

## Course Analysis – DM2601, 2024

**0. Author:** Course responsible.

### 1. Description of the course evaluation process

The course evaluation process includes data from three sources:

1. the anonymous course evaluation forms delivered by KTH;
2. a meeting with one of the student representatives for the course;
3. the course responsible's own notes and reflections along the course, enriched in conversations with the other teachers.

This year, two students self-proposed as representatives. The course responsible met with one of them at their own initiative.

The course responsible introduced the mechanism of the anonymous course evaluations during a lecture towards the end of the course. The evaluations were filled by approximately 26% of the students (27/103). Among these, there are both International master students and Swedish master students. Regarding gender, this 26% includes women and men, but the gender distribution is never available in the automatically generated report. Students with disabilities have responded but, similarly, it is not possible to know percentages.

At the moment of producing this course analysis, the programme's link meeting has not taken place yet.

### 2. Description of meetings with students

One of the course representatives collected feedback that they presented to the course responsible in a meeting during the course.

The feedback consisted of: One student wanting to have more project supervision time and being able to get a "*second opinion*" about their group work from the course responsible (later this student clarified to the representative that they were not used to having more than one teacher per course, but that they understood throughout the course that teachers coordinate and communicate among each other, which alleviated their initial concern). Another student wanted more information on the slides themselves (a change that the lecturer will not implement, for pedagogical reasons including encouraging active learning and note-taking, interactive lecturing with back and forth among teacher and students, as well as dynamic adaptation of the delivery according to each round's needs); and wanted to be able to contact their supervisor via email (this was later clarified, given that all supervisors had been available via email from the beginning of the course). A third student wanted more time for design critiques to get more feedback, and they preferred feedback from teachers to peer feedback. A fourth student wanted to highlight they appreciated the ideation workshop very much.

### 3. Course design

This P/F course introduces students to design methods and processes for Media Technology and Interaction Design, so that they can independently run successful design processes. The course is delivered through lectures that draw from research and practice, workshops that allow students to get practical experience, reading seminars, group-based supervision meetings to follow their progress, design critique sessions for peer interaction. Students work in groups (arranged by the teachers, maximising background diversity) towards a prototype that responds to a design brief. Starting this year, the final presentations were replaced for a final exhibition where they get to try each other's prototypes, and answer questions from the teachers about their design process.

The examination combines group deliverables (a hi-fi interactive prototype and a workbook) with individual assignments (three written reflections: two associated to reading seminars, and a final meta-reflection about the groups' design process). Students get continuous formative feedback about their

project through supervision meetings and design critiques, and about the first two reflections through comments from the teachers in Canvas. The summative evaluation is done on their individual meta-reflection and the final group deliverables. All the class activities are optional, i.e. attendance is not required.

The lectures and the workshops are aligned in such a way that students get to practice the concepts introduced in the lectures, and start applying them to their projects. Supervision and critique sessions are alternated so that students get tailored feedback and assistance from their project supervisor and can later present their progress to the class for peer feedback.

The course responsible (Marianela) further developed all the lectures and delivered them. The workshops were facilitated by teachers Laia Turmo Vidal, and the course responsible. Reading seminars and supervision were conducted by teachers Laia, Arjun Menon, and Kristina Popova. Formative feedback tasks along the course were initiated by them, with monitoring and follow up by Marianela towards the end of the course. Marianela planned and conducted the final exhibition with help from Arjun and a guest teacher (Jarmo Laaksolahti). As course responsible, Marianela was also in charge of planning, redesigning activities, creating the course memo, forming the groups, maintaining Canvas, communicating with students (e.g. answering email, mediating group dynamics when needed, sending announcements, etc.), and conducting the course evaluation process. The summative evaluation of the group deliverables was done by Marianela, and the meta-reflections were read by the other teachers, and later verified by her as an examiner (complementing the feedback when needed), before doing a final follow up and reporting the credits.

The project groups were arranged by the course responsible balancing the number of domestic and international students in each group. This year, one student (1/103) commented on preferring to choose their own group, after experiencing difficult work dynamics in their group.

