

Main Approaches to Educational Research

Thuraya Al Riyami

Abstract – The purpose of this paper is to discuss three approaches to educational research. First, I will start with a discussion of the research paradigm, providing its definition and its role in conducting research. Then I will discuss positivism, interpretivism and the critical theory approach to research in terms of their underpinning assumptions, quality standards and limitations. I will follow that with my own position regarding research.

Keywords – Critical Theory, Interpretivism, Paradigm, Positivism.

I. INTRODUCTION

The term paradigm was first termed by Thomas Kuhn who introduced it as an overall historical research framework (Crotty, 1998). The term paradigm receives varied attention in research texts. In some texts, the paradigm is introduced at the beginning, whereas others may touch on it slightly at the end or have no discussion around the notion of paradigm at all (Mackenzie & Knip, 2006; Grix, 2004). Thus, the paradigm's meaning, its role in research and where it fits appear to be essentially ambiguous, especially for novice researchers.

A paradigm can be defined as "a loose collection of logically related assumptions, concepts or propositions that orient thinking and research" (Bogdan & Biklen, 1998, as cited in Mackenzie & Knip, 2006). Guba and Lincoln (1994, p. 108) identify three questions that help define a paradigm. That is, the ontological, the epistemological and the methodological:

1. The ontological question asks, what is the nature of the "knowable"? Or what is the nature of reality?
2. The epistemological question asks, what is the nature of knowledge and the relationship between the knower (the inquirer) and the known or the (knowledge)?
3. The methodological question asks, how can the knower go about obtaining the knowledge?

But the question is why does one's view of reality and knowledge affect the research? In fact, the researcher's intentions, goals and philosophical assumptions are inseparably linked with the research s/he conducts. Grix (2004) suggests that if a person wants to conduct clear and precise research, he needs first to understand the philosophical underpinnings that inform his choice of research questions, methodology and methods. Thus, how social reality and knowledge is viewed will lead one to how to go and uncover knowledge of a certain social phenomenon. Crotty (1998) argues that researchers can choose which stage to begin at, whether they be based on ontological, epistemological or methodological assumptions. However, other authors like Grix (2004) suggest that the ideal way to start research is by identifying the ontological assumptions which will inform the epistemology, which, in turn, will inform the methodology. All of these will determine which data

collection method needs to be implemented. Such arguments among textbook writers show the inconsistency with which a paradigm appears in the stages of conducting research, even though they agree on its importance. However, I agree with Guba (1990, p. 17), who notes the ambiguity of the meaning of a paradigm, and points out that where one stands in the process of conducting research is considered to be beneficial since such ambiguity makes it possible for researchers to reshape their research as their understanding progresses. In addition, I noticed through looking at different research articles that researchers are more explicit about their epistemology and methods than their ontological and epistemological assumptions. This may be due to the fact that the lines between ontological and epistemological assumptions are not clear in theory or in practice.

Trying to classify all educational research into a few paradigms is a complex task. It can be also very challenging and confusing process, especially where some research textbooks use the terms 'quantitative' and 'qualitative' to describe various types of research. Such a classification is not helpful because it implies that the main difference between research is in the type of data collected only, whereas the main difference, in fact, is at the level of ontological and epistemological assumptions (Crotty, 1998). This paper focuses on three of the most popular paradigms today: positivism, interpretivism and critical theory.

II. POSITIVISM

Positivism, which is also known as the "scientific method", gives emphasis to the position that the social world should be studied the way that physical phenomenon are studied. Positivism is based on a realist ontology, which postulates that "there exists a reality out there, driven by immutable natural laws" (Guba, 1990, p. 19). Thus, positivism addresses causal relationships and basic regularities between different components of the world. Positivists have an objectivist epistemology, which requires for the researcher that, in order to discover the real world, he must "put questions directly to nature and allow nature to answer back" (Guba, 1990, p. 19). In addition, the researcher should maintain a detached, objective view in order to understand the facts (Duffy, 1986). Values and other biasing factors are excluded so as not to influence the outcomes of the research.

Based on its ontological and epistemological assumptions, positivist research uses experimental and quasi-experimental methodologies (Creswell, 2007). Experimental designs make causal inferences about the relationship between an independent variable and one or more dependent variables. In experimental designs, the researcher aims to maximize the influence of the independent variable on the dependent variable and

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