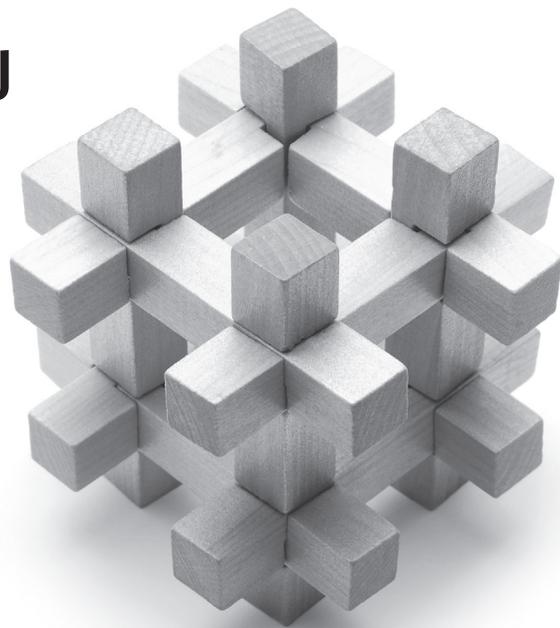


Doing
RESEARCH in
EDUCATION
Theory and Practice

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1

THE PURPOSE OF RESEARCH: WHY DO WE DO IT?

DAVID NEEDHAM

Chapter Aims and Objectives

This chapter aims to help you to:

- understand the nature of educational research;
- appreciate the purpose of the research process;
- classify the different types of educational research;
- understand your role as an educational researcher as you put together your research strategy;
- write a good piece of educational research;
- understand the role of your supervisor.

Introduction

When you go into an educational setting, do you ever ask questions that help you to find something out? Sometimes conversations with professional people enable you to learn from what they do and may prompt you to ask even more questions so that you explore issues and improve your understanding of some of what you observe. It could be argued that as human beings it is instinctive for us to ask questions, often internally to ourselves, and that research is something that we all do most of the time.

Intuitively, and in different ways or at different levels, we want to discover knowledge, often by prefacing our thoughts with words such as ‘why, how, might, what if, does, could, do, when, where, suppose or even “surely”!’ It was Kagan (1972) who argued that people

are motivated to reduce their sense of uncertainty between themselves and their environment. This is simply part of our behaviour. We all have a desire for knowledge which is why we seek explanations. It simply helps us to make sense of the world. The instinct of human beings is to ask questions and then try to answer them by finding the answers. Reading, research and finding things out just makes life so much better!

It is not easy beginning a research project and subsequently writing a report or constructing a dissertation or thesis. This is because in some cases it may take a great deal of time to complete, possibly spanning at least a whole academic year and maybe longer! It is important, therefore, to choose an area that you are genuinely interested in and fascinated by. Perhaps it is clichéd to say that research is something that is very personal, but it is something that you, the researcher, control from the outset. It is your topic and is different to that chosen by anybody else. It is also something that you are going to complete and do differently to the way in which anybody else would carry out their project. It is you, with your very human qualities, who will make your project unique. That makes it very exciting! Through your project you are going to gain an insight into an area of education in a way that enables you to become a specialist within your chosen topic.

Definition – Thesis or dissertation

A detailed document based upon an element of research submitted in full or part fulfilment of an academic degree or professional qualification.

?	?	?	?
Why	How	What if	Does
?	?	?	?
To what extent	Could	Do	When
?	?	?	?
Suppose	Surely	Which	Where

Figure 1.1 Prefacing questions

What is Educational Research?

The starting point for this is to think about the word ‘research’. The picture that often comes into our minds when we think about research is that of scientists in white coats

experimenting in a laboratory. We may also think about doing research, however, by exploring the Internet or through reading books and browsing journals in a library. Each of these images contains similar characteristics in that research is something scholarly that involves some form of investigation in order to find something out within a particular discipline such as education (Newby, 2014).

The word *research* comes from the French word 'rechercher' (to travel or survey, or establish facts and relationships). This is not like being in a classroom or a lecture hall where you might listen or take notes. In those instances you are at the receiving end of the educational process. Although these sessions are important in providing you with knowledge and understanding it might not be answering all of your questions or allowing you to test your thoughts. Research is something that involves an investment and enables you to develop new knowledge and understanding (HEFCE, 1999). In this sense it helps you to seek answers to questions (Tuckman and Harper, 2012). Involving yourself in research helps to make your learning active and makes it relevant and exciting. Research is, therefore, a practical process for you. However, let us not forget that research also involves a sense of your own personal reflection in which you ponder and make sense of what you have learnt.

