Natural Language Processing (TDDE09 2021-03-22 Lin 1338264)

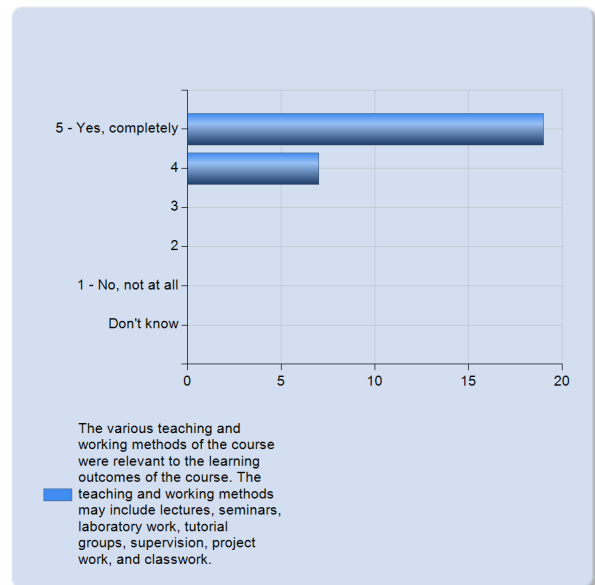**1. The subject-specific content of the course gave me the opportunity to achieve the learning outcomes of the course.**

The subject-specific content of the course gave me the opportunity to achieve the learning outcomes of the course.	Number of Responses
5 - Yes, completely	23 (88%)
4	3 (12%)
3	0 (0%)
2	0 (0%)
1 - No, not at all	0 (0%)
Don't know	0 (0%)
Total	26 (100%)

The subject-specific content of the course gave me the opportunity to achieve the learning outcomes of the course.

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The subject-specific content of the course gave me the opportunity to achieve the learning outcomes of the course.	4.88	0.33	6.67 %	4.00	5.00	5.00	5.00	5.00

2. The various teaching and working methods of the course were relevant to the learning outcomes of the course. The teaching and working methods may include lectures, seminars, laboratory work, tutorial groups, supervision, project work, and classwork.
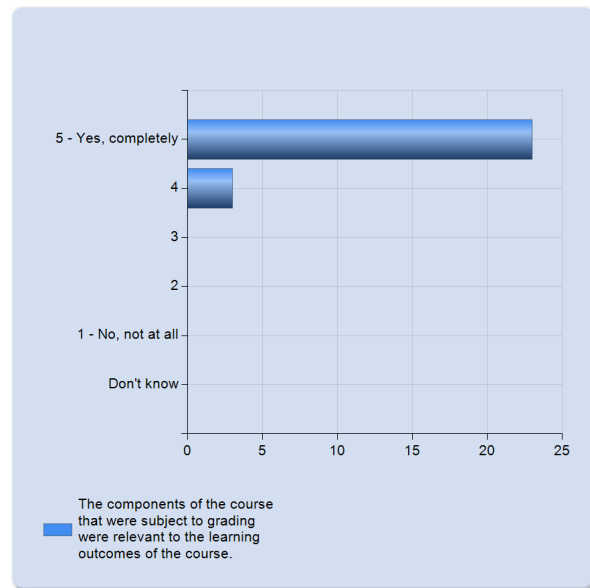
The various teaching and working methods of the course were relevant to the learning outcomes of the course. The teaching and working methods may include lectures, seminars, laboratory work, tutorial groups, supervision, project work, and classwork.	Number of Responses
5 - Yes, completely	19 (73%)
4	7 (27%)
3	0 (0%)
2	0 (0%)
1 - No, not at all	0 (0%)
Don't know	0 (0%)
Total	26 (100%)

The various teaching and working methods of the course were relevant to the learning outcomes of the course. The teaching and working methods may include lectures, seminars, laboratory work, tutorial groups, supervision, project work, and classwork.

