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**'Research, Evaluation and Audit: Ten Practical Steps to Demonstrating Your Value' edited by Grant MJ, Sen B, Spring H.**

**SECTION ONE: Getting Started**

**Chapter Four: Writing the research plan**

**Miggie Pickton**

“How do I convince my employers to give me time to do my project?”

“I can see the need for producing a plan but what do I need to put in it?”

“I have a great idea for improving my service but how do I gather the evidence to show that it is needed?”

As you start to read this chapter you are likely to be at the stage when you wish to translate your research question, aims and objectives into a full scale research project. You probably have some idea of what you would like to do, how you intend to do it and when. You may also be wondering whose support you need for it to happen.

This chapter will demonstrate how a research plan or proposal can be just what you need to organise your project and convince prospective supporters of its value. It will show you how a plan is valuable for any research project, evaluation or audit, whether large or small, funded or not. It will describe the various purposes of a research plan and emphasise the importance of the audience to how you construct and write the plan.

Each of the different elements of the plan will be considered in turn, from choosing a title to evaluating the project. You will see that not all elements are necessary for every project, but you will learn how to choose those which are right for yours.

The chapter will wrap up with some further things to think about once you have completed your plan.

**A plan or a proposal?**

It could be said that the main purpose of a research *proposal* is to persuade somebody else to support a piece of research, whilst the primary function of research *plan* is to guide the researcher through the project. In practice there is a high degree of overlap between the two. In fact, they are essentially the same thing, but written for different audiences. In this chapter we will cover elements of both plans and proposals, noting the differences as they arise.

## **Why write a research plan?**

The research plan is exactly that. A plan. It outlines your aims and objectives; your justification for doing the work; how and when you intend to do it; the resources you will need; and what you expect to produce as a result of having completed the work. The process of planning requires you to focus your thoughts, to decide not only what you may wish to do, but also what is realistic, given the constraints of your work and life.

Importantly, the research plan is the blueprint for your project. A well articulated plan can be referred to again and again, keeping you on track throughout the project and even occasionally reminding you of why you wanted to do the research in the first place.

Note that although we are using the term 'research plan' both here and in the rest of this chapter, we might equally substitute 'evaluation plan' or 'audit' plan. In each case there is a need for clarity, order and a considered approach. Successful execution of any type of project relies on careful planning.

## **Writing for an audience**

Unless you are the lucky recipient of a large private income, you will almost certainly need somebody's support in order to carry out your research. It may be your line manager who will need to release you from some of your other duties; a potential funder for whom you may be writing a bid; your supervisor on a course of study; or even a group of colleagues whose help you will need to conduct your project. For each of these you are going to have to make a case for your project.

Your line manager will probably be interested in how the project will contribute to your service; how much of your time it will take and whether other staff will be involved. If you do intend to involve your colleagues then they too will need to be persuaded of the benefits to them. The chance to extend their knowledge, inform practice, raise a personal profile, enhance a CV, perhaps even get published – these factors and more may motivate a colleague.

A potential funder will have its own agenda. It will expect you to respond to its needs, as outlined in the call for funding. An understanding of the funder's priorities is essential and knowledge of the types of work it normally funds is helpful. Beyond this, most funders will want to know that the research area is worthy of funding, that you are capable of doing the work and that you will deliver it on time and within budget. They will also expect you to demonstrate some expertise in the area, either through your past experience or through the understanding that you show in your literature review.

If you are doing your research project as part of a course of study, such as a Masters degree or a Postgraduate Certificate in Education, there will probably be specific guidelines to follow. In your planning you will need to convince your supervisor that the project you propose is viable in the timescale and that you have the skills to undertake it.

## Elements of the project plan

The main elements of a research plan are listed in Figure 1. Not all will be essential to every project and you may choose to present some elements in a different order. The content of each section will of course depend on the purpose of the plan and its audience. If you are creating the plan in response to a call for funding then elements of the plan such as section headings, word limits, layout, font sizes and so forth may all be specified for you and it is important that you are aware of and conform to the funder's exact requirements.

**Figure 1: Elements of the research plan**

1.	Title
2.	Abstract or summary
3.	Background, context or rationale
4.	Aims and objectives
5.	Hypothesis
6.	Literature review
7.	Research design and methods
8.	Ethical issues
9.	Project timetable
10.	Deliverables, outputs and outcomes
11.	Risk assessment
12.	Resources and costs
13.	Project evaluation
14.	References
15.	Appendices

### 1. Title

The title of your project should be clear, accurate, concise and unambiguous. It should be indicative of both content and purpose. Your title will appear in a wide range of places, for example on reports, in presentations, on publicity materials and in the eventual dissemination of the results, so if possible try to make it short and memorable. This should not however be at the expense of clarity. You will want your project outputs to be found when people search using relevant key words so make sure you use appropriate terminology.

An example of a clear and unambiguous title comes from Hannah Rose and Gillian Siddall, winners of the 2011 Library and Information Research Group (LIRG) Research Award:

*An investigation into the use of reading lists as a pedagogical tool to support the development of information skills amongst Foundation Degree students.*

An abridged version of Rose and Siddall's research proposal is presented as a case study at the end of this chapter; it will be used as an example in a number of the sections below.

