Constructivist Research Paradigm for Qualitative Research: Why and How?

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Abstract

Selecting an appropriate research paradigm is one of the most challenging tasks for a researcher. This challenge becomes even more challenging in case a researcher decides to conduct qualitative research. Qualitative research is usually conducted to explore and understand the opinions of individuals or groups on a social problem. The data for qualitative research is usually collected by interaction among investigator and respondents and through different methods such as observations, interviews and document reviews. Considering the nature and process of qualitative research, it can be argued that constructivism, a theory that is based on observation and scientific study about how people learn, can be employed to decide research paradigm for qualitative research. In fact, understanding the importance and applicability of constructivism as a research paradigm in qualitative research becomes a righteous decision. Extending these observations, present paper describes the key aspects of constructivism and qualitative research, discusses the benefits of constructivism research paradigms, and details useful constructivist approaches for conducting qualitative educational researches.

Keywords: *Constructivist approaches, Constructivism, Qualitative research, Research paradigm.*

1.1 Introduction

The word paradigm has its aetiology in Greek where it means pattern (Kivunja, & Kuyini, 2017). Guba and Lincoln (1994) define paradigm as "a basic system or worldview that guides the investigator" (p. 105). Chalmers, (1982) argues that paradigm is "made up of the general theoretical assumptions and laws, and techniques for their application that the members of a particular scientific community adopt" (p.90). Regarding the use of paradigm, Hussain, Elyas and Nasseef, (2013) believe that the it can be used in three ways in human sciences, first for the institutionalisation of intellectual activity, second for the combining certain approaches and perspectives to the study of any problem or subject, and third for the description of broad approaches to research, e.g. the *positivist* and *interpretive* paradigms (Grix, 2010).. It is generally acknowledged that the paradigms we build in our mind plays a powerful role to create the lens through which we see the world (Covey, 1989).

In educational research (behavioural science) the term paradigm is used to describe a researcher's 'worldview' (Mackenzie & Knipe, 2006). This world view is related to the perspective, way of thinking, thoughts and set of shared beliefs, that explores the meaning or interpretation of research data. Or, as explained by Lather (1986) a research paradigm inherently reflects the researcher's beliefs about the

environment that s/he lives in and wants to live in, he sees paradigm as a conceptual lens through which a researcher looks at the world and examines the methodological aspects of their research to determine the research methods that will be used and how the data will be analyzed and interpreted. Similarly, Denzin and Lincoln (2000) define paradigm as human philosophical orientation, which deal with first principles or ultimate reality where the researcher is coming from so as to construct meaning embedded in data. Paradigms are important because they provide beliefs and dictates to scholars in a particular discipline, to determine what should be studied, how it should be studied, and how the results of the study should be interpreted. In other words the paradigm defines a researcher's philosophical opinions and has significant implications for every decision taken by the researcher in the research process, including selection of methodology and methods (Kivunja, & Kuyini, 2017).

Therefore, it becomes essential for researchers to first understand research paradigm and its underlying philosophy and accordingly select appropriate paradigm for their research. This mandate to learn about paradigm becomes more important when researcher decides to conduct qualitative research, which explore and understand the opinions of individuals or groups on a chosen problem. In qualitative research, researchers often use different methods such as observations, interviews and document reviews for collecting research data. Therefore, it can be argued that constructivism, a theory that is based on observation and scientific study about how people learn, can be employed to

decide research paradigm for qualitative research. In other words, understanding the importance and applicability of constructivism as a research paradigm in qualitative research becomes a righteous decision. Extending these arguments, this paper:

- Details the key aspects of a research paradigm.
- Discusses about constructivism and qualitative research.
- Explores the usability of constructivism as a research paradigm in qualitative research.
- Suggests useful constructivist approaches for conducting qualitative educational research.

2.1 Methodology

This review paper is mainly based on the use and analysis of secondary data. Researchers went through different documents, related researches and literature to collect and present relevant evidences.

3.1 Key aspects of a Research Paradigm

Chalmers (1982, p.91) noted that paradigm involves a number of components like:

- "Explicitly stated laws and theoretical assumptions."
- "Standard ways of applying the fundamental laws to a variety of situations."
- "Instrumentation and instrumental techniques that bring the laws of the paradigm to bear on the real world."
- "General metaphysical principles that guide work within the paradigm."
- "General methodological prescriptions about how to conduct work within the paradigm."

While, Lincoln and Guba (1985) observed that a paradigm has four elements: epistemology, ontology, methodology and axiology. An understanding of these four elements is helpful because they comprise the basic assumptions, norms, beliefs and values that each paradigm holds.

3.1.1 Epistemology of a Paradigm

Epistemology word has come from Greek word episteme, means knowledge. In the field of research, epistemology is used to describe how we come to know the truth or reality; or related to the existing knowledge within the world and with bases of knowledge – its nature, how it can be acquired, and how it can be transferred and communicated to other human beings (Cooksey & McDonald, 2011). It is also described as the study of the nature of knowledge (Schwandt, 1997).

