

FACTFILE: GCE HEALTH & SOCIAL CARE

A2 1: APPLIED RESEARCH



Primary Research

Students should be able to:

- investigate the following methods of primary research for collecting quantitative data:
 - a questionnaire;
 - an interview; or
 - an observation.
- design a suitable research tool to collect quantitative data to test the hypothesis using:
 - a questionnaire;
 - an interview schedule; or
 - an observation chart.
- apply the concepts of validity and reliability in the research design, including ways of refining and improving research tools, using tests such as:
 - face validity;
 - content validity;
 - pilot testing; and
 - test-retest.
- meet ethical standards in the primary research, taking into account:
 - confidentiality;
 - informed consent; and
 - harm or distress for participants.
- identify and use an appropriate sampling technique to select participants, choosing from:
 - random sampling;
 - stratified sampling;
 - quota sampling;
 - snowball sampling; and
 - opportunity sampling.



Course content

Research is an active and systematic process of inquiry which should be of benefit to students aspiring to progress to Further and Higher Education or intending to work in the health, social care or early years sectors. It gives students an insight into the research process and should encourage independent thought by the production of a scientific report based on research carried out by the student on a topic of their own choice.

What is primary research?

Collecting information for a literature review is secondary research as it is using data, which already exists. Primary research, on the other hand, involves gathering new data that has not been collected before. This data may be quantitative (information that is expressed in numbers and can be shown in graphs and tables) or qualitative (descriptive information that is usually written in

prose). This research topic requires students to have quantitative data.



Primary research methods include:

- **Questionnaires** - the researcher draws up a list of written questions to give to participants to complete. Researchers can design questionnaires with a variety of types of questions, both open and closed. Open questions in questionnaires produce some qualitative descriptions, as participants write their answers in sentence form, however, these responses tend to be brief and are usually coded and quantified by the researcher, so essentially a questionnaire is a quantitative research tool.
- **Interviews** - the researcher asks the participants questions and writes down the answers. Whilst unstructured interviews produce qualitative data, highly structured interviews have questions like those asked in questionnaires to produce quantitative data. The only real difference is that the researcher records the responses.
- **Observations** - the researcher watches the behaviour of participants and records what he/she observes. Whilst narrative observations produce a written description of what is being observed, researchers can design observation charts designed to code and quantify the behaviours observed e.g. how often specific behaviours occur.

Validity and reliability

Validity refers to accuracy and truth in the research; a valid research tool is a good measure of what it sets out to test. Reliability means that if a different researcher carried out the same research, using the same tool, the results would be the same or similar. There are a number of processes that the researcher can carry out before conducting primary

research to check the validity and reliability of the research tool.

1. A test of **face validity**. This involves the researcher giving the research tool to anyone who can “on the face of it” assess if the questions posed are meaningful and relevant to the topic; often peers can carry out this function.
2. A test of **content validity**. This is where the research tool e.g. a questionnaire is given to an expert to scrutinise, so that changes can be made to the final draft if necessary.
3. **Pilot testing**. This is where the researcher tests out the research tool on a small number of participants to identify problems so amendments can be carried out before the final draft is distributed.
4. **Test - Retest** is a reliability measure where the researcher repeats the same test (e.g. the same questionnaire) on the same sample of participants at a different time, for example after a few weeks, to check the consistency of the results.

Ethics

Primary research must be carried out in an ethical way, promoting the rights of the participants.



Researchers should pay particular attention to-

- **Confidentiality** - researchers should not divulge names and personal details of participants. They should reassure participants about anonymity; this can be achieved through simple steps like making a statement in the introduction to a questionnaire or asking participants to place their completed questionnaires into sealed envelopes.
- **Informed consent** - this is the idea that participants should understand what they

are agreeing to in taking part in the research. Researchers can achieve this with a brief statement on what the research is about and how the results will be shared. They should also inform participants of their right to withdraw from the research at any time.

- **Harm or distress for participants** - researchers should be aware that some topics are distressing for participants due to personal experience. They should ask questions in a sensitive manner and make it clear that participants should not feel obliged to respond to anything that they find upsetting.

Sampling

Sampling refers to the techniques researchers use to choose participants for the research from the **research population**. The research population is the complete group of people the primary research is focused on. This can be a very large group e.g. all adults in Northern Ireland or a much smaller one e.g. all the older people who use a particular day centre.

Researchers should use one of the following techniques:

- **Random sampling:** in this type of sampling every member of the research population has an equal opportunity of being selected. The researcher must have access to the sampling frame i.e. a complete list of all the members of the research population and must choose participants off the list at random e.g. by generating a random selection by computer or by selecting every nth member of the research population to participate in the research.
- **Stratified sampling:** this is a relatively complex type of sampling that also requires the researcher to have access to the sampling frame, but in this case the researcher breaks the population down into subgroups e.g. based on age, gender and class, and takes a random sample from within each subgroup in proportion to its numbers in the whole population.

- **Quota sampling:** this is similar to stratified sampling in that it takes account of the presence of different subgroups within the research population, but this technique can be used where there is no sampling frame. The researcher can specify a number of participants from each subgroups, with gender and age often being used as the basis for setting quotas, and can select suitable participants until the required quota of each group is obtained.
- **Snowball sampling:** this involves the researcher asking some members of the research population he/she is familiar with to take part in the research, and asking those participants to get others to take part. This is particularly useful where the research population is difficult to access e.g. homeless people.
- **Opportunity sampling:** the researcher can use anyone from the population who is available and willing to take part.

Activities

1. Identify two advantages and two disadvantages of each of the following primary research methods:
 - questionnaires;
 - interviews; and
 - observations.
2. (a) Using surveys on the internet, identify three different types of questions that can be used in questionnaires or interview schedules.
(b) Working in groups, draw up a list of 'dos' and 'don'ts' for a student who needs to design a questionnaire. Use textbooks and websites for ideas.

