Advances in Social Sciences Research Journal – Vol.3, No.1
Publication Date: Jan. 25, 2016
DoI:10.14738/assrj.31.1708.
Wang, S., & Zhu, P. (2016). Thinking About Research Paradigms in Educational Research. *Advances in Social Sciences Research Journal, 3(1)* 129-133.

Thinking about Research Paradigms in Educational Research

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Abstract

In this essay, I will consider the question "what is research" and discuss the three important research paradigms. The three important research paradigms are positivistic, interpretive and critical paradigms. First of all, I try to explain the definition of research deeply. Many scholars give us many different definitions of research, these definitions explain the research from different aspects, and they have respective characteristics. At the same time, I will try to make clear what educational research is. Secondly, I focus on the nature and significance of research paradigms and reasons why these are important in thinking about research. Thirdly, I will comment on the characteristics of "good" and "bad" research in terms of my own experience. Finally, I will analyze qualitative approaches and quantitative approaches; my purpose is to explain why so much research in education employs qualitative approaches.

Key words: research paradigms; positivistic paradigm;interpretive paradigm;critical paradigm

Views on the definition of research

As Cohen, Manion & Morrison, (2000, p.1) said, "Research is concerned with understanding the world and that this is informed by how we view our world(s), what we take understanding to be, and what we see as the purpose of understanding." Obviously, research is an approach to search for truth. There are another two important approaches with this goal, they are experience and reasoning. When we compare research, experience and reasoning, we can find that research is best way than experience and reasoning to search for truth. in other words, "research is a combination of both experience and reasoning and must be regarded as the most successful approach to the discovery of truth, particularly as far as the natural sciences are concerned" (Borg, 1963, cited in Cohen, Manion & Morrison, 2000, p.5).

As for the definition of research, Burns (1994) thinks that "research is a systematic investigation to find answers to a problem." My view about the definition of research was very oversimplified before I studied the Research Methods in Education. In my mind, research was the process of investigation and should have the aims, methods and results. The purpose of a research, I thought was that the people want to improve or prove something. In my group discussion on the meaning of the research, the members considered research as a systematic investigation for some situations and relations in order to make clear some problems about nature and society. After the systematic study of Research Methods in Education, I had a deeply understanding on the definition of research. I now like the definition of research that Kerlinger (1970) gives us, Kerlinger considers that research is "the systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural

phenomena" (cited in Cohen, Manion & Morrison, 2000, p.5). As for educational research, According to Clark (2005), educational research is "widely construed as the scientific investigation of the causes of 'effective' teaching." I think that educational research is systematic investigation in the educational field; the purposes are to judge and evaluate the educational situation; such investigation is useful to improve educational action and quality.

Views on Research paradigms

There are many research paradigms in the research field. Now, there are three important research paradigms to be analyzed and discussed, they are positivistic, interpretive and critical. Paradigms are connected with assumptions about social and natural reality. Like the definition of paradigm, "A paradigm has come to mean a set of over-arching and interconnected assumptions about the nature of reality" (Cowie, 2006, cited in handout of Research Method in Education). There are many different assumptions about social reality. For example, ontological assumptions, epistemological assumptions, human assumptions, methodological assumptions. These assumptions determine that which paradigm should be used in research process. As a researcher, he/she must clear that which paradigm he/she position. I will discuss the three important paradigms, positivistic paradigm, interpretive paradigm and critical paradigm.

Positivistic paradigm

There are many analyses about positivistic paradigm and positivism. According to comte (1855, p.2), "positivism is the philosophical state in which one discovers by reason and observation the actual laws of phenomena" (Cited in Peca, 2000, p.5). In the positivistic paradigm, the researchers try to make an assumption of human behaviour first, and then use complex methods to prove the assumption. The purpose of the researcher is to build a 'rational edifice'. (Cohen, Manion & Morrison, 2000, p.23). From ontological position, positivistic paradigm as a kind of perspective of reality is that an objective reality exists in nature and society independently; objective reality is knowable (Berger&Luckmann, 1966, cited in Peca, 2000, p.2). From epistemological position, positivists have explained that research and knowledge are independent. "Researchers should remain objective—inquiry should be value free" (Cowie, 2006, cited in handout of Research Method in Education). These viewpoints have a common basic: natural and human phenomena can be learned and discovered by objective actions and means; human phenomena are essentially the same as the Natural phenomena. Positivistic paradigm request researcher investigate the society issue like they study physical phenomena, the individual points is inhibited (Oldroyd, 1986, cited in Cohen, Manion & Morrison, 2000, p.8). According to Douglas (1973), positivistic paradigm has two main ideas: human phenomena are rule-governed; using methods of natural science into the search of human behavior (Cited in Cohen, Manion & Morrison, 2000, p.22).

