When conducting a research project, there are some key stages to the process. The sequence below is one that I recommend and demonstrate in this course. Most projects begin with a broad question, theme, idea, or hypothesis. Through this process, the researcher explores and refines their work into a clear and specific research question.

Reviewing literature

Before you begin any research project, it is important to understand what research or evidence exists around the problem you are investigating. It helps illuminate what is already thought or known about your area of investigation; the information will help you frame your research question, or even decide whether your research is necessary. If there is significant evidence either for or against a particular approach, this may render your project redundant, or at least in need of a rethink.

Later in the course I will show you where to find existing evidence, and demonstrate how to read and interpret it, and judge each source with a critical eye.

Posing a research question

Once you've reviewed the existing evidence and identified any potential gaps, you can choose a broad theme to investigate. The next step is to turn this broad idea into a clear and focused research question. A good question makes it easier to decide what action/intervention you should take to find an answer.

Considering ethics

Any study you carry out needs to be conducted ethically, ensuring that participants have given their informed consent. Researchers also need to consider the risks and benefits to their participants.

Plan your project

With a research question in place and the knowledge that your study can be conducted ethically, you can start to plan in greater detail. A good plan should answer these questions:

- What does your intervention look like?
- What is the time frame for your project?
- Who are the participants?
- What outcomes can you measure?
- Are the findings likely to be valid and reliable?
- What data can you collect?
- How will you collect it?

During the second week of the course, you'll develop a research project plan to address these questions.

Make hypotheses

Depending on the nature of your study, it may be appropriate to state one or more hypotheses about what you hope or expect to find. Once you've collected and analysed your data, you can accept or reject these hypotheses.

Gather data

Before, during, and after running your intervention, you need to use the most appropriate instrument to collect data; it may involve interviews, recordings, observations, surveys, etc. Collecting appropriate and accurate data during the project is vital to being able to meaningfully interpret it later.

Data analysis

Analysis is the stage in which you look for patterns in the data. For example, by identifying themes in interviews, averaging 'test' scores, or measuring the spread within a data set. You can make this stage easier by choosing the right data to collect, carefully designing how you collect it, and early planning about how to analyse it.

Evaluate hypotheses

Where you have made hypotheses, your analysis will hopefully enable you comment on the hypotheses, and either accept or reject them. However, sometimes the data may be inconclusive. It may not be strong enough to provide a definitive insight, and perhaps indicates a need to either refine or repeat the study. Each outcome is useful and provides a catalyst for the next steps and future work.

Draw conclusions

In this stage, you will reflect on the results and outcomes of the research project and how that may impact your practice: what will you start, stop, and continue in light of the findings? Here, educators can begin to make informed decisions about the practices and approaches most suitable for their learners, based on evidence and experimentation.

Reflect on processes

Step back from the results of the current research cycle and consider the success of the process: what worked well, what didn't, and what would you do differently next time? It's at this point that you are likely to look at what you now know, what is still unknown, and what you'll investigate in the next research cycle!

Sharing

A final but important phase of research is to share and disseminate your findings. It allows your peers to learn from you work, and develop their own project, building on what you have done. The step also helps reinforce what you have learnt from the process and to empower you to continue your research.