

Comparing and contrasting qualitative and quantitative social research methodolog...



Social research is conducted using a logical and systematic process that can be carried out for numerous reasons and it is concerned with the empirical study of social phenomena. The purpose of conducting such research is to enhance knowledge of how the social world operates through the study of human behaviour and investigates how humans interact with others in society. Research in general, is usually conducted by adopting either a qualitative or quantitative approach (Henn et al, 2006).

The approaches taken and the decisions that are made by qualitative and quantitative researchers differ with respect to their epistemological position and ontological assumptions and these assumptions orientate the research strategies in a direction that will be most appropriate in developing their research methodologies (Bryman, 2004). This assignment will identify and describe how the different methodologies are decided for qualitative and quantitative research studies and how the methodological decisions are influenced by the researcher's philosophical views of the world.

Reference will be made to the contrasting paradigms, epistemologies, the ontological perspectives and the philosophical views that both qualitative and quantitative researchers use as the foundations for conducting their research. This assignment will then move on to outline the strengths and weaknesses that can be present within the different methodologies used when designing a research project.

Finally, the assignment will place emphasis on, and consider the implications that can arise from ethical issues within social research practices and will discuss ways in which to minimise ethical situations arising in qualitative and

quantitative research. This assignment will conclude with a brief overview and discussion on the range of different methodologies used and will specify if one approach is takes precedence over the other. Qualitative and quantitative approaches to research

Before a research study can even begin to be put together, a research question needs to be developed that is capable of being researched through the researcher's preferred approach, either qualitative or quantitative. The process of designing a research project can then begin. The selection of a research process is well thought out with many academics and researchers opting to utilise the framework introduced by Crotty (1998), who suggests that adopting this four-element approach is fundamental to the research process and should be considered as a starting point when devising a research strategy.

This framework can be applied to both qualitative and quantitative research and asks the researcher to consider four questions: " What epistemology? What theoretical perspective? What methodology? What methods? " (Crotty, 1998, p. 2). Answering these questions will shape the essence of the research project and as (Creswell, 2003) states: It is these questions that identify the inter-related levels of decisions that go into the process of designing research.

The point that Creswell is emphasising here, is that this first stage of designing a research project is determined by these answers which are needed to determine the most appropriate research strategy to use and in this order; 1) the researcher's ontological assumptions about how knowledge

is claimed are embedded in their epistemological perspectives. 2) These assumptions and perspectives of the individual researcher will determine which methodologies will be adopted. 3) The methodology adopted will determine which methods will be used (Henn et al, 2006).

This framework will then provide the researcher with a solid foundation to build a well-structured and organised research study. Paradigms hold great significance to a researcher and contain a set of beliefs or assumptions that guide their inquiry into social phenomena (Gelo et al, 2008). The range of theoretical perspectives that are primarily concerned with qualitative research includes; symbolic interactionism, phenomenology, post-modernism, feminism and interpretivism (Gray, 2004).

The theoretical perspectives that are largely concerned with quantitative research includes; realism, critical inquiry, positivism and post-positivism (Gray, 2004). Qualitative researchers tend to view the world through the interpretivist paradigm. The interpretivist researcher focuses on the interpretation of social phenomenon as subjective, aiming to discover a deep and meaningful understanding of how and why human behaviour evolves, and through the eyes and points of view of their participants, believing that knowledge is uncovered from meaning (Henn et al, 2006).

In contrast, Quantitative researchers view the world through the positivist paradigm. The positivist researcher primarily focuses on the investigation of social phenomenon as objective by detaching themselves from the subject matter to view the world from an objectivist angle and believing that knowledge is 'out there' to be uncovered (Henn et al, 2006). Qualitative and

quantitative research similarly has an established relationship between theory and research (Bryman, 2004) which underpins the differing perspectives of qualitative and quantitative research.

Qualitative research is primarily inductive in approach and is described by Henn, et al (2006, p. 14) as a “ research-then-theory approach”, whereby the hypotheses and theory is generated from the data that is collected and analysed. Analysis of the collected data will indicate any potential relationships and patterns that emerge between variables (Gray, 2004). On the contrary, quantitative research is predominantly a more deductive approach, described by Henn, et al (2006, p. 13) as “ the theory-then-research approach”.

The researcher’s focus is on the testing of a hypothesis that is analysed empirically and is either accepted or rejected before a theory can be proven (Bryman, 2004). Qualitative research is generally associated with the study of social phenomena as it occurs in its natural setting and can be best described as a naturalistic and holistic approach to research (Gelo et al, 2008).

Qualitative research includes interpretation of the data to identify patterns through rich and detailed descriptions using text, documents and imagery to convey their findings (Gray, 2004), as opposed to quantitative research whose aim is to study social phenomenon through the collection and manipulation of data under artificial, controlled settings (Gelo et al, 2008). The data is analysed numerically to establish relationships between variables.

This type of analysis can provide explanations for cause and effect relationships (Henn, et al, 2006). Both qualitative and quantitative researchers conduct their research using various approaches of inquiry. Whilst there are a number of approaches used for qualitative and quantitative research (Creswell, 2003). Only a selection of these approaches will be outlined. Qualitative researchers can choose the ethnographic approach which is closely linked with symbolic interactionism (Gray, 2004).

