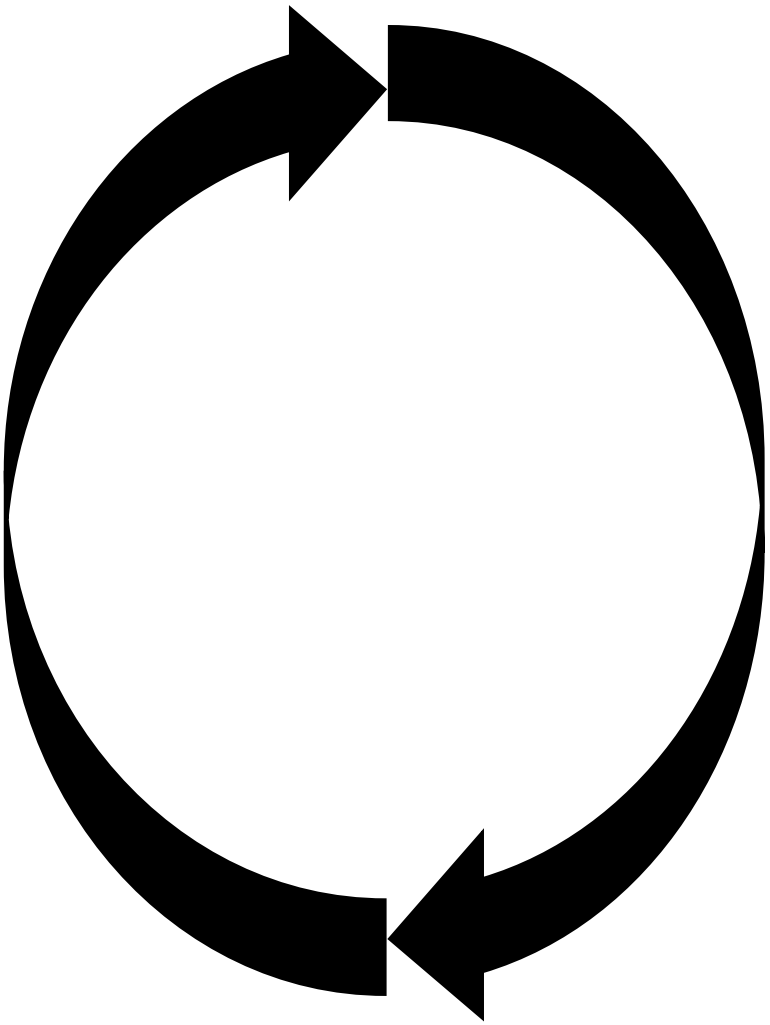
Action research for higher education practitioners: A practical guide



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Introduction

This short booklet intends to introduce action research in the context of higher education practice. It is designed to be used before engagement with the extensive published literature on action research. It takes a deliberately pragmatic approach and offers examples from practice. It is particularly aimed at anyone who may be more used to working in the natural sciences, where action research is not only a new way of researching but a new way of thinking. The booklet has been formed from experiences of working with undergraduate and postgraduate students, as well as new and veteran higher education practitioners. The booklet is deliberately light on citations as it seeks to offer a personal, practical insight and in so doing it tries to answer some of the important questions that new action researchers might have.

What is action research?

Action research is a type of inquiry that is:

- **Practical** as it involves making change to practice
- **Theoretical** as it is informed by theory and can generate new insights
- Concerned with **change and improvement.**

Action research is often associated with education and health contexts, but it can also be found in agriculture, international development and management research. Do a web search or library search to see the number of disciplines and professions that make use of this approach.

Action research is a methodology; that is a framework for approaching a piece of research. Action researchers believe, or adopt a position, which says the world can be seen differently from different perspectives. They try to understand and make improvements to practice in an environment where there are probably many viewpoints. Action researchers do not start out with the opinion that there is one way of seeing the world and their research can discover this. Trying to reach decisions and ways forward amongst a complex situation is the business of action research. These underpinning beliefs fit with an interpretivist epistemology.