## **2. Abstract or summary**

The abstract is a synopsis of the proposed project. It is important because it will be one of the first things that your audience will read (and if dreadful then it may be the only thing they read!). From it they will gain an overall impression of the project and of your ability to conduct it.

The abstract should be a succinct overview, never more than one page long. It should include the rationale for the work, its main objectives and the methods to be used for achieving these. If you are submitting your plan as part of an application for funding, you might also include a brief statement of why you or your organisation is particularly suited to carry out the work.

It is often easier to write the abstract after you have written the rest of the research plan. By that stage you will be clearer in your mind about exactly what you hope to achieve and how best you might 'sell' the project to potential supporters.

## **3. Background, context or rationale**

This is where you contextualize your research, audit or evaluation. You should set the scene here, referring briefly to relevant literature, policy, theory or practice, and explain how your proposed project will contribute to these. This is the section where you should describe why you wish to conduct the project, and why it is relevant, important and timely (Eve, 2008, p.20).

Not only does this section offer justification for the proposed work, it also demonstrates to the reader that you are aware of current developments in your field.

## **4. Aims and objectives**

There should be a clear connection between the research question and the aims and objectives.

The aim of a research project is usually a fairly general, high level statement of what it is that you wish to explore, while the objectives are more specific or focused questions that will address different aspects of the aim.

So for example, the aim of Rose and Siddall's project was:

*To investigate the use of reading lists as a pedagogical tool to support the development of information skills of Foundation Degree students in Health and Education.*

And their objectives were:

- *To understand how level four Foundation Degree students use and respond to academic reading lists.*
- *To assess academic staff perceptions of the use and value of reading lists.*
- *To investigate whether the use of annotated reading lists can support the development of FD students' information skills.*

In a project management context it is often stated that objectives should be 'SMART' i.e. specific, measurable, achievable, relevant (or realistic) and time-bound. These qualities are certainly desirable when setting research objectives, but in practice it may be difficult to frame them in this way. Much research is exploratory in nature and prone to throwing up new and interesting lines of enquiry. The findings of one part of a research project may fundamentally alter the direction of another part. Sometimes the research method itself will mitigate against the creation of SMART objectives. For example, an action research project requires the researcher to plan, take action, evaluate the results of that action and feed that knowledge into the next cycle of planning, action and evaluation. This cyclical approach does not lend itself to the setting of a specific and measurable objective.

For an audit or even a service evaluation, however, you may well be able to construct some SMART objectives. The existence of a predefined dataset and some standard criteria against which to assess those data should provide sufficient clarity to generate some SMART objectives.

## **5. Hypothesis**

For a more 'scientific' or experimental approach, the researcher may choose to generate and test a hypothesis. A hypothesis is a statement of anticipated behaviour, and it is usually expressed in a 'null' form, for example:

*There is no relationship between the daily rate for library fines and the number of books returned late to the library.*

The researcher will then attempt to demonstrate that the null hypothesis is false, or specifically, that the likelihood of the null hypothesis being true is so low that it can be safely rejected.

Hypothesis testing usually involves a quantitative approach and some statistical analysis so it not suitable for all types of research. However if you do intend to construct and test a hypothesis then you should include it in your plan.

## **6. Literature review**

Do not take too narrow a view of 'literature'. In this context literature may comprise not only scholarly papers; but also national, local or organisational policy documents; in-house reports and a range of other project-relevant documentation.

Pickard describes the purpose of the literature review as two-fold, "to acquaint you with current thinking in your subject area, and to find out about methods and research processes used by other researchers investigating this topic" (Pickard, 2007, p.51). Having completed the literature review you should be familiar with the key issues and theories from your

subject area and be able to identify any gaps (McCaig and Dahlberg, 2010, p.73). You will also have established that your proposed area of research has not in fact already been covered by another researcher.

The extent of your written review at this stage will depend on the audience for your plan or proposal and the nature of your project. For a major, externally funded project you will be expected to demonstrate both breadth and depth of understanding; for a more modest in-house evaluation it will probably be sufficient to show awareness only of the most significant or recent work. A more extensive review may follow once the project has received approval.

Different readers will be looking for different things in your account of the literature. A funder will want to see that you are familiar with the latest and most important literature and that you are aware of the significant themes and theories. They may judge you on your ability to organize and synthesize the literature, since these are key skills that you will need when conducting your research project. They will expect you to be “aware of alternative ideas and methods so that you can choose the best and most appropriate for your own work” (Grove, 2004, p.30).

Your colleagues, reading the research plan in preparation for contributing to the project, will use your review to get up speed with the subject area. For them, your written review may be their first introduction to the topic, so it should be well structured and clearly written. You will probably start with the broad subject area and narrow down to the main focus of your investigation.

Whoever your audience, you should approach the literature review in a critical frame of mind. You should be selective in choosing references that support your arguments and lead the reader to the conclusion that your project represents the best possible way of answering the research question. And of course that you are the best qualified person to undertake it.

