

Sparking integrative thinking across methodological boundaries: Building connect in a mixed methods ‘masterclass’



Rebecca Johnson, University of Warwick

Introduction

This two-day, intensive, workshop-style masterclass is designed to support postgraduate health science students in developing confidence and creativity in mixed methods research. By combining technical knowledge, narrative framing, and applied practice, the program aims to break down perceived boundaries between methodological traditions and foster integrative thinking. The ultimate goal is to enable students to connect more deeply with their scientific enquiry and to design studies that align meaningfully with their research purpose.

Teaching philosophy: Connecting enquiry and design

My teaching philosophy is grounded in the belief that genuine learning emerges when students are encouraged to connect with their motivation to discover. In the postgraduate classroom, my aim is to spark ‘aha’ moments through *connection*—between students and their curiosity, between their research questions and methodological tools, and between theory and practice.

Rather than positioning students as passive recipients of knowledge, I engage with them as researchers. I want them to see that the purpose of their scientific enquiry is not separate from their study design but fundamentally linked to it. When students begin to approach mixed methods research with curiosity, experimentation, and openness, they realise they are not confined by rigid methodological doctrines. Instead, they can view qualitative and quantitative approaches as complementary—like a well-considered wine and cheese pairing—rather than mutually exclusive.

Part of the role of a researcher is to become more attuned to the purpose of their enquiry. This awareness often develops through methodological exploration. I encourage students to

embrace the unknown, reminding them that uncertainty is a natural and productive part of research. By navigating methods, they simultaneously navigate their purpose more deeply. However, I also recognise the pressures students often feel in the classroom: the desire to ensure they 'get it right' and fear around not deviating from established methodological boundaries. Methodological tension is frequently experienced as a divide between qualitative and quantitative philosophies, particularly around what determines quality. To address this, I combine technical instruction with a narrative of purposeful enquiry, helping students see methodological choices not as rules to obey, but as tools for advancing their scientific questions.

Core elements of the masterclass

The workshop is structured around three interwoven elements:

1. **Technical Foundations of Mixed Methods** – Developing knowledge of designs, sampling, data collection, analysis, and integration.
2. **Narrative of Purpose** – Anchoring methodological decisions in the deeper 'why' of scientific enquiry.
3. **Applied Practice and Connection** – Linking theory and purpose through active learning, peer collaboration, and reflective exercises.

This structure encourages students to use mixed methods not just as a technical framework but as a lens for deepening their enquiry, uncovering insights that may otherwise remain hidden.

Classroom approach: Learn, apply, reflect, consolidate

Each session follows a consistent rhythm: **learn, apply, reflect, and consolidate**. Students transition from lecture input to applied practice, then to small-group discussion and reflection, before consolidating learning in a large group.

- **Day 1** introduces the rationale for mixed methods, basic design structures, and principles of sampling and data collection.
- **Day 2** focuses on analysis and integration, including the distinction between summary and synthesis. Students then apply this learning to construct and refine their own mixed methods study designs.

To make methodological thinking visible, students are asked to **draw their designs** at each stage. Equipped with paper and markers, they sketch how their enquiry and methods connect, adding detail after each session. This iterative process helps them identify gaps, test alternatives, and build confidence in their decisions and they do this independently as well as with small group peers.

Encouraging playfulness and experimentation

While some students initially hesitate to draw their designs, I encourage them to embrace playfulness and experimentation. Even those reluctant to visualise their ideas benefit when nudged to start with a single box or step. I model the process by sketching alongside them or by drawing on their behalf as they articulate their design. This often surfaces the true challenge: articulating their uncertainty and decision-making process.

By sharing their designs within small groups, students engage in collective problem-solving. They reflect, modify, and justify their choices, gaining valuable feedback from peers. Challenge questions—such as ‘If you approached this problem using an alternative method, what would change, and why?’—encourage critical reflection and methodological justification. These exercises strengthen students’ ability to defend their design choices while also exploring reasonable alternatives. Equally, the alternatives consideration provides a way to strengthen their confidence in their design decision.

In some cases, students discover that mixed methods is not the most appropriate design for their research. Rather than being discouraged, this realisation reinforces their confidence, as it arises from a deliberate and informed consideration of alternatives. This process alleviates ‘decision paralysis’ and demonstrates that there is rarely a single ‘right’ way to design a study—only more or less appropriate choices given the research purpose.

Outcomes and student reception

The approach to this masterclass is designed not only to impart technical knowledge but also to build confidence and integrative thinking – to spark those moments in mixed methods education. By the end of the two days, each student has developed a mixed methods study design that has been scrutinised, justified, and refined through peer feedback and reflection.

More importantly, they have strengthened the connection between their methodological decisions and the purpose of their enquiry.

Student reception has been overwhelmingly positive. Many enjoy the applied, hands-on approach and the creativity involved in drawing their designs. The opportunity to reflect with peers and to explore different methodological options often leads to significant breakthroughs.

For some students, readiness to draw and visualise their ideas is harder to achieve. These learners sometimes hesitate or feel reluctant, but with gentle encouragement—such as beginning with a single element or experimenting with different layouts—they are able to gain confidence. In articulating their choices, verbally or visually, they confront the underlying uncertainty that often holds them back. This process of ‘giving voice’ to their methodological challenges frequently leads to their own lightbulb moments.

Conclusion

This masterclass is not about teaching a single correct way to conduct mixed methods research. Instead, it is about **fostering integrative thinking across methodological boundaries** and helping students connect more deeply with their research purpose. By weaving together technical instruction, narrative framing, and applied practice, the approach supports learners in developing methodological flexibility, critical reflection, and creative confidence.

Ultimately, the goal is to cultivate researchers who see beyond the dichotomy of qualitative and quantitative, and who instead embrace mixed methods as a powerful means of enquiry—one that allows them to ask deeper questions, discover new insights, and strengthen the link between their purpose and their design.