This approach sees the researcher entering the field to study the characteristics of a culture or a group within its natural setting over a period of time, allowing the relationship between culture and behaviour to emerge (Creswell, 2003). The researcher can immerse themselves in the culture they are studying and data is collected through direct observations and interactions with the participants. This approach offers a degree of flexibility which Neumann (2000) describes as a key advantage to field work and offers a contextual descriptive study.

Qualitative researchers can choose the Phenomenological approach which concerns itself with exploring “ what we experience” (Crotty, 1998, p. 79). Phenomenology sees the researcher view the world as socially constructed and through the eyes of the participant as they apply meaning to their experiences in their natural setting (Gray, 2004). The method employed in phenomenology is in-depth unstructured interviews that produce a small-scale research study (Gray, 2004).

Grounded theory is a systematic approach that follows a set procedure in order to develop a theory about a phenomenon that little is known about

(Neumann, 2000). The theory is grounded in the views of the participants taking part in the study (Creswell, 2003) and involves different stages of data collection that are constantly being compared along with theoretical sampling in order to identify patterns within the data collected (Creswell, 2003).

Other approaches qualitative researchers may choose to use include; Case studies, narratives and case studies (Flick, 2009). Quantitative researchers mainly use primary analyses and can choose to use the experimental research approach which aims to identify causal relationships between one or more dependant and a single independent variable through manipulation and control (Gelo et al, 2008). Participants are randomly selected for either an experimental group or control group and comparative analysis is carried out (Bryman, 2004).

This technique uses sampling with a view to being generalizable to the wider population. Quantitative researchers can also choose to use the quasi-experiment approach. This approach is similar to the experimental research approach without the randomisation (Newburn, 2012) and is used when the dependent variables cannot be manipulated and participants are not randomly assigned to the study (Bryman, 2004). Moving away from experiments, research surveys are used by quantitative researchers to obtain information from a sample of the population.

These can be either cross-sectional, where the collection of data is gathered at once, or longitudinal, where the collection of data is collected over a specified time period (Creswell, 2003). This information will be subject to

statistical analyses and can be generalised to represent the wider population (Gray, 2004). Surveys are conducted using structured interviewing using closed questions through either face-to-face contact, postal surveys or via telephone (Henn et al, 2006). Questionnaires are another instrument used to obtain information from the general public and tend to be standardised.

Questionnaires are capable of generating data on a large scale that can be quantified (Henn et al, 2006). Other approaches quantitative researchers may choose to use include; secondary analysis, structured observations and content analysis (Neuman, 2000) Triangulation is an approach that can also be used where a research enquiry would benefit from having the results analysed by both qualitative and quantitative methods. This can be used to determine a more in-depth analysis and to validate a set of results (Flick, 2009). Strengths and weaknesses

As well as qualitative and quantitative research approaches attracting criticisms regarding their credibility and the way research is conducted, there are certain qualities attached to each approach that are unique and fundamental to their study. A selection of these criticisms and qualities will be considered for both qualitative and quantitative research. Allan (1991) identifies flexibility as a strength connected with qualitative research noting that flexibility allows new concepts of phenomenon to be brought in or changed accordingly as the qualitative study emerges.

In-depth data analyses is considered a strength attributed to qualitative research as it offers rich contextual descriptions of their findings resulting in a detailed picture of the social phenomena being enquired about (Bryman,

2004). According to Flick (2009), being able to generalise research results is considered a dominant feature of quantitative research as it has the potential to make predictions about the wider population as well as operating on a large scale.

Quantitative research is conducted objectively making it possible to remain detached (Bryman, 2004) minimising the risk of researcher bias being an issue. Because quantitative researcher's employ an objective approach, there is a defined structure to their research which allows their studies to be replicated. This, in turn, strengthens the link for confirming the reliability of their findings and is considered to be a key characteristic (Bryman, 2012). Qualitative research is critically assessed on its inability to generalise its findings to be representative of the wider population.

This is due to the nature of qualitative research conducting predominantly small-scale studies and the argument suggests that small-scale studies are not capable of identifying patterns that can be generalised to a wider population (Bryman, 2012). Validity can be seen as an issue for qualitative research. Argued by Flick (2009), the issues with validity are concerned with the researcher's interpretations of what they have studied and whether or not it is a true account of that study. Qualitative Researchers can also be seen to bring their own personal biases into a research study.

This can be problematic as the collection of data and analyses can become distorted through the researcher's own theory, beliefs or preconceptions being brought into the research (Maxwell, 1998). It is argued that for qualitative research findings to be verified they should be replicable across

other qualitative methods. However, the unstructured nature and the subjectivist view associated with qualitative research suggests that replication is difficult to achieve confirming the statement made by Allan (1991), that verification of a study should be capable of being replicated in order to enable its findings to be verified.

Internal validity and external validity are two key criticisms that are associated with quantitative experimental research. It is argued by Henn et al (2006) that there are factors that can impinge upon the experimental procedure, which questions the reliability of the measurements obtained, thus results in criticisms concerning the internal validity of an experiment.

External validity is considered problematic with regard to how representative the sample may be and if the results taken from a small sample can be extended to make predictions about the wider population (Skinner, 1991). The arguments raised here concerning internal/external validity are also linked to the issues of accurate measurements being defined as reliable and valid (Bryman 2012). Other weaknesses associated with quantitative research include; the cost of research studies can be relatively expensive to conduct.