## **7. Research design and methods**

In many respects, this section will be the heart of your research plan. Its purpose is to describe how you will answer the research question and achieve the project’s aims and objectives. You should justify the decisions you have made with respect to the options available and the needs of the project. It is sometimes useful to say why you chose *not* to use a particular method, especially if you are choosing not to follow common practice. If you anticipate any problems or limitations with your choice of research design and methods then it is better to state them now, along with the actions that you will take to mitigate them, than to leave it until the project is underway.

It should cover the following:

- **The overall approach to the research.** Sometimes referred to as the research methodology, this is the overarching framework within which your project rests. Your choice of methodology will determine your theoretical perspective and all the assumptions that go with it. For example, you may choose to take a quantitative, qualitative or mixed methods approach.

- **Choice of research method, technique and tools.** Here you should describe the methods, techniques and if appropriate, tools that you intend to use to collect and analyse the data. Suitable methods might include desk research, surveys, interviews, case studies, observations and so forth. Corresponding data collection techniques are questionnaires, interview schedules and observation checklists. You should also list here the tools you intend to use for data collection and analysis, such as SurveyMonkey for managing an online survey, the Statistical Package for the Social Sciences (SPSS) for analysing quantitative data, or NVivo for qualitative analysis. The information you give about how you will collect and analyse data must be sufficiently detailed for the reader to be convinced that the research objectives can be met.
- **Scope and boundaries.** This is where you set the limits to your research project. It is important to state both what you will do and what you will not do. Being realistic at the start will mean that there is less chance of expectations being unfulfilled later. A plan that is too ambitious and difficult to achieve is more likely to fail (Dawson, 2009, p.64) and therefore less likely to receive support in the first place.
- **Sampling.** If appropriate you should describe your sampling plan, the number of participants or observations you will make, and whether you will be able to generalise from your sample group to the full population.
- **Research data management.** Many funders, especially those responsible for distributing public monies, now expect researchers to re-use existing datasets if possible and, correspondingly, to make their own data openly available. This places far greater responsibility on researchers to be systematic in the management of their data. A data management plan, outlining how you intend to collect, process, store, document and provide access to your data would be a useful addition to your research proposal. For a prospective funder it would indicate a commitment to good research practice; to your research team it will be a useful practical guide.

## 8. Ethical issues

If you plan to involve either people or animals in your research then you will almost certainly need to seek ethical approval for your work. Even if you don't, you should be aware of any potential ethical issues and know the steps that you will take to overcome these.

For the purposes of the research plan you should show an awareness of any relevant organisational, professional or legal guidelines. You should describe the main ethical issues likely to arise from your project and indicate how you intend to handle these. For example you might reduce the risks to participants by gaining their informed consent and guaranteeing that all data gathered from them will be held anonymously and confidentially.

You should indicate whether ethical approval has already been sought or obtained, and if not, this must be built into the project timetable.

## 9. Project timetable

Having described how you intend to complete your research project, you now need to pin it down to a realistic and achievable timescale. If you are applying for external funding then the funding period may be pre-determined and it will be incumbent upon you to fit within

this. Even if you are running a modest in-house project there may well be constraints on the timing of your project, for example, limiting your research to when key service users are available or when service changes are implemented.

To determine the overall time span of your project you need to work out how long each part of the project is likely to take, whether any activity depends on the completion of another and whether tasks can be done concurrently. So for example, it may be possible to transcribe earlier interviews in between conducting the later interviews (so the two activities are concurrent or parallel) but data analysis cannot be started until data collection is complete (thus these tasks are sequential). With this information you will be able to calculate the minimum time you need to complete your project.

A task list which demonstrates this is shown in Figure 2.

**Figure 2: Simplified task list for a short research project**

	Task	Earliest start date (week)	Duration (weeks)	Parallel or sequential	Dependent upon
A	Literature Review	1	12	Parallel	-
B	Develop interview schedule	2	2	Sequential	-
C	Conduct pilot interviews	4	1	Sequential	B
D	Finalise interview schedule	5	1	Sequential	C
E	Select participants	1	2	Parallel	-
F	Conduct interviews	6	3	Sequential	D,E
G	Transcribe interviews	7	4	Parallel	F
H	Analyse transcriptions	11	2	Sequential	G
I	Write up research	13	4	Parallel	A,H

As mentioned above, if your research method relies on emergent theory (such as in the case of action research or grounded theory (O’Leary, 2010, p.101)) then it may be difficult to define the task list. You should still however try to give yourself time limits for the different iterations of your research else you risk losing control of the timeline and failing to complete the project.

It can be helpful to present the project timeline in diagrammatic form, for example using a Gantt chart (see Figure 3).

A Gantt chart shows each activity in the project as a time bounded line or bar, enabling you to see at a glance which tasks should be done when in order to complete the project on schedule. It can be helpful at this stage to identify milestones, or particularly important completion points. For example, in order that potential interviewees are still available you may need to ensure that the design of your final interview schedule is completed by a specific date.



project the deliverables may be critical to gaining support for the work. However, do not promise more than you are able to deliver (Annersten, 2006, p.102).

Deliverables fall into two broad categories: outputs and outcomes.

