Sage Research Methods

Practitioner Research for Teachers

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Getting Started: Beginning A Research Project

Introduction

This chapter outlines the initial planning that is required if a research project is to be carried out successfully. Before embarking on the research process the researcher needs to have carefully thought through the purpose and precise focus of the research. These are key factors that will shape the whole project. They will determine the scale, detail and writing up of the final results.

Designing a research project

The researcher needs to turn their initial ideas into a research outline/strategy. This is usually termed a 're-search proposal' when applying for grants, funding or admission to a research degree programme. There is a need to construct a structured plan that identifies what is going to be investigated, how the research will be carried out and what will be the expected outcomes in terms of data and analysis. This all needs to be put in a time frame, so a detailed time line needs to be written that gives targets to work towards. Experienced teachers are used to working in such time frames, which they have devised themselves or are externally imposed. In school development planning, for example, targets are set, specific tasks are carried out in order to achieve these, there is regular evaluation of progress and further reviewing all within a clearly defined time frame. Teachers, working in curriculum teams, design and implement schemes of work by largely the same process. This planning is also carried out by the individual teacher who through a school's performance management process is expected to set personal targets linked to professional development. These are reviewed as part of an annual cycle.

Whilst it is important to have a clear plan by which to operate, this must not be allowed to become too rigid. The researcher must be prepared to adapt and change according to altering circumstances. Many things may happen concerning the focus of the research or the circumstances of the researcher that can cause substantial alterations to the original plans. Sometimes the final research project is very different to that which was initially intended. However, it is useful to start with as clear a plan as possible. This will at least give a feeling of security for the researcher at the start of what can be perceived as a rather risky and threatening process.

See Punch (1998) for a further discussion of developing research proposals.

Research is about asking questions (Clough and Nutbrown, 2002) and then gathering data to help answer these questions. However it can develop into an ever-expanding process if not managed effectively. It is possible to ask what seems like a never-ending stream of questions that become progressively wider in scope and leave one feeling very unclear about where the research should be going. What is needed initially is the development of a clear focus of investigation. Ideally, it should be possible to explain the focus in a paragraph which states what is to be researched and why. By having a focus, or main aim/purpose, it should then be possible to ask what it is we specifically want to find out concerning this focus, that is, what the particular issues are. This will highlight the important questions to which we need to find the answers, in other words, the key research questions.

Thought should simultaneously be given to a title for the research project. The title will become easier to write as the focus becomes clearer. A good title should signify clearly and concisely the topic of the research and the target group that make up the respondents. It should indicate the parameters of the research, for example, clarifying whether it is a case study of one example or involves large samples.

Research questions

The key research questions should be worked up at the same time as the focus and title. All three, focus, title and research questions, are part of the initial developments of the research proposal.

What are research questions? These are questions that require researchers to 'define the limits of their study, clarify their research study, identify empirical issues and work on empirical questions' (Clough and Nutbrown, 2002: 33). They identify precisely which aspects of the area of interest should be researched, they indicate sources from which information can/should be obtained and also appropriate ways of collecting this information (Lewis and Munn, 1997). We will now consider how research questions can be developed from a particular focus.

Pupil truancy: an example of designing research

In a secondary school staff became aware of an increasing truancy problem. This had always been an issue

but the problem was raised in a staff meeting by one of the pastoral heads. Open discussion amongst staff indicated certain worrying trends that some teachers had noticed, such as an apparent increase in the number of pupils on the corridors during lesson time, instances of when some pupils had not been in lessons when teachers had seen them previously in the day. It was reported that local shopkeepers had rung the school concerning pupils in school uniform 'hanging around' the local shopping centre during school hours. Thus truancy of pupils during school hours became identified as an issue needing investigation, to be followed by effective action. An action group is formed and in its initial meeting a series of research questions are identified through a brainstorming session. Through discussion these are placed into major and sub-questions:

1.

What is the current extent of pupil truancy?

(a)

How many pupils are truanting?

(b)

Which pupils are truanting? (Boys, girls, age, ability)?

(c)

When are these pupils truanting?

(d)

How frequently?

(e)

For how long do they truant?

2.

Why are the pupils truanting?

(a)

Is there an issue with particular lessons?

(b)

What part does peer pressure play on truanting?

(c)

Is truancy related to academic progress; if so, is it a result or cause of poor performance by truants?

(d)

To what extent is truancy related to wider social issues outside school?

(e)

Do their parents or other adults know of their truancy?

3.

What do truants do?

(a)

Where do they go?

(b)

Are they usually alone or with friends also truanting?

(c)

Are they involved in delinquent or criminal activity whilst truanting?

(d)

Are they working for money whilst truanting?

4.

What can be done to tackle the problem of truancy?

