Supervising literature reviews:
A workshop plan for supervisors who want to help their students to produce good literature reviews

Contents

Who, when and why?

This workshop would be appropriate for both experienced and inexperienced supervisors. With slight modifications a group could include students as well.

It could be run at any time during the academic year. If you are planning a program of activities for your department, faculty or institution, you might choose to schedule this session toward the beginning of the year when supervisors have new students who are beginning the literature review process.

It is important to encourage supervisors to develop strategies for helping students with literature reviews for many reasons:

- Early in their candidacy many students hold rather simplistic conceptions of what a literature review is, how to conduct one and how to write it.

- Students also often report that their supervisors did not give them as much help with this aspect of their work as they felt they needed.

- Examiners single out the literature review as a major influence on their first impressions of the thesis.
  See Examining theses workshop on the fIRST website.

Program overview

This workshop can be conducted in a half day or less.

The introductory activity asks participants how they approach their own literature searching tasks and then the facilitator introduces some research on information-gathering styles.

Some participants are invited to identify problems their students have had in preparing their literature reviews. Other groups of participants identify problems they encounter in supervising students' literature reviews and in advising on the final written version.

The facilitator introduces a reflective approach to reviewing the literature (see Detailed advice for facilitators) and distributes some materials designed to foster a reflective approach (Handouts).

Participants discuss how this approach and these resources might address some of the problems previously identified. They then propose other strategies that might be useful.

Preparation

To successfully run this workshop the facilitator should:

- Study the [Detailed advice for facilitators](#)
- Look at the resource for Supporting Literature Reviews on the fIRST website
- Print and photocopy the [Handouts](#)
- Prepare the [Overheads](#)

Additional readings are listed in the fIRST Bibliography

Program

Total time: approximately 2-1/2 hours with no breaks.

1. Introductory activity

Time: approximately 20 minutes

Ask participants quickly to make a list of the steps they normally take when they need to search the literature in their field.

Ask them to introduce themselves to one or two people sitting near them and compare their lists. End the small group discussions quickly (no more than 5–10 minutes) and ask the whole group to enumerate the different approaches to literature searching that were identified.

2. Introduce material on information-gathering styles

Time: approximately 20 minutes

Distribute [Handout 1](#) (2 pages). Ask participants to read descriptions of different information gatherers' styles. Ask which styles they have encountered among students and which styles they would prefer their students to adopt.

Distribute [Handout 2](#) with the suggestion that they could use these questions to open discussion with their students and to help identify their concerns and needs for further assistance.

3. Identify problems students have with literature reviews and the difficulties supervisors encounter

Time: approximately 30 minutes

Use [Overhead 1](#) to set task.

Ask members of the group to choose one question they wish to work on. Divide group into two or more sub-groups. Give them ten minutes to make a list. Have the scribe for each sub-group report back to the plenary. Butchers' paper and textas are useful for this exercise so you can display the lists and refer to them during the discussion at the conclusion of this workshop. Alternatively you could note the items on a whiteboard while the reporters talk to the group.

4. Mini-lecture: A reflective approach to reviewing the literature

Time: 30 minutes

Your task as facilitator of this session is to introduce the reflective approach to reviewing the literature. You will have no trouble doing this if you have done the recommended preparation:

- Study the resources for Supporting Literature Reviews, in particular 'The cycle of planning, acting, recording and reflecting' in 'Introducing a reflective model for reviewing the literature'

- Study the Detailed advice for facilitators

5. Introduce resources for encouraging a reflective approach

Time: approximately 30 minutes

They have already received the first resource – Handout 2 – Personal Information Gathering Styles.

Distribute Handout 3, Handout 4, Handout 5 and Handout 6, and give participants a brief introduction to each.

6. Conclusion

Time: Approximately 20 minutes

Review lists of problems and elicit any additional suggestions from participants.

Refer participants to the fIRST site http://www.first.edu.au/first/index.html for additional material on literature reviews as well as coverage of many other topics.

Detailed advice for facilitators

Preparation

There are three different sets of inter-related materials on the fIRST site relating to literature reviews:

1. This workshop: Supervising literature reviews
2. A number of resources which supervisors may work through with students

There are also additional readings listed in the fIRST Bibliography

Activity 1

Activity 1 is intended simply to get the group started thinking about searching the literature and to break the ice by introducing participants to those sitting near them.

Some of the approaches they mention to each other will probably include:

- asking a colleague
- searching the web
- using an electronic library
- reading students' literature reviews
- working with a librarian
- using a research centre database or library
- depending on a research assistant
- systematically searching electronic databases
- 'push-technology', e.g. where database vendors e-mail information about recent issues of journals

Be aware that responses may differ according to discipline area. Some disciplines take a more collaborative approach, whereas members of other disciplines tend to work more alone.