With respect to last year, the course responsible implemented the following key changes, mostly based on the last course analysis (and also available in the course memo):

The video and the slides deliverables were replaced for the prototype deliverable, given that the final presentations have been replaced by an exhibition as main form of examination. This allows students experience the other groups' prototypes and is a more relaxed form of participation where students can take more breaks. As a consequence, the workshop on video production has been removed. A workshop to start exploring the design brief with the guidance of teachers has been added to the first week of the course. As a consequence, the first reading seminar is now happening later in the course. A workshop on ideation has been added to better pace ideation and prototyping, and in particular to give groups more time for ideation. There are more teachers assigned to the course, which allowed project groups to be smaller. Supervision/Critique sessions are now separated into two slots of 2 hours for optimal energy. Group 'terms of engagement' were adopted for improved collaboration among students. The whole content of the course (lecture slides, workshop design, reading seminar structure, supervision guidance, assignments' description) have been improved, as every year.

#### **4. Students' workload**

This year, the course had 8 lectures, 2 reading seminars, 5 workshops, 3 project supervision slots, 3 design critique slots, and the final exhibition. The course is 7.5 credits, which is around 200 hours, from which 40 are scheduled activities and the rest is for students to work on their assignments (readings, written reflections, and project work). One term is supposed to last 10 weeks and thus it is expected that students spend 20 hours per week in average (although in practice, the course runs for 9 weeks, so 22 hours is closer to the expected workload).

The average weekly workload reported by students presents variation. Around a quarter (7/27) of the respondents estimated having worked between 18-20 hours a week in the course, which is quite close to the expected time. Another approximate quarter (7/27) estimated having spent more time (21-26h).

A smaller proportion (4/27) reported working slightly less than the expected number, between 15 and 17 hours. Another 4 estimate having done more than 26 hours a week (max 38h, 1 student). Finally, 5 respondents estimated spending 11 or fewer hours a week; it is likely that they are under-reporting, given that except for one group, the rest seem to have attended all the scheduled activities, and students did the work associated to their individual assignments.

A bit more than half the respondents (15/27) commented on the workload (the course responsible emphasised in class that their comments provide valuable qualitative data that complements the quantitative answers). In the comments, several respondents recognise that the workload varies, getting more intense as the deadline for the project gets closer; some commented that the time spent depended on their group's ambition. A student remarked that they liked the way the workload was organized; another that they valued the flexibility provided by the schedule; and another that "*The coursework and workload was well planned out and balanced*". One student suggested for next year to introduce at the beginning of the course even more examples of what each week would look like in terms of workload even if (according to the student), master students should be able to properly manage their time without these warnings.

## 5. Students' results on the course

At the moment, 98% (101/103) students have passed the course. The other 2 students have been given the chance to go through re-examination.

## 6. Students' answers to open questions

As the best aspect of the course, respondents mentioned a wide variety of aspects within their responses, including one or more of the following: the discussions with teachers, the supervision and feedback from teachers with different perspectives (10); learning about and practically applying interaction design methods new to them in the context of a concrete design process (9); working towards a prototype from beginning to end and in contact with real potential users (9); collaborative learning (interacting with their group other groups) (8); the freedom (6) of interpreting the design brief and/or pursuing one's own ideas (2) and of making design choices and learning while exploring and experimenting with low risk (3); the lectures (4), including the lecturer's integration of research experience into them (1), her efforts in making the course accessible to everyone (1) and the balance between overview and detail (2); the combination of lectures, reading, and workshops to breakdown the project (3); the exhibition (3); that the course being P/F was a true motivation to learn (1).

Some evocative quotes from students describing the 'best aspect' of the course include:

*"Not presenting absolutely every possible detail of every topic, instead encouraging students to participate more actively, take notes, ask questions and explore later on their own or with help if needed."*

*"(...) the ability to be brave, experiment (...)"*

*"I also loved the methods brought to my knowledge like probes. I think I got inspiration of things I could do in the future for those reasons."*

*"(...) the discussion of the reading reflections and the teacher's suggestions could always help me to understand more and more deeply"*

Regarding areas for improvement, respondents suggested:

Structure:

More time and emphasis on the 'delivery' phase (shortening elements of the 'discover' and 'define'

phases – it is not clear to the course responsible how this could be implemented), and more time for group supervision and crits was wished for. On the last point, some students suggested having more group supervisions but relatively fewer crits instead, since they did not find the feedback so helpful in those group crits (which centre peer feedback). Where crits were mentioned positively it was in relation to the use of world cafe techniques (which two of the three supervisors implemented this year – the course responsible will ensure that all supervisors implement this approach in the next round). In addition, some students felt there was not enough time between sessions to make tangible progress on the project towards the next crit session. The course responsible will further analyse the balance between supervision and crits, as well as the space between course activities.