(a)

What are the suggestions of staff, pupils, parents?

(b)

What have other schools tried and how successful have they been?

(c)

What suggestions have come from national and international research?

These can be seen as the first attempt at designing a set of research questions. They may change as the research progresses they may be refined, added to, and so on. By formulating research questions the action group is beginning to put some structure around their focus and is now in a position to develop a plan to carry out the research. In this particular case four main questions have been asked with sub-questions within them. It is clear from this that four distinct things need to be found out: Q1. What is the extent of the problem? This involves the sub-questions of who, when, how often. When there is a clearer idea of what is happening and who is taking part it becomes possible to find out why these pupils are truanting (Q2). This can only be done when the true extent of the problem is known as many truants will be missed in the research if data is only gathered from particularly high-profile pupils, who are known truants to the staff. Linked to the question of why pupils truant is the issue of what they do whilst truanting (Q3). On the basis of data gathered from the first three questions what can be done to tackle the problem can then be explored (Q4).

The research questions have provided a clear trail to follow. It is now possible to identify what data needs to

be gathered and who it should be collected from. That leads to the next step which is designing the appropriate methods by which to gather this data (Figure 5.1). There is thus a progression from developing research questions, to identifying data needed to answer these questions, to designing appropriate methods that can be used to gather this data.

Figure 5.1 Data collection plan for truancy research

Research questions	Sources	Methods
1 What is the extent of truancy in school X?	Staff, pupils	Attendance checks, cameras, corridor sweeps, pupil interviews, staff interviews
(a) How many pupils are truanting?		
(b) Which pupils are truanting? – boys, girls, age, ability		
(c) When are these pupils truanting?		
(d) How frequently?		
(e) For how long do they truant?		
2. Why are the pupils truanting?	Staff, pupils	Interviews/questionnaire
3. What do truants do?	Pupils	Interviews
4. What can be done to tackle the problem of truancy?	Staff, pupils, parents	Interviews/questionnaire

Though respondents and data collection instruments have been identified, important decisions still have to be made. Whilst it is possible to say that responses will be gathered from pupils and teachers, it still needs to be decided which pupils and teachers will be included in the research sample. It may also be difficult to obtain data from pupils on such a sensitive issue. Here the data collection methods decided upon and the skills of the researcher become important to the outcomes of the research. It is also easy to identify interviews and questionnaires as the main methods to be used but actually designing them can prove more difficult. As this is a first draft of the plan it is likely that there will be a number of changes as the teacher researchers learn more about truancy and are able to reflect upon their research as it develops. They may decide that some of the methods listed need to be carefully adapted to be more sensitive to the respondents. Other sources of useful data may also come to mind, for example, the experiences and opinions of parents, social services, youth workers, the police and the local shopkeepers who initially reported the issue may be sought.

Once the research questions have been developed it becomes possible to draw up a clear plan that the researchers can work with and which can be refined and developed over time. They need to consider practical research issues, the answers to which are linked to the intended size of the project such as the time and skills needed to design the various research methods, the collection and analysis of the data, and the presentation of findings. These form the content of the following chapters. Alongside this practical planning of the research process within the school, the action group will be aware of the need to draw on wider experiences. Other schools are likely to have tackled the problem of truancy and it would help to know if they carried out their own research and, if so, how they did it and what they found. It would also help to know what national and even international research has been done, what conclusions had been drawn, what strategies had been tried and how successful these had been. Thus there is a need to carry out a literature search to inform the research project being developed. With any piece of research a literature review forms a valuable section. Literature informs the compiling of research questions and research questions help, in turn, to identify areas of literature that need to be reviewed. The process of literature searches will be dealt with in Chapter 6.

There is the potential for a continuing spiral of practitioner research to be created from an initial investigation such as this. Various strategies for reducing truancy are likely to be suggested in answer to research question 4. The next stage would be to implement these with the teachers themselves evaluating their effectiveness through further research.

Having considered the designing of a research project we can identify some general guidelines on the forming of research questions. Research questions result from a brainstorming process, similar to that undertaken in the initial stages of curriculum design. Useful prompts which help in the framing of research questions include:

- Why research this area?
- What precisely is it that we want to find out about?
- Is there a desire to change anything? If so what and why?
- What/who are the likely sources of information and data?
- What are the views of colleagues on this research focus and what are their initial reactions to the study?
- What are the issues identified in the literature?
- What are the key findings of research already done?

Research time line

With the title written, the research focus clear, research questions in place and a literature search under way, it is now possible to construct a time line for the project. This will identify an order in which things can be done and give a realistic time by which to do them. A clear plan helps to ensure that nothing important has been missed out. It gives the researcher a programme to work through and a realistic completion date. This should enable the researcher to feel more in control of the process and able to manage the stress of deadlines. It should also allow the researcher to fit the research into existing work commitments. A plan, providing it is continually reviewed, actually enables the researcher to be more flexible and to adapt to unforeseen circumstances more effectively.

