Question One

What is the purpose of research? With use of examples outline the key distinctions between positivism and phenomenology as theories of knowledge.

The purpose of research is simple according to Francis Dane (1990: 212) in that it is a means by which we seek to acquire knowledge and understanding by answering questions about the world. 'Knowledge' is a very important concept which is closely related to the concept of 'epistemology'; defined as the study or theory of the origin, nature and limits of knowledge (May, 2001).

The theory of Positivism is an epistemological position that concerns the application of the methods of the natural sciences to the study of social reality and beyond (Bryman, 2004). Smith (1998) states that '*Positivist approaches to the social sciences . . . assume things can be studied as hard facts and the relationship between these facts can be established as scientific laws. For positivists, such laws have the status of truth and social objects can be studied in much the same way as natural objects*.' The general elements of positivism, adapted from Bond (1989), Easterby-Smith *et al* (1997), and Hughes (1994) are concerned with methodology, value-freedom, causality, operationalisation, independence and reductionism (*cit* May, 2001). Basically, all research should be quantitative as it is only such data that can be the basis for valid generalizations and laws. In order for facts to be measured quantitatively, concepts must be operationalised accordingly. The choice of what to study, and how to study it, should be determined by objective criteria rather than by human beliefs and interests. Positivism also addresses that the aim of research should be to identify causal explanations and fundamental laws that explain human behavior. Positivists also believe that the role of the researcher should be independent of the subject under examination and also, if problems are reduced to their simplest possible elements then they will be better understood (Bryman, 2004). Positivists therefore most commonly use close ended questionnaires and structured interviews when conducting research as they best suit the requirements embraced within this theory of knowledge.

The theory of phenomenology can be used in contrast to Positivism as it concerns the question of how individuals make sense of the world around them. Alfred Schutz (1962) states

> *"The world of nature as explored by the natural scientist does not 'mean' anything to molecules, atoms and electrons. But the observational field of the social scientist – social reality- has a specific meaning and relevance structure for the beings living, acting, and thinking within it. By a series of common sense constructs they have pre selected and pre interpreted this world which they experience as the reality of the lives. It is these thought objects of theirs which determine their behavior by motivating it. The thought objects constructed by the social scientist, in order to grasp this social reality, have to be founded upon the thought objects constructed by the common sense thinking of men, living their daily life within the social world." (cit Bryman, 2004)*

This firstly illustrates that there is a fundamental difference between the matter of natural science and social science. It asserts that human action is meaningful and it is thus the job of the social scientist to gain access to people's thinking and actions to interpret them from the person's point of view. Phenomenology places great importance on Weber's concept of 'verstehen' and thus has an empathetic approach towards the research sample (May, 2001). Phenemenologists focus on meaning and understanding and therefore do not generate or test hypotheses (deductivism) as positivists do; nor do they focus on collecting facts that provide laws. An example of a phenomenological study is that carried out by Foster (1995) who used participant observation and semi structured interviews in the Riverside area of London. Official statistics, of which positivists approve, illustrated extremely high levels of crime. Foster however, as a phenomenologist wanted to measure the human attitudes to crime in the area. Her findings can be contrasted to the area's statistics as she found that residents did not perceive the estate to be of a high level crime, nor did they feel insecure or unsafe (Bryman, 2004).

Question Two

With use of examples distinguish between qualitative and quantitative data analysis. Distinguish between nominal, ordinal and continuous quantitative data and discuss briefly how these might all be used in a research project.

Qualitative data emphasizes words rather than quantification in the collection and analysis of data. Qualitative data is mainly carried out by phenomenologists and used for inductive reasoning (Bryman, 2004). It involves

collecting written or verbal information of the variables that the researcher is interested in. This data is more descriptive than numbers and can be obtained through questionnaires, focus groups, interviews and discussions (Fulcher and Scott, 2003). As it emphasizes the ways in which individuals interpret their social world, it is rejected by most positivists. Although qualitative research is typically associated with generating theories it can however be employed for testing theories as Adler and Adler's study (1985) on the exploration of educational attainment and sports participation illustrates this (Bryman, 2004). Qualitative data can often be hard to analyze as it involves studying often lengthy and complex documents but overall, it has a deeper richness and meaning than empirical data.

In contrast to qualitative data is that of quantitative data. This data describes something in numbers and thus emphasizes quantification in the collection and analysis of data (Bryman, 2004). This 'numerical' data is carried out mainly by positivists and thus embodies the view that social reality is an objective reality. Quantitative data enables information to be easily tested and analyzed in order to provide statistics and facts such as official statistics. Questionnaires and telephone surveys consisting of structured and closed ended questions are ways in which this data is carried out. Although quantitative data enables generalizations to be made and trends to be found, it does however lose the value of meaning as it consists merely of numbers rather than description and explanations.

