

## Chapter 10

# Ethno–Science and Globalization

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### ABSTRACT

*Globalization accelerates at an extreme rate through development of technologies of communication. However, people living in poor countries' access is very difficult because of the energy and financial demands that technology requires. One consequence of globalization for science and science education is it creates even more complex societies and challenges for indigenous communities. However, increasing local achievement in science and science education is advocated by a number of researchers in order to provide opportunities for people globally. This issue of making local knowledge part of the global brings with it the challenges of politics, history, language, economics, and ethics. The effects of globalization have been far-reaching, while the living standards of the world are still highly uneven. This study focused on ethno-science and globalization.*

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## **INTRODUCTION**

Ethno means to view an event or occurrence from one's cultural perspective. Science on the hand is the fact of knowing something; knowledge or understanding of a truth. Ethnoscience can be said to be the understanding/ knowledge of a particular culture scientifically. Ethnoscience, viewed from a generalized perspective is the study, which approximates or reflects the native's thinking about how their physical world is to be classified, consciously or unconsciously, explicitly or implicitly, within the framework they accordingly act. Abonyi (2000), states that ethnoscience is the knowledge that is indigenous to a particular culture. Ethnoscience according to Atran (1991: 650) a scientific realm which aims to understand how humans—in spite of their fragmented and limited interactions with the world—are developing different forms of knowledge and beliefs. This allows an understanding of how humans vary their knowledge and beliefs within different ecological and historical contexts in order to express the manifold possibilities offered by human cultures.

More concretely, ethnosciences are referring to the set of concepts, prepositions, and theories that are unique to each particular culture group in the world (Meehan, 1980). Ethnosciences are essentially cross-disciplinary, based on increased collaboration between social sciences and humanities (anthropology, sociology, history of science, psychology, philosophy) with natural sciences such as biology, ecology, agronomy, climatology, astronomy, or medicine.

## **PRINCIPLES OF ETHNOSCIENCE**

### **Etics and Emics**

Etic and emic are terms coined by linguistic anthropologist Kenneth Pike, Franklin (1996), which were derived from an analogy with the terms “phonemic” and “phonetic”. Etic categories involve a classification according to some external system of analysis considered as appropriate by science. This is the approach of biology where the Linnaean classification system is used to define new species. It assumes that ultimately, there is an objective reality that is seen to be more important than cultural perceptions of it. In contrast, emic categories involve a classification according to the way in which members of a society perceive and classify their own world.

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