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"Positivist researchers adopt a quantitative methodology and carry out surveys and questionnaires. Interpretevist researchers adopt a qualitative methodology and carry out interviews and ethnographies. Drawing on examples of research skills, Explain why?"

In this essay I will look closely at the strengths and limitations of both positivist and interpretevist methodologies in my attempt to explain why the different researchers work in the way they do. Positivism was traditionally known as the "scientific approach". The basis behind the scientific approach is the assumption of validity in collected empirical data. Positivist researchers then use this collected data to formulate laws to account for the happenings in the world around them. The Scientific theory incorporates methods and principles from natural science to help with the study of human behaviour. Positivists feel that with systematic investigations and analysis of data they can best understand what's really happening. Followers of the Scientific approach also believe that the interpretevist view is undermined by being overly subjective – by taking too much account of the undeniable likes and dislikes, half truths and prejudices that cloud the human perspective. Positivists believe that their way of researching issues helps to distinguish good solutions from current fads.

Positivist views on research are often associated with the beliefs of the French philosopher Comte who, along with many early positivists were very doubtful of the existence of things that one can not see or hear. Therefore, in their eyes the study of feelings or human behaviour was not considered valid within the scientific approach. Watson and Skinner's research into behaviourism within the field of psychology was very much a product of this line of thought. Popper introduced the idea that theories within science should be "falsifiable". The basis behind this idea is that all hypotheses should be tested rigorously to try to prove that they are wrong. He argued that finding confirmation for a hypothesis was too easy and that people often ignored or overlooked observations that might disprove their theories - this was his main

criticism of Marxism for example. This idea of rigorously testing a hypothesis still underpins the positivist approach taken by scientific researchers today.

It is clear that the scientific approach has helped deliver many vital contributions in terms of successful research for example, Skinners groundbreaking research into reinforcement and learning. However, critics suggest that over-reliance on this approach has brought about a naïve faith in the substantiality of facts. The qualitative approach rests within the "criterion of meaning". A methodologist of the qualitative approach will observe how people behave (i.e. what they say and do) and use these observations as a vehicle to understand things from the viewpoint of the participant and to understand the complexity of their world. As Eisner (1979) points out qualitative methods are more concerned with processes rather than consequences, organic wholeness rather than independent variables and with meanings rather than behavioural statistics. Qualitative researchers sometimes argue that, in the past, science had an "aura of elite ness" which prevented researchers from questioning its assumptions and findings. They see their role as undermining this elite scientific culture and questioning its assumptions and methods.

There are four major components within the scientific approach to research. These are the basis of all research into the positivist approach and science could not exist without these characteristics. Arguably the most important characteristic is *control* as it allows the researcher to identify the cause of their observations. Control is used within scientific research to provide unambiguous answers to the key questions posed by the researcher. Within the positivist methodology "controlled inquiry" is a vital process because the cause of an effect could not be isolated without it.

Operational definition is another essential characteristic of the scientific approach. It is used to avoid confusion in communication and meaning within the terms of a scientific experiment. The idea is that terms within the research must be measured or defined by the steps or operations used to measure them. Thus, if the definition of a certain term (i.e. social class) is agreed upon within the confines of the experiment by

using empirical referents, there can be no misunderstanding as to what exactly is meant.

Replication is also vital in the obtaining of fair and valid conclusions from the experiment or research. The data discovered from the research must be the same when tested again – if the results are not repeatable, they cannot be assumed to be reliable. This is clearly the case because if the positivist approach is to hold water then when the experimental situation is repeated in parallel circumstances it has to be assumed that the results will be the same. Definitions and new hypothesis are drawn from these results so the replicability within an experiment is a fundamental feature of the positivist approach.

It is an accepted, standard feature within the scientific approach that researchers will create a hypothesis and then subject it to an empirical test. This is the method used to obtain useful empirical data. *Hypothesis testing* is a form of research that cuts out the possibility of letting human judgement and bias affect the outcome of the results. Positivists believe it is the only way to achieve fair, impartial results with real meaning.

