

Momodou M Willan

## Research Approaches for Higher Education Students: A Personal Experience

### Abstract

Conducting research can present a range of challenges for students because of the complex skills and knowledge required to have critical engagement with the entire research process. This paper looks at what was involved in shaping the research journey that I am currently undertaking at a Higher Education Institution (HEI). The focus is on research methodologies. The purpose of this paper is two-fold: (1) to describe the study's data-collection methods and the theoretical concepts that motivated the selection of the said methods; and (2) to relate how the research methodology is related to my personal experience. The paper employs the work of experts in qualitative and quantitative approaches, along with related literature as resource for the content material. This piece of work is considered relevant because Higher Education (HE) students are undertaking similar research projects and can therefore benefit from it by taking into account the knowledge and skills that I have gained. The paper emphasises the link between academic theory and professional practice especially in the case of action researchers. The paper ends with a reflection on lessons learned and how these have informed my work as a practitioner researcher.

Keywords: research approaches, higher education, qualitative and quantitative research, mixed methods, action researcher

### Introduction

Research work involves many processes and procedures, including theoretical stances, the methods that are used for data collection and how the data collected are interpreted and analysed (Creswell, 2014; Bryman & Bell, 2011). The focus in this paper is on some of the procedures that are involved in the research process, including the various theories that underpin research practice. Although the paper does not give an in depth discussion of research design, data collection and analysis procedures, it explains how they are linked to theory. It discusses the nature of research and identifies the approaches that are used for research activities. The paper draws on scholarly work of researchers and experts in qualitative and quantitative approaches, to provide the content material and to show how theoretical assumptions guide the research process. It also demonstrates why Higher Education (HE) students should give consideration to qualitative and quantitative approaches when planning to carry out their investigations. It concludes by presenting the insights gained from engaging with literature that explains and analyses how research really works – all that is involved at every stage of the research journey. The paper begins by looking at the context and rationale for this paper.

### Context and rationale

The boundary that frames the context for this paper is the doctoral study that I am currently undertaking in a Higher Education Institution (HEI). To carry out this research it was necessary for me to explore the research literature to determine what

theories support my work and what the experts have reported about research procedures and processes. My research focuses on evaluating and determining service quality at a private higher education institution in the UK. The overarching question that guided the study is:

*How does a private educational institution use service quality to enhance students' educational progress?*

The above question was constructed based on the nature of the study and the theoretical positions that underpin qualitative studies. Taking this stance helped me to make informed decisions about employing a qualitative approach. As an action researcher, I am positioned in the discussion as regards methodological approaches, choices and decisions. However, the purpose of this paper is not to present hardcore methods but rather to explore all that is involved in investigating a particular phenomenon - how the research is conducted, when to carry out specific tasks, what kind of literature to review and why research procedures are necessary to carry out investigations. The two-fold aim of the study is: (1) to describe the study's data-collection methods and the theoretical concepts that motivated the selection of the said methods; and (2) to relate how the research methodology is related to my personal experience. The paper describes how I utilised the literature to guide my actions in carrying out the investigation. It further demonstrates the research path I have taken in order to get the post data-collection stage of my work. It was this challenging and interesting journey, along with the exposure to all sorts of research possibilities that inspired me to write this paper. Before turning my attention to the three main research approaches, I will briefly review the nature of research design and approaches.

### **Research design and approaches**

The procedures adopted for the collection, analysis, interpretation and reporting of research data is basically known as research design. They represent different models for doing research, and these models have distinct names and procedures associated with them. Shukla (2008, p. 29) defines research design as "a plan of the method and procedures that is used by the researchers to collect and analyse the data needed". Having learned what research designs are purposed to do, I was able to identify my research questions, select the method used to help me to find answers to the questions and determine my sampling methods and procedures. As such, the research design served as the blueprint that articulated and illustrated the sequence for my research activities. Shukla (2008, p. 29) names two kinds of research designs in relation to the distinction between qualitative and quantitative approaches, namely, exploratory and conclusive.

### **Quantitative and qualitative approaches**

Qualitative and quantitative research use different approaches. The former research is of a subjective nature and the latter is concerned with objectively measurable variables. Creswell (2009, pp. 207-208) compares both approaches:

*Qualitative*

- Multiple realities
- Reality is socially constructed
- Reality is context interrelated
- Holistic
- Strong philosophical perspective
- Reasoning is inductive
- Discovery of meaning is the basis of knowledge
- Develops theory

*Quantitative*

- Single reality
- Reality is objective
- Reality is context free
- Reductionistic
- Strong theoretical base
- Deductive and inductive
- Cause and effect relationship are the basis of knowledge
- Tests theory

As noted above, qualitative research is more subjective. However, it also supplies a way to examine variables in their natural setting as opposed to the clinical conditions required in quantitative research methods. Reviewing the foregoing comparison has equipped me with a sound understanding of how each approach contributes to research investigation. Employing a qualitative approach was a direct result of the knowledge I gained.