The important thing here is to accept the different approaches, and perhaps encourage people to explain approaches unfamiliar to their colleagues.

Activity 2

Activity 2 is self-explanatory. Distribute Handout 1 first and discuss it briefly. Then distribute Handout 2 with the suggestion that these questions could help supervisors and students open discussion of approaches to information-gathering and any concerns the student has.

The Palmer material is useful at this point because it reassures people that information searching is ultimately a 'heuristic'. There are not 'right' and 'wrong' ways. Different people do it differently. Problems for individuals arise when they begin to feel that they are not sufficiently proficient in what they are doing. Note: a 'hunter' may not be proficient either!

This activity should have an element of FUN associated with it. One person I recall once said, 'I am an information magpie'! Another was an 'information dolphin' searching the net.

Activity 3

Activity 3 is also self-explanatory. Use Overhead 1 to set the task.

Christine Bruce has identified some of the serious difficulties faced by students:

- uncertainty about 'what is' a literature review

- lack of assistance from supervisors

- uncertainty about why they should engage in the process at all (after all my supervisor is the expert and can hand me all the material I need)

- lack of information and IT capabilities

- uncertainty about extent (this is really symptomatic of seeing a literature review as covering a topic area, rather than synthesising issues, etc.)

Christine Bruce has identified some of the serious difficulties faced by supervisors:

- uncertainty about the capabilities of students

- uncertainty about how to get help for students

- lack of clarity about what the supervisor's role is (perhaps trying to accept more responsibility than necessary)

- uncertainty about expectations of examiners

- uncertainty about how best to help students, personal lack of skills and confidence in the e-library environment

An important one - change in the PhD culture - has led in many institutions to less time being available; the literature review may be shortchanged or de-emphasised as supervisors allow students to rely more upon them in order to move forward with problem identification and proposal development.

If participants in your group fail to mention any of the above, you might choose to add them to the lists yourself. It is important to encourage your participants to pay more attention to supporting students when they are engaged in the literature review stage of their work. This part of the research process is too often neglected by busy supervisors and underestimated in its importance by students.

Activity 4

Do not be alarmed at the thought of giving a lecture on something you think you do not know much about. You will have plenty of information and a set of overheads to support you! And here is an outline/summary of what you need to say with links to all the information you need.

Begin by saying something like this:

Although there are students and supervisors who are comfortable and confident with the literature review process, research studies show that this can be a problem area for both groups and that expectations can conflict.

Use Overhead 2 and Overhead 3

One way in which supervisors can effectively support students is through encouraging them to adopt a reflective approach to working on their literature reviews. This involves the systematic implementation of cycles of planning, acting, recording and reflecting, simultaneously developing and drawing on the individual's personal information style. A reflective approach is encouraged, not only because it fosters critical thinking but also because it encourages new researchers to adopt complex conceptions of their literature review at the earliest possible stage.

Use Overhead 4

Explain to participants that they should not think of individual students as having particular conceptions. Rather, students use one or more of the conceptions of which they are aware at a particular time. Your participants might think of their job as a supervisor as helping students to expand their repertoire of conceptions and encouraging them to think about their literature review as more than an exercise in searching for references.

Overall, the different ways of seeing a literature review represent different facets of the literature review experience, from the student's perspective. Lack of progress in an area may be due to their being 'stuck' in a particular perspective. All the ways of seeing are required at different
stages in the research process, and students will need to use multiple perspectives simultaneously as they progress.

Now introduce the reflective model for reviewing the literature. Use Overhead 5.

Go to: the rsource Supporting Literature Reviews on the fIRST website; 'The cycle of planning, acting, recording and reflecting' in 'Introducing a reflective model for reviewing the literature'

Here you will find an explanation of each step in the cycle. Use this information to explain the model on the overhead to your participants.

Activity 5

After discussing the reflective approach as above, introduce the resources for encouraging a reflective approach.

They have already received the first resource – Handout 2 – Personal Information Gathering Styles.

Distribute Handouts 3 - 6 and give participants a brief introduction to each.

Handout 3 contains a diagram illustrating the reflective cycle and showing that both students' conceptions of the literature review and their personal information styles influence how they approach the process of doing a literature review. It also contains sample questions students might ask as they move through the cycle of planning, acting, recording, reflecting, and planning once again.