Examples of outputs from the short project described above might include '50 library users interviewed', 'a new library access policy', 'one conference paper' and so forth. Outputs are the things you will produce as part of your project and will typically be discrete entities that are tangible and measurable. Although they may not be ends in themselves and their scope may be limited, outputs will generally have firm end dates and will thus be straightforward to monitor.

Outcomes on the other hand are the results or consequences of the project and may be harder to pin down. The scope of an outcome may be wider than that of an output and it is more likely to change and develop. Sometimes outcomes are unintended or unexpected. Outcomes arising from the short project might include 'greater staff awareness of users' attitudes towards the library', 'improvements in services for library users' or even 'increased information literacy levels among library users'. In many cases the outcomes may be of more interest to stakeholders than the outputs, since it is the outcomes that best describe the difference that the project will make.

Depending on the nature of your research project, you might wish to include a dissemination plan here. This will describe how you intend to disseminate the findings of your work and is particularly important if the intended audience for your work lies beyond your own organisation. Traditional outlets for disseminating research findings include conferences, journals, workshops and, depending on its general relevance, the news media. More recently, professional email lists, project websites, blogs, social networks and other online tools have been used to share research findings and maximize impact.

If you are making specific recommendations then you might choose to target an individual or organisation that is in a position to act upon these. For example, the Chair of a local council might be encouraged to support your suggestions for further investment in library services having been made aware of your project findings.

## **11. Risk assessment**

Every project contains an element of risk. Timescales; project management; resource availability; technology; the research environment – any of these may be subject to an unplanned occurrence and therefore to risk.

When planning a research project therefore, the researcher must ask themselves a number of questions:

- What risks might prevent a successful outcome to the project?
- What is the probability of each risk occurring?
- What would be the impact on the project if a risk occurred?
- How will a risk be managed?

You have four main options in managing risk:

1. Accept the consequences of the risk. For example, you accept that your project will experience unplanned staff absences (say, due to sickness) and build extra time into the project plan to accommodate this.
2. Transfer the risk. e.g. if your research involves travel abroad then you may transfer the financial risk of a cancelled flight by buying travel insurance.
3. Avoid the risk. For example, having established that the likelihood of six service leaders being available on the same day to join a focus group is extremely low you may choose to conduct a Delphi study instead.
4. Reduce the risk. Having acknowledged that the risk may occur, you take steps to reduce its impact. For example, ensuring you regularly back up your research data onto multiple devices is a way of reducing the impact of data loss.

A table of risks is a useful tool. In this, each risk is outlined and a score is given for its likelihood and severity. By multiplying the two scores you can gauge how important each potential risk is to your project and therefore plan appropriate mitigating action.

**Figure 4: Risk management in a research project**

<b>Risk</b>	<b>Probability (P)</b> 1 = low 5 = high	<b>Severity (S)</b> 1 = low 5 = high	<b>Risk score</b> (P x S)	<b>Mitigation</b>
Data are lost due to computer failure	3	5	15	Ensure data are backed up securely at the end of each day. Keep copies of data on multiple (secure) storage devices.
Project is not completed on time	3	3	9	Build in extra time at key stages of the project. Monitor progress against the project Gantt chart. Seek additional resource if slippage threatens final completion date.
Project costs exceed budget	1	5	5	Build in contingency funds. Monitor costs throughout project. Consider making savings in non-essential activities.
Recording device fails during interview	2	2	4	Test device beforehand. Use two recording devices for each interview. Take notes.

It is strongly recommended that having drawn up your risk table you then seek a second opinion from a colleague. Another person may identify some risks that you have missed or suggest alternative mitigating action.

## **12. Resources and costs**

The resources required for a project can range from one researcher with a PC to a multinational research team and a wide range of expensive equipment.

If you intend to involve other researchers, you should consider which staff you will need (based on their skill set, experience and availability), when you will need them and for how long. For larger projects, a research team will ideally comprise individuals with a blend of skills and experience, but for smaller projects it may be necessary to bring in consultants or work with partners to have access to the skills you need.

The budget therefore could include any or all of the following:

- Staff costs (sometimes included as 'direct' costs e.g. salaries or hourly wages)
- Overhead costs (or 'indirect' costs, including staff benefits, facilities and administrative costs. These are often calculated as a percentage of direct costs)
- Consultancy or professional fees (e.g. for transcription, training, leading focus groups)
- Equipment (including purchase and hire of specialist equipment)
- Hardware and software (e.g. for data analysis)
- Materials (e.g. printing costs and other consumables)
- Travel and expenses (e.g. to attend project meetings, interview participants, present at conferences, visit other libraries)
- Publication costs (e.g. to self publish a project report or to cover 'author pays' charges to a commercial publisher)
- Marketing and promotion costs (e.g. to attract participants, provide incentives to encourage participation, disseminate findings)

If several organisations are collaborating on a research project then the budget should clearly allocate costs to those responsible for the work. A funder will often choose to give funding to the lead institution and let them reallocate funds to the rest of the project partners through a form of partnership or subcontracting agreement (Anderson and Garg, 2001, p.411).

It is becoming increasingly common for funders to expect organisations to make a contribution to the cost of a research project (this is often referred to as 'matched funding'). If your funder requires this then you should state the proportion of funding that you are bringing to the project.

