



IKS CURRICULUM STUDIES AND DEVELOPMENT IN THE CONTEXT OF UNITED NATIONS SDG (4): ATTAINMENT OF QUALITY EDUCATION (2030)

Presenter: Dr Mayashree Chinsamy

Research Manager: Department of Higher Education, Science and Technology (DST)
– National Research Foundation (NRF) Centre in Indigenous Knowledge Systems (CIKS)

14 August 2019

OUTLINE OF PRESENTATION

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- IKS Curriculum Studies and Development for Quality Education (UN SDG 4)
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- The Integration of Knowledge Production, Management and Protection: the IKS Worldview
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BACKGROUND

- The DST-NRF Centre in Indigenous Knowledge Systems (CIKS) was established in 2014,
- It brought together a consortium of 5 higher education institutions in South Africa (University of KwaZulu-Natal as the hub, University of Limpopo, University of South Africa, North West University and University of Venda) as an instrument to implement the National IKS Policy (2014);
- The mandate was to promote, protect and preserve IKS through research, postgraduate training, knowledge brokerage, networking and service rendering.

CIKS FOCUS AREAS

IKS-based Biodiversity and Environmental Management to Combat Climate Change and its Impacts (UN SDG 13)

Traditional Medicine for Good Health AND Wellbeing (UN SDG 3)

IKS-based Food Security for Sustainable Production and Consumption (UN SDG 12)

IKS Curriculum Studies and Development for Quality Education (UN SDG 4) (promoting non-Eurocentric paradigms).

WHAT IS INDIGENOUS KNOWLEDGE?

The former Director General of United Nations Educational, Scientific and Cultural Organization (UNESCO) (Mayor, 1994) articulated Indigenous knowledge as follows:

The indigenous people of the world possess an immense knowledge of their environments, based on centuries of living close to nature. Living in and from the richness and variety of complex ecosystems, they have an understanding of the properties of plants and animals, the functioning of ecosystems and the techniques for using and managing them that is particular and often detailed. In rural communities in developing countries, locally occurring species are relied on for many - sometimes all - foods, medicines, fuel, building materials and other products. Equally, people's knowledge and perceptions of the environment, and their relationships with it, are often important elements of cultural identity.

A report of the International Council for Science (ICSU) Study Group on Science and Traditional Knowledge characterizes Indigenous/ traditional knowledge as:

A cumulative body of knowledge, know-how, practices and representations maintained and developed by peoples with extended histories of interaction with the natural environment. These sophisticated sets of understandings, interpretations and meanings are part and parcel of a cultural complex that encompasses language, naming and classification systems, resource use practices, rituals, spirituality and worldviews.

THE ROLE OF IKS IN THE ATTAINMENT OF SDGS

- Indigenous communities in their specific cultural and ecological systems have understood and lived by the concept of sustainable development long before the term was coined by the world commission on environment and development in 1987 and its first usage in international law in the Rio Declaration on Environment and Development. Indigenous knowledge and innovation systems have sustained local communities for centuries. They represent generations of creative and innovative thought and actions within each individual cultural community, as it struggles with an ever-changing set of environmental conditions and challenges;
- As a result of these strong contextual cultural and ecological connections IK and innovation systems become an essential part of local communities livelihood as they provide them with the necessary means of livelihood;
- The CIKS advances community-based knowledge and innovation systems as an essential element of implementing the policy intents of the White Paper on STI for attainment of SDGs. This is due to its cultural and community-based nature which promotes the relevance of IKS in NSI, NDP and in the broader SDGs.

IKS CURRICULUM STUDIES AND DEVELOPMENT FOR QUALITY EDUCATION (UN SDG 4)

- The objectives of this focus area were to:
 - Build a critical mass of IKS human capital (nationally and continentally) which is conversant with IKS worldviews, ways of knowing (epistemology), value systems and research methodologies;
 - Promote excellent education through interface with other knowledge systems but culturally relevant to community needs through working with IK holders and practitioners;
 - Assist South Africa and Africa at large to enter the global knowledge economy and interface with other knowledge systems, on its own terms through its own knowledge systems, for sustainable development and community livelihood.

IKS CURRICULUM STUDIES AND DEVELOPMENT FOR QUALITY EDUCATION (UN SDG 4)

- The promotion of IKS curriculum studies and development (non-Eurocentric paradigms) as a CIKS focus area is based on the virtues of **IKS as a lifelong learning process**.
- Its **integration of theory and practice** mitigates the disjuncture between learning and living.
- The focus on IKS curriculum studies and development (non-Eurocentric paradigms) aims to advance inclusive, relevant and quality education that incorporates indigenous worldviews (ontologies), ways of knowing (epistemologies); value systems (axiologies) and research methodologies.
- This will promote culturally responsive education through:
 - contextual learning;
 - use of indigenous languages as integral part of the curriculum to contextualise understanding;
 - intergenerational learning by including elders in the educational process;
 - promotion of place-based education linking the ecological and cultural specificity of learning;
 - advancing critical thinking and value systems as essential skills in the learning environment.

