

# **DH2413 2021 Advanced Graphics and Interaction AGI2021 Course Analysis**

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## **Description of the course analysis process**

The course instructor and examiner, Mario Romero, together with the course teaching assistant, Marko Petrovic, together analyzed the results of the course evaluation. They synthesized the main topics and included them in this report.

## **Changes introduced in 2021**

1. The course in 2020 had reduced the number of group projects from two to one in order to cope with the additional stress of the COVID19 pandemic. This was reversed back to two projects in order to give the students greater variety in their studies.
2. We introduced a journal assignment for the students to document their work rather than a worklog spreadsheet that had very limited success.
3. We reintroduced projects that used worn devices and touch interaction regardless of whether the hardware belonged to the students. So, we reintroduced VR and heads up and head worn displays as well as hardware that included public touch interfaces such as tabletop interactive screens. In order to reduce risks of infection, we introduced a simple sanitizing and safety protocol for public demos.

## **Comparing results with previous years**

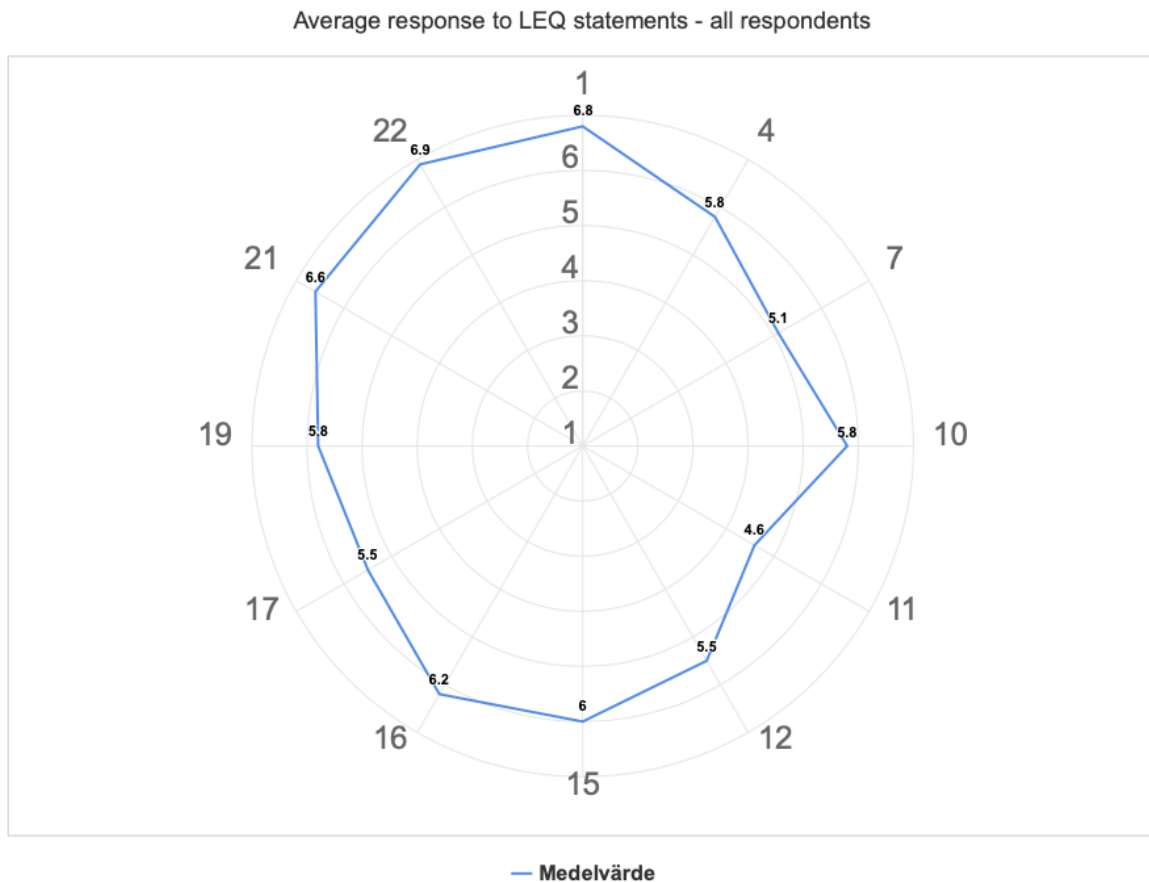
The main difference with previous years is that we were somewhere between full pandemic and post pandemic routines so we reintroduced a second student project and delivered lectures, seminars, and public presentations mostly over zoom. Most of the education and some evaluation happened at a distance. The course in 2021 was an in-between. Before the pandemic, we had three public events: Forskarfredag, Tekniska Museet, and the Open House. In 2021, we only had the open house.