Even if your project is a small, in-house piece of research, producing a budget will show your line manager that you are aware of the financial and resource implications of spending time on this work. It may also help your case to show that a relatively small investment may result in a significant outcome for the organisation.

## **13. Project evaluation**

How will you know that your research project has been a success? One way of answering this question is to define formal success criteria. These may be expressed in terms of the research aims and objectives, or the achievement of deliverables, or they may be related to the research process itself.

So for example, Rose and Siddall might have defined the following success criteria:

- Academic staff are actively engaged in debate over pedagogic value of reading lists
- FD students have greater confidence in accessing information
- Project deadlines are met

Corresponding measures of success for these could be the number of staff interviewed, the range and quality of suggestions for improving reading lists, the uptake of annotated reading lists, the effect on student assignment grades and the number of project milestones reached on time.

The project plan should indicate how, when and by whom the success of the project will be evaluated. Methods of evaluation might include feedback from stakeholders, usage statistics, peer review etc. The process may be formative or summative, however the obvious risk of leaving all evaluation until the end of a project is that there will then be no time left for ameliorative action.

Regarding the agent of evaluation, there are benefits both to doing it yourself (e.g. the opportunity to be reflective and to incorporate feedback into the research process) and to inviting a third party (e.g. to have an independent outsider's view). If you are writing a proposal in response to a call for funding the funder may have their own views on who should undertake project evaluation and how.

An alternative, more reflective approach to evaluation is to ask yourself the following questions:

- What went well?
- What could have been done better or differently?
- What can others learn from the project?
- What still needs to be done?

This type of approach leads naturally into a discussion of areas for future investigation and may spark an idea for your next research project, audit or evaluation.

Lastly, in the evaluation section of the research plan you might also discuss how lessons learned during the research might be shared with others. Likewise, you might suggest how the future impact of the research could be measured or assessed. This will demonstrate to the reader that you are thinking ahead and beyond the project to its impact in the wider context.

#### **14. References**

Any documents, websites, or other resources referred to in the proposal must be correctly referenced. This means checking them for accuracy and completeness. If your prospective funder, course tutor or employer has a preferred referencing style then follow that, otherwise choose an appropriate style with which you feel comfortable and be consistent in following it.

## **15. Appendices**

Never use an appendix to circumvent the page limit to your main research proposal (Rawl, in Groves *et al.*, 2011, p.8); at best the appendix will be ignored and at worst it may result in the proposal being rejected out of hand. However, if permitted, an appendix may be used for supplementary information, for example a copy of a questionnaire or an interview schedule, or for other supporting documentation.

## **Further considerations**

### **Some general advice on writing the plan**

Irrespective of its content, there are a few things you can do to make sure your research plan or proposal is as effective as possible:

- Keep your language straightforward and direct. Try to be concise and to the point. Short sentences are good. Avoid waffling.
- Develop your ideas clearly and logically. This will help the reader understand not only what you wish to do, but why.
- Use 'signposts' such as headings and linking sentences between sections to emphasise the flow through the plan.
- Make sure your facts are accurate and that you have covered all necessary points.
- Emphasise key points, not details.
- Check for typographical errors and spelling mistakes – do not rely on your computer's spell-checker since it cannot distinguish between words with different meanings (such as 'there' and 'their').
- Avoid jargon. Assume your audience are non-expert and may not be familiar with your subject matter.
- Avoid the use of too many acronyms, but where unavoidable, write them in full the first time you use them.
- Avoid repetition.
- Make use of figures and illustrations. A picture can sometimes convey more information than a lengthy block of text.
- Pay attention to the presentation of your plan. A clear and tidy plan suggests a clear and tidy approach to work. A messy plan will not only be more difficult for the reader to follow, it may also be taken to indicate sloppiness and lack of rigour in research.

(Based on O'Leary (2010), p.67)

### **Planning collaborative research**

There are both joys and pitfalls in working with others. If you are planning a collaborative research project then it is important to be clear on each partner's role and responsibilities from the outset. One partner should be designated as lead partner (Eve, 2008, p.27) and project management activities (such as meetings, means of communication, reporting procedures etc) must be articulated in the plan. There can be distinct benefits to partnership working, especially where practitioners, academics and community organisations work together, but there will be an added overhead in monitoring and

controlling the progress of the project. You will need to address the extra risks in your risk management section.

### **Evaluating the research plan**

Having followed all the steps listed above, you are sure to have produced the perfect research plan. Or have you? It is always worth re-reading your plan, at the very least to check for continuity, typographical errors and spelling mistakes. You should also pay attention to the presentation of your plan since first impressions count.

If you are responding to a call for funding then you must review every part of the plan to ensure it meets the funder's requirements. For example, is the project appropriate to the call? Have you followed instructions on font sizes, section headings, page limits and so forth? If the funder provides criteria for evaluation have you ensured that your proposal meets these? Is it clear how it meets them? You should make it as easy as possible for the reviewer to assess your proposal against the funder's list of criteria.

If possible, ask a colleague to take a look at your research plan. A fresh set of eyes may well spot inconsistencies or notice important omissions. If you are writing a plan as part of a course of study, for example for a Masters dissertation, then show your plan to your tutor or a fellow student. Do not be afraid to receive constructive criticism, remember its purpose is to improve your research plan and the likelihood of a successful outcome to your project.

