

METHODOLOGY THEORY

Creswell (2009) describes the three possible research designs as quantitative, qualitative and mixed methods. Quantitative research can be used to test objective theories or to examine the relationships between variables (Creswell 2009). Qualitative research is a way of exploring and understanding the meanings of individuals or groups. Mixed methods is where both qualitative and quantitative research is used, which is considered stronger by many researchers (Bryman and Bell 2007).

Creswell (2009) describes how there are 3 things to consider when designing research, these are:

- Strategies of inquiry
- Specific methods of data collection
- Philosophical Worldview / Ontology and Epistemology

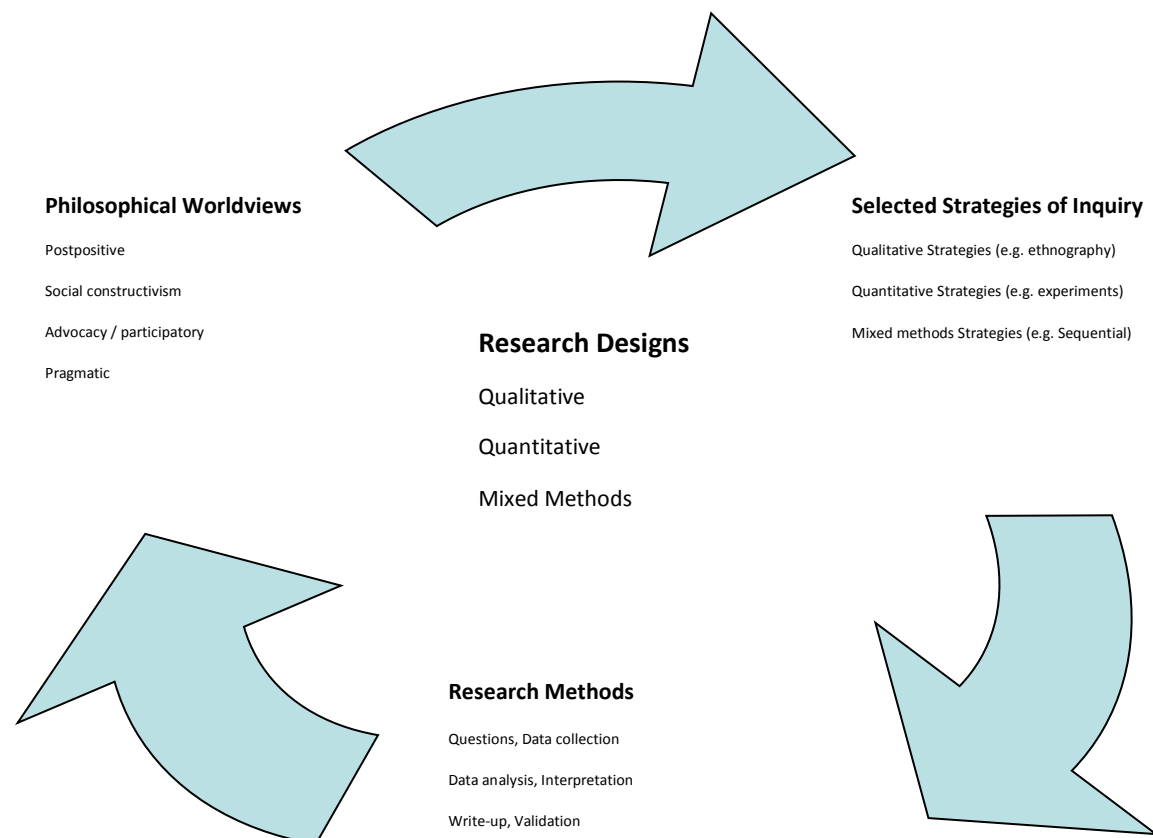


Figure 1. Research Design (Taken from Creswell 2009)

1.1 Philosophical worldview

Philosophical worldview has been described by other researchers as ontology, epistemology or the “general orientation about the world and the nature of research that a researcher holds” (Creswell 2009). Bryman and Bell (2007) describe the four common world views of postpositivism, constructivism, advocacy and pragmatism.

1.1.1 *Post positivism*

Post positivism is considered as the traditional form of research and involved the formation of a theory on which data is collected to either support or refute the theory. It is a form of research that aims to develop true statements that explain the relationship between two variables and is linked to qualitative research methods (Hart 2005).