Data can either be nominal, ordinal or continuous. Nominal data consists of a variable with no implicit order such as race, sex or religion. This data therefore can be counted but cannot be ordered or measured (May, 2001). Nominal data can be used in a research project by for example, coding males as zero, females as one or coding the marital status of an individual as Y if they are married or N if they are single. This must however be planned and carried out carefully as confusion and lack of clarity when analyzing the data can occur. Ordinal data however is different to nominal data in that it may counted and ordered but it cannot be measured. Ordinal values can therefore be ranked as

they have a natural order; age or level of satisfaction are examples of ordinal variables (Bryman, 2004). For example, if a group of people were asked to taste varieties of biscuit and classify each biscuit on a rating scale of one to five, representing strongly dislike, dislike, neutral and so on, a rating of five indicates more enjoyment than a rating of four, illustrating that such data is ordinal. Continuous data however concerns variables that can take any possible value. This data can be counted, ordered or measured continuous and may include, for example height, weight or temperature.

Question Three

Discuss the importance of reliability and validity in the operationalisation of concepts in research. Compare a focus group, an individual semi structured interview and survey in terms of the ease with which reliability and validity may be assured.

Reliability refers to the extent to which a measurement instrument yields consistent, stable and uniform results over repeated observations or measurements under the same conditions each time (Fulcher, 2003). Validity however refers to the accuracy and truth of the data and findings that are produced. It refers to the concepts that are being investigated, the people or objects that are being studied, the methods by which data are collected and the findings that are produced (May, 2001). A study is valid if and only if it tests what it sets out to test. There are several different types of validity which are face validity, content validity, criterion-related validity, construct validity, internal validity and external validity (Bryman, 2004). Data can be reliable without being valid. Those that support qualitative methods argue that quantitative methods lack validity but are often reliable. Qualitative methods are criticized for being unreliable and unsystematic as there is no way of replicating the study and checking the reliability of the findings. Thus positivists whose concepts need to be operationalised in a way that enables facts to be measured quantitatively, place great importance on the reliability of data as it enables them monitor trends over time and to use them as a future secondary data source.

Surveys such as questionnaires are considered as being reliable as there is a much lower risk of subjectivity or bias when compared to, for example, interviews or a focus group. Surveys, whether they consist of closed ended questions or matrix questions, often lack in validity however as the researcher might not have measured exactly what was intended to be measured. For example, if a researcher posted out questionnaires on the perception of crime, applicants might not be able to answer to answer questions fully only by ticking certain boxes. On the other hand however, a semi structured interview would be more valid than a survey as it specifically aims to allow the respondent to 'voice their opinion' and have an equal input into the conversation. Personal interviewing is also better suited for difficult or sensitive issues rather than for example a focus group as an interview is more intimate and provides the respondent with the opportunity to 'open up'. A semi structured interview however can be unreliable as well as unrepresentative as if the interviewer approached another individual to participate in the same interview, their views may be completely different to that of the original interviewee's. As there are a multiple people in a focus group, however, the data attained is often therefore more valid than in an interview. An advantage of a focus group is that challenges can be made to contrasting view points which cannot be done in an interview. The validity of a focus group can be challenged however if a number of people dominate the conversation as it does not provide everyone with an equal opportunity to speak. Focus groups are slightly more reliable than a semi structured interview but not as reliable as a survey. Therefore, for research to both reliable and valid many researchers employ more than one method of research such as carrying out surveys and conducting focus groups. This is known as triangulation (Fulcher, 2003).

Question Four

Select one of the three sets of research case studies presented at the end of the module guide. Critically assess the research presented. Your answer should

make reference to validity and reliability of methods; it should detail any additional information you might require, why this may be required and what if any reservations you might have regarding the study. (Please refer to appendix One for the details of case 3)

It is evident that case three entitled “Do we need to educate people to question authority more carefully given evidence of inappropriate obedience” is valid, as it quite simply tests what it was set out to test. The mere fact that ninety percent of subjects were prepared to apply shocks of up to 450 volts because they were asked to do so by a person of authority of which over half (twenty six out of forty) of them did just that confirms the case’s validity. Internal validity is prominent in this case as the independent variable that is the distribution of electric shocks, has an effect on the dependent variable that is the subjects. The validity of the study is also increased as the sample is quite large since it consisted of forty subjects. Had it have been a smaller sample, there would have been a high chance that a completely different set of results could have been obtained. Given that the reported data was qualitative as the research method employed was that of observation and thus that the likelihood of stable or uniform results being produced in a repetition of the experiment is low, it is clearly evident that the study lacks reliability. However, if for example the researcher had asked the subjects to complete a questionnaire after the experiment, then the data would have been classed as being reliable.

There is one major ethical concern with this experiment as the subjects were informed that they were required to give electric shocks to other human beings. This is clearly inhumane treatment; therefore the researcher should have altered the experiment in order to avoid this. Another concern with this experiment is that there is no mention of a control group as we are only informed of the experimented group, that being the forty subjects. This is necessary to monitor the effectiveness of the variables in an experiment. Another concern is that although some of the subjects may have been “sweating” and were “nervous” this may have been due to the fact that they were being observed in an “abnormal” environment and not due to the effects of the carrying out of the experiment. Being in such an environment may therefore affect the validity and

reliability of the data. Additional information on the comments made by subjects concerning the experiment would be beneficial as would more information on actually educating people on questioning authority.

Overall, the study was a success in that it sought sufficient data in relation to 'answering' the proposal. The reliability of the experiment however was threatened because of factors such as the research method employed (observation). More information could have been disclosed in the data regarding the subjects' reactions and comments. The experiment should also have not focused on the unethical issue of giving electric shocks.