One student wished that the groups were formed earlier and the brief was also presented earlier, to give students the maximal time to develop the project (this happened the first week in the course, but perhaps the student wanted this to happen the first day of the course). This is difficult to achieve because at KTH, changes to the number of students are allowed until Friday morning of the first week. Some students would like to choose their own groups (one to avoid having to work with students who do the minimum effort towards the project, another to form a group based on interests in particular technologies, design philosophy, or target user groups). The course responsible will further analyse this.

Students prefer to avoid having classes at 8am (the course responsible tried to avoid this too, but in some cases it was the only available option for Schema -the KTH team in charge of scheduling).

#### Content:

One student mentioned that it would be good to include content on how to use specific prototyping software such as Figma. This is not part of the course as it is not part of the ILOs, but the course responsible will further analyse possibilities.

One student mentioned that some of the papers chosen for the reading seminars could showcase a whole design process, rather than a particular method –something that the course responsible will look into.

One student mentioned that the focus of the brief on ‘interdependence’ is great, but that it may help the students to have a paper on this concept so that they can understand it more fully. The course responsible will probably change the brief for next round in any case.

#### Assessment and feedback:

A couple of students mentioned that it was a little unclear at the outset of the course on what would need to be submitted and in what format, and would have liked more detail on this in the first class or so (the assignments, with their format specificities, were available from the beginning, and the project was discussed thoroughly in a workshop, so the course responsible is not sure about what the respondents meant exactly).

One student mentioned that it could have been made clearer in the feedback comments that a student needs to resubmit work (this was made explicit by each teacher in each assignment and mentioned in class by the course responsible -together with a recommendation on keeping notifications on for Canvas assignment comments; several reminders were sent both via Canvas announcements and in class-, so she is not sure how it could be made even more explicit).

#### Other:

Several students mentioned that the exhibition was noisy and this made it hard sometimes to hear the comments of the teachers and to be able to engage in a meaningful discussion. Perhaps another space could be booked for these sessions that is larger or better able to hold these types of events. Or perhaps the evaluation could take place in a side-room, and not in the main exhibition. The course responsible agrees with this and had indeed asked for a bigger space but none was available.

An online repository for looking at work after exhibition would be nice to have. This is something that the course responsible considers a good idea to look into for the whole programme and not for just this course.

The advice they would give to future participants centres on encouraging them to be engaged and

creative trying new ideas, methods and techniques; starting to prototype early and keeping good time management in general; working on establishing good group communication; and documenting the design process so that they can add parts of it to their portfolios.

In the final open question about additional thoughts, several respondents praised the teachers, and one highlighted the usefulness of workshops (whereas one wanted more facilitation in reading seminars). One commented that they would have liked more time for hi-fi prototyping (the last bit of the project) and one suggested that examples of 'bad interaction design' could be added, as well as inspiration from student projects from previous years (the latter hadn't been done as previous rounds had produced videos instead of interactive prototypes). One student said they wanted the course to be longer, which is always a very good sign.

## 7. Summary of students' opinions

The course evaluations show that students appreciated the course, as documented in the points above. Moreover, students praised the course as "*fun*", "*really cool*", "*great*", "*well executed*"; they said that they "*learned a lot*", that the teachers' effort "*made the difference*" and even that the weeks spent in this course were "*special*".

This particular student's answer captures a variety of strengths of this course:

*"The best aspect of the course is the freedom that we were given and the respect that we received. The lecturer was extremely aware of the student experience and went above and beyond to make the course accessible. I was excited to go to this course every day. I really liked how expectations and specific requirements were thrown out the window to give us the space to learn and explore. I have never had a course like this and it was very fun. The lectures were extremely engaging and did a good job of giving high-level overviews with critical knowledge about pros and cons that you cannot google. I liked that the presentations were not weighed down with specific details that would have made the lectures difficult to pay attention to. I liked that there were no grades, I felt so motivated to learn and try hard. I also really liked the mixing up of instructors and supervisors throughout the course. I felt that this gave me more perspectives and feedback. I also liked the breakdown of the projects with workshops and supervision to hold us accountable, without these checkpoints I don't think I would have been able to spread out the work of the project effectively, waiting till the end to do everything. I really love this course and was so inspired by all the projects I saw."*

Most (23/27) respondents said they worked with interesting issues (with a majority strongly agreeing with the statement), whereas 2 were neutral and one disagreed (this student clarified that the brief was interesting, but their group's ambition level seems to have been low).

Similarly, most (21/27) found the course challenging in a stimulating way; 5 were neutral and 1 disagreed with the statement (commenting that it was due to feeling they had to manage the other group members).