## **Analysis of the course evaluation with planned developments for the next round of the course**

The course is a 9HP course. Using 27 hours of work per credit, that amounts to 243 hours of work which, distributed over 17 weeks from week 35 to week 2 2021, gives approximately 14 hours of work per week. Students reported working 17 hours per week. One student stated in writing that they worked too much for a 9-credit course and also that the distribution of credits over the semester does not reflect the distribution of the workload, the first half of the semester being more undercredited. We continue the work of reducing the reported 17 hours per week closer to the goal of 14 hours per week.

We ran the LEQ survey with 12 questions. All the LEQ survey statements but number 11 were above 5.0 (statement 11 scored 4.6), meaning all average entries are positive. The

three statements we will focus on to analyze are 7 and 11, which received the lowest scores, 5.1 and 4.6 respectively.



*The split averages by gender and by nationality of the students is not significantly different from the overall average and, thus, will remain marginal to this course analysis document.*

**Statement 7** is “The intended learning outcomes helped me to understand what I was expected to achieve”. The ILOs were created for pre-covid education.

**Statement 11** says: “Understanding of key concepts had priority”. One of the challenges of teaching a course that requires significant hands-on interaction from both the students who are developing the project and guests who are participating as users testing and providing informal feedback to the projects is that the number of activities that need to happen in order to coordinate this event is very high. The effect of this complexity is that some of the key concepts are washed out. They are diluted in the vast array of complexities the students need to engage. When having pre-pandemic live presentations to hundreds of people over thousands of minutes the reward is high. But when presenting to much fewer people and receiving proportionally less feedback the rewards are not as clear. We need to adapt the activities that the students perform and focus them on the key concepts that they need to reinforce. We need to raise the priority of what it is that they should be engaged in and completely remove or reduce the priority of the actions they need to take in order to coordinate presentations and demonstrations. Again, this is an issue of balancing the reward on investment.

To the general question “what was the best aspect of the course?“, we received a number of replies. Here are all responses as there were only 8 respondents:

- The availability of support, encouragement, and advice from the teachers
- One project at a time and we were alone. By that, I mean that we had our team, our ideas of the game we wanted to make and that is all : we had to create it, make it.

The other big aspect that I loved was the fact that everybody seemed passionate about games and interactions. You can't (or can you) imagine the number of courses in France where I'm in a team and I'm the only one that find the course interesting. For the first time, I was not necessarily the one that worked the most and it was very pleasing to see 5 people that worked a lot for creating something.

- I really liked how we got the opportunity to pick our own projects! And we had so [many] options!
- Access to hardware, support from VIC personnel
- Interesting projects
- You could really explore and dive deep into topics that you were interested in. If you wanted to learn shaders you could do that easily, if you wanted to look into procedural generation you could do that.
- A lot of freedom in what we could do, Mario was super engaged and passionate and always ready to put in a lot of energy when we had questions

For the question “What would you suggest to improve?“, we have a number of answers which we synthesize below.

The text below paraphrases the comments from the students.

- **Lower the workload by having only one project.**
- More opportunities to discuss with other projects. Though there were opportunities and encouragement, covid was an obstacle.
- Faster post course administration.
- Lower the workload and the course complexity (number of assignments and tasks within each assignment.)

For the question “What advice would you like to give to future participants?“, we list all the answers as we find all them valuable.

- Try to find a really good group because it makes all the difference
- Go for a project a little bit too hard for motivation but not impossible.  
Try to imagine the most fun thing you can because you will enjoy see others having fun with your projects
- Start right away, and learn as much as you can! Plan your project well before locking yourself into the specifics of the implementation. Also, if your first group worked fine, don't form a completely new group for the second project.
- Choose a project where you have sufficient knowledge within the team
- Take the opportunity to explore and learn about the topics you are interested in.

- They should know the course is in no way 3hp in P1. more like double that.

Finally, to the question “is there anything else you would like to add?” Oh, we included some representative replies and also those that we found particularly encouraging.

- Thanks to Mario and Marko for paying so much attention to individual blog entries and leaving comments
- Liked this course a lot! It was a bit stressful in times, but it was worth it.

### **Proposed changes in 2022**

- We will re-introduce Forskarfredag at the end of September.
- We will re-introduce Tekniska Museet at the end of October.
- We will increase opportunities for peer review and feedback.
  - Pairwise presentations during agile meetings.
- We will increase opportunities to present projects without grading.
- We will re-introduce external offers for both P1 and P2.