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RESEARCH METHODS

EXPLAIN THE RANGE OF RESEARCH METHODS
USED BY SOCIAL SCIENTISTS TO COLLECT DATA.

HNC SOCIAL SCIENCES
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There are a range of research methods used by Social Scientists in order to collect data. This essay will look at and examine the various types of data and ways in which they can be researched for use by Social Scientists.

Primary/Secondary Sources of Data

Data produced through research can be defined as either being a Primary Source of Data or a Secondary Source of Data. Primary sources of data contain facts and figures that are first hand (gathered directly by the researcher). Normally this would be through observation, interview, social surveys, questionnaires or Case Studies.

Secondary sources are those which are gathered from research by others or from information already within the public domain and can be valuable or useful to re-analyse. This could be from diaries or published autobiographies or from news stories or media.

Secondary sources are easier to collect than primary and they are not expensive to use. Secondary sources allow comparison between societies and allow hypothesis to be tested. The downside of these is that the researcher will not always fully know the circumstances under which they were created, how large the sample was or how it took place. With primary sources the researcher has more control of these factors.

Quantitative/Qualitative Data

Data collected is also either Quantitative or Qualitative. Quantitative data is a form of research that results in a form of numbers, statistics or measure. It is a form of research where responses are able to be counted. Quantitative data allows precise comparison between results and analysis of any pattern of results. Quantitative data is limited in that, at some point it has to be labeled, therefore linking it to qualitative data. When this happens there is bound to be a loss of detail.

Qualitative data is a two way process, constructed by the researcher but grounded in what or who is being studied. (E.g. observation, analysis, and autobiographical accounts) It produces more in-depth understandings of the subject and uncover information about how people feel in certain situations and about how they interpret themselves in certain circumstances. Qualitative data is therefore difficult to compare and it is less capable of being used to produce generalisations. The results consequently need to be interpreted (normally to quantitative data). This can result in a loss of depth from answers as non-identical answers are grouped together.

The difference between qualitative and quantitative data could be described as the difference between an autobiographical account of an event, and statistics of the event. Both are useful, but for different reasons, and depending what is being looked at specifically, will change which one is most valuable.

Research Methods

Introspection is an experimental method founded by German philosopher, Wilhelm Wundt in the late 19th century. Introspection was said to pioneer the concept of stating mental events in relation to objectively knowable and measurable stimuli and responses. This involved the researcher carefully observing a simple event and recording his responses to variations of the event. The disadvantage to introspection is that if one psychologist disagreed with another's findings there is no way of mediating between them. However, the advantage of introspection is that it shows that psychology can be a valid experimental science.

Experimentation is considered the method of science. It is a way of measuring the impact one factor has on another, by controlling the other factors around it. This involves testing two variables, independent and dependent, under controlled circumstances. The Independent Variable is manipulated by the experimenter to see and then record what happens to the Dependent Variable. Although experiments are very reliable, and can be used by another researcher to verify its conclusion, it is not a way of collecting data. When people are aware that they are part of an experiment they are unlikely to act or react naturally, the laboratory conditions will affect their behavior. The researcher tries to control variables, measure and study them and their effects but in such artificial circumstances it is unlikely that human subjects will react and respond naturally and spontaneously. Asche (1951) carried out an experiment to investigate conformity behaviour by discovering how many participants would conform to the group choice when presented with an ambiguous situation. He concluded from this experiment that social pressure produces conformity in the majority of people even when there is no ambiguity.

Observation is another method than can be split into two categories – Participant and Non-participant Observations. Participant observation is a sociological method and involves the researcher being involved in the day-to-day life of the subject being studied. The researcher observes events from 'inside' whilst participating in them. So as not to alter the behavior of the person being studied it is possible for the person(s) being studied not to know that they are in fact under observation by a social scientist, this would ideally mean that the researcher would have the opportunity to observe the members of the group behaving as they usually do and expectantly acquire a deeper understanding than by other methods.

An advantage of this method is that the researcher can fully understand relationships within the group being studied therefore understand why people behave in a particular way. It is possible to study everyday routines and spot factors which might not appear important to group members and which would not occur to them to mention in other circumstances. There are however ethical disadvantages to participant observation. In order for the subject to behave as they would normally it is best that they do not know about the experiment. It could therefore be difficult for the researcher to gain acceptance within the group being studied and also may be difficult to record information as it occurs and important details could be forgotten.

With non-participant observation the researcher does not become a member of the group being studied, and usually the observer can be seen by the subject or subjects. This form of observation can often be linked to other research methods such as experiments, interviews and questionnaires. Researchers carrying out non-participant observation can note non-verbal communication and unexpected events may be witnessed.

Non-participant observation can be quite expensive and time consuming. Also, it may be difficult to control the observers opinion. There could be a problem in deciding what is noteworthy and relevant from the subjects' point of view though and the presence of the observer is more likely to influence the behaviour of some groups than participant observation.

A case study is used as a research method to gain a more detailed examination of a single case happening concerning a single community or social group, an individual person or a particular event. The aim of a case study is to arrive at an understanding of the group being studied. It is a method that generates rich, qualitative data about what is being studied. A case study can involve the use of interviews, questionnaires, diaries, and observation and experimentation research.