We all have experience of an educational environment. Inevitably, your early experiences within school will have had some part to play in developing your views or ideas about education. The problem with forming views, and we all have them, is that they create unsubstantiated reasoning. There is often little basis upon which to make statements or observations other than through our own experience. This is where educational research comes in. Educational research is about the reorientation of ideas on the basis of information obtained through an investigation. It is a process of discovery through which reading and data help to reduce any sources of error within our reasoning to create a better sense of authority. Think of it as a process of putting contact lenses or spectacles on to help you to see the world more clearly. As you do so you come closer to understanding the real answer to all of your questions. It is through this that with authority and confidence you find out a little bit more about all that is happening within the world of education.

Educational research is something that engages with the practice of education. For example, it could include a focus upon schools, classrooms, learning, teaching, management, policies, and legislation and might cover issues related to sociology, psychology, history, politics, child development, teacher education, culture, gender, economics, art and creativity, life sciences, ethnicity, technology, media, mathematics, language, recreation and human physical or social performance. The list is almost endless. There is also logic about educational research which ensures that the procedures for constructing the project and undertaking the research help to make it a valuable tool for understanding the chosen area. For further guidance on this it is worth referring to the SAGE book *Research Methods in Education* (Check and Schutt, 2012).

Educational research thus involves an organised and structured process or approach by the researcher – you – to find the answers to a hypothesis or research question or attempt to solve one or more problems, likely to be related to one or more of the areas above, by reading, collecting data and through searching for explanations (Anderson and Arsenault, 1998).

In other words, by gathering data from one or more sources and by undertaking a thorough examination of relevant literature the researcher is trying to improve their understanding of the issue upon which they are focused in a way that produces unbiased findings. This involves:

- reading literature and gathering data to use;
- developing new knowledge;
- creating a qualified understanding of issues related to learners and education;
- processes of discovery about issues that really matter to the researcher;
- being careful, rigorous, measured, accurate and precise as the process of research is developed;
- developing an unbiased process that attempts to solve a problem;
- satisfying and informing the interests of the researcher;
- enjoying the journey. Research is not a fixed process, but is iterative and creative. Along the journey you may adapt and refine your approaches and direction.

Practical Tip

So, what do you really want to find out? In the early stages of your project this can be difficult. Before you begin your project or, during the early weeks, it can be useful to keep an *Ideas Diary*. Into this put everything that you are thinking about your research. You are not making notes in here about the literature. It is for your eyes only so that you can record and reflect upon your thoughts as your ideas develop.

Researching an educational environment can be unpredictable and messy. It was W.C. Fields, the American comedian, who penned the phrase ‘never work with children or animals’. Your research may take place in early years settings, schools, colleges, universities or other educational organisations; it could involve talking with specialists such as teachers or child psychologists. You may meet members of other related occupations such as carers, parents, police officers or employers. It could involve listening, observing, asking questions, recording and meeting individuals of various ages and from different backgrounds. However, in most instances and, at the heart of many areas of educational research, are children or young and perhaps vulnerable people. Things often go wrong. It can sometimes be difficult to arrange meetings with busy people or observations in educational settings. As research involves dealing with people, there are also many ethical issues which should be at the forefront of any project. It is never easy being a researcher and an ethical code of conduct is really important (this will be discussed more fully in Chapter 3). Educational research takes many different forms and may demand many different approaches. As you undertake the role of a researcher you will want to seek answers and improve your understanding of issues related to your chosen area. You may be trying to find out, for example, whether reading differences in children within a Year 2 classroom depend upon their birth date,

whether sex education programmes within a secondary school impact upon teenage pregnancy, how speaking English as a second language impacts upon the experiences of an early years child, whether gender influences outdoor learning or whether role play within a nursery might help children to develop life skills. The list is endless and everybody's approach to solving their research problem is different. This is what makes educational research so interesting, not just for the researchers, but also for the tutors and supervisors.

Educational research allows you to pursue your interests and to learn something new. It is an academic exercise that enables you to hone your problem-solving skills and to challenge yourself in new ways as part of your own learning. As you do so you work closely with your supervisor who is likely to be an experienced researcher and with whom you should meet regularly. Then as a researcher you seek answers to questions that you are genuinely interested in. Remember that it is you who chooses your approaches and the tools or your research as you read and articulate your ideas while you gather and analyse your data.