**Mixed methods**

The Mixed Methods approach is defined by Tashakkori and Teddlie (2003, p. 711) as "... a type of research design in which QUAL and QUAN approaches are used in types of questions, research methods, data collection and analysis procedures, and/or inferences". Creswell (2009, pp. 207-208) explains this approach as follows: "The qualitative and quantitative data are actually merged on one end of the continuum, kept separate on the other end of the continuum, or combined in some way between the two extremes". Punch (2005, p. 238) notes that using both approaches in terms of the choice of methodology, an important question to ask is: what, exactly, is the researcher trying to find out? I questioned the purpose for my research. A thorough examination revealed that a mixed methods approach was not suited for my study since I was not aiming to obtain a precise measurement of attitudes and outcomes (Lodico et al., 2006, p. 17).

**Philosophical assumptions**

Over the years, there has been continuous development of research worldviews in the fields of social science and studies on educational research. Researchers such as Wisker (2008), Onwuegbuzie and Leech (2005) and Creswell (2009), have provided different accounts of the beliefs of researchers. Below are some of the philosophical positions that researchers take:

- Positivism
- Post-positivism
- Social Constructivism
- Pragmatism

A discussion of the above positions gives rise to what Blaikie (2000) describes as the 'research paradigm'; others research to this as 'research philosophy' (Saunders, Lewis & Thornhill, 2007). These philosophies are formed from basic

ontological and epistemological positions, and have developed in both classical and contemporary forms to effectively classify different research approaches. Denzin and Lincoln (2003) describe a research paradigm as ‘an interpretive framework’ and as a ‘basic set of beliefs that guides action’.

I found learning about philosophical assumptions both challenging and interesting. Getting the gist of what each represents and how each is applied to the research process was not a simple task. It took several readings, note-taking, checks and intense analysis before I was able to see their relevance to my research. I found Creswell’s explanations, examples and illustrations quite useful in helping me to make the appropriate links and see how my worldview is related to my study (2014). Even the methods that I used were linked to the constructivist worldview that I eventually selected Wisker (2008, pp. 68-69). Creswell illustrates how worldviews, strategies of inquiry and research methods are interconnected. Positivist, constructivist, transformative and pragmatic worldviews form part of Creswell’s framework. The designs that he identifies are qualitative, quantitative and mixed methods and the research methods are questions, data collection, data analysis, interpretation and validation (Creswell, 2014, p. 5).

Having a philosophical worldview helped me to gain a “deeper and wider perspective of research”, which helped me to focus my aim and put my research in a wider context Carson et al. (2001, p. 1). Having decided on a theoretical position, I identified and justified the constructivist philosophical position taken, after an analysis of those noted below:

**Positivism:** This is based upon values of reason, truth and validity and there is a focus purely on facts, gathered through direct observation and experience and measured empirically using quantitative methods – surveys and experiments - and statistical analysis (Blaikie, 2010; Saunders, Lewis & Thornhill, 2007; Eriksson & Kovalainen, 2008; Easterby-Smith, Thorpe & Jackson, 2008). Hatch and Cunliffe (2006) relate this to the organisational context, stating that positivists assume that what truly happens in organisations can only be discovered through categorization and scientific measurement of the behaviour of people and systems and that language is truly representative of the reality. Positivist philosophy holds that all true knowledge is scientific, determined by fixed laws, and is best measured and known by the scientific approach.

**Post-positivism:** Post-positivist philosophy concentrates on finding out and determining the particular cause that leads to determined outcomes. This philosophy is also steeped in the specification of ideas into smaller and more manageable ideas that can be tested. The post-positivist assumptions have represented the traditional form of research, and these assumptions hold true more for quantitative research than qualitative research (Bryman & Bell, 2011; Tashakkori & Teddlie, 2003). This worldview is sometimes called the scientific method or doing science research. It is also called positivist / post-positivist research, empirical science, and post-positivism. This last term is called post-positivism because it represents the thinking after positivism, challenging the traditional notion of the absolute truth of knowledge and recognizing that we cannot be ‘positive’ about our claims of knowledge when studying the behavior and actions of humans.

**Social constructivism:** The notion social constructivism articulates that people construct or build knowledge meanings by means of their experiences and

interactions with other people, events and things in general. It is predominantly based on the assumption that the world is all about how people understand it from their work and living experiences. This position is described by Hatch and Cunliffe (2006) as anti-positivist and by Blaikie (2000) as post-positivist since it is contended that there is a fundamental difference between the subject matters of natural and social sciences.

**Pragmatism:** The pragmatist philosophy is based on the believe that world should not be seen as absolute and this paradigm was propounded by American researchers concerned with determining and identifying what actually works (Lodico et al., 2006, p. 9). Proponents of this worldview predominantly concentrate on the results of their research. This implies that they will depend on the knowledge emanating from their research into a particular phenomenon in order to determine what actually works in a given situation. Pragmatists further posit that if a theory achieves a specific outcome or reduces doubt about the outcome relating to a given situation, then it can be accepted as a good theory.