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The various teaching and working methods of the course were relevant to the learning outcomes of the course. The teaching and working methods may include lectures, seminars, laboratory work, tutorial groups, supervision, project work, and classwork.	4.73	0.45	9.56 %	4.00	4.50	5.00	5.00	5.00

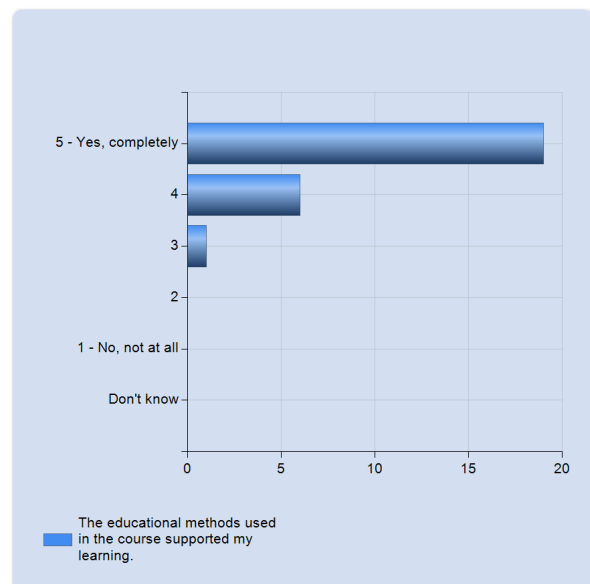### 3. The components of the course that were subject to grading were relevant to the learning outcomes of the course.

The components of the course that were subject to grading were relevant to the learning outcomes of the course.	Number of Responses
5 - Yes, completely	23 (88%)
4	3 (12%)
3	0 (0%)
2	0 (0%)
1 - No, not at all	0 (0%)
Don't know	0 (0%)
Total	26 (100%)

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The components of the course that were subject to grading were relevant to the learning outcomes of the course.	4.88	0.33	6.67 %	4.00	5.00	5.00	5.00	5.00

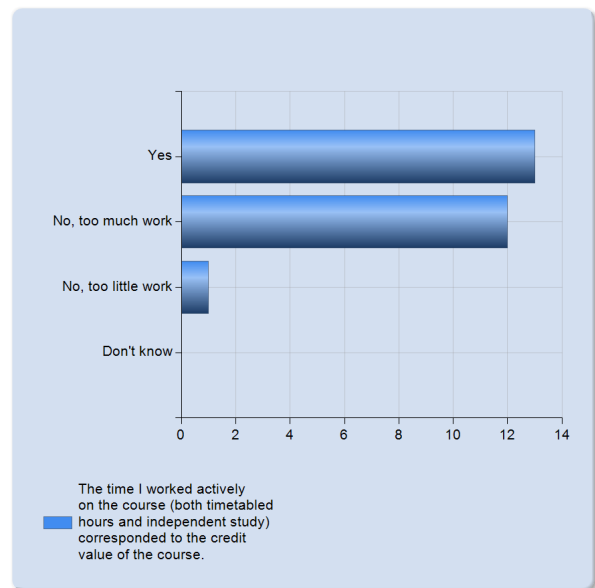### 4. The educational methods used in the course supported my learning.

The educational methods used in the course supported my learning.	Number of Responses
5 - Yes, completely	19 (73%)
4	6 (23%)
3	1 (4%)
2	0 (0%)
1 - No, not at all	0 (0%)
Don't know	0 (0%)
Total	26 (100%)

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The educational methods used in the course supported my learning.	4.69	0.55	11.70 %	3.00	4.50	5.00	5.00	5.00

5. The time I worked actively on the course (both timetabled hours and independent study) corresponded to the credit value of the course.

The time I worked actively on the course (both timetabled hours and independent study) corresponded to the credit value of the course.	Number of Responses
Yes	13 (50%)
No, too much work	12 (46%)
No, too little work	1 (4%)
Don't know	0 (0%)
Total	26 (100%)

The time I worked actively on the course (both timetabled hours and independent study) corresponded to the credit value of the course.

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The time I worked actively on the course (both timetabled hours and independent study) corresponded to the credit value of the course.	2.46	0.58	23.63 %	1.00	2.00	2.50	3.00	3.00

6. What changes do you consider to be possible that would improve the course with respect to, for example, content, teaching principles, administration, teaching methods, or examination forms? Specify the most important first.

Adding a free-text response gives you the opportunity to share your opinions and influence the teaching. Remember that constructive criticism is easier for the receiver to absorb and act on, so you should avoid unpleasant comments and "ad hominem" attacks. Make your voice heard through constructive criticism!

