

A. Personal Reflection

This semester I have worked on my M1.2 research project. I was very excited to conduct my first real research, and I am proud to say that I managed to finish a full long-term study, reached my learning goals and feel like I've grown a lot as a researcher.

My main goal for this project was to get the most out of it in terms of learning about how to set up a research project, research methodology and analyzing results. For that, I created a research proposal based on literature in the first few weeks. This greatly helped me to quickly kick start the project and not get stuck in a brainstorming phase, so it is something I will definitely do in future projects. However, I did not really update my research proposal and literature research further in the process. This caused some difficulties when I started working on my paper and final presentation, as the research had obviously deviated from the original literature and motivation. Parts of the old text were still fitting to the final result, but other parts were not, and combining the old literature research with new and appropriate references to make a round story was quite hard. Also, while I had gathered quite a lot of literature on the way, I had never really taken the time to properly read it and write down some insights. In future projects I will definitely try to keep my literature study more up to date and maybe do a weekly review and summarize everything I gathered. This will make it easier for me to write the final paper, but it will also help me to keep track of what I'm doing and to keep understanding why I'm doing it.

An aspect of the process that I found hard was the development of a proper research method. Choosing to do a qualitative study seemed a logical choice and also going for a diary study combined with interviews felt like a good option. However, I found it quite hard to verify whether I chose this method because I have experience with it, or whether it actually suited my research question. Asking for feedback helped a lot, but in future projects I want to look at methods used by related studies to get a better feel of the type of methods usually used. I do also think it is a matter of experience, so in that sense this project already helped me further.

What I especially doubted about my methods was how a qualitative study can still provide reliable results. Looking into Grounded Theory methods of analysis, as suggested by my coach, helped me greatly to understand how qualitative data can be used as a basis for a solid theory. Before this project I was not really aware that getting insights through induction instead of deduction could be so structured and analytical. I really enjoyed going through my interview and diary data in such a structured manner, to see new insights emerge across different participants.

A more concrete goal I had was that I wanted to learn how to program in Python. I took it upon myself to create a prototype with a Raspberry Pi, which I had never done before, and write the code for it in Python. While the eventual prototype needed less coding than I anticipated, I still definitely feel more confident with Python now, as most of my code worked after the first try. Also, working with the Raspberry Pi in general has given me insights and general confidence in setting up a prototype that needs more high-level processing.

In terms of overall process, I can only say that I am proud of my time management, which I strictly stuck to. I managed to finish a full research proposal including methods within about three weeks, after which I could start prototyping. I finished a fully working research probe (three of them, actually) before the start of the second quartile, and I managed to test for fifteen days with a total of sixteen participants. Before the Demo Day I had analyzed half of my results. Exactly as I wanted to, I managed to go through all the different phases within the research process before the end of the semester and truly get the most out of the project in terms of learning and progress.

All in all, I am satisfied with my learning achievements this semester. Like I wanted to, I explored the role of AI within our society, more specifically how a synergy between people and intelligent systems might exist. Despite pursuing my own interests, I feel like I have also made a maybe small but definitely interesting contribution to both the field of Human-Computer Interaction and Artificial Intelligence. My next goal is to publish my results, to be able to learn more about the publishing process and show other people my work. I hope to be able to do more projects like these in the future!