The main strength of the scientific approach lies within the precision and control achieved in the method and results. Another major strength is that by collecting quantitative rather than qualitative data you can draw conclusions by analysing the statistics. Followers of the positivist approach to research would argue that by using this idea of statistical analysis, they have a firmer basis from which to draw conclusions or make assumptions than the “common sense” or opinions that might underpin a qualitative approach to research.

One major criticism of the scientific approach is that human beings are far more complicated creatures than merely the inert matter studied by physical science. By the very nature of the research, physical science is unable to take into account the fact that human beings are affected by environmental forces and that they actually actively

respond to them. Many interpretevist researchers believe that the scientific approach can tend to treat human beings like laboratory specimens for observation rather than real people. This represents a problem both on the level of achieving successful research and on a moral or ethical level. An over reliance and belief in the positivist outlook can lead to an unhealthy assumption that all facts are true. This can result in unjust generalisations being made e.g. attributing a certain characteristic to an unrealistically large group based on "facts" taken from research. There is also a belief that due to the restricting and controlling of variables within the approach, research can often turn into a purely artificial situation that obtains results which have no bearing on real life.

This brings us naturally onto looking more closely at the other major research methodology that is often in opposition to the scientific method, the qualitative approach. This methodology questions and challenges the scientific approach to research. Interpretevist methodologists believe strongly in the importance of the inclusion of the "human element" within research. They believe that as every human act is based on human judgement it is wrong to discard this fact when researching and collecting data. However, it is important to understand that the quantitative and qualitative form of research appeal to different forms of understanding and thus different criteria are applied by the researcher when examining the data collected. This will obviously affect the way the research is set out and planned. Quantitative researchers are often accused of not being sympathetic to the fact that a researcher of the qualitative method will be looking for different types of data - data that cannot necessarily be statistically analysed in the same way as quantitative data. The conflict between the positivist and the interpretevist methodologies stems from the interpretevist view that the scientific method simplifies the concept of reality.

A major strength of the qualitative method is that it allows us to have alternative conceptions of our activities and helps to give us different perspectives on the world we live in. Also, qualitative research is far more open for interpretation to the general public than research done in the scientific method. The data collected tends to be analysed and written up in a descriptive, narrative style that is more understandable to

people who don't have knowledge of sophisticated measurement techniques. This is particularly important as, if research is more widely read and understood, then it can have a bigger impact on the public and the individual. It is vital that research is open to individuals looking to further their knowledge particularly in their professional lives (e.g. nurses or social workers could use research to their benefit especially). The techniques used in the interpretevist method of research often mean that the evaluator gets the opportunity to see and document social interaction that would be missed by a researcher using a more positivist approach. Another potential benefit for interpretevist followers lies in the close relationship between teaching and qualitative research. This connection may lead to teachers being inspired to become actively involved in research themselves, which can only be a positive thing and could help make research more of a "team effort".

The most obvious limitation of the qualitative approach is the length of time the whole process takes. Interpretevist researchers must go through the three processes of data collection, analysis and interpretation. Also, it is vital that the observer spends a considerable amount of time in the research setting to allow for thorough and proper examination of the subject in question. There is a big question mark posed by positivist researchers over the validity and reliability of the data collected in qualitative research due to its subjective nature. For example, positivist researchers will point to the fact that conditions, events and situations can never be successfully replicated. In addition, the individual nature of the research makes it difficult to produce vital generalisations that sometimes have to be made when analysing collected data. Positivists will also point to the fact that an interpretevist style of research allows for a far higher possibility of researcher bias. The potential faults identified within the interpretevist model often come down to the fact that some features are unavoidable if qualitative research is to be carried out. For example, as Parlet (1975) points out - due to the intimacy of the participant-observer relationships within the research setting the mere presence of the researcher will have a profound effect on the subject of the study.

In this essay, I have clearly distinguished and highlighted the differences between qualitative and quantitative research methods but it is important to remember that researchers don't always favour one particular approach. For example, many positivist researchers will not discount qualitative research and will actually consider it as a viable alternative to the scientific method. The decision about which methodology to employ obviously depends on the question the researcher is trying to answer within the research and what type of data he/she is hoping to collect.

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