

Influence of  
positivism  
interpretivism and  
realism approaches  
psychology essay



**ASSIGN  
BUSTER**

All sociological research designs and methods make certain assumptions about the nature of the social world and how knowledge is generated. One of the ways that research can be evaluated and improved is to make these assumptions more explicit (Hibberd, 2005). Positivism, interpretivism and realism give different answers to the nature of scientific knowledge and whether or not it is applicable to societies. Many scholars argue that a great deal of sociological research contains elements of all three (Suppe, 1984; Bickhard, 1992; Hibberd, 2010). To a far extent these arguments have influenced the methodological division of social research. It is claimed that, the quantitative methods have their intellectual underpinning in the positivist and realist paradigms, while the qualitative methods/techniques have their intellectual underpinning in interpretivist, constructivist, and naturalist paradigms (Hanzel, 2010).

However, despite these ongoing arguments between the methodological traditions of qualitative and quantitative research (Gage, 1989); combined methods represent a fast developing field of social science methodology. As all methods have specific margins and particular strengths, many discussants propose that qualitative and quantitative methods should be combined in order to compensate for their mutual weaknesses (Tashakkori & Teddlie, 2003). Moreover, it is claimed that this movement scripts the beginning of a new era in social research indicated by a tendency to combine quantitative and qualitative methods pragmatically unencumbered by old debates (Johnson & Turner, 2003). Therefore it is emphasized that the uses of a mixed-method design provides an important tool in overcoming the limitations of both qualitative and quantitative mono-method research.

This essay deals with social theories that influence qualitative and quantitative research methods employed in social sciences as either in principle separable or even as irreconcilable methods of social sciences. It starts with a characterization of positivism, Interpretivism and realism; and links these theories to the foundation of qualitative and quantitative research methods. Then, it shows how they deal with the various aspects of the qualitative-quantitative divide. Finally, it is the intention to show how the combined methodological approach may be integrated in a coherent way to add value and assist in the design of a single research project. With an emphasis on the differences and similarities between quantitative and qualitative approaches providing the basis for exploring the methods of combining both approaches to overcome their weaknesses by providing a commentary of the complementary strengths of each tradition.

## **Characterizing Positivism, Interpretivism and Realism approaches**

Few sociologists would describe themselves as a positivist, interpretivist or realist. These are terms used primarily by methodologists and social theorists to describe and evaluate the theoretical assumptions underlying different approaches to research (Bickhard, 1992; Johnson, 2006; Hibberd, 2010). There are many different views in sociology about what societies are and the best ways of obtaining knowledge of them. This part of the essay simplifies matters to some extent by characterizing three of the most influential theories of knowledge in sociology: positivism, interpretivism and realism (Bryman, 1998 and 2001; Hibberd 2010).

## **Positivism**

Positivism is frequently used to stand for the epistemological assumption that empirical knowledge based on principles of objectivity, verificationism, and reproducibility is the foundation of all authentic knowledge (Bryman, 2001; Hanzel, 2010). The term positivist has been critical for some time in the human sciences because positivist tends to subscribe to a number of ideas that have no place in present-day science and philosophy (Hanzel, 2010). Positivism views that sociology can and should use the methods of the natural sciences, that do not usually mean using experiments because there are all sorts of ethical problems with doing that, but positivists do believe that sociologists should use quantitative methods and aim to identify and measure social structures. As a philosophical approach, positivism encompasses a group of notions. Table 1 below, provides main characters for positivist key ideas. It shows that positivists sum up all the items by being against metaphysics (Hacking, 1983).

## **Character**

### **Description**

emphasis upon verification

Significant propositions are those whose truth or falsehood can be settled in some way.

Pro-observation

What we can see, feel, touch, and the like provide the best content or foundation for all the rest of our non mathematical knowledge.

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

### Discoverability

Scientific knowledge is something discovered (rather than produced or constructed).

### Anti-cause

There is no causality in nature, over and above the constancy with which events of one kind are followed by events of another kind.

### Downplaying explanation

Explanation may help organize phenomena, but do not provide any deeper answer to Why questions except to say that the phenomena regularly occur in such and such a way.