3.1.2 Ontology of a Paradigm

A branch of philosophy related to the assumptions that we make in order to believe that something is real known as ontology or essence of the social phenomenon we are investigating (Scotland, 2012). It is essential to a paradigm because it helps to develop an understanding of the things that constitute the world, as it is known (Scott & Usher, 2004). Kivunja and Kuyini (2017) are of the view that "ontology wants to know the reality and foundational concepts which constitute themes that we analyse to draw out the real meaning embedded in research data" (p. 27).

3.1.3 Methodology of a Paradigm

Methodology is the broad term which is related to the research design. It includes methods, approaches and procedures used in an investigation that is planned to find out the reality (Keeves, 1997). For example, data gathering, participants, instruments used, and data analysis, are all parts of the methodology. It is argued that methodology focuses on how we come to know the reality of something or gain knowledge about something (Moreno, 1947).

3.1.4 Axiology of a Paradigm

Axiology refers to the ethical issue that tells us what is right and what is wrong when we are planning a research proposal. It is a philosophical approach to making decisions or the right decisions Finnis, 1980). While, Kivunja and Kuyini (2017) observe that "it helps us to define, evaluate and understand the concepts of right and wrong behaviour relating to the research and the different aspects of it like the participants, the data and the audience" (p. 28). In other words, the axiology of paradigm tells a researcher that how one should act while pursuing a research.

4.1 Constructivism

Constructivism is a theory of knowledge that believes humans construct knowledge and meaningful understanding from their previous experiences and ideas. The key aspect of constructivism is that knowledge is conceived as a process in which the learner actively constructs meaning and learns through previous experiences. According to Beyhan and Koksal (2013) "What is important in constructivist learning is how the individual makes meaning out of knowledge rather than adopting it" (p. 172). While, Singh and Yaduvanshi (2015) observe:

> "The constructivist epistemology assumes that learner constructs

their own knowledge and creates their own understanding, based upon the interaction of what they already know, believe and the phenomena or ideas with which they come into contact (p. 166)."

Jonassen (1999) proposed the following eight characteristics of Constructivist learning environments (as cited in Suregnor, 2010, p.2):

- "Provide multiple representations of reality."
- "Emphasize knowledge construction inserted of knowledge reproduction."
- "Emphasize authentic tasks in a meaningful context rather than abstract instruction out of context."
- "Provide learning environments such as real-world settings or case-based learning instead of predetermined sequences of instruction."
- "Encourage thoughtful reflection on experience."
- "Enable context- and content-dependent knowledge construction."
- "Support collaborative construction of knowledge through social negotiation, not competition among learners for recognition."
- "Avoid over simplification and represent the complexity of the real world."

5.1 Qualitative Research

Denzin and Lincoln (2005). characterise qualitative research as:

> "... a set of interpretive activities, privileges no single methodological practice over another. As a site of discussion, or discourse, qualitative research is difficult to define clearly. It

has no theory or paradigm that is distinctly its own" (pp.6-7).

And Shank (2002) describes qualitative research in following words: "A form of systematic empirical inquiry into meaning" (p. 5). The advantages of doing qualitative research include (Conger, 1998; Bryman, Bresnen, Beardsworth & Keil, 1988; Alvesson, 1996):

- Flexibility to follow unexpected ideas during research and explore processes effectively;
- Sensitivity to contextual factors;
- Ability to study symbolic dimensions and social meaning;
- Increased opportunities to develop empirically supported new ideas and theories; for in-depth and longitudinal explorations of leadership phenomena; and for more relevance and interest for practitioners.

The salient features of qualitative research given by a number of authors such as Creswell (2013), Hatch (2002) and Marshall and Rossman (2011) are:

- **Natural setting-** while collecting the research data investigator do not bring the respondents in any contrived situation but s/he collect data from the actual site where the respondents live in or experience the problem under study. In other words the investigator and the respondents have a face-to-face interaction during collection of research data.

- **Researcher as key instrument-** Although the qualitative researcher may use questionnaires or other data collection instruments but the researcher is one who actually collect the research data through observation

or interviewing respondents personally.

- **Multiple source of data-** Qualitative research collects data through different methods such as observations, interviews and document reviews and interaction among investigator and respondents rather than depending on single source of data.

- **Participants' meaning is important-** In the process of qualitative research, the entire focus of investigator remains on meaning and understanding of participants about the issue or problem.

- **Emergent research design-** qualitative research is more flexible in nature. It means the phases of research process may change after the investigator enters in actual situation and starts collection of data.

6.1. Constructivism as a Research Paradigm in Qualitative Research

Denzin and Lincoln (2000) claim that "qualitative research involves an *interpretive and naturalistic* approach this means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them" (p. 3).While, it is also argued that:

"The constructivist paradigm assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent co create understandings), and a naturalistic (in the natural world) set of methodological procedures" (Denzin & Lincoln, 2005, p.24).

Both these statements have similarity in terms of their meaning and indicating the usability of constructivist research paradigm in qualitative research.