## Research strategies

An effective research strategy helps the researcher to define the reasons behind using particular data-collection methods to support his arguments (Saunders et al., 2007). The strategies I used for my research were influenced by Creswell's (2009) five traditions of qualitative inquiry – ethnography, grounded theory, case study, phenomenology and narrative research. Analysing these traditions proved to be rather useful in helping me to decide on the most appropriate data collection for my study:

- **Ethnography:** A strategy of inquiry in which the researcher studies an intact cultural group in a natural setting over a prolonged period of time by collecting primarily observational and interview data. The research process is flexible and typically evolves contextually in response to the lived realities encountered in the field setting.
- **Grounded theory:** For this mode of inquiry, the researcher derives a general, abstract theory of a process, action, or interaction grounded in the views of participants. This process involves using multiple stages of data collection and the refinement and interrelationship of categories of information. Two primary characteristics of this design are the constant comparison of data with emerging categories and theoretical sampling of different groups to maximize the similarities and the differences of information.
- **Case studies** are a strategy of inquiry in which the researcher explores in depth a program, event, activity, process, or one or more individuals. Cases are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time.
- **Phenomenological research** is a strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants. Understanding the lived experiences marks phenomenology as a philosophy as well as a method, and the procedure involves studying a small number of subjects through extensive and prolonged engagement to develop patterns and relationships of meaning. In

this process, the researcher brackets or sets aside his or her own experiences in order to understand those of the participants in the study.

- **Narrative research** is a strategy of inquiry in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives. This information is then often retold or re-storied by the researcher into a narrative chronology. In the end, the narrative combines views from the participant's life with those of the researcher's life in a collaborative narrative.

In applying the above tradition to my research, I found that in some respects they are all interrelated, yet with different contextual values. For example, I have chosen case studies, but realised that there are some aspects of phenomenology present too. However, I am still contemplating how I will address this link in my methodology chapter.

As an action researcher, I wish to make a brief comment about what action research entails. Action research is viewed as an emergent enquiry process in which applied behavioral science knowledge is integrated with existing organisational knowledge and applied to solve real organisational problems (Koshy, 2010; Wilson, 2010). It is simultaneously concerned with bringing about change in organisations, in developing self-help competencies in organisational members and adding to scientific knowledge. Predominantly, it works within a qualitative design (Koshy, 2010, p. 80). O'Leary (2004, p. 139) explains action research as: "a strategy that pursues action and knowledge in an integrated fashion through a cyclical and participatory process. In action research, processes, outcome and application are inextricably linked". Research activities for action research may have a classroom practice context or they may have an institutional focus context (Koshy, 2010, pp. 34-35), hence its suitability for my study. These processes, as explained by O'Leary (ibid), are the ones that are involved in my research:

- Addresses practical problems (the goal is to improve professional practice)
- Generates knowledge (to produce change and the enacting of change to produce knowledge)
- Enacts change (incorporate change into immediate goals)
- Is participatory (collaboration with practitioners and other stakeholders)
- Is a cyclical process (takes place as he knowledge emerges)

Finally, action research is an evolving process that is undertaken in a spirit of collaboration and co-enquiry, as is being done for this study.

### Selecting theory and methods

As mentioned earlier, a researcher's choice should support his/her worldview, thus the qualitative approach used; and this allowed me to gain insight into my issue (Creswell, 2014; Denscombe, 2007). Unlike quantitative research, which is concerned with objectively measurable variables, qualitative research seeks to build a narrative about an issue by understanding it. While this means qualitative research is more subjective, it also supplies a way to examine variables in their natural setting as opposed to the clinical conditions required in quantitative research methods. This implies that it is of the utmost importance that there should be a match between the

research questions and the methods. I was guided accordingly in relation to choice of theory and methods.

## Conclusion and insights gained

This paper provides a critical reflection of the methodological process that are useful in generating insights that guide researchers especially in the in the research design process. It provides the opportunity for the researcher to engage with the literature, challenge and critique the different views and most importantly to make choices and take a decision stand that best suits the researchers study and research context.

I found the research process quite useful in relation to gaining new knowledge, generating ideas that help inform my research design process and making informed decisions. Part of the new knowledge gained relates to my ontological (the nature of reality) and epistemological (knowledge) positions in this research. The discussion on these positions is reserved for a follow-up paper. The relevance of this paper lies in knowing what is involved in embarking on a research journey. HE students are undertaking similar research projects and can therefore benefit from this by considering the knowledge and skills that I have gained. What I found truly useful was to understand the inextricable relationship between philosophical worldviews, research strategies and research methods.

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Momodou M Willan, Senior Associate Dean, Hult International Business School (HIBS), United Kingdom, Mo.willan@hult.edu