Finally, take time to reflect on the overall proposal. Ultimately will the planned project meet its aims and objectives and answer the research question?

### **Summary**

In this chapter we have considered why it is important to have a research plan and how the plan must be adjusted to meet the needs of different audiences. Each element of the plan has been considered in some detail although it has been recognised that not every element is essential for every research project.

### **References**

Anderson, G.L. and Garg, D.P. (2001) Suggestions for skillful proposal writing. *Journal of Intelligent Material Systems and Material Structures*, **12**(June), 409-414.

Annersten, M. and Wredling, R. (2006) How to write a research proposal. *European Diabetes Nursing*, **3**(2), 102-105.

Dawson, C. (2009) *Introduction to research methods: a practical guide for anyone undertaking a research project*. 4<sup>th</sup> ed. Oxford: How To Books.

Eve, J. (2008) Writing a research proposal: planning and communicating your research ideas effectively. *Library and Information Research* [online], **32**(102), 18-28. Available from <http://www.lirjournal.org.uk/lir/ojs/index.php/lir/article/view/92> [accessed 15.05.12].

Grove, L.K. (2004) Writing winning proposals for research funds. *Technical Communication*, **51**(1), 25-35.

Groves, P.S., Rawl, S.M., Wurzbach, M.E., Fahrenwald, N., Cohen, M.Z., McCarthy Beckett, D.O., Zerwic, J., Given, B., Algase, D.L., Alexander, G.L. and Conn, V. (2011) Secrets of successful short grant applications. *Western Journal of Nursing Research*, **34**(1), 6-23.

LIRGweb (2011) *LIRG research award* [online]. Available from: <http://sites.google.com/site/lirgweb/home/awards/lirg-research-award> [accessed 28.04.12].

McCaig, C. and Dahlberg, L. (2010) Writing a research proposal or brief. In: Dahlberg, L. and McCaig, C. (eds.) *Practical research and evaluation: a start-to-finish guide for practitioners*. London: Sage. pp. 59-75.

O'Leary, Z. (2010) *The essential guide to doing your research project*. 2<sup>nd</sup> ed. London: Sage.

Pickard, A.J. (2007) *Research methods in information*. London: Facet.

Research Councils UK (n.d.) *RCUK Common principles on data policy*. Available from: <http://www.rcuk.ac.uk/research/Pages/DataPolicy.aspx> [accessed 02.04.12].

Wilkinson, D. (2000) Planning the research. In: Wilkinson D. (ed.) *The researcher's toolkit: the complete guide to practitioner research*. London: Routledge Farmer. pp. 15-23.

## **Recommended further reading**

For general advice on writing research plans and proposals:

Dawson, C. (2009) *Introduction to research methods: a practical guide for anyone undertaking a research project*. 4<sup>th</sup> ed. Oxford: How To Books.

Eve, J. (2008) Writing a research proposal: planning and communicating your research ideas effectively. *Library and Information Research* [online], **32**(102), 18-28. Available from <http://www.lirjournal.org.uk/lir/ojs/index.php/lir/article/view/92> [accessed 15.05.12].

O'Leary, Z. (2010) *The essential guide to doing your research project*. 2<sup>nd</sup> ed. London: Sage.

Pickard, A.J. (2007) *Research methods in information*. London: Facet.

Wilkinson, D. (2000) Planning the research. In: Wilkinson D. (ed.) *The researcher's toolkit: the complete guide to practitioner research*. London: Routledge Farmer. pp. 15-23.

For the research funder's viewpoint:

Anderson, G.L. and Garg, D.P. (2001) Suggestions for skillful proposal writing. *Journal of Intelligent Material Systems and Material Structures*, **12**(June), 409-414.

Booth, A. (2000) Research. *Health Libraries Review*, **17**(3), 173-175.

Grove, L.K. (2004) Writing winning proposals for research funds. *Technical Communication*, **51**(1), 25-35.

Groves, P.S., Rawl, S.M., Wurzbach, M.E., Fahrenwald, N., Cohen, M.Z., McCarthy Beckett, D.O., Zerwic, J., Given, B., Algase, D.L., Alexander, G.L. and Conn, V. (2011) Secrets of successful short grant applications. *Western Journal of Nursing Research*, **34**(1), 6-23.

## **Case study: Rose and Siddall research proposal**

*The research proposal outlined below became the winning submission for the 2011 LIRG Research Award (LIRGweb, 2011). Our thanks go to Hannah Rose and Gillian Siddall for permission to abridge their work.*

### **1. Title**

An investigation into the use of reading lists as a pedagogical tool to support the development of information skills amongst Foundation Degree students.

### **2. Names and affiliations**

*<Each author gave their name, job title and relevant previous research experience and success. They noted that they would be collaborating with academic staff.>*

### **3. Introduction/Context of study**

New foundation degree (FD) courses at The University of Northampton often attract students with practical experience rather than traditional academic backgrounds. These students present different challenges in learning and skills development. They often demonstrate anxiety around the requirements of academic study and lack confidence in their ability to achieve and pass assessments.