### Anti-theoretical entities

Positivists tend to be non-realists, not only because they restrict reality to the observable but also because they are against causes and are dubious about explanations.

### Table 1: Positivism characters

Source: Hacking, 1983

Positivist theory argues that the methods of the natural sciences are applicable to the study of societies. In the positivist view, sociology involves the search for causal relationships between observable phenomena and theories are tested against observations (Hibberd, 2009). Researchers

adopting a positivist point of view may still be interested in finding out about people's subjective views. For example, they explore things such as attitudes and opinions through survey research (Michell, 2003). However, they see the task of sociology as explaining why people behave in the way they do, and how people really feel about things cannot be explained scientifically.

## **Interpretivist**

Interpretivists do not necessarily reject the positivist account of knowledge, but they question the idea that the logic and methods of natural science can be imported into the study of societies. Max Weber was one of the main influences on the interpretivist tradition in sociology. For him, 'natural science' and 'social science' are two very different enterprises requiring a different logic and different methods (Bryman, 1982).

At the heart of interpretivist critique of positivism is a humanist viewpoint. Some of those favouring an interpretivist view of sociology have long argued that in their search for a scientific explanation of social life, positivist have sometimes forgotten that they are studying people, and to study people you need to get out and explore how they really think and act in everyday situations. Interpretivists argue that unlike objects in nature, human beings can change their behaviour if they know they are being observed (Collins, 1984; Guba, 1987). So, interpretivists argue that if we want to understand social action, we need to look into the reasons and meanings which that action has for people (Marsh, 2002). Take the example of crime, a positivist would argue that researchers can simply measure crime using quantitative methods and identify patterns and correlations. While, an interpretivist would argue that we need to understand what people mean by crime, how

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

they come to categorize certain actions as 'criminal' and then investigate who comes to be seen as criminal in a particular society. The aim of interpretivist approaches in sociology is to understand the subjective experiences of those being studied, how they think and feel and how they act in their natural contexts (Marsh, 2002; Johnson, 2006).

Therefore, although interpretivists still try to be objective and systematic in their research, the key criterion in interpretivist epistemology is validity. The favoured research design is ethnography and the main methods are ones that help researchers understand social life from the point of view of those being studied, such as unstructured observation, unstructured interviews and personal documents. Interpretivism has provided a powerful critique of many of the taken-for-granted ideas of positivism that are widely used in sociology and in other social sciences (Marsh, 2002). It has also influenced a whole field of research illuminating people's everyday life experiences. However, interpretivists' accounts are criticised by some sociologists for not providing testable hypotheses that can be evaluated. This can lead to relativism where one theory, or study, is seen as just as good as any other.

## **Realism**

Realist theory, like positivism, holds that sociology can, and should, follow the logic and methods of the natural sciences, meanwhile, it differs from positivism in its interpretation of science (Hartwig, 2007; Hibberd, 2010). In positivist research, theories are tested against observations and found to be 'true' or 'false' or somewhere in between. In simple terms, the 'facts' are the judge of the theory (Hibberd, 2010). Realists do not make this clear-cut separation because they do not believe that 'observations' can be separated

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

from 'theories' (Parker, 2003; Hartwig, 2007). They argue that no form of science relies exclusively on observable empirical evidence. There are always aspects of any form of reality that remain hidden beneath the surface of what can be observed (Duran, 2005; Hibberd, 2010). According to realists, the aim of scientific work is to uncover the underlying causal mechanisms that bring about observable regularities.

Realists see research being guided primarily by 'scientific' criteria, such as the systematic collection of evidence, reliability and transparency. However, because they recognise the importance of the subjective dimension of human action, they also include methods that document the validity of people's experiences (Bhaskar, 1999). Research designs are more likely to be experimental or comparative in realist research, but there is no particular commitment to either quantitative or qualitative methods (Parker, 2003; Hartwig 2007). The focus of realist methodology, however, is on theory. Realists argue that as there is no such thing as theory-free data: sociological methods should be specifically focused on the evaluation and comparison of theoretical concepts, explanations and policies.