Handout 4 is a prompt for students to help them identify directions for their search. Students who do not have a clearly defined topic will be searching much more widely than those who know exactly what they are doing. Discipline differences play a large role at this stage, as science students in a lab team usually have a specific topic much earlier in their enrolment than a student in areas like history or literature. The important thing is for supervisors to encourage students to think hard about their search strategy before they leap in and start trying to find everything – which is usually a wasteful exercise in terms of time and final results.

Handout 5 will help students devise a search strategy. Supervisors should be encouraged to make sure that their students know the appropriate library staff and feel comfortable in asking for help as they begin postgraduate work. Floundering around in a modern library is a great way to fall behind schedule!

(Option: If you think it would be useful for your participants, you could invite a member of your library staff to attend this phase of the workshop and give participants a briefing on some of the key resources in their own field. Many supervisors may be surprised at how out-of-date they have become in their own searching strategies, and may find it hard to admit their insecurity and seek help individually.)

Handout 6 contains a set of questions which will help students engage in regular reflection on the literature review process. Supervisors should encourage their students to keep a record of how they answer these (and indeed, all the other questions in these resources). A diary or a database, it does not really matter what the record looks like as long as students can reconstruct what they were thinking and why at different times. This saves them retracing their steps and makes writing the final version of the literature review much easier.

As you introduce these resources to participants in the workshop, encourage them to discuss any questions they may have about the contents. Ask them to talk about when they might give these materials to students and what they might say to students as they did so. It would probably not be very productive to simply hand the whole pile to a student; rather it would be better to choose one or two that would be helpful at a particular time and talk it over in a meeting with the student.

Conclusion

Now ask participants to consider the lists of problems they identified earlier in the workshop. If there are problems that they feel have not yet been addressed, ask if anyone has any other ideas about strategies that may help.

The primary issue at this point is often technical skills, and information skills, e.g. info searching in the e-environment. Referral to a reference librarian (and encouraging students to update supervisors!) is an appropriate way forward…

Finally, refer participants to the other resources on the fIRST site. There are several other handouts on literature reviews in the Tools section – on annotated bibliographies, the criteria by which literature reviews are judged, and how to shape or structure a literature review. In addition, many other topics are addressed in the variety of materials on the site. Participants should be encouraged to explore these in their own time.

(Option: If you have decided to use a computer lab, you could walk participants around the site.)

Handout 1/1: Categories of Information Seekers

Non-seekers

Rarely if ever request an online search

Abstracts and indexes never used

Information represents a problem – it's a battle to obtain it

No ongoing information routine

Does not read much, perhaps not at all

Lone, wide rangers

Wide information-gathering habits

Regularly scan more than two other subject fields

Rely heavily on own knowledge and experience

Personal contact important

A random approach to the literature – skim through anything that comes up

Unsettled self-conscious seekers

Heavy use of library

Colleagues first port of call

Anxiety about library use

Organised references

Confident collectors

Abandon regular information-gathering routines

Information aware

Regular use of online search service

Examining theses represents an important source of information

Large off-print collection

Hunters

Strategies devised to ensure important information-gathering

Regular information-gathering routines

Almost daily visits to the library

Frequent contacts outside the organisation

Handout 1/2: Categories of Information Seekers

Information overlord

Operates an extensive, controlled system. Large number of contacts. An active gatherer. Recipient from diverse sources. Organised but flexible. Broad interests, many strategies.

Information entrepreneur

Less reliant on formal sources. Has an extensive personal information system but exerts less control than the overlord. No apparent patterns in information behaviour. Uses many strategies. Enjoys information-rich environment.

Information hunter

Has narrowly defined goals. Is an active and industrious hunter. Has predictable patterns of information behaviour. Needs to feel in control. Well organised.

Information pragmatist

Spasmodic gatherer in response to a direct need. Not worried about control. No regular pattern of information behaviour. Operates temporary strategies in searching and organising materials when necessary.

Information plodder

Gets by. Seldom searches for information in formal sources. Relies on own knowledge and resources or those of others. Not worried by amount of information available. Never looks for it, therefore no need to control.

Information derelict

No systems for searching or organising information. Doesn't use or need information. When confronted with information is overwhelmed by quantity and gives up.

Handout 2: Personal Information-gathering Style

Responding to the following will give you insights into your own information-gathering styles:

• How active are you in your efforts to find information?

• Are you generally relaxed or anxious about the undersupply or oversupply of your information needs?

• To what extent do you feel the need to be in control of your information environment?

• How broadly do you search electronic- and print-based information access tools?

• How extensive are your formal information networks, i.e. personal contacts, conference attendance, etc.?