Through conversations with students and their tutors, the authors have become aware that students have difficulty using the current course reading lists. Students either read everything or nothing and they find it difficult to distinguish which texts are most appropriate for their level and skills. It is clear that the existing lists are not meeting the students' needs (Thomson *et al.*, 2003).

The authors would therefore like to explore the value of enhanced reading lists and specifically, how these can be used as a teaching and learning tool to support students in developing the information skills needed for academic study in Higher Education (HE). Not only will this work have a beneficial impact on Northampton FD students' ability to access, retrieve and use information, but also it will fill a gap in the literature which has not so far addressed the pedagogical impact of reading lists on information skills.

#### **4. Aim and objectives**

##### **Aim**

To investigate the use of reading lists as a pedagogical tool to support the development of information skills of Foundation Degree students in Health and Education.

##### **Objectives**

- To understand how level four FD students use and respond to academic reading lists.
- To assess academic staff perceptions of the use and value of reading lists.
- To investigate whether the use of annotated reading lists can support the development of FD students' information skills.

#### **5. Literature Review**

A preliminary literature review has identified several key areas which will help to frame and inform the project, these are:

- The confidence and information skills of FD students
- Reading lists as a pedagogical tool
- Spoon-feeding or scaffolding?

*<Each of these topics was then explored in more detail, drawing on the authors' own practice-based and research experience and on their reading of the literature.>*

#### **6. Research design and methods**

##### **6.1 Methodological approach**

The proposed action research will investigate the use of reading lists as a pedagogical tool, with a view to improving wider learning and teaching practice in information skills development (Bell, 2010). The research will use a mixed methods approach, combining both quantitative and qualitative techniques:

- Quantitative: analysis of FD reading lists
- Qualitative: semi-structured interviews and focus groups

##### **6.2 Research sample**

The research will involve level four FD students studying within the Schools of Education and Health; these will be self-selected for the focus groups. Academic tutors from the FD course teams will be approached by the researchers to take part in semi-structured interviews.

##### **6.3 Methods of investigation**

- i. A literature review to examine the research on reading lists and information skills support for FD students, which will help to frame and inform this project.
- ii. An analysis of level four FD reading lists based on a checklist of criteria informed by key themes emerging from the literature and previous research studies (e.g. Stokes and Martin, 2008).

- iii. Semi-structured interviews with academic staff will explore tutors' perceptions and expectations about the use of reading lists.
- iv. Focus groups of FD students will enable the researchers to identify any potential issues or benefits with the current reading list structure and content. Participants will be recruited on a voluntary basis from across the Year One cohort through promotion of the study in class and via the University's Virtual Learning Environment. The focus groups will be facilitated by a colleague in order to avoid researcher bias.
- v. Key reading lists will then be adapted in line with findings from the interviews and focus groups.
- vi. Another programme of focus groups and interviews will be undertaken to explore both staff and student perceptions and experiences of the adapted reading lists.

#### **6.4 Data collection and analysis**

The interviews and focus groups will be recorded and then transcribed to allow an accurate analysis of participants' comments and discussion. The data will be analysed using theme analysis (Boulton and Hammersley, 1996).

#### **6.5 Ethical considerations**

There are a number of ethical issues to take into account, including seeking the informed consent of all participants and ensuring confidentiality and anonymity. Participants will be provided with a brief outline of the research and asked to sign a consent form prior to being interviewed. All personal data will be kept strictly confidential and any quotations from interviews will be anonymised in the final report. Reading lists selected for analysis will be evaluated 'blindly' without reference or regard to the course or tutor.

#### **6.6 Advisory panel**

*<The advisory panel comprised tutors from the Schools involved in the study and professional colleagues in the library.>*

#### **7. Indicative outputs and outcomes**

An output of this research will be new reading lists for level four FD students in Health and Education that scaffold the development of their skills and confidence in accessing, retrieving and using information. A change in tutors' perceptions of reading lists is also anticipated following their involvement in the study.

*<A series of dissemination opportunities were then listed, including internal and external conferences, networking events and a journal paper.>*

#### **8. Project timetable**

*<The project timetable comprised a table showing each task (e.g. literature review; reading list selection and analysis; pilot interview etc, its duration and its start and end dates.>*

#### **9. Statement of costs**

<Costs were itemised for all elements of the project, including participant incentives; refreshments for focus groups; recording equipment and transcription; printing and researcher staff costs.>

**10. Reference list**

<List of references, correctly cited.>

**Tool: Research planning tick sheet**

Can you answer ‘Yes’ to the following questions?