The development of a clear, realist epistemology is comparatively recent in sociology and owes much to 'new realist' writers like Bhaskar (1986, 1999) and Pawson (1989). They have provided a different interpretation of science and its relationship to social sciences, and a developing alternative to the dominant theories of positivism and Interpretivism that laid the foundations for a non-empiricist epistemology in social science (Hibberd, 2009 and 2010). However, they would say that this doesn't mean that either set of methods, positivist or interpretive, have to be ditched. The realist's argument is that <https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>



sociologists can be pragmatic and use whatever methods are appropriate for particular circumstances. Social reality is complex and to study it, sociologists can draw on both positivist and interpretivist methods.

However, realism is also criticised for exaggerating the dependence of science and social science on theory, and realist epistemology offers, at best, very limited truths about the social world. Many studies in sociology use a combination of positivist, interpretivist and, more recently, realist ideas, just as they use different research methods. The three theories are very general descriptive terms and there are many different theoretical approaches within the general framework of each one. Table 2 shows different research methods associated with each theory.

## **Theory**

### **Research design**

### **Research methods**

#### **Positivism**

Social surveys

Structural interviews

Experimental

Structural observations

Comparative

Official statistics

## **Interpretivism**

Ethnography

Participant observation

Unstructured interviews

Personal documents

## **Realism**

Experimental

Non-specific, but methods are theory-focused

Comparative

Table 2: Theory, Design and methods

Source: Bryman, 2001

## **Conflict of Quantitative and Qualitative Research Paradigms**

The quantitative methods have their rational foundation in the positivist and realist paradigms, while the qualitative methods have their rational foundation in interpretivist, constructivist, and naturalist paradigms. The opposition between these paradigms was succinctly characterized by Guba as follows: “ The one precludes the other just as surely as belief in a round world precludes believing in a flat one” (Guba 1987, 31). The opposition between these paradigms is then expressed as shown below in table 3 (Lincoln and Guba 1985).

## **Axioms About**

### **Positivist Paradigm**

#### **Naturalist Paradigm**

The nature of reality

Reality is single, tangible, and fragmentable.

Realities are multiple, constructed, and holistic.

The relationship of the knower to the known

Knower and known are independent, a dualism.

Knower and known are interactive, inseparable.

The possibility of generalization

Time- and context-free generalizations (nomothetic statements) are possible.

Only time- and context-bound working hypotheses (idiographic statements) are possible.

The possibility of causal linkages

There are real causes, temporally precedent or simultaneous with their effects.

All entities are in a state of mutual simultaneous shaping, so that it is impossible to distinguish causes from effects.

The role of values

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

Inquiry is value-free.

Inquiry is value-bound.

Table 3: Contrasting of Positivist's and Naturalist's Paradigms,

Source: Amended from (Hanzel, 2010; Lincoln and Guba 1985)

Consequently, it is commonly claimed that quantitative research is based on positivistic assumptions, whereas the qualitative approach is grounded on anti-positivistic positions (Lincoln & Guba, 1985; Lund, 2005). Several researchers and academics (Creswell, 1995; Gall & Borg, 1996; Ryan & Bernard, 2000) have given additional explanations to both methods; they are asserting that quantitative research refers to the systematic empirical investigation of quantitative properties and phenomena and their relationships within the social sciences. Thus, the objective of quantitative research is to develop and employ mathematical models, theories and hypotheses pertaining to social phenomena. The process of numerical measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships. Qualitative research is distinctive by nature in aiming to collect detailed accounts investigating into the understanding of human behaviour. The qualitative researcher assumes that flexibility in human behaviour is socially constructed, as so, seeks to reason and analyses factors that govern such behaviour; in doing so the qualitative method investigates the why and how of decision making, not just the quantifiable what, where or when occurrences.