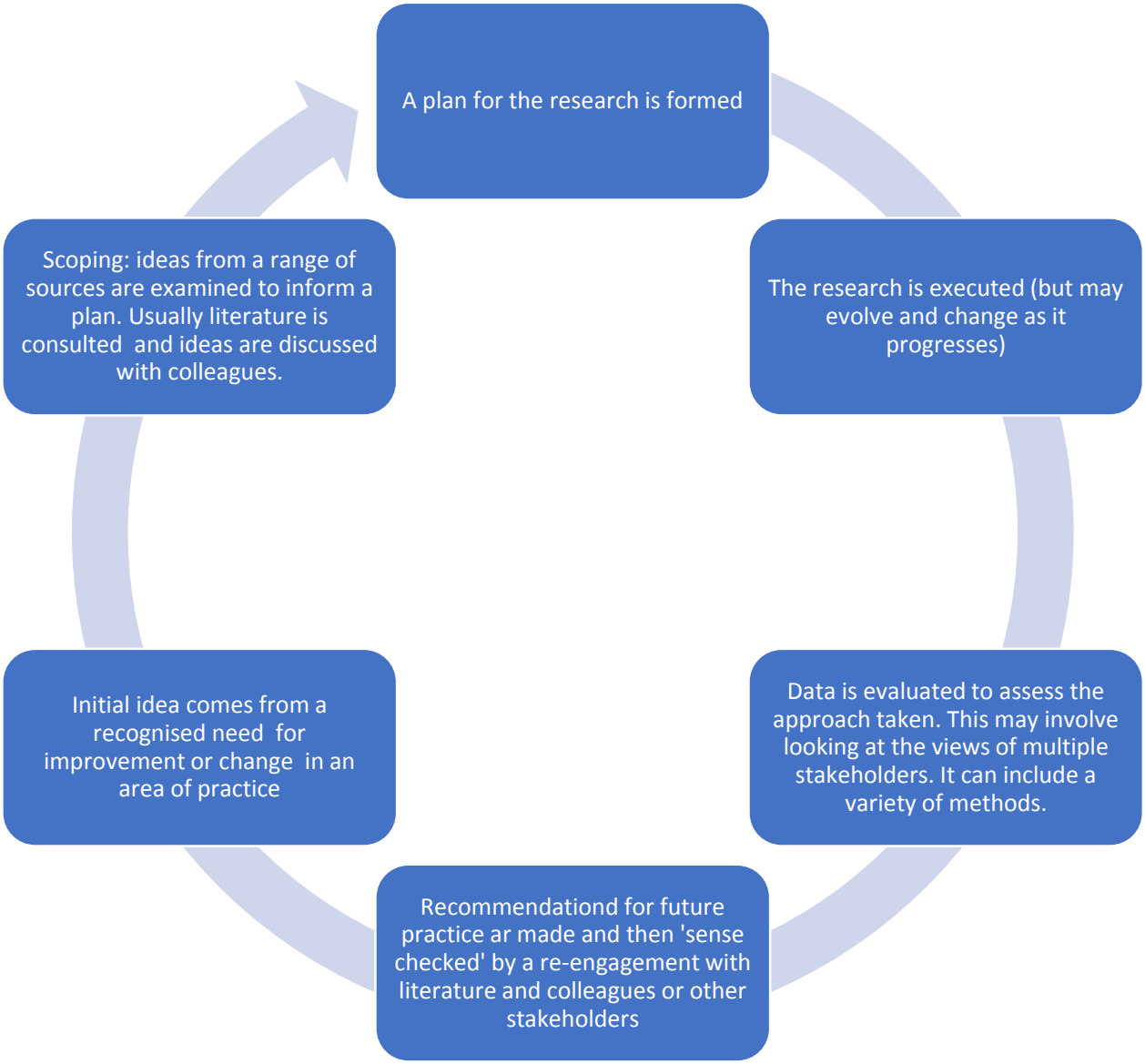
If you have always worked in natural sciences, or are someone who normally works with a naturalistic epistemology, which deals with facts and is used to discovering whether something is 'right or wrong' or whether an intervention 'does this or that' this may all feel very strange. That is perfectly normal and one of your challenges in using action research will be to adopt the mind-set of an action researcher. To be clear though, you don't have to disregard all your beliefs about research; for the purposes of action research you may need to just swap your methodological jacket.