The compulsory labs has lots of repeated tasks like creating vocabulary which could be provided by the instructor to ease out the time and balance the workload

especially the labs were really quite difficult and due to the amount of time needed and the strict deadlines, it all became really quite stressful. if it was possible to give more guidance (maybe more lab sessions) or if it's possible to cut down the work load just a little bit without impacting the amount of content.

the most time consuming parts for us in the labs were often the model classes and the forward function of each program, understanding how all of that fit together to produce proper output, and that is probably not strictly a part of just NLP but rather just machine learning in general, so maybe that part can be lessened a bit.

When we asked for help in the labs, our lab assistant gave us misleading answers several times, which of course increased the time it took for us to solve our problems. He also had a habit of looking in the proposed solutions and giving us the correct code right away, instead of discussing what we had come up with to encourage a deeper understanding. So, I suppose the change I propose is improved pedagogical skills among the lab assistants.

It was much to learn when starting the course if you do not have much experience in pytorch or handling neural network architectures.

Nothing, this is the most well thought out course I have taken since the pandemic hit and education became distance work.

The lab session were not very usefull for me. Because we were too many group for one teacher so it was diffiult to get the help needed. I guess it should have been better if it was not in distance mode. Also the feedback we got on the lab that we were unable to finish on time were not helpfull to help us finish the lab afterwards

The seminar has little value for me personally. I could certainly have benefited from a more differentiated examination of the topics. I would also have liked more detailed and personal feedback on the project.

The time for this course feels okay, but it seems that when it't not in distance mode it's supposed to more or less end after 8 weeks, not 10, as the only thing left to do after the presentations is the final report. If all courses did this, students would have to put in at least 50 hours a week to spend as much time as we're expected to for a passing grade. This is not a big problem if one course does this, but it seems like a lot of project courses do this due to presentations having to be before "tenta-p". I don't know who actually have any power over when courses end, but somewhere I feel there should be a discussion about if it should be okay or not to have courses have final presentations and handins so early. I understand that it is difficult to have presentations later normally, but the solutions during "hybrid mode" where most courses had presentations later now that they were online made my studying much, much easier as I didn't have to work ten hours per day for the whole term. (Especially as even courses with written exams tend to have a higher work load during these 8 weeks as the last weeks are only for exams meaning you should already have learned all there is to learn and now only review and practice for exams)

The comments on returned labs could be better. The only feedback we received on a lab we failed was that it yielded the wrong result - no hints regarding where or why. This might have been specific to our lab assistant but it would have helped with some hints.

Personally, I think I would have learned more if there were more labs and no project. Perhaps six labs in total, with the final one being a "implement something from a scientific paper" lab. I have gotten to practice group/project work as well as reading and implementing the contents of scientific papers in other courses. This course, I think, is too small and interesting to waste on project work "overhead".

For me it was a super interesting course, and the course overall is really structured, you always know what to do and what is expected. However, for some reason there is way too much work. During VT1 I put probably 90% of all my time into this course, and the remaining 10 % on TWO other courses. I have spent way more than 160 hours on this course, and still barely manage to finish everything in time. I know it is an advanced course, but compared to many of the advance courses I have taken this is on another level. I feel that it is at least 1 lab too much.

The advantage of course if that I have learned way more in this topic than I otherwise would have. But it strongly affected the other courses I read in parallel.

Perhaps changing the course literature. I thought that the "Introduction to NLP" course book didn't contain any good information at all except for perhaps the EM algorithm.

Also, I think that Extra Lab 5 perhaps could introduce BERT a little more pedagogically, otherwise all of the other labs were excellent.

The labs generally held an extremely high level of quality. I felt that the last extra lab about BERT did not continue this track record. I understand that the point of that lab could be to partially prepare the students for the project, since you had to do your own research, but it felt that a lot more could have been done with that lab.

It would be nice if the course administration would encourage people more to come up with an own project idea, since I felt that it was a bit boring that half the groups did essentially the same thing. But I also feel it is good that there is a suggested project, since the short timespan of the project does not give much time for coming up with ideas.

The project grading should be based more on the technical depth rather than reflection and presentation.

I think more review on recent literature can be very useful.

7. Give examples of content, teaching principles, teaching methods, examination forms, or any other aspect of the course that you consider to have been particularly successful.

Give examples of content, teaching principles, teaching methods, examination forms, or any other aspect of the course that you consider to have been particularly successful.

a quiz after every lecture which can be part of grading could have better facilated the learning

I really do like the labs overall despite the high difficulty and all the stress they brought. they were very helpful in my learning. it was nice to dive deeper in a specific area in the project and it was also very interesting seeing everyone else's project presentations and that really sparked a second wave of NLP interests in me.