Similarly, Jana Plichtová (2002) claims that the differences between the quantitative and qualitative research methods are based on a paradigmatically different understanding of the subject matter of and the sense of cognition in the social sciences, that is: The quantitative approach starts from the premise that we can arrive at trustworthy knowledge only if the human being is reduced to a set of measurable variables between which we can presuppose the relations of causation. It sees the sense of cognition in prediction and control of human behaviour. While, the qualitative approach does not agree with that reduction because it degrades the human being to a reacting mechanism, It proposes such research strategies which respect the fact that the human being is an acting being pursuing certain intentions, creating and understanding meanings, and that it is a socio-cultural being whose adaptation has a mediated and social character (Plichtová, 2002).

Moreover, Gall et al. (1996, cited Lund, 2005) presents key differences between quantitative and qualitative research approaches. Part of the difference refers to what researchers assume, the other part focuses on the truth of these assumptions, irrespectively of whether or not they are adopted by researchers. Onwuegbuzie and Leech (2005) have other classifications to the differences between both methods; they argue that the quantitative-qualitative paradigm conflict has resulted in the evolution of three major schools of thought, namely: purists, situationalists and pragmatists. The difference between these three perceptions relates to the extent to which each believes that quantitative and qualitative approaches can co-exist and be combined (Bryman, 1984). These three camps can be understood as

purists and pragmatists exist on opposite ends, while situationalists are somewhere in the middle. The following account focuses on Onwuegbuzie and Leech (2005) perspective.

For purists, the assumptions associated with quantitative and qualitative paradigms regarding how the world is viewed and what it is important to know are irreconcilable. They envisage that both methods stem from different metaphysical and epistemological assumptions about the nature of research (Bryman, 1984; Collins, 1984; Tashakkori & Teddlie, 1998). Purists advocate that the methods and tenets from positivism and post-positivism cannot and should not be mixed (Smith, 1983). They believe that the axioms of post-positivism and positivism have mutually exclusive assumptions about society; therefore, the research methods derived under each are considered to be mutually exclusive as well

In agreement with purists and acceptance of both positivist and post-positivist paradigms, situationalists maintain that qualitative and quantitative methods are complementary but should not be integrated in a single study. However, they believe that definite research questions relate more to quantitative approaches, whereas other research questions are more suitable for qualitative methods (Onwuegbuzie and Leech, 2005). Thus, although representing very different directions, the two approaches are treated as being complementary.

By contrast, pragmatists, unlike purists and situationalists, contend that a false separation exists between quantitative and qualitative approaches (Newman & Benz, 1998). They advocate the integration of methods within a

single study. Sieber (1973) articulated that because both approaches have intrinsic strengths and weaknesses, researchers should utilize the strengths of both techniques in order to understand better social phenomena. Indeed, pragmatists assign to the philosophy that the research question should drive the methods used (Onwuegbuzie and Leech, 2005). In any case, researchers who ascribe to epistemological purity disregard the fact that research methodologies are merely tools that are designed to aid our understanding of the world.

Table 4 presents a summary of the qualitative-quantitative divide, understood as a clash of paradigms, each characterized by the characteristics shown in the table (Reichardt and Cook 1979). Here the divide is approached by means of a possible link between the respective method and the attributes of a paradigm. Another characterization of the nature of the qualitative-quantitative divide is presented by A. Bryman, as shown in table 5 (Bryman 1988, 94).

## **Qualitative Paradigm**

### **Quantitative Paradigm**

Advocates the use of qualitative methods

Advocates the use of quantitative methods

Phenomenology concerned with understanding human behavior from the actor's own frame of reference

Logical-positivism; seeks the facts or causes of social phenomena with little regard for the subjective states of individuals

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

Naturalistic and uncontrolled observation

Obtrusive and controlled measurement

Subjective

Objective

Grounded, discovery-oriented, exploratory, expansionist, descriptive, and inductive

Ungrounded, verification-oriented, confirmatory, reductionist, inferential, and hypothetico-deductive

Process-oriented

Outcome-oriented

Valid; “ real,” “ rich,” and “ deep” data

Reliable; “ hard” and replicable data

Ungeneralizable; single case studies

Generalizable; multiple case studies

Holistic

Particularistic

Assumes a dynamic reality

Assumes a stable reality



## Table 4: Reichardt and Cook on Attributes of the Qualitative and Quantitative Paradigms

Source: Amended from (Hanzel, 2010)

Based on such characterizations of the differences between qualitative and quantitative research, the issue of the qualitative-quantitative divide in social sciences could be approached from two points of view. The first, moderate, according to which one deals only with two different sets of techniques that can be, if required, mutually combined; and the second, radical, according to which the divide and the respective techniques/methods are rooted in paradigmatically opposed epistemologies and, thus, the respective methods/techniques cannot be combined.

