Reflective Essay

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Introduction

This reflection recounts my learning across the Research Methods and Professional Practice module. Practically, I completed the three summative assessments (a literature review, a research proposal presentation and a reflective piece) but did not complete the non-assessed activities because of competing demands at work and at home. I consider what I learned about research design, quantitative reasoning, research writing, and ethics; I then outline concrete changes to my study habits and professional practice. Going into this module, I assumed "research methods" would be mostly abstract. It turned out to be very practical.

Through introspection, strengths included a clear topic, set research questions, and good background, while areas to improve were breadth of academic sources, synthesis, and a tighter methodology story. That aligns uncomfortably well with the research-writing guidance on the reading list: a literature review should be "an organized synthesis that frames questions and gaps," and research reports should be structured deliberately (Dawson, 2015; Farquhar, 2012; Wilson, 2022).

What I actually did

I focused my literature review on a computing topic relevant to my professional work and then built a concise research proposal from it. The proposal articulated aims, questions, and a methods outline, but the "how the pieces fit" part was underdeveloped, exactly the kind of conceptual knitting Saunders et al. (2019) stress when they discuss ontological and epistemological assumptions leading into coherent design choices. I took that criticism seriously: it's not enough to list methods; I need to show how they support each other (Saunders et al., 2019).

I did not complete the statistics worksheets, data-visualization exercises, or reflective e-portfolio postings, even though the unit overviews emphasize quantitative skills and honest visualization choices (Berenson et al., 2019; Purdue OWL, 2023; Kosara, n.d.; FT Visual Vocabulary, 2021).

What I learned

Reading Dawson (2015) made me rethink the literature review as a living argument rather than a source dump. Paré (2017) and Wagner et al. (2022) sharpen that by describing

methods for literature reviews which I underused; I relied too much on a few sources and didn't stage the theoretical framework explicitly. Next time, I'll scaffold the review around competing explanations and unresolved gaps (Dawson, 2015; Paré, 2017; Wagner et al., 2022).

The units press for fluency with descriptive and inferential statistics. Revisiting these topics through Berenson et al. (2019) reminded me that decisions should be framed with summaries *and* uncertainty (intervals, tests). Purdue OWL's primer helped me connect sampling logic to hypotheses and error types in plain English (Berenson et al., 2019; Purdue OWL, 2023). I didn't produce the required worksheets, but the takeaway is clear: even simple P50/P90 views and clear charts can raise the quality of stakeholder conversations.

The visual resources on the list—Kosara's "why and how" and the FT Visual Vocabulary—made me more careful about encodings, clutter, and chart-to-question fit (Financial Times Visual Vocabulary, 2021; Kosara, n.d.). Microsoft's dashboard overview pushed me to think in terms of *decision-ready* displays rather than "pretty charts" (Microsoft, n.d.).

Unit 1 readings anchor research ethics in foundational documents. The Belmont Report is the classic baseline; the Menlo literature (and the 2013 companion) translates those ideas for ICT work (Belmont Report, 1979; Bailey et al., 2013; Finn & Shilton, 2023). The BCS Code of Conduct pushes the professionalism angle, integrity, competence, and public interest, relevant to how I handle any colleague-involving inquiry. Concretely, that means consent where people are involved, minimization of identifiers, secure storage, and a real opt-out.

I didn't maintain the evidence trail during the module. That's on me. The Unit 11 readings frame e-portfolios as useful when they're curated and reflective, supporting autonomy, feedback, and employability (Ariningsih et al., 2021; Janssens et al., 2022; Pospíšilová & Rohlíková, 2023). I still buy the idea: make thinking visible, tie artefacts to learning outcomes, and write brief "why it matters/what changed" notes. I just didn't execute this round.

I structured this reflection with a simple "what/so what/now what." That's handy, but alone it can flatten critical depth. To avoid that, I've added a brief "limits & alternatives" section here that surfaces assumptions, disconfirming evidence, and specific repairs (see also the "Short Guide to Reflective Writing"). I'm also tempering my reliance on means or single-point risk estimates; even in business settings, presenting distributional views avoids false certainty (Berenson et al., 2019; "Short Guide to Reflective Writing," n.d.).

Now what

- Rebuild the two missed statistics artefacts. I'll complete one *Summary Measures* worksheet and one *Inference/Charts* worksheet, each with 5–8 sentences of plain-language interpretation and one tidy figure. I'll use guidance from Berenson et al. (2019) and the Purdue OWL page to keep reasoning transparent (Berenson et al., 2019; Purdue OWL, 2023).
- Design before methods. Before picking methods, I'll write a one-page *design note*: research question, assumptions (ontology/epistemology), data needed, and analysis plan, following the logic in Saunders et al. (2019). This forces me to explain how method choices hang together.
- Visualization with intent. I'll adopt the FT Visual Vocabulary as a quick "chart chooser" and add a two-line caption to every figure stating firstly the question and secondly the exact mapping (Kosara, n.d.; Financial Times Visual Vocabulary, 2021).
- Ethics by checklist. For any colleague-facing data collection, I'll apply a five-point checklist: purpose/lawful basis, consent/withdrawal, minimization/anonymity, secure storage/retention, and dissemination boundaries—grounded in Belmont/Menlo and the BCS Code (Belmont Report, 1979; Bailey et al., 2013; Finn & Shilton, 2023).
- Right-size the workload. The reality is that I can't do everything in crunch periods. I'll protect two short weekly blocks for methods practice or reading, and I'll keep a tiny template library, this includes review outline, slide deck, worksheet shell, so I'm never starting from a blank page (Dawson, 2015).
- E-portfolio as "evidence, not everything." I'll curate only high-value artefacts: the two rebuilt worksheets, one or two well-labelled figures, the skills matrix, and this reflection—each with a three-bullet card ("Why it matters / What I learned / What I'll change"), echoing Unit 11's emphasis on purposeful reflection and employability links (Pospíšilová & Rohlíková, 2023; Janssens et al., 2022).

Conclusion

The semester didn't go as planned however I delivered the summative work and missed the formative trail. The core lesson is that research isn't just about being right, it's about making thinking visible, quantifying uncertainty, and acting ethically. With small, repeatable habits, design notes, two practical stats artefacts, intentional visuals, and an ethics checklist, I can meet the module's spirit while staying honest about constraints.

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