is well structured in that, from time of birth until adulthood, the individual within the society is subjected to a well thought out plan of inculcation of values, discipline, education and development of society Ezeanya-Esiobu (2019) This when instilled in these children ensure that they get the full assurance of love and care, also strong foundations needed to ensure a strong but empathic adult. Extra miles are added by these parents in indigenous setting to see those children grow up into healthy, strong and well-behaved children-adult.

Distinctive characteristics of indigenous knowledge from Western Knowledge

The early stage of these children are mostly on these children's physical endowment. This can be achieved through games, such as jumping -rope, races, swimming, acrobatics, which are considered intense for them. But this is for they upward movement from boys (children to) adulthood which may requires, weeks, months and years of physical resistance tasking exercises which aims for their body development, agility, endurance and ability to use their body in different circumstances, functions and purposes.

The development and character building, the issues of exhibiting honesty, integrity and mannerism are taking severely when a child or children are receiving training which could come from home and community. An individual as a free moral agent is expected to show ethical conduct, like sociability, courage, solidarity, endurance and at same time will be examined, judged and sanctioned when defaulted which will depend on the intellectual level and capacities of the child or children and adult. This means in the indigenous setting, every adult is free to

correct and train an erring children because no one owns a child or children in the community. when a child becomes good is for everybody in that community or otherwise.

Indigenous knowledge uses both physical and intellectual activities at every stage of the child or children's training. This is through the use of age groups, age and sex relevant knowledge in teaching and in transmitting to the younger generation. Moumouni 1968 in Ezeanya -Esiobu (2019) This knowledge is that from previous generation, which provided set of structure that explain relationships between particular events in the community. These people works with observation, their observation indicator assist them in predicating certain happenings like in climate event and its effect on agricultural practices and for them to understand what is normal or an anomaly. It also provides an inherent connection to ones surroundings and environment, it can be interpreted to be a person's connection to their culture and society, is learned and identified by indigenous people within a cultural content. It uses specific language, sayings and belief processes that aids in social acceptance interaction among the indigenous people Materer etal(2002).

Differences in mode of transmitting indigenous knowledge and western knowledge

According to Oguamanam in Ezeany-Esiobu (2019):

- i. the transmitting of indigenous knowledge is mostly oral based, that is through folklores, folksongs, folk dance, proverbs, stories and legend. This is through observation, imitation and demonstration. While western knowledge is through reading and writing.
- ii. IK is gained by observing and participating in simulations, real- life experiences and trial and error, While WK is taught and imbibe in abstraction.

iii. IK is founded on the spiritual, the that the world and life force are infused with spirit, and both animate and inanimate objects such as fire and trees have ears. While WK severs the animate from the inanimate and treats all as physical entities.

iv. IK views the world as interrelated, it does not necessary subordinate all other life forms to mankind as they are all interrelated and interdependent parts of one ecosystem, WK views mankind as superior to nature and authorized to exploit maximally.

v. IK is integrative and holistic in nature, rooted in a culture of kingship between the nature and supernatural WK is reductionist and fragmentary, reducing and delineating boundaries to the extent that every relationship is treated as a distinct whole.

vi. IK values intuition, emphasizes emotional involvement and subjective certainty in perception WK thrives on logics and analysis, abstracted from the observer, and replication of measurement to determine results.

vii. IK is based on a long period of close interaction with the natural environment and phenomena WK thrives on the mathematical and quantitative approaches.

Indigenous knowledge and western knowledge have clear or apparent difference in their system of operation, but a proper highlight to the strength of both towards complementary rather than contradictory will enhance efficient usage in teaching and learning in secondary schools.

Importance of Indigenous Knowledge

Indigenous knowledge has contributed to local empowerment, local capacity-building, and increase in self-sufficiency and strengthening of self- determination. Indigenous knowledge is a

simple, practical routine that enable the survival of every human being to the wholeness of nature and its elements that support survival.

Indigenous knowledge is important because it is that knowledge that arises directly out of the children's real- life experiences, its incorporation into the school curriculum can motivate and bolster the intellectual fortunes and interests of the learner as students realize that recognition is given to what they already do, know, and say. Thomas, (2022) supports incorporation of indigenous knowledge into the science curriculum with these points that;

Indigenous knowledge and western knowledge can be taught together. Aboriginal and western philosophies, beliefs, and spirituality do not need to be taught in opposition, or in isolation. We can teach our students to understand themselves and the world around them, that we can create true empathy, understanding and hope for the future planet. Students can be taught to sustain life and protect our planet, not exploit it or destroy it. Conservation of energy and resources, and learning about sustainability is essential to teach our children now, so that they can pass along to future generation.

We need to be aware of the human rights of aboriginal peoples, traditional rights and intellectual property rights. Indigenous knowledge can help us in understanding how to protect those rights, land, water, and natural resources. Greenwood and de leeuw, (2007) noted that integrating of the indigenous knowledge perspectives of teaching and learning can also be immensely valuable In creating a more responsive education for all students that is combination of theory and practical not teaching in abstract. The abstract type of western is one of the loopholes of our nation's education.

According to Tapfuma in Okotie (2019), IK plays a critical role in sustainable development, thus the need for incorporating it in teaching and learning. The need for incorporating this knowledge in teaching and learning various class activities. This knowledge is important because it has sustained the local people and communities for a very long time and have continued to so. IK will help in improving secondary education by using local language as a means of teaching and learning in Africa.

Challenges of indigenous knowledge

Most teachers and educators have their training in western education are more familiar with the general worldwide than that of indigenous knowledge.

Indigenous knowledge is the top-down system that is completed out of the curriculum policy and implementation.

The teachers need adequate skills and competency such as creating extra time and Learning strategy required. (Ezeanya-Esuobi, 2019).

Western education refused to acknowledge that local traditions are cultural framework and a form of science and knowledge to these communities but western education was designed only to ensure survival. (Materer et al, 2002)

Ensuring that indigenous knowledge is not trivialized by turning deeply meaningful cultural practices into ordinary “arts and crafts” in the classroom. Chrona (2014).

Indigenous knowledge is orally transmitted, and by observation, the death of the custodian may affect the learner if is not proper taught or learnt especially traditional medicine aspect. A gap of knowledge and behavioral pattern between older and younger generation is so

glaring and the importance of incorporating indigenous knowledge should be even more crucial now. (Rocheleau in Materer, 2002).

Conclusion

Since this knowledge has provided for the indigenous people with the capacity of dealing with environment comfortably for generations. The incorporation of indigenous knowledge in teaching and learning will provide complete moral and ethical learning about nature and behavior. Indigenous knowledge and western knowledge can be taught together. Since school, education and indigenous knowledge ensure that there is continuity in society and that is achieved through transmission of values, anchored on effective communication. This Society does not only continue to exist by the said transmission and communication but truly exist when there is proper adherence in transmission through communication.

Therefore there is need for quick switch to cultural value, subscribe to historical value and embrace moral value which society has shifted from as result of the encroachment of modernization exemplified by science, technology and industrialization to the detriment of indigenous knowledge Very important that the both are complements, learn from each other not to ignore one and focus one.

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