### **Aspect**

#### **Quantitative Research**

#### **Qualitative Research**

Role of qualitative research

Preparatory

Means to exploration of actors' interpretations

Relationship between researcher and subject

Distant

Close

Researcher's stance in relation to subject

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

Outsider

Insider

Relationship between theory/concept and research

Confirmation

Emergent

Research strategy

Structured

Unstructured

Scope of findings

Nomothetic

Ideographic

Image of social reality

Static and external to actor

Processual and socially constructed by actor

Nature of data

Hard, reliable

Rich, deep

## Table 5: Bryman on Differences between Quantitative and Qualitative Research

Source: Amended from (Hanzel, 2010)

### **Similarities between Quantitative and Qualitative Research Approaches**

It is possible to argue that there are overwhelmingly more similarities between quantitative and qualitative approaches than there are differences (Onwuegbuzie and Leech, 2005). Bothe and Andreatta (2004), add that both approaches involve the use of observations to address research questions, describe their data, construct descriptive arguments from their data, and speculate about why the results they observed happened as they did. Both sets of researchers select and use analytical techniques that are designed to obtain the maximal meaning from their data, and so that findings have utility in relation to their respective views of reality (Kelle, 2006).

Both methods investigators utilize techniques to verify their data. Such techniques include persistent observation with continuous and prolonged investigation of the research study with consideration to rival explanations. Replication of the chosen study method to other cases (of which may include extreme scenarios) provides the opportunity to gain validity of findings and the methodological approach used, by means of a representative study group to allow for reliable generalisations to be made. Triangulation, verification of researcher effects and weighting of the evidence identifies and resolves researcher bias and 'thick description' (Creswell, 1998, cited Onwuegbuzie and Leech, 2005) which may impact on the findings.

Debriefing of study participants may obtain valuable feedback from participants also.

Moreover, quantitative and qualitative researches represent an interactive range and the role of theory is central for both paradigms. Specifically, in qualitative research the most common purposes are those of theory initiation and theory building, whereas in quantitative research the most typical objectives are those of theory testing and theory modification (Newman & Benz, 1998). Clearly, neither tradition is independent of the other, nor can either school encompass the whole research process. Thus, both quantitative and qualitative research techniques are needed to gain a more complete understanding of phenomena (Newman & Benz, 1998).

Hence, there are many parallels exist between quantitative and qualitative research. Indeed, the purity of a research paradigm is a function of the extent to which the researcher is prepared to conform to its underlying assumptions (Luttrell, Wendy, 2005). This suggests that methodological 'pluralism' (Larsson, 2009) should be promoted, the best way for this to occur is for as many investigators as possible to become 'pragmatic' researchers (Onwuegbuzie and Leech, 2005).

## **Combined research methods and function in the research process**

A combination of qualitative and quantitative research approaches can assist in practical solutions to overcome limitations of mono-method research discussed for the last 50 years (Kelle, 2006). However, it is rarely addressed in current debates whether it is possible to develop solid methodological

strategies for structuring research methods based on that insight of combining qualitative and quantitative methods (Creswell et al., 2003; Tashakkori & Teddlie, 2003; Onwuegbuzie & Leech, 2005), though there is a broad agreement that a use of multiple methods with complementary strengths and different weaknesses can add value to a single research. Despite this, the discussion provides only sparse information about which designs could overcome which weaknesses of mono-method research. Furthermore, there is still a lack of agreement about the exact classification and terminology of different mixed methods, 'combined method' or 'multi-method designs' which are used in research practice (Tashakkori & Teddlie, 2003, cited Onwuegbuzie & Leech, 2005, p: 307 ).