Activity

Either on your own or within a group, think about the potential benefits that could arise for teaching and learning from good educational research. Discuss your thoughts with others.

The Purpose of Educational Research

As part of their daily activities, anybody who works in education is a consumer of research and also a producer of their own research. For example, in working with young and vulnerable people you might be reflecting upon your own practice and also want to strive to improve your practice. In this sense educational research is about raising questions. This might involve experimenting with different techniques in order to test their effectiveness. Similarly, published research into pedagogies that has been substantiated across a range of situations might suggest ways in which practice could be improved.

Research is essentially about acquiring knowledge. Ongoing research might add to what a practitioner might already know about how people learn. From the practitioner's point of view they can then adapt learning processes within their particular setting. As there are many areas about which there are gaps in research, processes of research constantly help to create new knowledge. It is difficult to either understand or be cognisant of the complexity of learner needs and how and why they might change. Research is an inclusive process that engages with complex needs in a way that enables educators to interpret research for their own practice.

Education is not a field that stands still. Similarly the environment in which education takes place is constantly changing. We only have to look at schools 40 years ago, for example, to realise that we have moved forward inexorably. Some of these changes have

included different types of schools; more scientific management of performance data; an increased focus upon assessment and league tables; more rigorous inspection systems; changes to qualifications; increasing use of technology within the classroom; policies by successive governments upon curriculum, school improvement and teacher training; changes to leadership; different pedagogies within the classroom; childcare provision; bullying; parental choice and the introduction of a national curriculum. However, and maybe ideally, for these changes to take place informed decisions are needed, requiring some element of educational research which is applied to the challenges facing the changing school environment. This is known as applied research. The users of such research would therefore include:

- the government and policy makers;
- teachers, headteachers and childcare practitioners;
- parents and families;
- academics involved in carrying out their own research.

In this sense applied educational research is something that engages with the world in which it serves so that it can make a difference; in other words make it better. Applied research is about searching for solutions to questions that are focused upon live issues within the world of education. This involves some level of critical enquiry that helps to inform educational decisions.

Educational research can also be basic research. Basic research is about research for knowledge and using educational theory to develop an understanding about aspects of education. For example, basic research might focus upon some element of philosophy or sociology. Although it might not be immediately obvious how such research might help in terms of understanding educational issues, at a later stage elements of applied research might take findings from basic research into the educational world to further build and develop an understanding of issues related to student learning needs. Both applied and basic forms of research have their value in playing a role that helps the researcher to understand a particular set of circumstances.

The nature and purpose of any particular research project will determine the type of research project or study that is undertaken. The problem is that, as there are many different categorisations of research, trying to describe each one would not be helpful and might be obfuscating. So, for the purpose of this text, I have simply been selective in using the main types of student projects I have experienced within my field. The different types of research project could therefore include:

1. *Exploratory research* – As the word ‘exploratory’ implies, this is conducted into a research problem or issue that has not been clearly defined. There are likely to be very few studies into the area of research focus for this type of study. The starting point for this type of study is for the researcher to become familiar with the area being researched in order to look for patterns, perhaps by using observations, discussions or a case study. Exploratory research provides insights into a chosen area being researched.

2. *Descriptive research* – This type of research provides information that describes phenomena, situations and events as they are observed. In doing so it elicits factual or systematic information about the characteristics or elements of a problem or issue to provide a picture of what is happening. For example, a descriptive research question might be what television programmes do children between the ages of five and seven prefer, or how might the health of students impact upon their academic success? As this research is descriptive, questions usually start with a ‘what’ or ‘how’ because the aim of the research is that description of characteristics should provide a picture of a data set.
3. *Analytical or exploratory research* – This research goes beyond the boundaries of descriptive research which merely describes characteristics to analyse and explain why something is happening. This type of research identifies causal relationships between phenomena. It therefore focuses upon the effects of something or the outcomes. For example, it could analyse whether the rights of children influence how parents and carers manage their behaviour or the influence of a home environment upon the holistic development of under 5s.
4. *Predictive research* – Whereas analytical research explains what is happening amongst variables, predictive research goes further by forecasting the likelihood of something happening. In this sense predictive research could forecast the success of children at school within the world of work or the way in which using the outdoor environment with a group of primary school children might impact upon their learning of mathematical concepts. It could be argued that predictive research is more generalisable as it could apply to problems elsewhere.
5. *Historical research* – Research that is historical describes events, situations and activities that have occurred in the past. To find out about such events census figures, historical documents, newspapers and local records could be analysed. Sometimes, to understand the world we live in today, we have to make connections with our past. Historical research is a critical analysis of the past in order to develop a contemporary interpretation of events.
6. *Evaluative research* – Almost every day there are circumstances in which we have to make judgements about something we observe or something that we do. Evaluative research is a form of applied research that involves evaluating the effectiveness of a programme or initiative. This involves making judgements about outcomes (Stern, 1990). At the heart of this type of research is the notion of a judgement and this involves acquiring a critical and informed viewpoint. For example, the extent to which technology within a mainstream school can be used for speech and language therapy would involve making judgements about the effectiveness of technology.
7. *Action research* – This involves a professional enquiry within an educational context. As the name ‘action’ suggests, the researcher implements a planned change in practice by using the planned action as a tool for the research. This action is then monitored, evaluated and reflected upon as, with any decision or strategy, the outcomes are uncertain. For example, a teacher might introduce materials in a classroom that help children to write more detailed answers to questions. Some aspects of the strategy might work and others might not. So, the teacher would then revise their strategies, perhaps by refining the materials.

