

Foundations For Good Research



**Effective
Learning Service**

**Foundation For
Good Research**

clarity of purpose

relevance

manageable research

originality accuracy

accountancy

applicability

objectivity caution

ethical approaches

FOUNDATIONS FOR GOOD RESEARCH

There tends to be general agreement among academic staff on what constitutes 'good research'.

Good research includes the following elements:

1. Clarity of purpose
2. Relevance
3. Manageable research
4. Originality
5. Accuracy
6. Credibility
7. Applicability
8. Objectivity
9. Ethical approaches
10. Caution

(Denscombe 2002).

This booklet will examine each of these elements. It is meant as an **introduction only** and students will need to read more about this subject before beginning their research projects. A recommended reading list is included at the end.

Effective Writing

In addition to these ten elements, it is also important to present your report in a well-structured, clear and direct way.

This booklet therefore includes a section '*Ten Steps To Effective Writing*' (see pages 16-17).

1. CLARITY OF PURPOSE

Good research should have clearly stated aims. The purpose of the research should be stated clearly and explicitly.

Different types of purpose

<p>➤ Predictive (forecasting an outcome)</p>	<p>Examples: economists might attempt to predict economic growth using models and theories; on the basis of past and current activity, research might inform decisions about investments, marketing & production issues.</p>
<p>➤ Explaining (explaining the causes or consequences of something)</p>	<p>Examples: research that tends to focus on testing theories or explaining economic or other social phenomena.</p>
<p>➤ Criticising (or evaluating something, to test how well something works)</p>	<p>Examples: research that has as its central focus the consideration of strengths and weaknesses of a particular and existing practice, policy etc, usually with a view to making suggestions for improvement.</p>
<p>➤ Descriptive (describing situations & events)</p>	<p>Examples: research of this nature is usually concerned with collecting facts and describing situations and or events that have not previously been subject to detailed scrutiny; it often involves breaking down the situation into its component parts to establish connections and causal links.</p>
<p>➤ Development (developing guidelines or recommendations for good practice)</p>	<p>Examples: the main driving force of this type of applied research is often to improve procedures or working practices and the research will usually arrive at recommendations for good practice that will tackle a problem or enhance the performance of an organisation.</p>

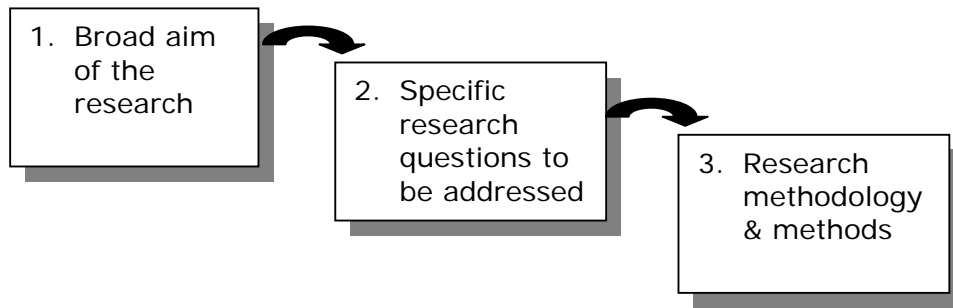
Research will often contain more than one element, e.g. it could be both Descriptive and Development in focus.

Research Questions

Research questions specify exactly what is to be investigated – the specific things that are to be observed, measured and questioned in order to shed light on the broader topic.

So a research project will have a clearly stated overall aim and purpose, **and** it will also contain specific questions to be addressed and outline the approaches to be taken to obtain the information required.

The researcher will also be expected to understand the two main approaches to research: **positivistic and phenomenological**, and select appropriate research methods that connect with the (1) broad aim of the research, (2) the specific research questions to be addressed and (3) the research methodology and methods that flow from (1) & (2).



For an introduction to what is meant by **positivistic and phenomenological** approaches to research, read the Effective Learning Service booklet '*Introduction to Research and Research Methods*'.

2. RELEVANCE

The relevance issues concern the questions '*what is to be gained from the research? Is it likely to have any significance to anything or anybody?*

Good research should be able to demonstrate its relevance in terms of:

- a. **Contributing** to existing knowledge
- b. **Addressing** real problems or issues
- c. **Timeliness**: relevance to contemporary concerns
- d. **Researcher's personal agenda**: research can be justified too, on the grounds that it has specific intrinsic or extrinsic benefits for a researcher, e.g. helps the researcher to put into perspective past events.

a. Contributing to Existing Knowledge

It is important that all researchers are aware of previous studies in the broad area to be researched; there is no point in doing something that has been done before – unless the research was specifically concerned with **checking or testing** previous research. Researchers should start with what is known and then proceed to build on this. The point is to try and advance knowledge in some way.