1.1.2 *Social constructivism*

The social constructivism worldview is linked to qualitative research methods. Broad questions are asked so that the participants are allowed to construct the meaning of the situation. This method is often used to examine processes of interaction (Creswell 2009).

1.1.3 *Advocacy and participatory*

The advocacy and participatory worldview is linked to quantitative research and to be entwined with politics and a political agenda and address important social issues (Hart 2005).

1.1.4 *Pragmatic*

Finally the pragmatic worldview is linked to mixed methods research. Pragmatism is concerned with applications and finding solutions to problems and does not see the world as an absolute unity (Bryman and Bell 2007).

1.2 Strategies of inquiry

Strategies of inquiry are models that use quantitative, qualitative or mixed method designs to provide specific direction for the procedures in the research design (Hart 2005). There are many different strategies and some are discussed here:

- Survey Research
- Action Research
- Experimental Research
- Feminism
- Ethnography
- Grounded Theory
- Historical
- Case Studies
- Phenomenological Research
- Symbolic Interactionist
- Narrative Research
- Critical Enquiry
- Sequential Mixed Methods
- Concurrent Mixed Methods
- Transformative Mixed Methods

These strategies can be grouped into qualitative strategies, quantitative strategies and mixed methods strategies (Bryman and Bell 2007).

1.2.1 *Quantitative strategies*

1.2.1.1 *Survey research*

Survey research provides a picture of trends using numerical data collected by using questionnaires or structured interviews (Hart 2005).

1.2.1.2 *Experimental research*

Experimental research consists of changing or influencing one variable to see how it affects the outcome (Creswell 2009).

1.2.2 *Qualitative strategies*

1.2.2.1 *Ethnography*

Ethnography involves the researcher studying an intact cultural group in their natural environment (Creswell 2009).

1.2.2.2 *Grounded theory*

Grounded Theory uses the views and opinions of participants using multiple stages of data collection to form a general abstract theory of a process (Bryman and Bell 2007).

1.2.2.3 *Case studies*

Case Studies are an in depth study of an event, activity or process using a variety of data collection procedures over a prolonged period (Creswell 2009).

1.2.2.4 *Phenomenological research*

Phenomenological research is a prolonged study of people's experiences to understand the meaning of the process (Bryman and Bell 2007).

1.2.2.5 *Narrative research*

Narrative research is where individuals are asked to provide stories about their lives and they are compiled together (Creswell 2009).

1.2.3 **Mixed methods strategies**

1.2.3.1 *Sequential mixed methods*

Sequential mixed methods is where the researcher uses another method of data collection to elaborate on the data found using the first method (Hart 2005).

1.2.3.2 *Concurrent mixed methods*

Concurrent mixed methods involves the researcher merging both quantitative and qualitative data collection (Bryman and Bell 2007).

1.2.3.3 *Transformative mixed methods*

Transformative mixed methods uses a theoretical lens throughout the design and then uses either sequential or concurrent mixed methods (Creswell 2009).

1.3 Research methods

Specific research methods encompass data collection, analysis and interpretation. The type of methods used depends upon the data required (Bryman and Bell 2007).

1.3.1 Quantitative methods

Quantitative methods should use predetermined methods with close ended questions. The sort of data that should be collected is performance, attitude, observational and census data. The analysis and interpretation should be statistical. The methods that could be used included questionnaires, observational and comparative analysis (Hart 2005).

1.3.2 Qualitative methods

Qualitative methods should use emerging methods (adapting to the situation) with open ended interviews. The sort of data that should be collected is interview, observational, document and audio visual data. The analysis should be of text and images and the interpretation of themes and patterns (Creswell 2009). The methods that could be used included interviews, life history, case study and concept mapping (Bryman and Bell 2007).

1.3.3 Mixed methods

Mixed methods can utilise both predetermined and emerging methods with both open and close ended questions. Multiple data forms can be collected. The analysis can be both statistical as well as text and image and the interpretation of multi databases (Creswell 2009). The possible methods in a mixed method approach could have involved any techniques from qualitative and quantitative methods such as nominal group (a group identifying issues), case study, comparative analysis (comparison of two or more cases), interviews and questionnaires (Hart 2005).