Activity

Clearly most small-scale research projects, including for a dissertation or a thesis, would include elements of several of the classifications of research above. Although this might be difficult to say at this stage, when thinking of how you are going to develop your study, which of these classifications might relate to your research project?

There is an uncertainty about many of the processes of educational research. At the start you need to keep an open mind as you seek answers to the issues you explore. As you read about your chosen area you begin to make relationships between theories and discover how you might construct and develop knowledge. There are many different strategies and approaches that can then be used within an educational setting. When you encounter children as an educational researcher, for example, there is a real opportunity to be creative. You have to choose your own approaches. It is then a bit like any investigation. You suddenly become a detective as you need to look for evidence that supports your findings. Some of the evidence might be tenuous or even contradictory. But even if you feel that it is overwhelming it may not be proof that you have answered your question. Knowledge created through a process of educational research is always likely to be tentative. There is often no clear-cut answer. However, having undertaken the process of research you have created knowledge and your approach is then significantly more informed.

Practical Tip

One of the problems with writing an extended piece of work such as a dissertation is that you tend to work on your own. This can be lonely and sometimes you might need somebody to talk to about your work; somebody who can be trusted and might be able to provide some provocative questions and help you to reflect upon your own work. This person would then be your 'critical friend'. Is there anybody that you know who would be able to help you in this way?

So, what would the world be like without educational research? Inevitably without educational research there would still be universities, colleges, schools, lecturers and teachers, and politicians would still be making policies. However, there would be less knowledge about teaching, learning, poverty, technology, unfairness and the multitude of questions that it is possible to ask about the processes of education. Nobody would be challenging the system or finding out how education could benefit both individuals and society. Education would be much more static and much less creative. There could be lots of prejudice and dogma

with decisions becoming a matter of convenience. It would be easier to use education for political purposes. Thus there could be a dull acceptance of education as a given product with little emphasis upon an informed process of change and a constant movement forwards in thinking and actions. Changes in education could fail to reflect changes in society and in its external environment. As a result and inevitably, the educational world would also be a lot poorer.

Case Study

Deidrea James

Deidrea James was an international student from Bermuda studying for an educational degree at a university within the UK. She felt that *starting* her dissertation was difficult. Deidrea found that if you approached a project in terms of each of the sections, it was easier to get to grips with. As her dissertation progressed she found that change was inevitable. This is because unlike an essay where you argue points, within a dissertation the researcher learns as they move forward. If she could have done anything differently she would have started sooner and taken more time to understand the aims of her research and the processes that it had to go through.

Putting Together a Research Strategy

Compared to other pieces of work, starting a dissertation or a piece of research may feel daunting. As a new researcher you must ask yourself not just ‘where do I start?’ but also ‘how do I start?’ Nobody would ever claim that research is easy. In order to meet your completion deadlines and targets you will need to construct some form of research strategy.

From an early stage you will probably realise that undertaking a piece of research does not follow a linear direction. It is not a case of gathering sources, reading them and then simply writing a report. As thinking is involved in all stages of a research project you constantly need to refer back to information in a way that redefines your approaches, the nature of your project and your research strategy. If anything, research is more of a cyclical process which involves reading and making notes. Having read you need to think about the implications of the reading for your research and this may involve some reflection. Then, when you reflect upon what you have learnt, you may wish to revise some of your approaches or look for different materials. It is all a process of discovery and enlightenment which is why critical thinking is an essential part of the research process. Educational research, therefore, is not a static process. More commonly it is amorphous and, as you go through the processes of discovery, it constantly changes its form. Much as you try to control it through being organised and disciplined, you soon realise that it has a life and personality of its own.