"The constructivist research paradigm also known as interpretive paradigm, naturalistic paradigm, anti-positivist paradigm and humanistic paradigm of research (Shah, & Al-Bargi, 2013, p. 256) that "looks for culturally derived and historically situated interpretations of the social life-world" (Crotty, 2003, p. 67). Constructivism is concerned with subjective meanings as it seeks to recognize the individuals' interpretation and understanding of the social phenomena and assume that knowledge is subjective which depends on thinking and reasoning of individual, means knowledge has multiple ways of interpretation (Schwandt, 1994). Honebein (1996) describes the constructivism paradigm as an approach that asserts that individual construct their own meaning and understanding about something through personal and prior experiences and reflecting on the same. Whereas, Houge (2015) argues that using the constructivist world-view (paradigm) in qualitative research where there is not a single reality, but all reality is relative and constructed by the individual or society is useful as it refers to investigating and interpreting the different perspectives. Therefore, to find the single truth in qualitative research it is recommended to use constructivist world-view to present the same truth from multiple perspectives.

Hussain, Elyas and Nasseef (2013) believe that in qualitative research as well as in constructivist research paradigm, the investigator has real (face-to-face) interaction with the object being observed, and subject matter. Moreover, constructivist researchers focus on exploring individuals' perceptions, share

their own meanings and develop thinking about the observed phenomena or problem (Bryman, 2008; Grix, 2004). This type of research investigates and highlights how the subjective interpretations of individuals and groups shape the objective features of a society. In fact, constructivist research paradigm is closely associated with the qualitative research, because it seeks to understand a phenomenon from the experiences or angles of the respondents using different data collecting instruments (Adom, Yeboah & Ankrah, 2016). Constructivist research paradigm helps investigators to construct meaning and interpret the findings of research through his/her experiences as well as of the respondents. The researcher sometimes engages in the activities as that are carried out by respondents in the natural settings so that s/he experiences it himself or see others experiencing it. Moreover, like the qualitative research, constructivism emphasises that reality is subjective because it is depends on individual perspectives of respondents involved in the research and are thus multiple and can be varied. All these arguments and reviews support the claim that constructivist research paradigm (that believes knowledge is subjective, conceptual and constructed) is an effective and useful tool that can yield many benefits when implemented in qualitative research.

7.1. Useful Qualitative Research Techniques based on Constructivist Approach

Constructivists see reality as socially constructed and believe that there are multiple realities. Knowledge is subjective and truth is dependent upon the context. And the purpose of qualitative research is to understand the experiences of an individual in natural settings. Therefore, following techniques that are based on constructivist approach may be helpful for researchers planning to conduct qualitative researches:

- **Phenomenology-** helpful to explore the experiences of different individuals and focuses on what all respondents have in common while they experience any social phenomenon (Crotty, 2003).

- **Narrative research technique**- useful for the researcher to analyze the lives of respondents by asking them to narrate their life stories in their words (Creswell, 2003; Dornyei, 2007; Grix, 2010).

- **Symbolic interaction technique**- applicable to understand how human beings interpret and describe each other's actions through meaningful matrix and symbols rather than reacting to them (Crotty, 2003).

- **Ethnography-**helpful to describe the holistic perception of individuals or subjects of the study through interviewing them and participating observation (Creswell, 2014).

- **Grounded theory-** evolves from the research study and is developed from the data while the research is carried out.

- **Historical and documentary research**- useful to deal with qualitative historical studies as it depends on verbal and other symbolic materials largely derived from past cultures.

- **Ethno-methodology-** ideal to deal with everyday life and describes how reality is constructed socially in everyday interaction. This technique

has core interest to interpret how people perceive their social settings (Creswell, 2007; Dornyei, 2007; Grix, 2004).

- **Case study-** offers possibilities of in-depth study of any social phenomenon, using various sources of data. A "case" may be an individual, an event, a social activity, group, organisation or institution (Jupp, 2006).

8.1. Conclusion

In this paper, a brief and comprehensive review of three most contemporary issues in research i.e. research paradigms, constructivism and qualitative research have been presented. In fact, a comprehensive understanding of these terms is essential for any researcher especially in the field of behavioural sciences, where most of the studies are related to human behaviour and society. Needless to say that it is very important to select an appropriate paradigm to conduct a research but researchers often lack to establish a clear link between the paradigm and the nature of their studies (Troudi, 2010). Contrary to this, a careful and appropriate selection of research paradigm enables the researcher to adopt suitable research design and methodology. This is more so in case of qualitative research that tries to present the real picture of particular social phenomena in multiple forms. Extending these arguments, this paper explained the relevance of constructivism as a research paradigm in qualitative researches. On the basis of these discussions, authors have suggested some research techniques that based on constructivist approach and may be helpful for researchers planning to conduct qualitative researches. We hope that given explanations and suggested techniques will help novice as well experienced researchers to use constructivist research paradigm for conducting qualitative researches in a better way.

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