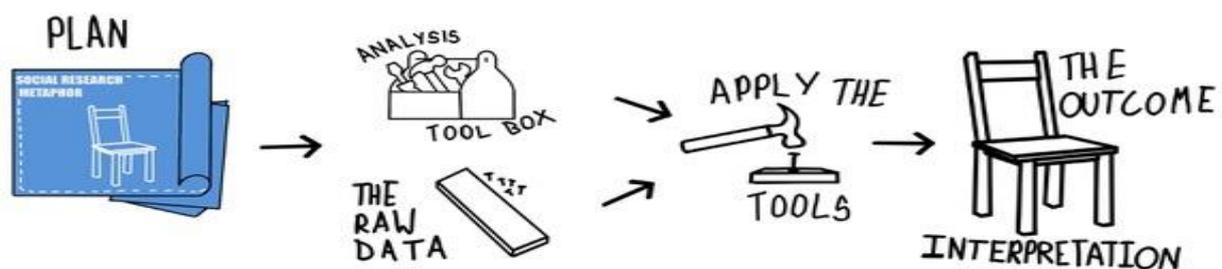


The social research toolbox: Introducing the research process and bridging the quantitative/qualitative divide

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The visual analogy

The Social Research Toolbox is a visual analogy that compares the research process to the stages a carpenter goes through when building furniture to sell. It sparks 'aha' lightbulb moments for two key elements of methods learning. First, it introduces students to the stages of the research process. Second, it helps breach the quantitative/qualitative divide by emphasising that these stages remain regardless of the methods employed, with the key skill being understanding the strengths and weakness of different methods (tools). These two elements are relevant at different points in a student's learning journey, making the analogy valuable across a

range of levels. In this piece, I outline how I apply this analogy in my teaching to support both these aspects of methods learning.

The research stages

Identifying and understanding the stages of the research process and how they interconnect is a fundamental skill for social science students. At its most basic this helps students critically analyse previous research by learning to locate key information within the literature reviews, methodologies, findings, and discussion sections of research papers (Ferrie et al., 2022). The Social Research Toolbox not only highlights these stages but emphasises their function, fostering a practical grasp of the research process.

Here I summarise the four core elements of the analogy and how I discuss them in my teaching. In this example I outline research stages the stages when a researcher already has secondary data available to them, however the Toolbox can also be applied to discuss data production processes by changing from analytical tools (e.g. hammer = regression model) to data production tools (e.g. chainsaw = online survey).

Initial planning: Literature review

This stage is represented by a blueprint. The emphasis here is on engaging with existing knowledge to inform the approach. Students learn that just as a carpenter consults a design before building, researchers must review literature to shape their research direction.

Identification of appropriate tools: Method & Methodology

At the second stage, analytical tools such as regression models or discourse analysis are linked to different instruments in a carpenter's toolbox, each with its own strengths and limitations. Alongside an understanding of the tools themselves, what informs the choice of tools is the raw materials(data) being utilised. At this stage I provide examples of the issues that occur when you use an inadequate tool for a job. For example, I might compare using sandpaper to insert a nail in wood to using thematic analysis to analyse large scale census data. The issue isn't the value of the tools themselves, but their appropriateness for the task.

At its most basic this stage is an opportunity to indicate to students the links between different types of data and different methods for data production and analysis. However, it can also be utilised to highlight broader methodological considerations. It can draw students' attention not

only to their choice of method but other choices they make during research, promoting reflexive practices and transparency surrounding these choices. One of my core goals when introducing students to social research methods is to steer them away from the idea that the task of researchers is to find the one 'right' way to research a topic. This is prompted by students asking if a topic is quantitative or qualitative, as if some elements of the social world can only be understood in quantifiable or summative terms. I want students to consider the multitudes of useful choices they could make as researchers and how to share and take ownership of their decision-making process.

Applying the Tools: Analysis

The application stage is the point where the chair is manufactured (the analysis conducted). This is the point where technical skills are important. Here I stress to students that although planning occurs in the earlier stages, during analysis (or fieldwork) new issues or opportunities may be revealed, requiring a return to the blueprint for further planning.

Communicating what has been built: Dissemination

In the analogy, the chair is built to be sold, which helps students understand the importance of the audience. This stage emphasises the need to clearly summarise findings and tailor communication to different audiences. This can help students consider the real-world implications of research providing a beneficial contextualisation to their learning (Lewthwaite and Nind, 2016).

The quantitative/qualitative divide

A major challenge in methods training is the quantitative/qualitative divide. By this I mean the dominance of qualitative methods in social research training and apprehension students experience surrounding numeracy and by extension quantitative methods (Payne, 2014). However, the Toolbox could also be applied to address the reverse with its strengths laid in the communicating the shared traits across quantitative and qualitative methods and the value of a diverse methods skillset. Addressing the imbalance of traits all research share and the value of a diverse methods skillset. Addressing the divide can have a range of benefits for students. For example, advanced quantitative methods training has been associated with increased employability (Rosemberg et al., 2022). Beyond this having quantitative methods skills expands the tools students have at their disposal, which is a key message I share in my teaching.

However, I don't promote a diverse skillset simply due to a recognition of the benefits quantitative methods skills can bring (although I have first-hand experience of these). Working from a queer feminist perspective I hold many criticisms of quantitative methods, which may lead some researchers not to adopt them (Browne, 2008; Oakley, 2015). To make an informed choice on this, rather than one out of necessity, researchers must be informed on both quantitative and qualitative methods and be able to critically engage with a vast array of research. The Toolbox can help with this in the following ways:

Addressing anxiety

When students feel less at ease with either quantitative or qualitative methods to the extent where they don't know where to start with the other one of them, I find highlighting the similarities between both approaches useful. This is partly informed by pedagogical shifts towards breaking down quantitative/qualitative divides by teaching them together in general methods courses (Onwuegbuzie and Leech, 2005). I see limitations in fully adopting this approach due to the time required to teach any one method of data production or analysis in adequate depth. However, there is merit in moving away from the adversarial presentation of qualitative and quantitative methods. The Social Research Toolbox can be helpful in doing this. This is where the overview of the social research process highlighted in the previous section can be useful. Using the Toolbox I can highlight that all research regardless of the methods employed requires these stages.

Promoting critical engagement skills

By emphasising the purpose of each research stage, students develop the ability to identify key information in research papers—even when unfamiliar with the method used. When discussing methodology, I highlight the considerations researchers make based on the type of data they work with, helping students understand the rationale behind methodological choices. As stated previously the critical insight I hope to foster in students is not one searching for a single 'objectively right' approach to research. Rather I want students to be able to consider the various choices researchers made, how well they were communicated and if the risks and benefits of each choice were well balanced.

Promoting flexibility

Understanding the decision-making process behind tool selection shows students that greater methodological knowledge leads to increased flexibility in their own research. This can motivate them to engage with methods they previously found intimidating.

Conclusion

The Social Research Toolbox offers a versatile and accessible analogy for teaching research methods. It supports students in understanding the research process and navigating methodological choices, while also helping to bridge the quantitative/qualitative divide. Its adaptability makes it a valuable resource across different levels of study.

Going forward I aim to continue to develop the Social Research Toolbox analogy and combine it with other useful visual teaching tools such as Ferrie and Spreckelsen's (2023) dirty greenhouse. The Toolbox prompts students to ask: If the task of the social researcher is to uncover more of the social world (clean the dirty greenhouse) then what impact does the different methods (tools) we use have on our understanding of it.

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