Chapter 4: Research Questions, Concepts & Operationalisation

Questions

1. People frequently confuse the terms ***hypothesis*** and ***theory***. They are very different. A hypothesis is very much a tentative set of statements based on observations – or even hunches and guesses – but there is no body of tested evidence to support them. When does a ***hypothesis*** become a ***theory***? A theory is supposed to explain and predict. As you gather evidence that supports your hypothesis, a point will be reached where there is general agreement amongst researchers who have also looked at your evidence that, to put it simply, it explains and predicts outcomes of situations against which your hypothesis is tested. Over time, a theory is elaborated or modified as new evidence comes to light that strengthens or weakens its explanatory or predictive capability. For example, if you take theories of vocational choice, there are social and psychological theories that help to explain why people make the career choices they do. Within each of these two areas of theory, there are perspectives, or subsets of theory, that reflect the complexity of human interactions. So, for example, a psychological theory of vocational choice will predict that you will make career choices on the basis of psychological factors – aptitude, interest, temperament, motivation. A subset of this theory concerns our development as we grow older or gain experience. The developmental perspective will predict that our career choices will become affected by our life stage and what we regard as important at any given life stage, and also our needs and available opportunities.

   As you can see, a theory is very complex as it is built up over a long period of time as a result of testing hypotheses. If a hypothesis is supported by repeated testing, it may find itself incorporated into theory as it elaborates existing theory. The reverse is also possible. If hypotheses that contradict a theory become supported by repeated testing, it can ultimately lead to the rejection of a currently accepted theory that no longer explains and predicts within acceptable limits, to be replaced by a new theory that better explains and predicts.

2. You need a ***research question*** to frame your research. Without it you cannot focus on the problem to be examined or identify its parameters. You do need to spend time on identifying your research question as a common difficulty I have observed among inexperienced researchers is lack of focus brought on by an unclear research question, or one that is too broad. The research question may be based on one or more hypotheses. Take the following question as an example: ***Is the National Record of Achievement in its current form regarded as a valid document for recruitment purposes by small employers?*** This may be based on the hypothesis that small employers do not find the NRA a useful document. The research question has provided a very clear focus for the research and can be used to identify the data that needs to be collected and analysed (see question 4).

3. The chapter provided a very clear idea of what we mean by a ***concept***, but it is worth looking at this again because the idea itself is initially a complex one. Concepts are ideas or abstractions that help us interpret the world. If I use the word **Book** you will all know what I mean by that word. You will have a picture in your mind of an object that can be described in common terms that we will all be able to recognise as part of something we have experienced. However, there are different types of books and the picture you have in your mind is probably different to the one that is in mine or everyone else's. In other words, there is both a common understanding of what a book is, and an individual interpretation of it that may be the result of individual experience and culture. The problem becomes more difficult though when you are dealing with abstract concepts rather than concrete ones, which is often the case with the social sciences. For example, what is meant by **poverty** or **job satisfaction**? These may mean different things to different people. This is why it is so important to be very clear in your definition of any concept you use in your research. If you are creating a **job satisfaction index**, for example, you need to be very clear about how this has been calculated based on how you have defined **job satisfaction**. This is developed in the answer to question 4.

4. ***Operationalisation*** is the term given to the process of generating measurable indicators from a concept. The reason for the importance of this process can be shown by the simple question: **How many books do you read each month?** There are several problems here. While the concepts of 'book', 'read' and 'month' are generally straightforward, it is still impossible to make any comparisons between individual subjects in your study because of the variety of books that each individual may read. You would need to create measurable categories of books and ask your respondents to indicate the number of each type of book read. Of course, for the purpose of this argument I am ignoring the problem that people do not read set numbers of books each month, and you would need to narrow this down to say how many of each type of book did you read '**in the last month**'. That overcomes that problem.

   When designing your research, you must ensure that all concepts used are clearly defined and become expressed in a questionnaire as measurable units that are clearly understood by your respondents. Where possible, use definitions and measures that are already in general use and are accepted as valid and reliable measures as this allows you to make comparisons with other work. Of course, you may want to turn that on its head and create new descriptions of a concept that you believe provides a better way of comparing respondents.