Action research is undertaken through your practice. It is about your own practice. It should have benefit you, your academic community and other key stakeholders, including students. Before you move of reflect on what this means for you.

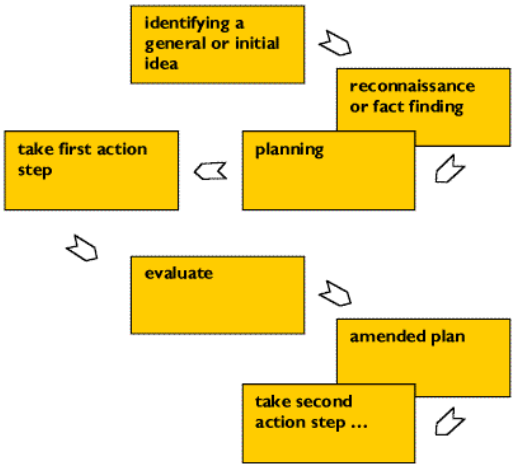
Action research is often small scale; you can only affect change within your own remit, so as a lecturer forming a project to change academic workload allocation is unlikely to be successful, whereas a project that focuses on the use of multimedia in the classroom is likely to be more manageable.

Action research follows a pattern, or cycle, which always involves planning, then making a change and then reviewing the situation to generate learning. There are many models of action research that break these key phases down in to smaller steps. You will notice great similarity between action research models and models of reflection, this is because both activities are part of a family of approaches to developing practice. Compared to reflective practice, action research is more thoroughly planned, more formal, is likely to

have an audience and is probably undertaken less frequently. Unlike reflection, it involves data collection.



Lewin's Model of Action Research



Kurt Lewin's model of action research is very clear with distinct steps. It usefully includes a reconnaissance stage which can be undertaken before a plan is created. This can include gathering information about a student group's marks or other data, reading literature on what the wider sector is doing in your area of interest and discussing and engaging with colleagues and peers.

(Source: Smith, 2001)

An example of Lewin's cycle in use: [**Initial idea**] I identified that my feedback was in need of some development. It was taking me a long time and my students were clearly not responding to it in subsequent work. [**Reconnaissance**] I spoke to colleagues who suggested I may do more formative and less summative feedback for the comments to have maximum impact, and I spoke to the students who said they needed the feedback more quickly. I read widely on practitioner studies about improved feedback and was influenced by the work of Russell Standard who was using audio-visual approaches. I discussed my emerging ideas and created a plan of how I could adapt the type of feedback I was delivering. [**Plan**] I decided to give more formative and less summative feedback, but to use a screen capture software to encourage students to engage with the media. I would try this with all of my first year students and then survey them to assess their experience. At the same time it needed to work for me so I kept notes in a learning journal to monitor my own experience. [**First step**] The action was implemented in a live environment over four weeks. The survey was then released. [**Evaluate**] Students liked the media and said they found it helpful. I created a detailed summary of feedback but for students the approach was appreciated and used to inform changes to work. From my own point of view the approach worked well but I have recorded many nuanced technical pieces of advice to help with workflow. The feedback suggested that some students (a minority) preferred written feedback. [**Amended plan**] To respond to the feedback students will be given a choice in how they receive their feedback in the next cycle. Additionally some workflow changes will ensure the activity is sustainable.

When you plan your research it may be very helpful to sketch your ideas using the boxes of this model. Do be warned though, that your research is unlikely to stay in neat boxes and you may develop spin off lines of inquiry. Managing this task will demand your conscious attention and continued review.

Can you give me some examples of titles of action research projects?