Researchers therefore need to present in any research report the result of their **literature review** on the chosen research topic and state explicitly how their own proposed research could move knowledge forward. The literature review (and this section in the project report) demonstrates the familiarity of the researcher with existing ideas, information and practices related to the research subject.

b. Addressing Real Problems or Issues

This drives much of the research in business, but again the problem in question needs to be considered within the context of what is already known about similar problems.

The researcher will need to understand the problem in its historical, cultural and social context, and explain the significance of the problem and how it might also be seen as part of a wider set of concerns and issues. It might be, for example, the 'tip of an iceberg' – the researcher will need to identify the size of the iceberg!

c. Timeliness

Some research findings rise to prominence, whilst others sink without trace. The former research may be no better, qualitatively speaking, but it is often **more timely**.

Research often benefits from being able to demonstrate how it connects with contemporary concerns in either a specific business or wider societal context. The wise (or shrewd) researcher will demonstrate how the research in question connects with topical concerns in any particular context.

d. Personal Agenda

The best research is often that in which the researcher has a strong personal stake, combined with one or more of the other reasons, above. This personal stake may be to do with personal career development, but it may also be about putting into context a past experience, or about engaging with subjects that really interest the researcher. A strong personal stake in the research will act as a driving force when the going gets tough, which it will!

3. MANAGEABLE RESEARCH

This is an important issue for all researchers, but particularly for postgraduate students working to tight time schedules.

There is absolutely no point in starting a research project that is too ambitious in terms of its aims if it is not manageable in the time allowed.

Researchers need therefore to plan carefully the time stages for small-scale research projects. Time has to be allowed for many of the following activities:

- Literature review
- Preparing materials for data gathering (questionnaires, interview schedules, focus group discussions)
- Testing or pilot stage (e.g. testing questionnaires on a sample group)
- Modification of data collection materials
- Contacting people by Email, telephone or letter/sending out questionnaires
- Travel to and from places to meet and interview people
- Interviewing people
- Follow up contacts with people/chasing up questionnaires
- Data analysis
- Discussions with supervisors
- Draft stage of report
- More discussions with supervisors on chapters
- Final writing stage

It can be notoriously difficult to contact busy people and agree a meeting time when both the researcher and interviewee are free. Busy people are also bad at responding to questionnaires, which can be pushed to the bottom of the in-tray, and often constant but polite chivvy is needed to encourage people to reply to questionnaires.

Another big issue is also the question of **access to necessary data**, or gaining permission to undertake research – particularly in-house research within organisations. Will the researcher be able to gain access to relevant information?

CAUTION!

Most researchers are often far too optimistic about the number of completed questionnaires they hope to be returned, or about the number of people they hope to interview. The time and trouble in interviewing people or in getting back a reasonable number of completed questionnaires should NEVER be under-estimated. This is a cause of considerable delay and frustration for researchers! This needs to be taken into account at the planning stage.

4. ORIGINALITY

Researchers should expect to be quizzed on their research along the lines *'what did you find out that we did not already know?'* Researchers should therefore set out purposefully in the direction of 'new territory': to try and put a new slant on to old problems, look at something in a new way, arrive at a new conclusion to old research.

Originality, however, does not equate with eccentricity and arriving at unworkable conclusions. Being different means linking your research clearly to established practice and offering insights that are relevant to the contribution to problem solving and the progress of knowledge.

Questions to ask:

- To what extent do the findings build on what was already known?
- In what respects is the research different from previous studies?
- Does the research explain something in a new way?
- Is there some test or critique of existing knowledge?
- Does the research provide new information on a topic?

Ways that research can be original:

- Establishing a new theoretical model
- Continuing a previously original piece of work
- Carrying out original work designed by a supervisor
- Providing a single original technique, observation or result in an otherwise unoriginal but competent piece of work
- Showing originality in testing someone else's idea(s)
- Carrying out empirical work (data based on observation or experience) that hasn't been done before
- Making a synthesis (of ideas or practices) that hasn't been made before
- Coining a new term to describe a new synthesis of ideas
- Putting new interpretations on established practices
- Trying something, only previously tried in one country, out in another
- Taking a particular technique and applying it in a new area or situation
- Focusing research on a group that is under-researched in terms of the subject discipline
- Making comparisons between dissimilar situations to see what can be learned from the process
- Bringing new evidence to bear on an old issue
- Being cross-disciplinary and using different methodologies
- Looking at areas/issues that people in the discipline haven't looked at before (or long ago)
- Adding to knowledge in a way that hasn't previously been done before

5. ACCURACY

Research should produce valid data using reliable methods. Questions to ask:

- Has the research asked relevant questions of the right people?
- Is the data collected sufficiently detailed and precise?
- Does the data connect with the conclusions reached in the research?