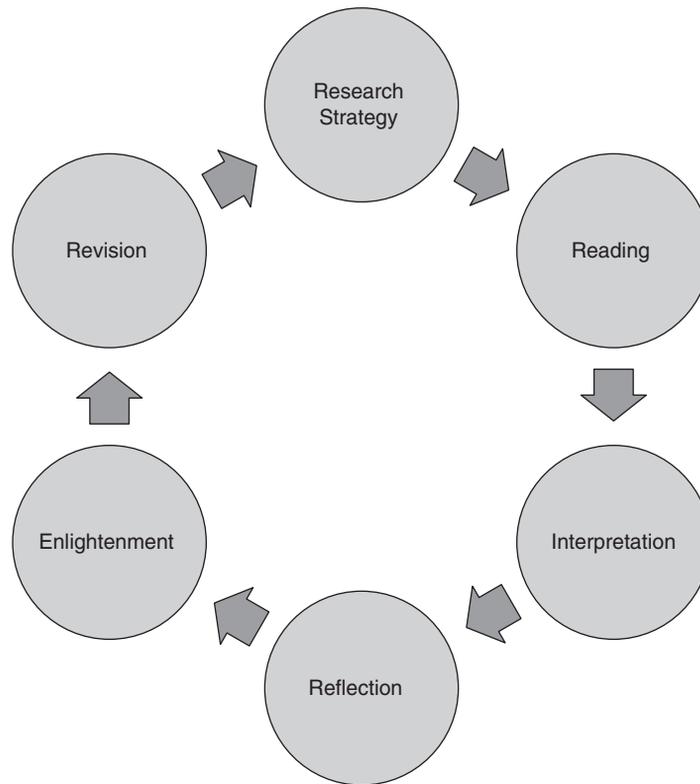


Figure 1.2 The cyclical nature of a research strategy

From the outset it is important to be organised. Even the best and most able of individuals struggle if they do not manage their projects properly. You need to be able to keep and manage materials, have a good filing system, set aside regular times to visit the library and work on your dissertation. You may need to think about how to plan your primary research, when to see your supervisor(s) and all of the physical resources that you require in order to support your project (see Chapter 13).



Choosing an appropriate research question or hypothesis is critical to your research. Although it can be difficult to do so, you need to think about what you as an individual want to get from your research project. For example, how will your dissertation topic support you in your potential choice of career? What experience and expertise will it give you? How will it help and support your curriculum vitae? These are key issues as you think about the outcomes. For probably the first time in your life, you have the opportunity to choose your own curriculum and area for study.

Writing a Good Piece of Research

Some of you will undoubtedly find the prospect of writing up your research to be daunting. If you are studying a postgraduate degree, for example, the research project will have a major impact on your degree grade. It is very easy to talk a good research project, however, without doing the necessary work to get it completed on time and with the quality that you are happy with. Writing is something that involves a considerable amount of self-discipline.

Writing is, and should be, built into the planning process with time allowed for the composition of each part. In fact the writing for a research project should start almost immediately the project begins. As soon as you start reading the literature, you should take notes and then write them up in a way that allows them to be edited and themed into some form of literature section.

Tips when writing up include:

- Begin the writing as soon the project starts, usually by making notes about the project proposal and justifying the choice and then by looking and reading the literature. As each part of the literature is read it should be written up or summarised.
- Writing regularly, sometimes weekly, is a good way of making sure you are on target with deadlines. If this means that you go beyond the word count, the work can be trimmed at a later stage.
- Ensure you have continuous consultation with a tutor, supervisor or critical friend so that work can be seen as and when it is written, thus enabling them to provide constant and ongoing feedback that improves your overall outcome. For students, the evidence is that those who regularly consult their tutors and supervisors perform better. Constructive feedback will help (Silverman, 2013).
- You should keep writing up and contributing to sections. It never stops. As the research evolves, it is perfectly possible to come back and make some revisions, particularly if you come across some new literature.
- You should write at a time of the day when you feel 'inspired'. This may seem like a strange comment, but some people work better in the morning, while others work better in the evening and some burn the midnight oil and work through the night.
- Writing to a routine is important. One method of working is to form study groups. It may be possible for a group of you to meet regularly, perhaps three or four mornings a week, where you can work together in the same resource centre. The aim of the study group is not just to provide a regular way of working; it is also a mechanism that enables you to support and proof-read each other's work.