Case studies produce detailed in-depth information concerning the institution, community or individual being studied. Case studies can be used to create new hypothesis which can then be compared to other data and used in other studies. With case studies it is not possible to generalise based on its findings and there is a lack of scientific validity and even if a number of studies have been carried out, it is difficult to compare the results.

Interviewing is another research method. This involves someone being asked questions by the researcher or an interviewer. In an interview setting the questions are able to be explained and therefore it would be ensured that all were understood. There are two types of interview, structured and unstructured.

In a structured interview a set of formal questions is prepared and the interviewer must stick to these. This means that answers are comparable and it is possible to quantify them. Structured interviews allow answers to be added up and collated more easily and the data collected is more reliable as the issue is being investigated in a consistent way. A structured interview would be useful in cases of employment interviews; each applicant will be asked a number of preset questions and then compared with each other to recruit the best person for the job.

In unstructured interviews the interviewer will normally have a focus or aim but no set questions. This allows the interviewee to have their own say, rather than being led by the researcher. Rapport can be built in this setting and therefore the interviewee may be willing to give more honest answers. Unstructured interviews give spontaneous information which is very valuable in understanding the subject being interviewed and they also reveal deep, qualitative information about a persons experience, feelings and motivation. However, because different questions will be asked, it is difficult to compare or quantify data. Also, because unstructured interviews can take time, they are more expensive to conduct; this may limit the amount of interviews and the size of the sample of interview responses.

Sigmund Freud used unstructured interviews in his research to find out underlying psychological problems in his clients unconscious mind. He used free range oral questioning so patients could get to their specific fears and worries.

With interviews however, the chance of interviewer bias occurring and there may possibly be a misuse of power meaning the interviewer could try and bully interviewee into providing the answer they wish to hear. It is important for the interviewer to dress neutrally, be non-judgmental and not give any clues to their own attitude or opinion.

Questionnaires or surveys can be used to collect data. They may be descriptive or can test a hypothesis. This method asks a representative sample of people the same list of oral or written questions to find out their attitudes, behaviours, beliefs, opinions and values, then summarises the results in Quantitative terms. Questionnaires are primarily used for social surveys in order to gain descriptive information of a particular group. Answers in questionnaires can either be closed (e.g., multiple choice) or open (answered using own words). To avoid bias, questions must be stated clearly and must also be simple to understand. Questionnaires sent by post are quicker and cheaper to organise than those carried out personally by a researcher. With post surveys there is no interviewer bias, whereas the interviewer may influence a persons answer in an administered survey. In a posted survey people may be more likely to answer embarrassing questions and also they will have more time to think over their answers. Because a postal survey has no geographical restrictions a larger area can be covered and a larger amount of data can be collected for analysis more scientifically and objectively than qualitative data. There is often lack of response to postal surveys, which could mean the data is unrepresentative, and because no-one is there to explain them, questions may be misunderstood.

Administered questionnaires have a higher response rate than postal; therefore they are more reliable and are a greater representative. Administered questionnaires allow the opportunity for the researcher to ask more open questions and therefore achieve greater depth. When open-ended questions are asked in a survey, to gain quantitative data the researcher will often 'code' answers. If this occurs then differences in answers may not be identified and non-identical answers could go into one category together.

Adorn (1950) wanted to find out if some people are naturally more prejudiced than other. Questionnaires were given out to a wide range of people, university and school students, nurses, prison inmates, psychiatric patients, workers and so on. In all, about 2,000 people answered the questionnaires. These were all white middle class native-born Americans. The questionnaire was designed to reveal prejudiced answers. Eighty of these people were then interviewed – these eighty people were the ones believed to be the more prejudiced after the questions asked in the questionnaires. According to the results of this study, some people are more likely to hold prejudiced attitude than others. This thought to be the results of certain personality traits they have.

Two secondary sources of data are desk research and non-print data. Data already exists and can be re-analysed by other researchers or used in collaboration with another researchers project. These are both easily collected and relatively cheap to use. They are a very useful way to get historical perspective and allow comparison to be made.

Desk research can be in the form of official statistics, unofficial statistics and other peoples published research. It is the analysis of information that already exists, within the public domain. Useful sources can be found in a variety of places, for example statistics produced by government bodies or information in telephone directories. Desk research can be used to support the findings of research being carried out or as sole purpose of a piece of research. Official agencies need facts in able to make decisions for the future, they need to know how many hospitals, schools and homes they will need to accommodate the public. Desk research would be used in articles of research such as Social Polls in newspapers.

Non-print data can be taken from news stories, personal documents (e.g. diaries, autobiographies or letters.) Although these are useful and often valid sources of information, it has to be considered that there may be personal feelings or bias in such sources and there is no guarantee of wider representativeness.

With both non-print data and desk research there is a chance that data could be biased, simply being one individuals interpretation of an event. Also it may not be reliable as the reason for the research is not always known. Researchers using these types of research may be unaware of how the statistics were collated, how large the sample was, or even how the sampling took place, therefore the researcher using the information is not aware of how valid and reliable the facts are.

Although each type of research has its own strengths and weaknesses, it is entirely dependant on what is being researched and the type of results that the researcher is looking for, which one is best for use in different situations.

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