It is sometimes hard to imagine possible projects without seeing the ideas of others, so here are some *possible projects* which cover a wide variety of themes in higher education practice:

- Developing video field trips to enable engagement with industry case studies
- Using QR codes around the campus to promote learning in-situ
- Using mixed media approaches to assist international students with threshold concepts in food quality management
- Using online learning objects to promote health and safety in the laboratory
- What are the benefits of having *students as teachers* in laboratory scenarios?
- How can library staff support students to engage critically with academic sources?
- A project to engage students with their feedback
- Developing facilitation and clean questioning techniques within a laboratory setting
- Working across continents: Developing approaches to foster cultural understanding within the context of international higher education partnerships
- Using head cameras to extend the learning from practical engineering exercises
- Using tablets to facilitate feedback on practical tasks in the outdoor environment
- Using music to initiate discussion in an agricultural programme
- How can revisions to schemes of work assist with student transitions in to higher education?
- I can't get them to summarise! Supporting students in academic writing
- Making my teaching more inclusive: A self-audit and review study in to how teaching in a veterinary context can be made more inclusive
- Developing interactive electronic workbooks to enhance student record keeping and reflective practice in a professional veterinary programme
- Flipped classroom: Evaluating a flipped classroom pedagogy in the context of a first year business module
- Frequently asked questions: Developing a video bank as a revision tool
- How can I promote critical thinking amongst my final year students?
- Lecture capture: Do they really want to see it again? An action research study assessing the student perspective of lecture capture technology
- Promoting good academic writing through the use of peer review
- Using quizzes after each lecture to consolidate understanding
- Developing efficiencies in my approach to student assessment feedback

Why is action research useful to my practice?

Action research is useful in the following ways:

- It can help you to learn more about a practice-based topic such as interactive teaching methods or assessment rubrics, teaching through technology or learning through the physical campus.
- It can help you to engage with others better. It gives us space to listen to those around us and find out what their perspectives really are. Dadd's talked about research as potentially having empathetic validity which is "the potential of the research in its processes and outcomes to transform the emotional dispositions of people towards each other, such that more positive feelings are created between them in the form of greater empathy" (2008, p208).
- It can help you to learn more about research methods and have a wider range of methods that we can draw on in future.
- It can help you familiar with a popular research approach in higher education practice; in turn this can make some of the literature easier to engage with.
- It can make a real difference to practice by enabling changes that improve the student experience and other aspects of practice.
- It can provide space for us to think deeply about issues that affect us. It is sometimes difficult to make this space in the run of practice;
- It can help you to consider your beliefs and values e.g. about technology's place in the classroom, about your feelings towards inclusive practice or about the role of a teacher.

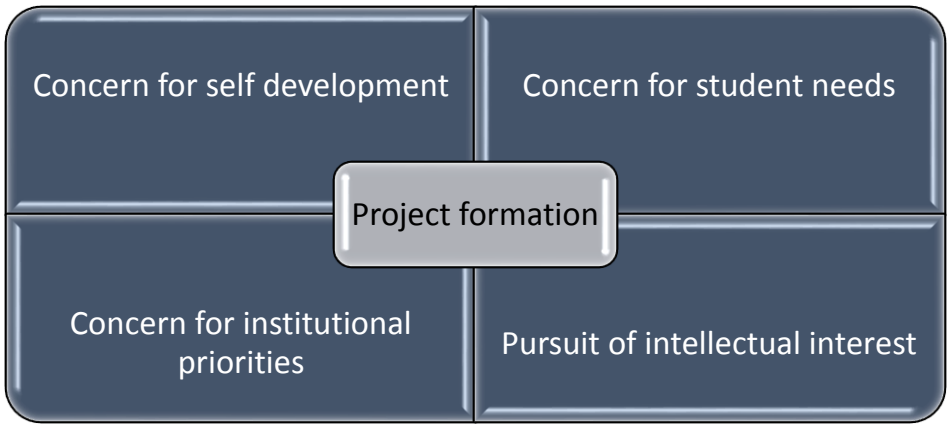
  This last point in the list is very important. To develop as professionals it is important to continually review beliefs and assumptions. This is to keep pace with a fast changing sector and to account for new knowledge emerging through research. It's hard to imagine what this means without an example:

  - "Through an action research project about group work in my module I concluded that some techniques worked better than others and that the room lay out and marking criteria all influenced success. This is all useful knowledge. What surprised me the most though was through this project I became uncomfortable with how I had previously taught; not just the group in the project but all groups that I work with. It was like a penny dropping. I realised that I was working in a comfort zone where I was talking and students were listening. This project has done more than come up with ideas for organising group work it has challenged me to consider a shift in my teaching from being a 'sage on the stage' to becoming more of 'a guide by the side'. I didn't plan to feel like this but I sense I need to address this throughout my teaching. I will start by researching team based learning".

Here, the individual comes to challenge his or her own beliefs about what it is to be a teacher. Not all action research will result in such big realisations, but the approach should cause us to question how we work and practice. Part of the action researcher's mind-set should be to look at underlying beliefs.

How do I choose an action research project?

An action research project should be the product of at least four areas of concern.



You should ask questions of yourself in each of these four areas to locate possible areas of research, for example:

1. What issues are affecting my students' success or experience? What issues arise from student feedback? What areas of student performance are of most concern?
2. After reflection or systematic self-review, what are my personal development needs? What areas within the UK Professional Standards Framework do I need to focus upon? What development areas fit with my career aspirations e.g. curriculum design or teaching online?
3. What are the challenges that face the institution or department? How could my research contribute to these?
4. What areas of practice do I find inherently interesting?

There may be some divergence in your thinking – what you find interesting may not relate to the issues that are challenging your students. Sometimes compromise may be needed to bring together needs and interests to form a project.

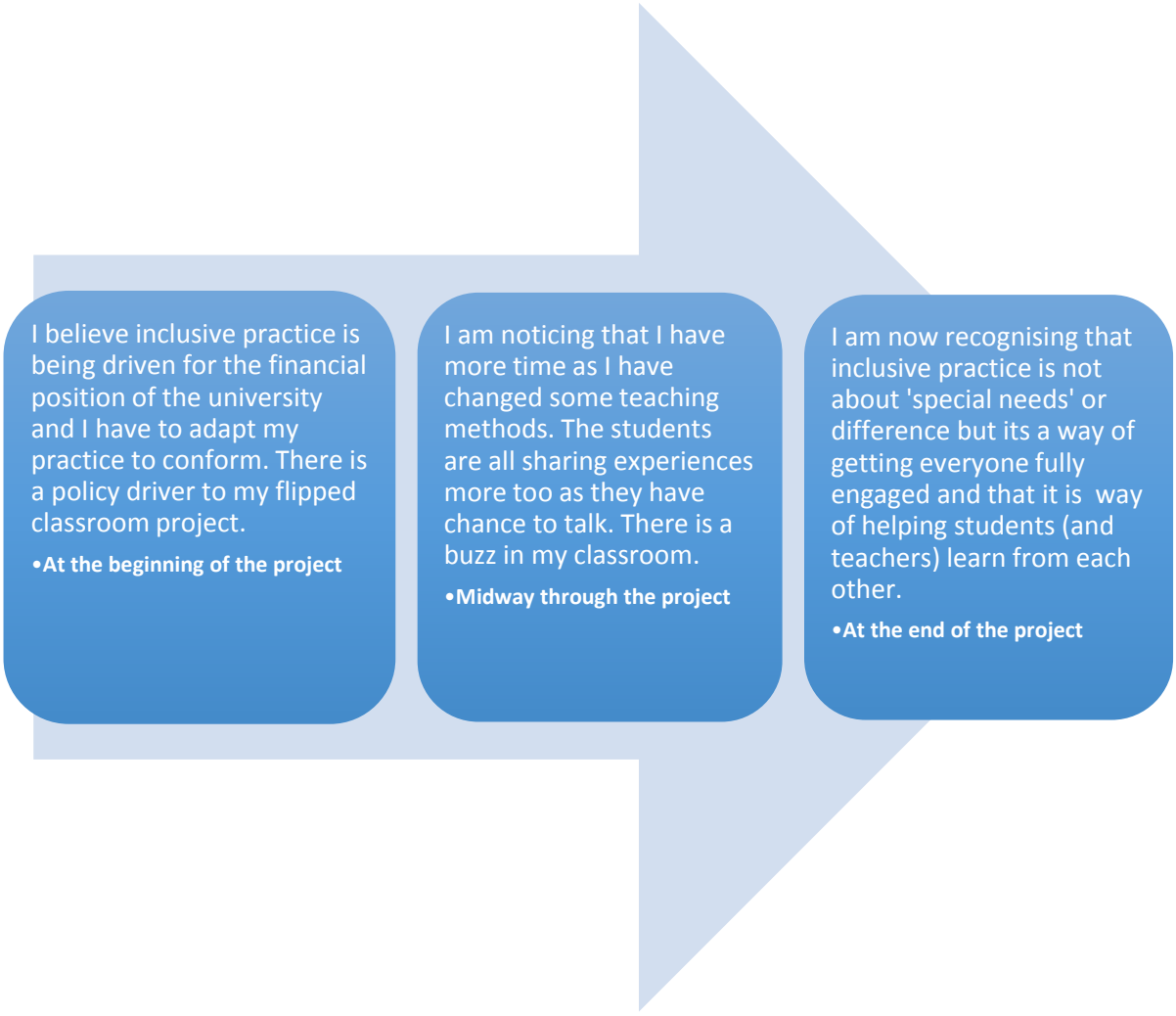
Do note that action research can be about challenging the status quo; while it is important to consider institutional needs in your action research you should be conscious of your research's potential role in challenging existing practices.