Regarding being able to practice and get feedback without being graded, almost all respondents (26/27) indicated that this was the case (with a majority strongly agreeing with the statement); 1 was neutral (perhaps because they had not been graded?).

Most (22/27) found the assessment fair and honest, with a majority strongly agreeing with the statement; 1 was neutral; 3 found the question not applicable (explaining that the assessment hadn't happened yet); and 1 disagreed (commenting that they didn't think their group mates should pass – i.e. this person didn't comment about their own assessment but about others' assessment; in any case, no assessment had happened by the time the survey had closed).

About learning by collaborating and discussing with others, almost all respondents (26/27) declared being in agreement with the statement (with a vast majority strongly agreeing), and one slightly disagreed (commenting again that it was due to their group mates).

Finally, when it comes to getting support when needed, almost all respondents (26/27) recognised getting such support (with a vast majority strongly agreeing with the statement). One student was

neutral (commenting that they got guidance on their topic but that they were still frustrated about their group mates).

## 8. Overall impression

My overall impression is that the course was very well received this year again, taking into account not just the course evaluations (and in particular points 6 and 7 of this document) but also the high levels of attendance throughout the whole course, in spite of all activities being optional, as well as the high levels of participation in class activities (especially lectures) and on Canvas. A new approach to workshops with better synchronisation with respect to lectures was central in helping students focus on key parts of the design project as well as in methods and the process itself, together with aiming at a hi-fi interactive prototype instead of a video prototype as the main outcome. Assigning students to groups ourselves seems to have worked well this year again, with only one group (4/103 students) with collaboration problems, which statistically could have happened also in student-made teams.

## 9. Analysis

The course responsible has not detected significant differences across categories of students in the polar diagrams. Regarding their comments about their personal experience from the perspective of each category (programme, gender, disabilities), one International master student appreciated the “*mix of locals and internationals*” and one would have liked discussions about social norms in Sweden (which is out of the scope of one course and could be addressed at the programme level). Six students commented on gender aspects of their experience, with five having positive remarks about equality, and one (a woman) referring to problems in teamwork, that they experienced as gendered problems. One (a man) decided to comment on not being used to be in courses where there is “*a much larger female representation*” and saying that it felt “*slightly imbalanced*”, which indicates that further conversations about gender need to be present across the programme and at KTH. One student with disabilities left a positive comment about course accommodations and mentioned noise level in workshop classrooms as something harder for them to deal with.

Several respondents highlight the inclusive approach taken in this course. The fact that students point out to a wide variety of activities as the best aspect of the course indicates that the course caters to a diversity of learning activities and of learning styles. The suggested areas for improvement are rather low level, most are straightforward to address, or are not under the teachers’ control, and do not point to any higher-level pattern or problem with the course. The amount of concrete detail suggests active engagement from respondents, which is also a good sign in itself.

Something new this year is that several students have found guided activities and teacher feedback more valuable than peer feedback and peer-based classroom activities. For example, wanting to have fewer design crits and more supervision, as well as more teacher involvement in reading seminars, which are currently mostly based on peer interaction with some facilitation on the side of the teachers. It is worth it to think about this going forward, because peer-related interaction (design feedback, critical conversations about readings, etc.) is also a skill that students need to start cultivating, and a P/F course at the start of the programme seems to be a good place to do so – however there is a limitation to how much time and space this practice can be given.

## 10. Prioritised course development

In response to student and teacher feedback and to the course responsible’s notes along the course (especially after examination), a set of improvements will be prioritised as development for next round:

The design brief will probably change, after two years in a row.

The course responsible will consider whether to keep forming the groups.

Lecture materials will be improved and updated as usual. For example, more emphasis will be put on interviews and contextual inquiries (based on students’ performance with these methods).

The workshop on the design brief will be made a mandatory part of passing PRO1 for each group.

And, more examples from past projects will be given, especially in terms of choosing target user

groups.

Groups will be asked to submit the outcomes of their ideation process before they start prototyping, to ensure they have done sufficient divergent ideation.

Given the amount of time that grading paper reflections takes, relative to the minor importance that these texts have in the final assessment, the course responsible will consider replacing these 2 written assignments for something that encourages students to be more reflective about methods, e.g. writing method reflections as practice for the final meta-reflection. The new role of reading seminars and what to submit for them, if anything, will be further analysed (together with which papers to include).

The course responsible will further analyse the balance between supervision and crits, as well as the space between course activities.