Factors that might affect the truth of responses need to be considered, e.g. way questions are phrased; sources of data; partial or biased responses to questionnaires; reception of respondents to the research in question; and anything else that might disrupt the normality of a situation, including the presence of the interviewer.

Any possible limitations to accuracy, because of the data gathered, needs to be stated in any research report.

There are a number of ways that the validity of information gathered might be checked:

- **Benchmarking:** comparing the findings with any relevant external criteria, e.g. other research. The accuracy and precision of data can be assessed by comparing them with findings on the same topic produced using different research methods, produced by other researchers.
- **Check questions** in questionnaires: asking the same question in different ways to check accuracy of responses.
- **Checking results** with interested and objective groups or informed people to see what their responses are to findings, e.g. how credible are the findings to these groups or individuals?

6. CREDIBILITY

Good research should include a full and detailed account of its methodology to convince the reader and other interested parties that the findings and recommendations made are reasonable ones. To enable readers to evaluate the research, a full account needs to be given of:

- The methods of data collection and analysis used
- A justification for the choice of approach taken
- The boundaries and limitations of the methods used

There are four dimensions and associated questions related to this issue:

SCOPE	BREADTH
The scope issues concern what was included among the questions to be addressed, and what questions or issues were not addressed- and why.	The breadth issues concern the research approach: did the research approach allow the inclusion of sufficient numbers and categories of data to justify the conclusions reached?
DEPTH	OBJECTIVITY
Did the research deal in sufficient depth with the complexities and connections encountered in a particular situation? Was the research 'one-dimensional' (limited) or did it try to unravel the situation and make connections between phenomena?	How objective was the researcher or research team? Were they compromised, or potentially compromised in some way by the situation? Do they make it clear in the research what compromises they had to make between what they wanted to do and what they were allowed to do?

Good research will always describe what was done – then explain why. It may also tell you how it could have been better. This transparency adds to the credibility of the research.

7. APPLICABILITY

Research should aim to produce findings and conclusions that can apply to other similar situations and from which general principles or conclusions can be made or inferred. This is done by careful consideration of the **criteria for selection** of the phenomenon to be researched.

The aim would be to either select a sample (of data, people, practices etc) for research that would be representative of a target group, or that the phenomenon studied is representative in terms of a particular theory being tested.

A distinction should be made between:

Generalisations	Transferability
<p>To be able to generalise from one research to other situations requires representative data that has been rigorously gathered, tested and checked. Generalizability relates to findings that are capable of being tested by others using the same measures and with an equivalent sample. This tends to be associated with quantitative approaches, often involving a large and representative sample of a target group</p>	<p>Transferability is, however, more informal and is the process by which we may infer and interpret from one research to other situations. Research findings in this context can act as a point of reference and comparison for others. This kind of transference is more usually associated with more interpretative research and qualitative data.</p>

Generalisations or statements about transferability are an inevitable aspect of research, even if the conclusions reached are confined and related to a very specific situation. However, the careful selection of data, people, or any other material of interest for research, is a key issue here, and **is an important issue to discuss with a research supervisor**.

Questions to consider would be:

- *'has an adequate and diverse or representative number and range of people, data etc. been included in the research'* (in the context of the timescale and size of the research project)? A representative sample would include a considered and balanced cross-section of the subjects (see next page).
- *'does the sample or cases used in the research allow comparisons with others of their type'?*

Size and Sampling

In a quantitative study, when seeking the views of a group of fifty or less, Henry (1990) argues against any form of sampling. He argues that you should distribute questionnaires and collect data to the entire population, if possible.

To elicit the views of larger groups, some form of sampling is usually necessary to attempt to gather opinions that are likely to be representative of the whole group.

Sampling strategies are divided into two main groups: **probability** and **non-probability sampling**.