What is the role of 'values' in action research?

All action research should be aligned with the researchers own values. This means that you should select a project that allows you to progress practice and understanding in areas that are important to you and which you believe in refining.

Action researchers often suggest that inquiry should be 'value driven' and that values should be the starting point for project formation. While this is the ideal, there is also a need to be practical and manage multiple interests in your research. Values alignment should be a key consideration amongst others.

For projects in higher education the UK Professional Standards Framework provides a reference point for thinking about values. You can ask what do I believe about, for example, ensuring the needs of diverse learners are met? Once you have made your values explicit you can return to your review and add and amend your thoughts as you go through your project. By example an individual changing his teaching practice to embrace inclusive methods undergoes a transition:



What is the role of literature in action research?

Using literature in action research is very important to:

- Help you understand how others have addressed the issue
- Help you understand what actions may be available to you
- Give information about research design
- Help you identify whether your research may be useful to others in the sector
- Give you a frame of reference for your data analysis and findings

All of these steps are important to take your work beyond thoughtful action. Literature should be used in the reconnaissance stage of your research and in the discussion of your findings. It may be useful for you to look how other action researchers have used literature, before you begin your search.

What is the role of data?

Data collection in your action research should enable you to assess the effectiveness of your intervention. Be clear though, **data should not try to prove that you intervention was effective**. Instead it should help you evaluate what worked well and what less so. This is an important distinction.

- If I tried to implement the use of tablets in workshop classes as a way of promoting motivation, I could collect data to show that I have motivated students. As a consequence I might repeat this action in future. However I learn little along the way. A more granular approach to data collection could lead me to understand when tablets are best used, whether they are best used in group work or for revision of key concepts, whether some students feel disadvantaged by this approach or if instead, all students benefit, and whether some find it distracting. The first approach seeks to prove and the second seeks to understand. It is the second approach that is most beneficial to move on our practice.

Typically the types of data associated with action research include: semi-structured interviews, observations, reflections on your own practice, focus groups, informal interviews, questionnaires and artefacts (such as student assessment work or forum posts).

What is the role of analysis?