- It is always useful for you to work in a place where distractions are minimised. This can be difficult.
- Think about your audience. There is no single approach to writing and no set of rules to follow (Denscombe, 1998). Something which may concern many of you is your writing style. Try and get feedback about this. It is really helpful if you produce two or three paragraphs from your literature section, for example, that so you can get some detailed feedback.

Practical Tip

Think carefully about how you might organise yourself for an extended study such as a thesis. Do you use post-its or different forms of notes for reminders? How do you file and keep materials? How are you going to keep and manage any notes that you make? What electronic devices could you use to support this process? Do you foresee any problems or issues associated with the organisation of your project?

As a student, from the start of your project you will have been told the word count or length of your piece of work. It is important to try to keep to this. Longer is not necessarily better. It is the quality that counts. It is best to divide up the word count between various parts of your dissertation or thesis. Everybody always asks about word count, but there is no fixed word count for each part. However, it would be really silly not to allocate a sufficient word count to your literature section, methodology or analysis and discussion.

Your writing style is probably the most important part and for many is the most difficult thing to develop. It involves the use of language, the amount of detail that you go into, the use and discussion of references and the way you use language for analysis. It may also include the quality of analysis, the length of sentences, paragraphs and anything that makes the research report interesting and distinctive to read.

One way for you to think about and try to improve your level of analysis is to look at Bloom's Taxonomy (Bloom et al., 1956). Taxonomy is a form of scientific classification into a hierarchy. In 1956 Benjamin Bloom and some colleagues at the University of Chicago identified what became known as 'Bloom's Taxonomy'. The taxonomy is helpful in creating a lens that provides a more precise focus on the 'cogs' that you need to perform at the highest levels. These 'cogs' appear in examination literature and assessment schemes, in a way that illustrates how they have been adapted from Bloom (Needham and Flint, 2003).

The role of the cues in Table 1.1 is to provide you with tips about how to improve your level of analysis, so that much of it provides evidence of higher level intellectual skills such as those involved with evaluation.

Developing these higher level skills should not simply involve using long sentences and long words! In fact it is not good practice to use lots of long sentences. Mixing and matching sentence length to provide a coherent writing style is instead important. Long and

Table 1.1 The Cogs of Cognition adapted from Bloom's Taxonomy

The 'Cogs'	Forms of Response/Cues
Knowledge <ul style="list-style-type: none"> rote memory – e.g., of facts, terms, procedures. 	<ul style="list-style-type: none"> Making observations, recall, mastery of subject matter, knowledge of major ideas Cues: list, define, describe, identify, collect, show, label, tabulate, name, quote ...
Comprehension <ul style="list-style-type: none"> an ability to translate, paraphrase, interpolate, extrapolate 	<ul style="list-style-type: none"> Understanding information, interpretation, translating knowledge into new context, prediction, ordering, grouping, comparing, contrasting Cues: describe, summarise, interpret, predict, distinguish, discuss ...
Application <ul style="list-style-type: none"> a capacity to transfer and apply knowledge in unfamiliar settings 	<ul style="list-style-type: none"> Use information, methods, concepts, solve problems using knowledge and skills Cues: apply, demonstrate, calculate, illustrate, examine, discover, solve, modify, complete, calculate ...
Analysis <ul style="list-style-type: none"> the ability to break down information into its integral parts and to identify the relationship of each part within a <i>structure</i> 	<ul style="list-style-type: none"> Seeing patterns, identification and organisation of parts, recognising hidden meanings Cues: analyse, separate, order, explain, connect, classify, compare, arrange ...
Synthesis <ul style="list-style-type: none"> the ability to combine existing elements together to create something new 	<ul style="list-style-type: none"> Using old ideas to create new ones, for example generalising, making connections between knowledge gained from different domains Cues: combine, integrate, rearrange, design, plan, formulate, prepare, generalise ...
Evaluation <ul style="list-style-type: none"> the ability to make judgements about the value of something by comparison with a standard 	<ul style="list-style-type: none"> <i>compare and discriminate between ideas</i> – similarities/differences and the basis for such discrimination <i>assess value of theories and presentations</i> – desirable, appropriate, good/bad on the basis of <i>who, what, where, how, why</i> <i>make choices based on reasoned argument</i> – What is the precise subject – theme, form of thinking, feeling – of your argument? What is the precise object – thing to which actions, feelings are directed? Identify strengths/weaknesses of theoretical positions. Recognise sources of opinion/anecdotes etc <i>verify the value of evidence</i> – sources of triangulation, authority/legitimacy of the sources used Cues: assess, decide, rank, grade, convince, judge, explain, recommend ...

convoluted sentences can be difficult to understand, and not make appropriate points. Similarly, long words may be misinterpreted and are not always a good indicator of your academic abilities.

