Using conceptual maps to develop a research idea

This is an adaptation of a handout used for a social research methods module delivered to undergraduates in Sierra Leone. It describes one way (not the only way) to develop your ideas for a research project, and to generate specific, realistic and useful research questions.

Examples of research question

- What teaching styles are used by teachers in managing their students?
- Is there a significant difference in grades between students who study early in the morning and students who study at night?
- What are the perceived main effects of Women Friendly Spaces on women and girls living in the refugee camps in Gambella, Ethiopia?
- What factors contribute to girls feeling safe or unsafe when they are at school?

Why does it help to have research question(s)?

Research questions provide the key to planning and carrying out a successful research project. Coming up with a small set of questions (or perhaps just a single question) to which the project will seek answers is a challenging exercise. It forces you to think.

Research questions help to:

- Define the project. A good set of questions summarises in a few sentences what your project is concerned with.
- Set boundaries. This stops you from spending time on things not relevant to the questions.
- Give direction. Helps you focus your efforts.
- Define success. Has your project resulted in credible answers to the research questions?

How to decide what you want to study.

Finding the general focus of your research involves identifying issues you are interested in and concerned about. Sometimes the idea comes from your own direct experience, or from discussion with others about what would be useful. In a work context, research questions are usually not found by a single person but rather result from a process among the team members and partners, sharing their knowledge and experience.

Social research often focuses on solving problems, and is frequently concerned with change and improvement in something to do with practice. As professionals, we often want to look at, or perhaps evaluate or change, some aspect of practice that interests or concerns us. Common problems are a good choice for a research focus as anything useful that you find out has a direct benefit.

When research focuses on an area of your work, you are likely to know a lot about the topic even before starting the research, which can help in planning. Traditionally, what you bring to the research from your background and identity has been treated as 'bias', something whose influence needs to be eliminated from the design, rather than a valuable component of it. But your experience can be useful, as long as you examine the assumptions and values you bring to the situation.

When deciding on your research topic, you also need to make sure it is realistic in terms of the time and resources that you have available. Access and co-operation are also important.

Conceptual mapping

Once you've decided on the general area you want to study, conceptual mapping can help you to narrow this down to specific research question(s).

A conceptual framework describes the main things to be studied – the key factors or variables – and the presumed relationships among them.

Developing a conceptual framework forces you to be explicit about what you think the research will focus on. It also helps you to be selective, to decide which are the important features, which relationships are likely to be important, and hence what data you are going to collect and analyse.

Guidelines for developing a conceptual framework diagram:

1. Start by identifying the key elements of the issue you are interested in, and writing them on a piece of paper.
2. Now, think about all the factors which are related to the key elements you have written down (you can get ideas from talking to others, or from reading), and write them around the page. Link them to the key elements (and each other) by arrows, showing which factors lead to which other factors.
3. Get all of the diagram on one page. This helps you grasp the totality of the picture and to map relationships between the factors.
4. You won't get it right first time. There are likely to be several different ways in which you can represent the conceptual framework of the study. Go through several attempts or versions. Discuss with friends and colleagues – explain to them why it is as it is.
5. If you are unsure about including a particular factor, include rather than exclude initially.
6. Review the conceptual map – it is likely that you will need to simplify it in order to develop realistic and useful research questions.

Example of a Conceptual Map

Imagine that you work in the health sector, and you have been asked to conduct some research relating to the general area of:

**_Health policy and systems in relation to HIV in countries affected by conflict._**

Your first task is to identify the key elements within this general idea. These are:

- Health policy
- Health systems
- HIV
- Conflict

Write these on a piece of paper.

Then - through thinking, reading and discussion with others - identify the main factors related to these key elements. Write these down on the same piece of paper, as in the example below.