Interpretive paradigm

According to Carroll and Swatman (2000, p236), "interpretive understanding is the researcher's understanding of the participants' subjective understanding." That is to say, the interpretive paradigm is trying to understand the subjective world. The researchers explain the world from their own point of view. The Interpretive paradigm focuses on understanding the meaning of social phenomena, human activities and experience by actors. The interpretive paradigm emphasizes the understanding of individuals. In the Interpretive paradigm, the researchers sum up theory according to the experience and understanding. Like Cohen, Manion & Morrison said (2000, p23), Interpretive paradigm request researchers to "begin with individuals and set out to understand their interpretations of the world around them".

Critical paradigm

The last important paradigm that I want to consider is Critical paradigm. The Positivistic paradigm and interpretive paradigm both neglect the political and ideological factors in educational research. Critical paradigm considers the political, ideological and power factors in educational research. According to Fay (1987) and Morrison (1995), "critical theory is explicitly prescriptive and narrative, entailing a view of what behaviour in a social democracy should entail" (Cited in Cohen, Manion & Morrison, 2000, p.28). That is to say, the critical paradigm is trying to change the condition of inequity and illegitimacy, so that all members of the society can enjoy equality and democracy (Cohen, Manion & Morrison, 2000, p.28).

Comparing the three paradigms, I think that critical paradigm is preferable. Firstly, critical paradigm requests researcher use critical perspective to analyze the situations and problems, and then changing the inequitable and illegitimate factors. According to Cohen, Manion & Morrison (2000, p.28), critical paradigm is "not merely to understand situations and phenomena but to change them." Secondly, Compared with positivistic paradigm and interpretive paradigm, critical paradigm is most complete. Critical paradigm thinks about the influence of the political, ideological and power factors in educational research.

Views on good or bad research

Research is very complex process. Researchers should consider many issues. These issues are concerned with criterion for judgment which is good research. Some issues will be discussed below.

Firstly, researchers should consider about the validity and reliability. Validity is important factor for research. The purpose of the research is finding the truth. A research is useless when it loses validity. Validity has been considered in different aspects, for example, internal validity, content validity, construct validity, and so on. Good researches should avoid invalidity in the process of the research. (Cohen, Manion & Morrison, 2000) Reliability is also important issue for good research. It is concerned with "precision and accuracy". (Cohen, Manion & Morrison, 2000) According to American Educational Research Association (1982, p.1589), "reliability concerns the extent to which measurements are repeatable, that is, when different persons make the measurements on different occasions, with supposedly alternative instruments for measuring the same thing" (Cited in Campbell & husbands, 2000, p.41).

Secondly, as a researcher, they have to consider the ethics issue in educational and social research. In educational research, there are 13 ethical issues that have been discussed widely in the literature, for example, "Anonymity", "Accuracy of Reports", "protecting Vulnerable Subjects", "Disclosure", and so on (Bournot-Trites & Belanger, 2005). At the same time, as researchers, they should show their respect to participants, for example, avoiding privacy questions when they doing research process (Cohen, Manion & Morrison, 2000).

Thirdly, researcher should take into account the relationship between research and practice. Four hypotheses should be considered: "the persuasiveness and authority of research, the relevance of research, the accessibility of research and the stability (and instability) of the education system" (Kennedy, 1997)

Views on Qualitative and quantitative research

A lot of research works in education employs qualitative approaches. I will analyze the qualitative and quantitative approaches below. The purpose is trying to explain why so much research in education employs qualitative approaches.

According to Burns (1994), "qualitative forms of investigation tend to be based on a recognition of the importance of the subjective, experiential 'lifeworld' of human beings." The research field of the qualitative research is subjective world of human beings, for example, the viewpoint of the participants about events and the world. Compared with qualitative research, quantitative research is "based on observations that are converted into discrete part that can be compared to other units by using statistical analysis (Maykut & Morehouse, 1994, p.3)."

Quantitative research observe the world with objective view, it tries to establish general laws or principles, it believes that the "social reality is objective and external to the individual" (Burns, 1994). We can see that the qualitative approach and quantitative approach each have distinguishable characteristics; they have different research fields and different point of view about the world. Qualitative research is a good research approach for educational investigation. As Burns (1994) said, qualitative approach is very important for investigating the "relationship(s), causes, effects, and even dynamic processes in school settings." Qualitative approach can provide the effective and in-depth information on "teacher interpretations and teaching style" as well as emphasize the "subtleties in pupil behavior and response". At the same time, it can give the "reason for action".

CONCLUSION

In this paper, I have explained "what is research" and discussed the three important research paradigms: positivistic, interpretive and critical paradigms. I have considered the definitions and characteristics of each. The characteristics of "good" and "bad" research have been discussed. Finally, I have discussed the qualitative research and quantitative research. Educational research can help the researcher develop the knowledge of educational research as well as improve the educational level.

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