Analysis helps us to understand our action and the approach taken depends on both the type data that you are using and the research questions that you have. At a simple level you can seek meaning and key points from student experience, you can do this through deep reading of data or more systematically through coding approaches. You can use quantitative survey data but beware of adopting a positivist approach which might lead you to think about proving the effectiveness of your action; remember that your data should help you understand.

What are the ethical issues in action research?

Ethical approval will be needed before commencing action research, but in addition to the formal ethical approvals process you are strongly encouraged to give on-going thought to ethical dilemmas that arise. In action research you are likely to be immersed in an area of practice, you will have some urgency to complete your project and you will have professional commitments too. Managing these different positions can be tricky. You won't be able to account for all the dilemmas that you will face. It is perhaps more important that you keep an ethical mind-set and that you remain sensitive to any matters arising which require reflection and resolution.

If you are new to the social sciences you may have to be especially vigilant as ethical challenges can be hidden amongst the milieu of activity. They may be about power (e.g. am I using my power as a lecturer to get participation in this research and is that OK? Is there really an option for students to feel they can opt out?). They may be about relationships and data boundaries (this interesting snippet was said in the coffee room, it is invaluable to my research but including it feels like a breach of trust; what do I do?). They may be about time issues (how can I get student feedback when I know they are busy revising, I feel like this is an unnecessary pressure in students?), they may be about a clash between your roles (my line manager says I should work this way, but my research and literature is leading me somewhere else?). There are no rules for these situations but some broad principles will help you find a way through:

- Make time to routinely consider the tensions and dilemmas in your research.
- Data should not be gathered at any cost. It's OK to report back that some data was not available if it is inappropriate to access this.
- Involve others in your research.
- Institutional data that is not already in the public domain should not be used without written permission.
- Talk to others. Engage your peer group, learning set, supervisor, tutor, colleague, mentor and student participants to self-moderate your decisions.
- Be flexible in your design. If ethical dilemmas cause your project to evolve, that is fine! This can be a sign of your developing reflexivity. By example:

➢ An action research project to improve the feedback within my team was undertaken. After a while it offered to me that I was trying to change colleagues practice before I understood it. This sat uncomfortably. Two lessons thereafter shaped my research. I) Action research should start with my own practice before I attempt to influence others II) Action research requires that we understand issues before launching in to change. Therefore my project changed from being about changing feedback practice to understanding feedback practice. My action was to collate examples of

practice and understand the rationale for each approach. This created a useful resource and learning about feedback. It also meant that I was not being prescriptive in my approach, I was encouraging collaboration about good practice and finding good practice to share. This emerging research was the result of a realisation about the nature of my original project. I listened to my emotional warning signs that something wasn't right with the original design.

In terms of planning it is important that you anticipate the need to let your project evolve, so leave spare weeks in your design for this purpose. You should also plan time to continually discuss your project with critical friends. Within your discussions keep ethical issues on the list of issues to consider.

How big should my project be?

Manageable… It should be manageable.

While this may seem obvious it is easily forgotten. If you are undertaking research for a formal programme it is highly likely that it is at least as important to show learning from your research as it is to produce data and conclusions. If you fill your research plan with too many actions and too much data collection you will afford yourself little time to reflect on what is happening and little flexibility to amend the research as new insights emerge.

Remember a lot of data can be gathered from one action. Consider how much data you need before you collect it. If for example, you are trying out a new teaching technique in class you may focus on student experience over four weeks of implementation. Of course this will give different data than collecting achievement data over two terms, but nevertheless you can still take a lot of learning from research of this size.

You might build in time for several cycles of action research, allowing you to amend your action in light of early feedback. Returning to the example just given, this may translate to a two week implementation, two weeks to review the data and re-plan, and then another two week implementation of a revised approach. The size of your action and scale of your data collection should be considered pragmatically.

Have you any tips for my project?

