Research Methods and Professional Practice – Reflection

https://tbrays.github.io/e-Portfolio/

https://github.com/tbrays/e-Portfolio/tree/Research-Methods-and-Professional-Practice---ePortfolio

The Research Methods and Professional Practice module introduced the principles and processes involved in academic and professional research within computing. It covered research design, ethics, data collection, statistical analysis and professional conduct. This reflection follows the What, So What, What Now format suggested by Rolfe et al. (2001).

What?

This module was sometimes difficult to follow because the units were not clearly linked. Exercises, examples and instructions were spread across Units 6, 7, 8 and 9, which made it harder to see how each part connected. Unit 8 was especially confusing as it contained no deliverables, yet the module instructions said the exercises for Units 8 and 9 were mandatory. Clearer signposting between the units would have made the structure easier to follow.

The statistical exercises were challenging. The module assumed some prior knowledge that was not explained. Concepts such as p-values and descriptive statistics appeared in the wrong order which made them harder to follow. Unit 8 explained terms that were needed for Unit 7. I used a few YouTube tutorials to fill the gaps. The Excel data analysis tool, "Analysis ToolPak," was not installed by default so I had to set that up before starting.

I could not attend the live seminars because they were held during my working hours. I watched the recordings instead but the layout on Moodle was sometimes fragmented and made progress slower. The word compulsory appeared in several places without a clear explanation of what was required.

At the same time my workload at college increased as I had started teaching a new course with a new specification. This made it harder to keep up. I often completed units after their deadlines and missed the chance for feedback on my proposal and

worksheets. Once I understood what was expected I enjoyed the spreadsheet work. It was practical and felt more familiar than the written research tasks.

I found the research parts harder as I prefer applied work. To help me understand the module better, I used a real-world example from my own teaching. I looked at how my students responded to using KnowItAll Ninja and used this to think through the research methods in practice. Connecting the theory to something familiar made the ideas clearer and easier to apply.

So What?

This module taught me the value of structure and clear communication. The confusion between units and limited direction made me more aware of how I approach new material. This experience improved my ability to interpret unclear guidance and identify what information was essential. It also helped me see how poor structure can affect learning which is something I now think about in my own teaching.

The lack of explanation in the statistics section encouraged me to find my own solutions. Searching for external resources gave me a stronger understanding of the ideas than if I had followed only the module notes. This experience reflects Petty's (2014) view that effective learning comes from taking responsibility for personal progress.

Missing seminars and feedback showed how important interaction is. Without it I had to test my own understanding which forced me to think more critically. I became more confident in judging whether my answers were reasonable rather than waiting for confirmation. I do wish I had been able to attend the live seminars and complete the work on time so I could have received proper feedback. I think this would have helped me understand some of the tasks earlier and improved the quality of my work. Regular attendance and participation are important parts of learning because they provide opportunities to ask questions, share ideas and build understanding through discussion. Kolb (2015) notes that learning is most effective when learners actively engage and reflect on their experiences.

Reading about data protection and informed consent helped me understand that ethics is not a one-time task but an ongoing responsibility. BERA (2018) highlights

that ethical reflection should continue throughout all stages of research, which matches my own learning.

Producing the research proposal and presentation combined academic writing with practical communication. This balance is useful in teaching where complex information must be presented clearly. Working on the presentation also developed my skills with OBS and DaVinci Resolve which I now use to create progress videos with my students. These are practical results that have already improved my professional work.

Overall this module helped me see that research is not only about theory. It provides the tools to analyse problems, test ideas and improve professional standards.

What Now?

In future modules I will start with a clear plan. I will read all materials early, note assessment requirements and set small milestones. I have said this before but not managed to follow it consistently. To change that, I will set fixed times each week for study and treat them as appointments rather than flexible tasks. This should help me manage deadlines more effectively even when work is busy.

For my dissertation I will use what I have learned about research design and planning. Bell and Waters (2018) explain that defining a focused but achievable research question is key to managing scope and producing useful findings, which I plan to apply in my own project.

I intend to continue improving my understanding of statistics. I will practise with example data sets and study inferential tests such as t-tests and F-tests. I do not expect to use these often in my everyday work, but they may be useful when analysing data for my dissertation.

In my teaching I will apply the principles of ethical and evidence-based practice. I will encourage students to question information sources and understand how research supports learning.

In future I will approach modules with a positive attitude. This module showed that even areas I find less practical can still offer useful insight when I stay involved and apply the learning to real situations. It reminded me that progress often comes from adapting when things do not go as planned.

References

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