THE TARGETS AND INDICATORS OF IKS CURRICULUM DEVELOPMENT IN THE CONTEXT OF SDG (4)

- **The targets include:**

- Evaluation of educational goals, policies and practices with regard to integration of indigenous knowledge in the curriculum and pedagogy being implemented in each community or cultural area;
- Increased ability of educators to using IK to attend to the wellbeing of students for lifelong learning;
- Increased research and development on IKS-based teaching practices and resources to ensure inclusive and culturally responsive education.

- **Indicators include:**

- Indigenous epistemologies incorporated; Culturally responsive learning approaches; Extent to which indigenous languages integrated; Intergenerational learning and place-based education and inclusion of value systems;
- The extent to which students are able to appreciate, understand and inculcate the relationship between local context and global community; Number of educators trained in culturally responsive pedagogies;
- Number of IKS-based teaching practices and resources;

- **In order to implement the SDG (4) within the context of IKS, the CIKS has created a platform titled: IKS Knowledge Production, Management and Protection; a number of research projects:**

- Critical Review of the Prospects and Challenges of Introduction of IKS Teaching Curriculum in Higher Education;
- Assessment of Knowledge and Awareness of the History of African Ideas Among students and Lecturers in Higher Education in South Africa;
- The Use of Mother-Tongue Languages in Science and Technology Education;
- Promoting intergenerational learning and the role of elders in the educational process

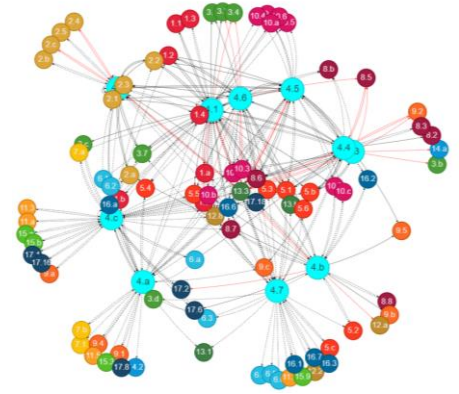
THE INTEGRATION OF KNOWLEDGE PRODUCTION, MANAGEMENT AND PROTECTION: THE IKS WORLDVIEW

- Indigenous knowledge is a living body of knowledge that is produced, managed and protected, through socialisation by being passed on from generation to generation within a community. It forms part of the community's cultural and spiritual identity.
- The **holistic nature of IKS**, makes the process of knowledge production, management and protection **not mutually exclusive**, i.e. during the process each component has the elements of the other.
- In the IKS context, **knowledge production** is the **formation of new ideas, innovations and social practices** through interactions between explicit and tacit knowledge in individual human minds. This implies that knowledge production as **a social process involves creativity as well as critical thinking based on personal experience** in a community.
- These community-based know-how, practices and representations are maintained and developed by peoples with extended histories of interaction with the natural environment, each other and spiritual realm.
- The social, holistic and multidisciplinary nature of IKS creates **unique and specific approaches and methods of knowledge classification** (specialized or sacred knowledge (secret), shared knowledge (family/confidential) and common knowledge (Open access / public)) **and access** (age group, marital status, social status and profession).
- **Knowledge holders and practitioners** form **communities of competence** that create, manage and protect knowledge based on local and external situations.
- In this process of knowledge production, management and protection, **indigenous languages** are knowledge extractors, generators and distributors. They express people's culturally and ecologically specific way of thinking, sharing and protecting knowledge.

AN IKS-BASED CURRICULUM FOR QUALITY EDUCATION = THE INTEGRATION OF KNOWLEDGE PRODUCTION, MANAGEMENT AND PROTECTION

- Globally,
 - > 262 million children and youth are out of school.
 - Six out of ten are not acquiring basic literacy and numeracy despite attending school
 - 750 million adults are illiterate
- The CIKS advances an IKS-based curriculum for provision of quality education as a paradigm shift for transformative sustainable development
- In the age of information, **knowledge is the most valued asset** in an ever increasing competitive environment;
- The **management of culturally and ecologically specific knowledge as a competitive advantage** serves as a **QUALITY EDUCATION MODEL**

KM SKILLS AND STRATEGIES



- The 2030 Sustainable Development Goal (SDG) 4 aims to **ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**
- According to UNESCO, this goal requires skills and understanding in relevant and key aspects, including
 - Establishing and maintaining partnerships,
 - Providing policy guidance,
 - Building capacity,
 - Monitoring, and
 - Effective advocacy

- Consider the interaction of SDG 4 with each of the other SDGs – this will inform and more efficiently achieve:
 - Coordinated policy interventions to address the needs of the most vulnerable groups,
 - Promote equitable access to services and development opportunities, and
 - Manage competing demands over natural resources to support economic and social development within environmental limits.

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- Thank you!
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