I wished that I had realised the success of action research was not only measured by the effectiveness of the changes made to practice, but by the learning along the way and the unanticipated benefits. If I knew this at the beginning I would have spent less time trying to treat my project as a scientific experiment and more time trusting that learning would happen.

However long you think each stage will take – add 30% for unanticipated difficulties!

Talk to each other. If you work alone you will not maximise the benefits of reflection and you will not be able to find different possible ways through the problems of your project.

Don't start a project at the bequest of your line manager – you must negotiate different considerations.

Keep a learning journal. It sounds like hassle but it will help you when you come to write up your project.

Be prepared to deviate from your plan. This is the nature of emergent research. Deviations should be expected and show reflexivity in action – that is a good thing!

Keep student need at the centre. Simple.

I wished that I had collected less data. My project turned in to a dissertation and that should never of happened. I ended up thinking more data = better more valid findings, but this was just not true.

Don't try to change other people – this is not a strategic change project. Focus on your own practice and your own remit; focus on things that you can control.

When things go wrong try to avoid 'blame'. Action research asks what we can change. Blaming others when things go wrong usually reflects that we have not taken full account of the situation.

What is a reflexive mind-set?

Action researchers need to develop a reflexive mind-set. Reflexive practice means looking at your own thinking and decision making and asking questions. It means thinking about how you see issues and situations, and not just about the issue or situation itself. By example:

- I might consider that my students are not performing well in a module, I reflect and identify that the cause is their lack of commitment to the course. If I stand back from this I can see that I am looking at the students themselves as the main cause of the problem. If I think more deeply I can see that I am not looking at my own actions, the course design or the learning and teaching strategy. I have made a realisation that my thinking tends to 'blame' students when things don't work out and this limits the range of actions available to me. In the context of action research the two thought processes, the surface level thinking and the deeper reflexive thinking, may yield totally different projects. To 'fix' student motivation is entirely different than addressing the course design or the learning activities.

Pollner (1991) defined reflexivity as "an 'unsettling,' i.e., an insecurity regarding the basic assumptions, discourse and practices used in describing reality" (p. 370). It is important that as action researchers we unsettle our own views about practice. Reflexive practitioners keep their approaches, beliefs and ways of seeing the practice landscape under review. This is something more than keeping practice under review.

What does reliability mean in the context of action research?

Your research should be concerned with trustworthiness. You should ensure that the views and perspectives gathered, as part of your research is true and honest. Inevitably you will need to interpret data and information, but you should seek to do this in a way that represents the perspectives concerned. Reliability in an action research setting is associated with trustworthiness.

Is generalisability important?

Action research is about developing your practice in your context. On this basis it is not important to create generalizable rules. Often action research is so specific that there is no basis for generalisation. Nevertheless it is likely that by being explicit about what has worked for you in your context will resonate with other practitioners. In this way action research makes the implicit, explicit. By conducting and sharing action research you will be able to assist others. Through sharing your research and seeking feedback you will be able too appreciate which aspects of your work resonate and which do not.

How do I present my research?

Your action research project can be presented in many different formats; you may produce a conventional report, a presentation or an interactive resource. Some points to think about in your research are offered below:

- Consider how you will present the major elements of the report (literature, methodology, findings etc.) and how you will present the reflexive elements.
- You could produce a conventional report with additional 'think boxes' for the reflexive commentary. This is a particularly useful approach for anyone who struggles to work with a reflective voice in formal reporting, it allows the research and the reflexion to co-exist but to be managed and represented with different tones.
- You could produce a hyperlinked document where your report links to aspects of narrative about the thought process involved in your report.
- You could present your research as a timeline such that the reflexive element unfolds as part of a story; conceiving the action research report as story allows it to have its own trajectory instead of being constrained by traditional report sections.
- Consider the value in representing your research publically, or at least amongst colleagues. Don't just consider the written word. Sharing in short webcasts or presentations can be highly valuable and allow you to get feedback on the resonance of your research with the experiences of others.

➢ Don't be restricted by these suggestions. Reflect on the process of reporting your research and consider: What is the most effective way of representing your research journey?

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