Handout 3/1: The Literature Review Reflective Cycle

PLAN THE REVIEW

Conceptions of
the literature review
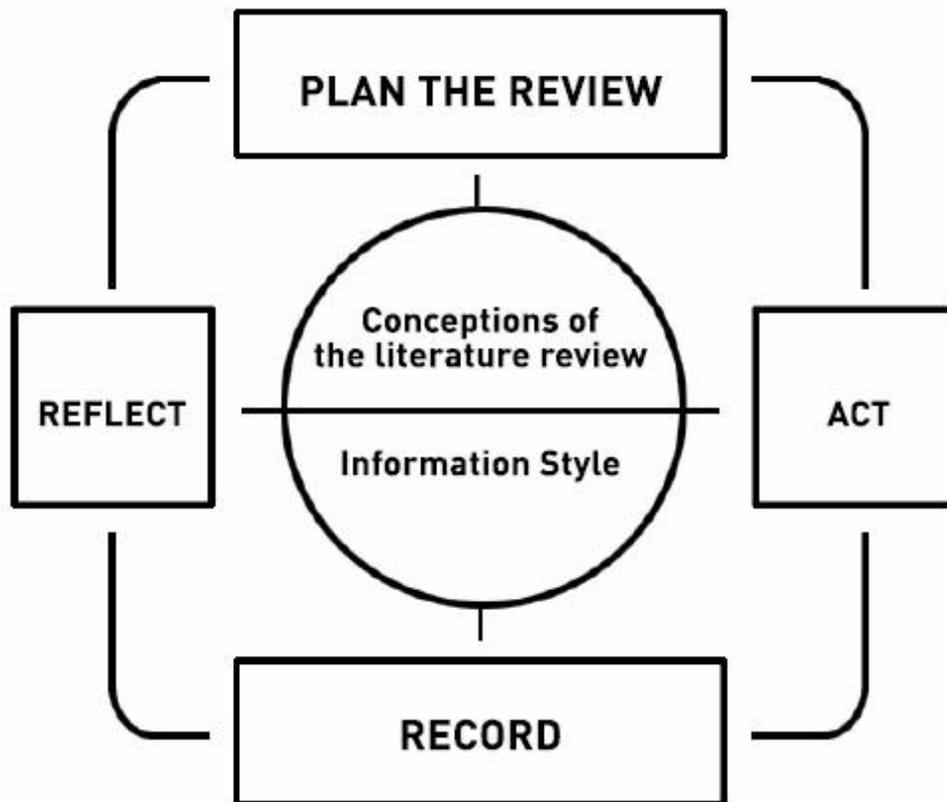
Information Style

REFLECT

ACT

RECORD

Diagram 1: The Literature Review Reflective Cycle

Handout 3/2: The Literature Review Reflective Cycle

These are the types of questions you would ask yourself as you work through the cycle. You repeat the cycle many times as you conduct your literature review. Of course, the questions you ask will vary depending on what stage of your work you have reached.

Planning

- What is a literature review?

- Why do we do a literature review?

- What problems are faced by research students doing literature reviews?

- What are the different ways in which research students conceive of literature reviews?

- What are the varying roles of thinking, searching, reading and writing in the process?

Action

- How can you start the writing process?
  (Focus on one or two strategies, work on them and receive peer feedback.)

- How do you decide what to include in the literature review?

Recording

- How can I use a journal to help me with writing my literature review?

Reflection

- What are the features of a good literature review?

- What are the weaknesses associated with poor literature reviews?

- How does your literature review shape up against Cooper's taxonomy of literature reviews?

- How does your literature review need to be modified to meet the above criteria?

Planning

- What steps will you take to progress your literature review in the next weeks?

Handout 4: Plan Your Literature Search

1. Analyse your problem

The main purpose here is to identify the key areas for which you are seeking information (what do you need to know about?) and where you might seek that information (how to go about it).

In order to identify what you need to find materials about (the materials may be journal articles, websites, conference papers, etc.), consider some of the following prompts:

- Try to imagine what headings and sub-headings might appear in your report of your literature review. You might like to think about this in terms of questions to be answered.

- Do you need to review the history of research in your area of interest? For example, critical views of a particular author's writing have changed dramatically in recent years so you will need to establish why that has happened and how you have come to your own views.

- Do you need to summarise different research methodologies that have been employed by researchers before you? For instance, it is only recently that qualitative approaches have begun to be used in your field, which was once dominated by quantitative methods.

- Is there work in other fields that has influenced your approach to your topic? For instance, gender studies have begun to suggest different approaches to research on ethics and decision-making.

- Is there basic information a reader of your thesis will need in order to understand your work? For instance, your research is on the efficacy of a new surgical technique, and to understand your work readers will need a detailed introduction to the anatomy of sheep's knees.