Probability	Non-probability
<p>Where the researcher has a significant measure of control over who is selected and on the selection methods for choosing them. Sampling methods allow for representative cross-sections, or particular groups to be identified or targeted.</p> <p>Main Methods:</p> <p>Simple Random Sampling: (selection at random by the researchers from a choice of subjects)</p> <p>Systematic Sampling: (selecting by the researchers at numbered intervals, e.g. every one person in five in the target group)</p> <p>Stratified Sampling: (sampling within particular sections of the target groups, e.g. you target a specific number of people based on the percentage of the total group that share the same characteristics.</p> <p>So, for example, in a study of an organisation that had 50 supervisors & 800 labourers, a 10% representative sample of this population would target 5 supervisors & 80 labourers to interview.</p> <p>Cluster Sampling: (surveying a particular cluster of the subject group)</p>	<p>Where the researcher has little initial control over the choice of who is presented for selection, or where controlled selection of participants is not a critical factor.</p> <p>Main Methods:</p> <p>Convenience Sampling: (sampling those most convenient; those immediately available)</p> <p>Voluntary Sampling: (the sample is self-selecting; they come forward voluntarily in response to an appeal)</p> <p>Purposive Sampling: (enables you to use your judgement to choose people that are presented or are available that best meet your objectives or your target groups).</p> <p>'Snowball' Sampling: (building up a sample through informants. You start with one person – who then suggests another & so on)</p> <p>Event Sampling (using the opportunity presented by a particular event, e.g. a conference, to make contacts)</p> <p>Time Sampling (recognising that different times or days of the week or year may be significant and sampling at these times or days.</p>

8. OBJECTIVITY

Can researchers ever be completely objective?

Many commentators argue that it is impossible to be completely objective, as our responses to the world are coloured by our own experiences, perceptions, attitudes and values. This can lead us to consciously or unconsciously shape research to connect with our own frames of reference.

Others with a stake in the research can also influence outcomes. Sponsored research can be problematic in this respect, as sponsoring bodies can exert subtle (or unsubtle) pressure on researchers to arrive at conclusions that may suit a cause or political purpose. There may be pressure on researchers to frame questions and select data that takes the research in a direction that suits the sponsor, rather than the researcher.

However, researchers still treat the quest for objectivity as the 'Holy Grail' of research and will endeavour to be as open-minded as possible to the outcomes of their research. The need to be open-minded is very important, as research can often throw up unexpected results that may challenge beliefs and feelings that may have prompted the research in the first place!

Guidelines for Good Practice

- It is important to acknowledge any vested interests in the research that could potentially compromise the objectivity of findings. It is important for researchers to be open about sponsorship and whether the research was conducted with financial support and to what extent the researcher had autonomy over the design and analysis of the research.
- Researchers need to be clear about their own values and to what extent these may have influenced the direction of the research; adding a short biographical note to the research can be helpful to readers to understand the reasons why a particular research topic was selected.
- Researchers will often benefit from mentally 'stepping back' from research and looking at it as if from a stranger's perspective; the role of the research supervisor is a key one in challenging the research and asking the 'why' questions.
- Good research does not ignore opposing ideas. Indeed, it acknowledges their existence, engages with them, may partially accept some of them, but then presents another perspective; another point of view.

9. ETHICAL APPROACHES TO RESEARCH

Ethics concerns the system of moral principles by which individuals can judge their own actions and the actions of others as right or wrong, good or bad.

Ethical concerns may emerge at all stages of research.

Saunders, Lewis and Thornhill (2003, p. 131) summarise the main issues to consider, although the ethical issues surrounding these items are not always clear-cut:

- The rights of privacy of individuals
- Voluntary nature of participation – and the rights of individuals to withdraw partially or completely from the process
- Consent and possible deception of participants
- Maintenance of the confidentiality of data provided by individuals or identifiable participants and their anonymity
- Reactions of participants to the ways in which researchers seek to collect data
- Effects on participants of the way in which data is analysed and reported
- Behaviour and objectivity of the researcher

Confidentiality

This is an important – perhaps **the** most important – issue to consider in research. Students need to be aware therefore, what the School of Management has to say about this, for example in the MBA Management Project Guidelines:

Frequently, the nature of a project necessitates the student having access to sensitive information about a company's business. The company may require the student to keep such information confidential, and occasionally may ask the student to sign a formal confidentiality agreement.

*If the project report contains confidential information the company may ask the University to keep the report confidential. Any such request should be sent **in writing** to the Projects Co-ordinator. After marking, confidential reports are kept under restricted access for 2 years instead of being placed in the library. If access needs to be restricted for a longer period, application must be made again in writing at the end of this time.*

Similarly, if a student is employed by a company to do research, he/she does so on behalf of the company and this should be declared to other parties. It is not acceptable practice to use 'MBA student' as a cover to obtain competitor information (Section 12.6 'Confidentiality', from MBA Management Project Guidelines).