Punctuation and, spelling are important. There is nothing more annoying than reading a project that has clearly not been spell-checked, or simply comprises what seems to be an endless paragraph.

There are likely to be times during the course of a report when you may have to accept feedback that might not always be complimentary. This might be difficult, but whether formally written or informally provided, sometimes you have to take the criticism and use it to improve your own learning outcomes. Feedback is really important during the writing up process, and the more feedback it is possible to get, the better the potential learning outcomes.

Things to avoid in writing up research reports are:

- A report that is not seamless. You should remember that you are answering a question or meeting a hypothesis and so there should be a notion of 'fit' running throughout the report.
- Dialogue that contradicts. Again this relates to the notion of 'fit'. It is all right for you to identify references that contradict, because you can then make fine distinctions about them in relation to the context. However, it is important that the argument you put together should not contradict itself unless you talk about it as a contradiction, particularly in a way that shows a limited understanding of the issues.
- Do not fill your report full of generalisations. It is easy to make broad comments, particularly when setting the context, but these have to be justified on the basis of your reading. The wider the statement you make, particularly in your literature section, the more you will need a multiple reference. It is important to learn to be measured in your dialogue.
- Reaching conclusions without the evidence. Sometimes researchers seem to know what their report is trying to achieve and what the results are even before the research takes place! You have to remember that this process is investigative, and that surprising results might occur. Avoid any pre-conceptions that make your project value ridden.
- Research that is not completely transparent and honest (Roberts-Holmes, 2014). When others look at your project it must be clear exactly what you have done and how you have reached your conclusions.

When presenting diagrams or graphs it is important to express the information in a way that is clear and can be easily understood. If a table is difficult to interpret, then it is important you should refer to it within the dialogue in a way that provides the reader with an understanding of what you are trying to do. Figures and tables or any other diagrammatic form should be given a number and a title.

The purpose of a research project is to bring everything that you have learned together, in a way that enables you to apply learning to something that involves your own idea. It is one of the few occasions within education when you take control of the project yourself for the very first time. It is both exciting and also potentially very challenging.

The research project should have:

- provided you with the opportunity to test concepts and techniques that the you have learned about within other parts of your programme;
- linked your own knowledge and ideas with existing literature;
- provided you with the opportunity to undertake a process of learning of your own choice, possibly focused upon your own career preferences.

Practical Tip

Record everything that you do and back everything up. Save your work regularly and make hard and electronic copies. Use your email, hard drive, pen drive and whatever it takes to make sure that you have multiple copies of everything you observe, undertake and collect. (See Chapter 14 for more guidance on these processes.)

Working with a Supervisor

For degree students it is important that before you start the research project you fully understand the terms of reference. If you have a module handbook or a regulations handbook, this needs to be read carefully. These will vary by each course and within each institution, but are fundamental in ensuring that the project is delivered in an appropriate format. The guidelines for your research project may also have specific requirements about duration, supervisory guidelines, hours and attendance. For example, there may be a number of lecturers or seminars to attend on research methods. There may then be a requirement to submit a work-plan or project proposal by a particular date so that it can be approved. You may also find that elements of the assessment might include a poster presentation or a viva. Sometimes, a course is sorted into small seminar-style groups of critical friends who meet regularly to share ideas and provide each other with formative and supportive feedback. In some courses it is expected that you will provide a presentation of the results of your research to peers in a more formal and traditional setting, and this forms part of the assessment process.

Early in your course you will be allocated a research supervisor. Your course handbook should set out the roles of the supervisor. Usually when you undertake a research project you are allocated a supervisor who will provide support. It is particularly important that you regularly maintain contact with your supervisor(s), and either email or constantly provide copies for their work for supervisor approval.

Although your supervisor may be familiar with the area of your research, their skills and expertise may not exactly match your choice of area. This is because there are so many different projects, areas of research and possibilities that it is impossible for one person to be an expert in every area. In fact as you undertake the research you will become an expert yourself in your own area.

