## M1.2 Project Reflection

Integration Expertise Areas

Within my master program I choose to focus on the expertise areas 'User & Society' and 'Math, Data and Computing'. This specialization shows in both my project and the electives I followed. Overall, I managed to go through a very user-centred process, involving users every step of the way. While applying methodologies from the user-oriented electives I followed before and during this semester. This way of working allowed me to learn even more from the people I worked with, while shaping my overall competence as a designer.

In this user study, I gathered both qualitative and quantitative data and used descriptive and inferential statistics to process the latter. In my PDP planned to formulate at least three sub-questions and accompanying hypotheses, to validate or reject using statistics. However, the means I used led to only two sub-topics, which I did not explicitly formulate as sub-questions (with accompanying hypotheses). Nonetheless I managed to use these analyses to verify claims regarding my research question. An important step I made this semester is the combination of both data and the type of information that can be extracted from it. In the past I often felt rather unsatisfied by using only qualitative data, since it is almost impossible to draw 'hard' conclusions from this (everything is multiinterpretable). On the other hand, the world of people and design research is never black and white. While quantitative analyses allow for 'hard' conclusions, they do often not cover the richness of the data (the immense array of grey in design research). By combining the two I made a next step in using data for design research.

Building on this experience and interest of working with data while designing I planned to explore the possibilities further by exploring the added value of using data within the design. I tried to do this by exploring the data-needs of relevant stakeholders and use my design to visualize this data in a meaningful way. Due to technical and practical reasons I did not manage to dive deep into the data of learning analytics. Therefore, I was not able to use/ visualize very rich data toward the users. However, I did visualize a simple fraction of data, namely: the decision made by the student (listen/work and alone/together). This information is very 'flat' from a data perspective and the visualization existed from only three colours. However, this 'small' intervention had quite an effect on students. teachers and (especially) the interactions between the two. This insight motivates me even more to look further into the possibilities of designing with data. I feel challenged by finding a good balance in simplifying data for visualization without losing the meaning of this data. Later this year I will follow 'data-enabled design' to gain more knowledge and experience about this.

Development Overall Competence of Design Looking back, past design processes and decisions were often more intuitive than research grounded. This semester I planned to apply taught methodologies to boost the usercenteredness of my process. In line with this I hosted three co-constructing story sessions to kick-off my project. Furthermore, I conducted a long-term (three weeks) in context user-study. Hereby I applied the research skills I obtained during my CDR lab research in field context, by conducting a comparison analysis between groups with a base-line measurement. Overall, I feel more secure about both my capability of applying taught methodologies and the steps and decisions I made within my design-research process. However, I am still struggling with how strict a certain methodology should be followed. I tend to shape taught methodologies to fit the specific project situation, taking bits and bytes of everything I learned. To some extent I believe this is a good quality, however a certain 'strictness' in following methodologies is essential (especially in research projects). For next semester I plan to continue applying taught methodologies while finding a

In my preliminary study program-approval form at the start of my M1.2 I planned to graduate within the track Research Design and Development. However, my interest and way of working are often quite research oriented. At the start of this semester I realized that as a researcher, I might have more freedom to develop and test design interventions in education context, which are not necessarily realistic or profitable yet. I planned to use this project to explore my abilities as a design-researcher, rather than a researchoriented designer. Based on this exploration I re-evaluated my track choice before my final study program-approval form. All in all, this final choice landed on the Constructive Design Research track, especially since I feel very triggered by the way of reasoning as a researcher. In my final master project, I plan to gain more experience in this researchoriented project framing.

better balance in following these methods more precisely.

## Connection to PI&V

User-centred, research-based design processes are at the core of my professional identity as a designer. By doing an individual research project I managed to stay very close to my way of worker. On top of this the project was situated in the context that interests me the most: education. Enriching learning experiences is a huge part of my vision and I strongly believe in the value of becoming a self-directed continuous learner. While working in the context of secondary schools I learned to take baby-steps towards this ideal. However, I feel like the department of Industrial Design (ID) has a leading role in relation to this topic. Therefore, I plan to do my final project in the context of ID. More specifically, I want to research the possibilities of a stronger connection between master students and the (existing) PHD's/liaisons (based on common interests).