By starting the research process with a qualitative study, researchers may obtain access to knowledge that helps them to develop the appropriate theoretical concepts and to construct consistent research instruments later on that cover relevant phenomena by consequential and relevant items. Such a design helps to overcome 'the limited transferability of findings from qualitative research as well as the initially mentioned hazards of the heuristics of commonsense knowledge' (Onwuegbuzie and Leech, 2005, p: 307). This approach can help to construct consistent research instruments that cover relevant phenomena by consequential and relevant substances.

Meanwhile, combining qualitative and quantitative methods the opposite way could be useful in many cases; that means starting with a quantitative study, followed by qualitative questions (Onwuegbuzie and Leech, 2005; Lund 2005). In this quantitative-qualitative approach, problem areas and research questions are identified by carrying out a quantitative study which <https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

will have to be further investigated with the help of qualitative data and methods. The problem of quantitative research addressed by this design is often the difficulty to understand statistical findings without additional socio cultural knowledge.

Furthermore, the quantitative part of a sequential quantitative-qualitative design can guide systematic case comparison in the following qualitative inquiry by helping to identify criteria for the selection of cases and by providing a sampling frame (Onwuegbuzie and Leech, 2005; Kelle, 2006). Thus, this design can help to overcome an important threat of validity existing in qualitative research that researchers focus on distant and marginal cases. Another problem of qualitative research can be addressed by this design: it helps to avoid a qualitative study with an outsized scope that covers a domain too wide to be captured with the help of a small qualitative sample. Onwuegbuzie and Leech (2005) give a simple example to understand the above problem: a qualitative study of family life in a contemporary city would have to take into account many more different forms of families than a similar study in a traditional rural community in the first decades of the twentieth century. By drawing on statistical material about the distribution of different family forms, the minimum requirements for qualitative sampling could be easily captured, and may be well advised to downsize the research question and research domain (Bryman, 2001; Onwuegbuzie and Leech, 2005).

On the other hand, a parallel qualitative-quantitative design can fulfil similar functions to a sequential design: the qualitative part of the study can provide information that helps to understand statistical relations, to develop

<https://assignbuster.com/influence-of-positivism-interpretivism-and-realism-approaches-psychology-essay/>

explanations and to identify additional variables that increase variance already explained in the quantitative data. A great benefit of a parallel qualitative-quantitative design is that it helps to identify measurement problems and methodological artefact of both qualitative and quantitative data, as the same persons are interviewed with different techniques (Bryman, 1992 and 2001). However, this parallel design approach encloses an important disadvantage, it is that qualitative sampling and data collection cannot be systematically developed from research questions derived from quantitative data; therefore it can easily be the case that the available qualitative data provide no answers for questions coming from the quantitative study, as they were not collected for that purpose.

## **Conclusion**

It is shown throughout this essay that the theoretical approach influences the methodological approach and vice versa. Many studies in sociology use a combination of positivist, interpretivist and, realist ideas. The essay demonstrates that the influence of positivism has inspired much of social research most prevalent research methods. Some of these include surveys, questionnaires and statistical models. Researchers applying a positivist methodology for their study consider large-scale sample surveys and controlled laboratory experiments as suitable research methods. These methods can be justified as they allow positivist researchers to employ empirical and logical quantitative data. While, interpretivism employs qualitative methods to understand people, not to measure them, it attempts to capture reality in interaction, however, does not necessarily exclude quantitative methods. Whereas, quantitative results from a positivist method

like a survey are unlikely to provide understanding of this deeper reality and therefore should not be a major part of any realism research project, basically, because realism research data are almost always qualitative data about meanings.

The essay provides several benefits of performing mixed method research. Researchers of social science use a wide variety of research methods to gain and enhance knowledge and theory. The different types of research methodologies, quantitative and qualitative, are associated with the epistemological and theoretical perspectives the researcher wishes to adopt. The essay demonstrated that quantitative and qualitative methods can fulfil different, yet, complementary purposes within mixed-method designs. Quantitative methods can give an overview ab