An example of a research time line

Jacky Bennison, a secondary school teacher with responsibility for pupil transition from KS2 to KS3, wanted to investigate to what extent her targeted activities in mathematics, with pupils near the end of Year 6 in their primary schools and early in Year 7 at the secondary school, made the move from primary to secondary school easier for these pupils. The research was to be carried out in the academic year 2002/03. She had already carried out targeted activities with Year 6 children in the feeder primaries in the academic year 2001/02 and was due to conduct more whilst they were now in Year 7 at her school. She intended to study a small sample group of these children in an attempt to evaluate the effect of these targeted activities on their transition from KS2 to KS3, with particular reference to their work in mathematics. Jacky had been awarded a best practice research scholarship. She designed the time line in Figure 5.2 under the questions posed as part of the best practice research grant application.

Questions from the BPRS application form:

- How are you going to organize your time during the research?
- What is your time line for identifying data?
- When will you collect, analyse and interpret it?
- How much time do you need to allow for writing up what you have done?

Figure 5.2 Research time line for a best practice research scholarship

Time	Activity	People involved	Time	Cost
Prepara-ation	Obtain permission from adults involved in project and from pupils'parents	All	1 wk	Photocopying costs
	Collate log of activities that had been carried out with primary school 2001–02	Researcher	1 wk	None
	Compile questionnaire about attitudes of pupils to the transition and to study of mathematics at Key Stage 3	Researcher and pupils	2 wks	Photocopying costs
Term 1	Firm research questions and undertake a literature search for relevant material	Mentor and researcher	3 wks	Mentor costs and library costs
	Further refine research methodology	Mentor and researcher	2 wks	Mentor costs
	Conduct initial interviews with small sample group	Researcher and pupils	2 wks	1 half day off timetable supply costs
	Conduct interviews with primary and secondary colleagues and LEA advisers to identify perceived problems of transition	Researcher, primary colleagues, secondary colleagues, LEA advisers	3 wks	2 half days off timetable supply costs

Term 2	Second interviews with sample group of pupils	Researcher and pupils	2 wks	
	Collaboration with members of the best practice group to analyse findings so far	Best practice group and researcher	3 wks	Mentor costs
	Questionnaire to whole of current group of Year 7 including small sample group to collect appropriate attitudinal data to check against findings so far	Researcher and pupils	2 wks	Photocopying costs
	Questionnaire to other teachers within mathematics department on small sample group's effort and attainment	Researcher and colleagues	2 wks	
Term 3	Check findings by conducting further taped interviews with two members of target group	Researcher and pupils	1 wk	1 half day off timetable supply costs
	Collaboration with colleagues at senior and primary level to aid interpretation of results	Researcher and colleagues	2 wks	1 half day off timetable supply costs
	Links made with reading and research undertaken by others	Best practice group, mentor and researcher	2 wks	Mentor costs
	Writing up of report	Researcher	3 wks	Photocopying costs
	Presentation of findings to staff at in-service training (INSET) with primary and LEA staff invited and presentation at university college	Researcher, senior and primary colleagues, LEA advisers BPRS group, mentor	2 wks	Mentor costs
	Submission of report to professional body	Researcher	1 wk	Photocopying and e-mail costs
	Submission of report to BPRS website and teacher development practitioner research unit at University College	Researcher	1 wk	e-mail costs

The time line, when added to the research questions, gave the teacher a clear structure at the outset of her

research. However she remained adaptable and did alter the time line as events developed.

Research projects can vary greatly. The design chosen will reflect the researcher's ideology of education and research, as noted in the previous chapters. It will also be influenced by the nature of the research focus, the respondents, and the resources available to the researcher.

Curriculum evaluations

Teachers often wish to use research methodology to monitor and evaluate a specific project they are implementing. In such cases it is even more important that the planning and time line are done before the commencement of the project. Figure 5.3 shows an initial planning pro forma used by a group of teachers introducing and developing curriculum projects as part of a networked learning community.

Figure 5.3 Evaluation planning pro forma

School ....

E-mail ....

Evaluation focus
In a few sentences outline your aims

List what will be done as part of the curriculum project
Think of structural changes, spending needed, teaching materials developed, pedagogic implications, in-service needs, specific events, pupil visits and so on

Outcomes
What do you hope will be achieved?