- Also consider, for each area you come up with, what level of information you need – e.g. introductory reference material, research outcomes, etc.

2. Determine where you might get your information from

- Think about key discipline areas - this might help you identify relevant indexes.

- Who do you know that might be able to help?

- Are you likely to need conference papers, books, journal articles? (There are different ways of going about searching for each of these.)

- Are there key researchers in the field you need to contact?

3. Determine key terminology, authors and organisations

When you have analysed your problem, and thought about where to get information from, you need to determine the key terminology, the authors and organisations that will help you access the information you need. For example:

- Consider important key words (provides an entry point to thesauri and access points to indexes, including web search engines).

- Consider authors (provides an entry point to indexes, catalogues). Also search for these on the web to see if they have a home page.

- Consider important organisations (access point to indexes, catalogues, entry to informal networks). They may also have useful web pages.

- Consider important known references (access point to citation indexes).

Handout 5: Developing a Search Strategy

Search Strategy

Analysing the problem

Retrieving Information

Identifying keywords, authors, etc

Record keeping

Translating the strategy to fit the tool

Creating a search strategy

Identifying appropriate information sources

Diagram 2: The search strategy

Record keeping is the centrepiece of search strategy. Students should be encouraged to record their plans and the results of their efforts at all stages.

Analysing the problem. Here the student needs to consider what questions are being addressed in the search for information. A clear statement of questions to be answered will guide decisions made in the following stages.

Identifying keywords, authors, etc. Brainstorming for possible vocabulary and authors associated with a topic. The use of a thesaurus, dictionaries, texts and journal articles will help to produce such lists.

Creating a search strategy. This involves considering the relationships between keywords, deciding how many years of the literature should be searched, and how much information is required.

Identifying appropriate information sources. Through personal knowledge, or consultation with library staff, decide what directories, indexes, almanacs and/or catalogues should be searched.

Translating the strategy to fit the tool. Every tool will use an idiosyncratic vocabulary, and different ways of providing access to information. The original lists 'brainstormed' need to be adapted appropriately.

Retrieving information. Determining the useful information from the masses encountered and locating any specific documents referred. This may well lead to a reconsideration of the initial problem analysis.

Handout 6: Encouraging Regular Reflection

Consider these questions frequently as you work on your literature review:

- What is the present state of my list of references? Is it up to date in my areas of present interest? Is it adequate?

- What literature searching have I done this fortnight? Are there any new areas that I have become interested in which I may need to search on?

- What have I read recently? Have I found time to read recently?

- What have I learned from the literature this fortnight? Have I changed, in any way, my understanding of the area in which I am working?

- Is what I have read going to influence my research in any way? Has it given me any ideas that I need to consider and incorporate?

- Have I been writing about what I have read? Do I need to reconsider how what I have been reading fits into my research?

From: Christine Bruce. 1994. Research students' early experiences of the dissertation literature review. *Studies in Higher Education*, 19(2), 217-219.

Overhead 1:
Common Problems with Literature Reviews

Question 1

In your experience, what difficulties do students experience in conducting literature reviews?

Question 2

What difficulties do you experience in supervising literature reviews?

Your task

Join a group to discuss one of these questions. You will have only ten minutes to make a list of difficulties, so don't start trying to propose solutions yet!

The groups will be asked to report back very briefly with a list of commonly encountered problems, so each group will need a volunteer reporter.

Overhead 2: The Literature Review

A problem area for students who are:

- reluctant to complete the review
  (Wright and Lodwick, 1989)

- unsure of what constitutes an adequate review
  (Hernandez, 1985)

- uncertain of the role of the review
  (Leedy, 1989)

Problems are compounded by lack of:

- supervisory guidance
  (Powles, 1988)

- information searching skills
  (Dreifuss, 1981; Bruce, 1990)

- clarification of the research problem
  (Zuber-Skerritt, 1987)

Overhead 3: Student and supervisor expectations

Students:

- expect guidance in literature searching

- expect guidance in bibliographic techniques
  (Powles, 1988)

- want information about contacts and references
  (Wright and Lodwick, 1989)

Supervisors:

- expect students to have literature searching skills
  (Dreifuss, 1981; Bruce, 1990)

- do not have literature searching skills

- give the literature review little time/energy

- rank the literature review lowest in terms of personal expertise
  (Zaphorozhetz, 1987)

Overhead 4:
Students' Conceptions of Literature Reviews

Students conceive of literature reviews in different ways.

For example, as a…

Report

Vehicle for
Learning

Research
Facilitator

Survey

List

Search

Overhead 5:
Reflective Model for Reviewing the Literature

The Literature Review Reflective Cycle