Chapter 11
Cultural and Communication Barriers to Interdisciplinary Research:
Implication for Global Health Information Programs – Philosophical, Disciplinary Epistemological, and Methodological Discourses

Abdullahi I. Musa
Kaduna State University, Nigeria

ABSTRACT

This chapter examines the cultural and communicative challenges of interdisciplinary research. The author argues that to understand the nature and scope of cultural and communicative barriers to interdisciplinary research, we must focus on the link between the philosophy of science and research philosophy which shape how scholars frame empirical inquiries, determine interesting research questions, and define the choice of research methodologies and methods. The chapter examined the cultural and communicative challenges of interdisciplinary research through the philosophical perspectives of philosophy of science and research philosophy. It distinguished between main research choices: deductive and inductive and their relevance to the cultural and communicative challenges of interdisciplinary research. It also explains the epistemological, ontological and axiological positions of research and its role in understanding the cultural and communicative challenges of interdisciplinary research. It discusses how scholars are socialized into a scholarly tradition, and how scholarly tradition is perpetuated. It outlined the assumptions of contending scientific methods and how they hinder interdisciplinary research with implications for global health information and communication programs. The chapter demonstrates why it is important for global health information and communication scholars to examine and contrast the opposing scientific research paradigms with associated competing knowledge claims since each offered a different way of understanding how research should be done.

INTRODUCTION

Over the last decades, scholars and educational leaders have advocated for an interdisciplinary approach to research (Nissani, 1997; Borrego & Newswander, 2010, Boyer Commission). The call for interdisciplinary research is rooted in the premise that 21st century technological and socio-technological challenges require interdisciplinary approaches to tackle. In essence, 21st century is characterized by complex challenges, that demand integration of theories, models, and research methodologies from diverse disciplines (Pellmar and Eisenberg 2000; National Institutes of Health, 2006; National Science Foundation, 2006). In many universities, academic institutions, research centers, and funding agencies, interdisciplinary research is gaining acceptance. It is becoming increasingly popular and is emerging as the scholarly norm of the 21st century. Unfortunately, in spite of the increasing interest in interdisciplinary research (Kessel, Rosenfield, & Anderson, 2008), scholars face challenges in conducting interdisciplinary exploration.

The objective of this chapter is to identify, discuss, and analyze the cultural and communicative challenges of interdisciplinary research with implication for global health information and communication programs. By cultural challenges to interdisciplinary research, I refer to how the differing but conflicting standards of research philosophies, methodologies, and methods shapes empirical inquiries. In particular, I argued that the cultural and communicative challenges of interdisciplinary research are deeply entangled and shaped by the trajectories of scholarly traditions deeply-rooted in the philosophy of science, research philosophies, and to the long standing question of what is evidence and what count as valid knowledge.

The chapter is divided into four sections: Section 1 provides conceptual distinctions and clarity about interdisciplinary, multidisciplinary, cross-disciplinary, and transdisciplinary research. Section two, identified and discussed the epistemological perspectives that guide investigation. Beginning with a discourse on science, the norm of science, and philosophy of science the author analyses research philosophy classifications and debates by describing contending processes of reasoning (abduction, induction, and deduction), which support different research designs. It also discussed a range of philosophical issues that are central to scientific culture: empiricism, rationalism, hypothetic-deductive, likelihood, parsimony/ Occam's razor, demarcation, verification principle, theory, falsification. In section three, the author describe the notion of paradigm and research paradigms. In particular, through a comparison/contrast format, the section examined the particularities of modernist, and postmodernist to research practices. The section also describes philosophical assumptions of modernist and postmodernist philosophies in regard to perceptions of reality, and what counts as truth and value systems in each of the philosophical movements, and demonstrate the contrast between quantitative and qualitative research methodology and methods. In section four, I demonstrated that cultural and communicative challenges that hinder interdisciplinary research are tightly connected to contending philosophical, epistemological, and methodological scholarly traditions.

This chapter concludes by conceptualizing disciplines as cultural groups and argued that for cultural and communicative barriers to interdisciplinary research to be reduced below a minimum, there must be an understanding of scholarly culture among interdisciplinary teams. Specifically, each member of an interdisciplinary team must understand own scholarly traditions and the scholarly traditions of each of the team members. In this way, interdisciplinary team members are in a vantage position to be sensitive to the dynamics of research traditions. The author discussed the implications of cultural and communicative barriers to global health information and communication programs in a multi-cultural context of Africa; and highlighted the need for studies to clarify and motivate scholars to think critically about

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