1	Title	Is the title clear and unambiguous?	Y/N
2		Does it accurately reflect the content?	Y/N
3		Is it concise?	Y/N
4	Abstract or summary	Is the abstract a succinct overview?	Y/N
5		Does it state the purpose of the project and the method(s) to be used?	Y/N
6		Will it ‘sell’ the project to the reader?	Y/N
7		Is it less than one page long?	Y/N
8	Background, context or rationale	Have you demonstrated your awareness of relevant literature, policy, theory or practice?	Y/N
9		Have you explained how your project will contribute to literature, policy, theory or practice?	Y/N
10		Will the reader be convinced that your project is relevant, important and timely?	Y/N
11	Aim and objectives	Do the aim and objectives support your research question?	Y/N
12		Does the aim comprise a high level statement about what you wish to explore?	Y/N
13		Are the objectives specific and focused?	Y/N
14		If possible, are your objectives SMART?	Y/N
15	Hypothesis	If you are testing a hypothesis:	
16		Have you stated both the research and the null hypotheses?	Y/N
17		Are you confident that you will be able to conduct the necessary statistical analysis to test the hypothesis?	Y/N
18	Literature review	Have you examined a range of relevant literature (e.g. scholarly, policy, in-house)?	Y/N
19		Have you demonstrated that you are aware of key themes, theories, methods and issues relevant to your project?	Y/N
20		Have you presented an appropriate selection of literature?	Y/N

21		Have you identified any gaps in the literature that your project might fill?	Y/N
22		Is your literature review well structured and clearly written (e.g. starting with a broad overview and then narrowing down to your topic)?	Y/N
23	Research design and methods	Are your research design and methods consistent with the aim and objectives of your research?	Y/N
24		Have you described and justified your methodology and choice of method?	Y/N
25		Have you defined the scope and boundaries of your project?	Y/N
26		Have you stated how many participants will be involved and how you plan to select these?	Y/N
27		Have you included a data management plan?	Y/N
28	Ethical issues	Have you described the main ethical issues in your project and explained how you will deal with these?	Y/N
29		Have you demonstrated your awareness of any organisational or professional ethical guidelines?	Y/N
30		Have you either obtained ethical approval or allowed time for this in your project plan?	Y/N
31	Project timetable	Do you know how long your project will take?	Y/N
32		Are you sure you are not being over-ambitious?	Y/N
33		Have you made allowance for any constraints on time (e.g. availability of resources or participants)?	Y/N
34		Have you included a Gantt chart?	Y/N
35		Have you identified key milestones?	Y/N
36		Have you allowed for contingency time in your project?	Y/N
37	Deliverables	Have you listed all deliverables – including both outputs and outcomes?	Y/N
38		Have you considered your stakeholders' requirements when specifying your deliverables?	Y/N
39		Have you included a dissemination plan?	Y/N
40	Risk assessment	Are you aware of all the risks to the successful outcome of your project?	Y/N
41		Have you estimated the likelihood and impact of each risk occurring?	Y/N
42		Have you stated how you will manage each known risk?	Y/N
43		Have you sought a second opinion on your risk assessment?	Y/N
44	Resources and costs	Does your research team comprise individuals with an appropriate range of skills and expertise?	Y/N
45		Have you agreed (in writing) an appropriate division of costs between all project partners?	Y/N
46		Have you estimated both direct and indirect staff	Y/N

		costs?	
47		Have you included consultancy and professional fees?	Y/N
48		Have you included the cost of additional equipment, hardware and software?	Y/N
49		Have you included the cost of consumables, incentives, project promotion and publication?	Y/N
50		Have you estimated the full cost of travel and related expenses for yourself and your research team?	Y/N
51	Project evaluation	Have you defined success criteria for your project?	Y/N
52		Do you have clear measures for evaluating your project against the success criteria?	Y/N
53		Have you stated who will be responsible for project evaluation?	Y/N
54	References	Are all documents, websites and other resources fully and accurately cited and referenced?	Y/N
55		Have you followed your funder's or institution's preferred referencing style?	Y/N
56	Appendices	Are appendices permitted?	Y/N
57		Are all your appendices necessary?	Y/N
58		Is it clear why you have included each appendix?	Y/N
59	Presentation	Is your writing style clear, concise and to the point?	Y/N
60		Does your plan have a logical flow?	Y/N
61		Have you used appropriate headings and other signposts to help the reader?	Y/N
62		Have you avoided acronyms and jargon?	Y/N
63		Have you checked for typographical and spelling errors?	Y/N
64		Are figures and illustrations used appropriately and referred to in the text?	Y/N
65		Does your plan look tidy and well ordered?	Y/N
66		Have you removed all non-essential text?	Y/N
67		Are you within any externally imposed page or word limits?	Y/N
68	Other	Have you written your plan with the appropriate audience(s) in mind?	Y/N
69		If responding to a call for projects, have you read the guidelines carefully and fulfilled all the requirements of the call?	Y/N
70		Have you asked a critical friend to read your research plan and give feedback?	Y/N
71		Will the reader be convinced that you have the skills, knowledge and experience to successfully complete the project?	Y/N

## Exercises:

- A. Consider a possible research project that you would like to undertake.
- Whose support do you need to undertake it? How will you persuade them to allow you to do it? Write a couple of paragraphs describing how you might establish your audience's interest in this area and how your project might meet their needs.
  - Who are the stakeholders in your project? How will your research benefit them? Produce a table listing the key stakeholders in your project, what you need from them and how your work will benefit them. Indicate how important each stakeholder group is to the success of your project?
  - Produce a list of activities for your planned project. Which tasks are dependent on others? Create a Gantt chart showing the timeline for your project.
- B. Evaluate the Rose and Siddall case study using the tick sheet above.