Figure 1. <u>Conceptual map exploring the key elements of the research idea</u>
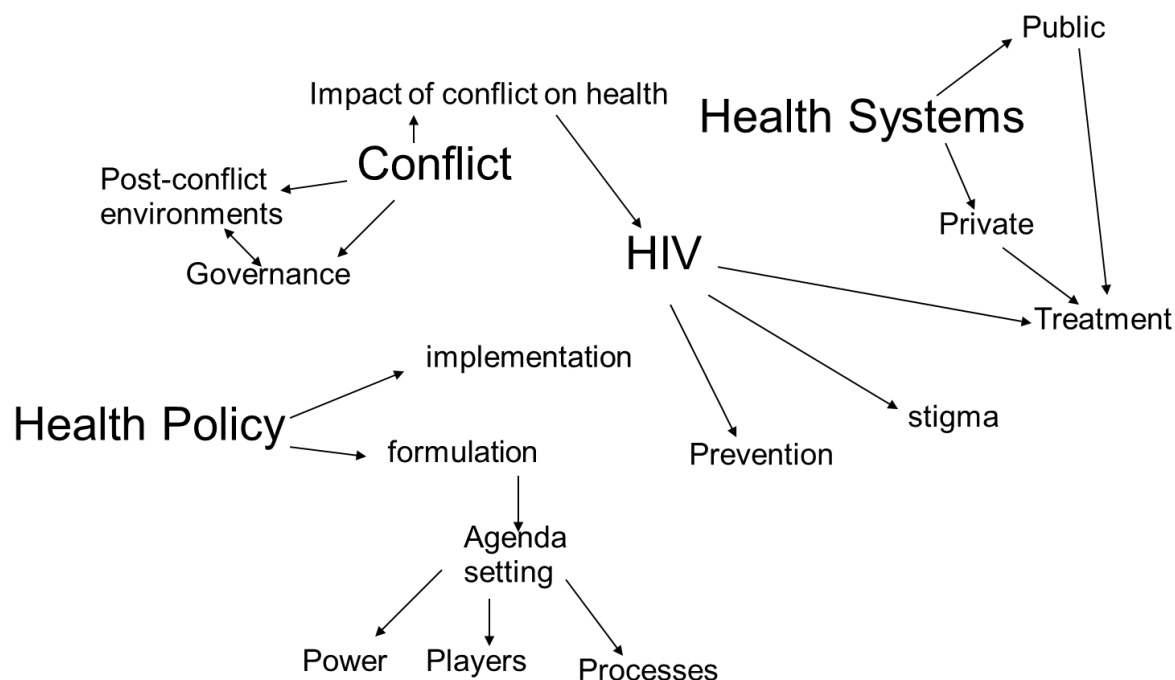
You see in this example that the researcher has not only written down all the relevant factors, but also drawn arrows to illustrate how each factor relates to others. For example, both public and private health systems contribute to the treatment of HIV.

However, this map is too broad – it is not possible for the researcher to include all these factors in her study. Remember the need to be **realistic** when developing research questions. The researcher does not have the time or resources to study all the issues relating to the general research area – now she needs to decide which factors are most important for her to focus on.

So - the next step in conceptual mapping is to review the map and decide which elements you will focus on. You can make these decisions based on:

- What you are most interested in
- What areas are most relevant to your work
- Which areas you have access to and can easily find out about

See Figure 2 below for an example of how the researcher in this example started to narrow down her conceptual map, to focus on the areas she is most interested in studying.

Figure 2. Revised conceptual map
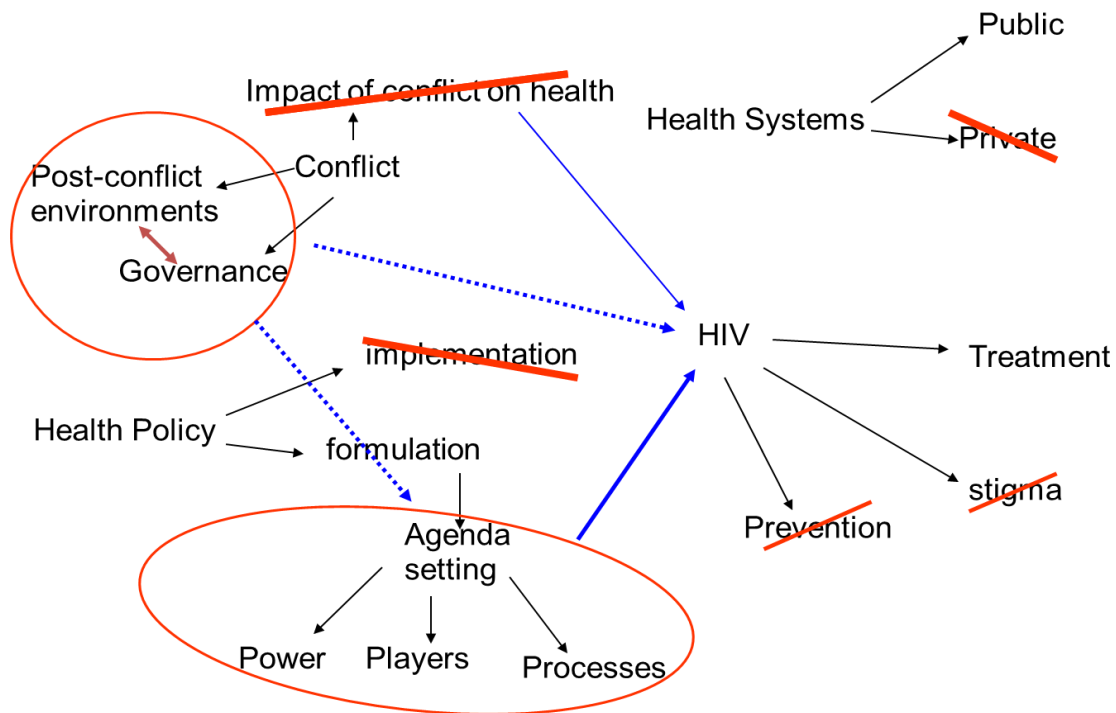
You can see that she has decided to focus on:

- Public health systems - and to exclude private healthcare from her study.
- Post-conflict environments – and to exclude the impact of conflict on health
- Treatment of HIV - and to exclude prevention and issues related to stigma
- The formulation (or planning) of health policy - rather than how health policies are implemented

This helps her to create three specific research questions. These are described in Figure 3 below.

Figure 3. Three research questions emerging from the revised conceptual map
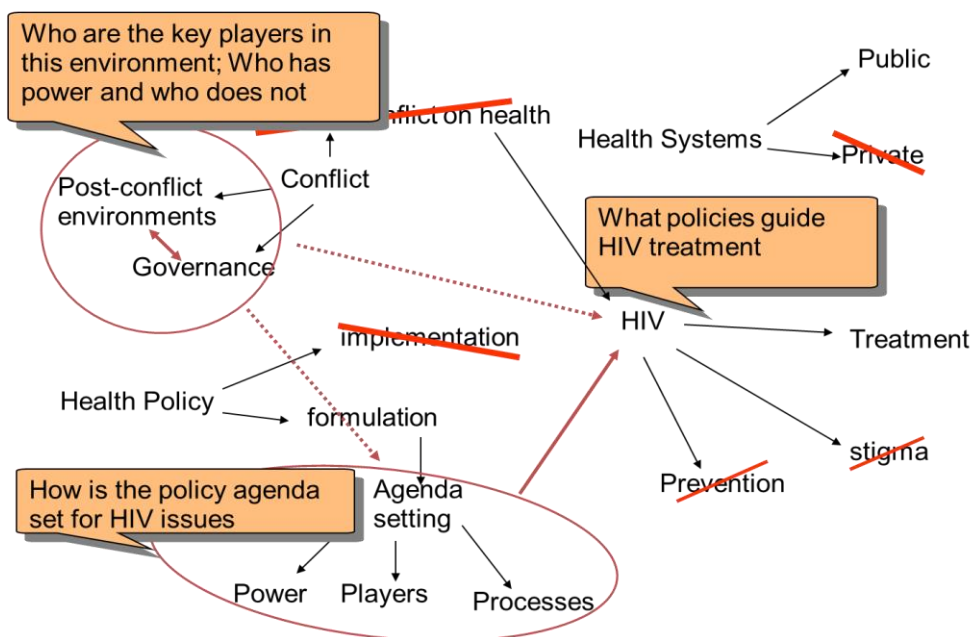
Criteria for good research questions

Good research questions:

- Are clear and unambiguous
- Show the purpose(s) of your project
- Derive from a real problem
- Are not trivial/ unimportant
- Are answerable
- Set boundaries (e.g. which group of people will you focus on).

The SMART acronym can help to assess how good a research question is. The acronym can remind us to check whether the research question is:

Specific – a common problem is a vague research question, which is difficult to investigate because the boundaries of the focus of interest are not clearly defined.

Measurable – some very interesting issues may not be measurable, perhaps because of difficulties accessing a certain population, the sensitivities around a particular issue, or the time and resources which would be required.

Attainable – the research question can be addressed with the time and resources available.

Relevant – will provide information which can be used to improve programming, advocacy or some other aspect of your work.

Time-bound

Avoid deciding on the methods you will use before deciding on the research questions. It will restrict the kind of questions you can ask, possibly to ones which don't help with the problem you are trying to deal with. This is important for a social researcher trying to deal with real problems and issues.