(Think of pupils, staff, others, any measures/indicators. Include important outcomes which may not be easy to measure)

How will we know?
What methods can be used for seeing/measuring what has been done/the process?
Identify how outcomes can be measured/identified. Who will be the respondents?
(Think of a broad range of methods)

(Later each method of data collection and a time line can be designed in detail)

The pro forma in Figure 5.3 was used by teachers in the North-West Learning Through Drama Network at the beginning of a two-year curriculum project funded by the DfES as part of the Developing Networked Learning Communities initiative. The group consisted of drama teachers from six secondary schools from north-west England. The schools that these teachers taught in varied enormously in size and in the social and ethnic mix of their pupil populations. The one thing that they had in common was that they were all specialist performing arts schools and therefore committed to the promotion of drama within their curricula.

Within the common theme of learning through drama, the teachers involved each identified a curriculum development that they intended to implement during the ensuing two years. They were going to evaluate these developments so that all the schools in the group could share the findings and then take them even further; it was intended that they could learn from each other. These were experienced teachers but they were unsure

of their research skills. The issue for them was not so much the teaching involved in these innovatory projects but how they could carry out the evaluation in a way that was both accurate and useful. Thus a clear plan needed to be developed.

Using the planning pro forma

1.

Evaluation focus. This section is to outline the curriculum development to be evaluated. It is effectively a statement and discussion of aims. These, when linked to the outcomes hoped for, effectively become the research questions of the evaluation.

2.

What will be done in the curriculum project? Here the changes that need to/will be put in place to enable the development to take place are listed, for example, allocation of teaching hours, rooming and equipment requirements that need to be met, special training requirements of teachers/assistants. It will also outline the process that needs to take place such as changes in curriculum content, adaptation of teaching methods, and any special activities that need to be introduced. An example here could be the suspension of the normal timetable to allow pupils to work with a professional dance troupe.

3.

Outcomes. This is a list or discussion of what it is hoped the out-comes of the project will be. This is a clearer statement of how we judge if the aims have been met.

4.

How will we know? Here the researchers identify from whom data will be collected and the methods that will be used to gather it. In these last two sections the evaluation team will need to consider the significance of different types of data, quantitative and/or qualitative, to their results.

The discussion by the evaluation/research team members that is required to fill out the pro forma serves to clarify what will be done in the curriculum development, how it will be done and the data that will show how successful this has been. It also allows us to move on to develop a time line showing when things will happen and when data will be gathered. This, in turn, will enable the identification of who will gather the data and analyse them. There is now a clear plan for the curriculum development and its evaluation and the teacher researchers are likely to feel more in control of the process. Each curriculum development presents unique problems as it unfolds. However, having devised a clear plan at the outset should help the practitioners cope with changing circumstances.

Networking for practitioner researchers

We have seen in earlier discussions of teacher professionalism and action research that the development of professionals involves learning from the work of others and reflecting upon their own practice. The whole notion of professional learning involves collaboration. Many researchers have noted the need to establish professional learning communities (Dadds and Hart, 2001; Walsh and Hustler, 2002). Working with peers and disseminating findings are thus important elements in practitioner research.

When carrying out research as part of an accredited programme, such as for a first degree, Masters, EdD or PhD, there is usually support for the practitioner researcher in the form of a research methods programme and the allocation of a dissertation tutor who will monitor progress and offer advice. However, when it comes to carrying out their own research, these students often still feel very lonely and isolated as each embarks upon their own personal project. A feeling of insecurity can be engendered by the research process when the researcher is conducting an individual and unique enquiry. In order to overcome this isolation, universities and colleges frequently arrange research students into groups that meet regularly to share ideas and experiences, and for the students themselves to give seminars on their findings. This can go some way to helping the researchers feel part of a group from whom they can draw support.

Many teachers begin as researchers by being part of an evaluation team of a curriculum development in their school. This often means that from the outset they are working with a group of colleagues. In this way they plan together, share ideas and discuss every stage of the process. This is an important phase in the development of the research project itself and of the research skills of the teachers. The research process is here clearly part of personal professional development. This networking is an important aspect of practitioner research (Bartlett, 2002).

Conclusion

In considering how to design and embark upon a research project, we have emphasized the importance of developing a clear focus and research questions. It is also important to be organized in terms of scheduling each stage of the research into a teacher's professional life. Finally, we have flagged up the value of collaborating with others in pursuit of the research enterprise. In Chapter 6 we discuss the significance of published

research and other relevant literature to new research projects and consider how it can best be accessed and used.

Task: Planning a research project

The following activities will form the initial, planning stages of your research project. This plan will be further developed through the tasks at the end of subsequent chapters.

1.

Using the appropriate sections of this chapter to guide you,

(a)

Identify a research focus.

(b)

Construct appropriate research questions.

(c)

Write a title for the project.

2.

If you belong to a research group, place this initial plan on an OHT and present it to the group for discussion. This will enable you to refine the project in the light of supportive criticism.

Suggested further reading

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