Checklist for Ethical Research

1. Will the research process harm participants or those from whom information is gathered?
2. Are the findings likely to cause harm to others not involved in the research?
3. Are you violating accepted research practice in conducting the research and data analysis, and drawing conclusions?
4. Are you violating community or professional standards of conduct?

(Kervin 1992, p. 38)

10. CAUTION

Researchers need to be cautious about their findings; research rarely 'proves' anything, although it often 'suggests' a particular or significant cause-effect, suggests an approach to problem solving or lends support to a particular theory.

Be particularly cautious about making emphatic cause-effect claims. When analysing and reporting observed links between factors, researchers need to eliminate those that are chance or coincidence related.

There is often a range of connected factors that cause a particular response and the researcher must try and identify these and trace the connections between them. The researcher may be able however, to identify **significant** contributory factors to a particular observable situation.

Good Practice Guidelines

- **Do not assume the 'facts' speak for themselves** - researchers need to demonstrate the reliability of their claims by reference to evidence
- **Be careful not to make unwarranted claims or conclusions from the evidence** – show how the evidence links with the theories, arguments or recommendations made
- **Draw attention** to any aspect of the research that is built on theories that are the subject of current challenge, debate and controversy
- **Consider alternative explanations** – explain what assumptions the research was built on and draw attention to any alternative ways of explaining the findings; invite further future research in these areas
- **Recognise the limitations of the research** – draw attention to any possible gaps in the research and, again, invite further future research in these areas

Ten Steps to Effective Writing

1. Good writers have to continually revise and rewrite until they are satisfied with the final result. Don't underestimate the time this takes.
2. Talk to people about your research and explain it to them. By explaining it to others you will explain it to yourself.
3. Always keep in mind your original research aims and research questions and **remind the reader of these at regular intervals**: in the introduction, literature review, methodology, findings – in virtually in every section - you need to remind the reader (and yourself) what your research is about.
4. Always keep in mind the **central point or findings** of your report and emphasise these in your writing. Emphasise them in the results section and emphasise them again in the conclusion.
5. **Start writing early**. Write a section at a time as you complete them; don't try writing the report all at once. Show your supervisor each section at a time as you write them, unless you have agreed another arrangement. Give yourself plenty of time for revision, correcting and for formatting the document – this can be very time-consuming.
6. In a long report, it is necessary to remind the reader of the main points in each section. Summarise the main points made at the end of each section and build the anticipation of the reader for what is to come in the subsequent sections. The example below illustrates how a student concludes his literature review and sets the scene to move on to the next section.

The literature has demonstrated a range of views regarding change agency and the extent of their adoption can now be assessed through a survey relating to the role of the personnel management function in UK SMEs. This study assesses the extent to which modern conceptions of the personnel function, in particular business change, exist among UK SMEs and the nature of such a business change role.

7. Write with the ear. A sentence may look correct on paper, but often sounds jumbled or rambling if read aloud. 'Listen' to your sentences in your head as you write, and do not write anything that sounds false or uncomfortable to say aloud.
8. Write for the eye as well. Make the document visually appealing, and use plenty of white space in margins, between sections and paragraphs to make the document look attractive. There are guidelines in your project handbooks for the way dissertations are presented and you should read these.
9. Keep your writing clear and simple. Avoid long, convoluted sentences - and don't fill them with jargon or pretentious waffle.

For tips on good writing visit the Plain English Campaign website
www.plainenglish.co.uk

10. If you are concerned about your spelling and grammar, try and get your sections proof read before you hand them to your supervisor. Proof-reading is **not** a task you should expect your supervisor, tutor or any member of staff at the School of Management to do, as it is time-consuming and not their responsibility. You could ask a friend, relative or another student to help - or ask a self-employed proof-reader to do it. The Effective Learning Service website contains a list of local or regional proof-readers. Their fees vary, so you would need to negotiate directly with them and give them plenty of time to read your work.

Recommended Reading

Collis, J. & Hussey, R. (2003). *Business Research: a practical guide for undergraduate and postgraduate student* (2nd edition). Basingstoke: Palgrave Macmillan.

Denscombe, M. (2002). *'Ground Rules for Good Research'*. Maidenhead: Open University Press.

Gill, J. & Johnson, P. (1997). *Research Methods for Manager* (2nd edition). London: Paul Chapman.

Saunders, M, Lewis, P. & Thornhill, A. (2003). *Research Methods for Business Students* (3rd edition). Harlow: Prentice Hall.

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Henry, G.T. (1990). *Practical Sampling*. Newbury Park, CA, Sage.

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This booklet has been influenced by the work of Martyn Denscombe, whose book on the ground rules for good research is highly recommended (see above).

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