Supervisors contact students in various ways and will develop a routine for meetings and consultations. It is always useful to be prepared for the meeting you attend by taking notes and resources, questions and materials that you can discuss. It is important to make the best use of time with your supervisor. Your supervisor will provide you with:

- formative advice and notes;
- feedback on your ideas, notes, dialogue and thoughts;
- support in developing your research question and aims;
- sources of information;

- advice upon various elements within your project such as the literature section and methodology;
- help to critically interpret and analyse all that you see and find;
- help to plan your project, and;
- most importantly, counsel if things start to go wrong.

Before you visit your supervisor it is often useful to send them some notes so at least they can be prepared for the meeting and provide you with an element of response. A good supervisor will ask you lots of questions and should, from time to time, challenge you. This is really a positive thing. Sometimes, we need to reflect upon criticism and be put into a situation where we have to justify our approaches.

Any form of research is a journey and nobody would describe it as easy. In many ways, and unlike most other modules, it involves and interlinks with your own personal development as you become aware and activate your academic skills. In this way, it is a process of discovery which, no matter what the tensions and pressures you face as you work towards a degree grade that meets your hopes and expectations, is an engaging form of learning.

Key Points to Remember

- Educational research is an area that engages with the practice of education. As the world of education is very large there is almost an unlimited array of potential areas of research in which you might want to engage.
- Educational research is not an area that stands still. It is a constantly evolving area that endeavours in a variety of ways to influence and improve people's lives.
- There are many different types of research approaches and projects that you can construct. It is a testing time and, as you do so, you need to think carefully about how you write. At the same time you need to take advantage of the skills and support of your tutor, supervisor or critical friend.

Further Reading

The books below are helpful sources for beginners in research in the field of education:

Cohen, L., Manion, L. and Morrison, K. (2011) *Research Methods in Education* (7/E). London: Routledge.

Opie, C. (2004) *Doing Educational Research: A Guide to First Time Researchers*. London: SAGE.

Thomas, G. (2013) *How to do your Research Project* (3/E). London: SAGE.

As guides for beginners both of these books are particularly helpful to all studying in the field of education. They are both particularly good as points of reference and have many illustrative examples that support the reader.

Robert-Holmes, G. (2014) *Doing your Early Years Research Project: A Step by Step Guide* (3/E). London: SAGE.

This book is very helpful to all studying early childhood studies or childhood studies degrees.

Useful Websites

- Whether an undergraduate, graduate, early career researcher or faculty member, SAGE Research Methods provides a comprehensive guide to research
<http://.srmo.sagepub.com/publicstart;jsessionid=D9DAFB1A07761509155328ED23795BD6?authRejection=true>
- The Open University provides a useful website focused upon developing study skills and this includes a section on post-graduate study
www2.open.ac.uk/students/skillsforstudy/
- The Scottish Educational Research Association has a series of bulletins on their site that discuss topical research issues
www.sera.ac.uk/

References

- Anderson, G. and Arsenault, N. (1998) *Fundamentals of Educational Research*. London: RoutledgeFalmer.
- Bloom, B., Engelhart, M., Furst, E., Hill, W. and Krathwohl, D. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook I: Cognitive Domain*. New York: David McKay Company.
- Check, J. and Schutt, J. (2012) *Research Methods in Education*. Thousand Oaks: SAGE.
- Denscombe, M. (1998) *The Good Researcher Guide for Small-scale Social Research Projects*. Buckingham: Open University Press.
- (HEFCE) Higher Education Funding Council of England (1999) *Research Assessment Exercise 2001: Consultations on Assessment Panels' Criteria and Working Methods*. Bristol: HEFCE.
- Kagan, J. (1972) 'Motives and Development', *Journal of Personality and Social Psychology*, 22: 51–66.
- Needham, D. and Flint, K. (2003) 'Uncovering the Truth Behind Vygotsky's Cognitive Apprenticeship: Engaging Reflective Practitioners in the "Master-Apprentice" Relationship', *International Journal of Learning*, Volume 10. Melbourne: Common Ground Publishing.
- Newby, P (2014) *Research Methods for Education (2/E)*. London: Routledge.
- Roberts-Holmes, G. (2014) *Doing Your Early Years Research Project: A Step by Step Guide (3/E)*. London: Paul Chapman.
- Silverman, D. (2013) *Doing Qualitative Research (4/E)*. London: SAGE.
- Stern, E. (1990) *The Evaluation of Policy and the Politics of Evaluation*. The Tavistock Institute Annual Review.
- Tuckman, B.W. and Harper, B. (2012) *Conducting Educational Research (6/E)*. Baltimore, MD: Rowman & Littlefield.



For additional online resources please visit the book's website:
<https://study.sagepub.com/needhamandpalaiologou>