Flipped classroom worked well, when I understood the purpose of the Monday sessions. The videos where very, very useful and well done. Also, the structure on the course website was amazing.

Marco and Riley did have great communication skills in what needed to be improved and gave help through the full course whenever there were any questions. This was crucial for me and my labpartner to finish this course.

Everything, from the format to the planning to the labs leading into the project. Everything was well planned and executed.

The jupyter notebooks were great. Also, the fact that the lectures were prerecorded and available both before and after each week was great.

The teachers were always there when we asked a question. The video were also really nice

Even though the labs were much work, the instructions were very clear all the time and therefore very helpful for my learning.

I also really liked, that there were so many course assistants. Because of that, the waiting time during the lab sessions was never too long.

The flipped classroom concept has worked very well for me.

Reverse classroom is in general a nice structure that helps at least me with learning the material. Very good pre-recorded videos for the lectures. High quality. Nice to be able to take in information at your own speed.

Great with quizzes on some lectures! Would have liked to have more of those as it's nice to test your own knowledge as well as see where other student's are in their learning. Also good to take in feedback about labs and to show this so we know how the rest of the students feel about the labs (which is very hard when we're not doing labs on campus so we can't easily talk to any other group at any time during the labs)

Very nice to get an overview of the schedule in the beginning of the course! Feels very structured.

Lectures, labs and other material is very well made. It is very clear that the course examiner cares about the course and the students enrolled in it. This makes the course more enjoyable and encourages learning. This has been particularly helpful during the pandemic, where I feel that it has otherwise been easy to lose motivation. Props to Marco!

So much about this course was 5/5; the lecture videos, the labs, the communication etc..

Every lecture, seminar, lab etc. in terms of content and structure was just exemplary. This is how I wish all courses were.

The lectures were amazing. The content included in the lectures is very easy to understand thanks to the exceptional visuals. Also the ordering of the concepts introduced makes it very easy to follow.

The labs were also great, with very interesting assignments that were very relevant to the lectures. The extra labs are a great way to allow students that are interested to dwell deeper.

The freedom provided in the project is also great as it allows students to do whatever they are interested in and opens up a lot of possibilities.

Everything. The labs, the lectures, the project and the general organisation of the course were all fantastic. Most definitely the best advanced level course I have taken, probably the best in general. Great work Marco!
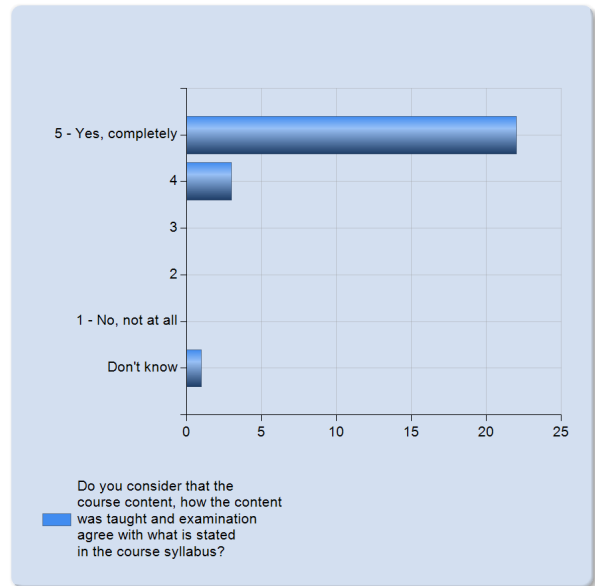
The partitioning of labs into levels was very beneficial, as it meant you had the option to delve deeper if you so desired. The harder labs with less guidance were also a great preparation for the project.

the proejct presentation conference really gave us a chance to discuss what we have learnt and what not covered yet.

Very good structure of the course. Really nice with prerecorded high-quality lectures combined with very fun labs and a project.

8. Do you consider that the course content, how the content was taught and examination agree with what is stated in the course syllabus?

Do you consider that the course content, how the content was taught and examination agree with what is stated in the course syllabus?	Number of Responses
5 - Yes, completely	22 (85%)
4	3 (12%)
3	0 (0%)
2	0 (0%)
1 - No, not at all	0 (0%)
Don't know	1 (4%)
Total	26 (100%)

Do you consider that the course content, how the content was taught and examination agree with what is stated in the course syllabus?

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
Do you consider that the course content, how the content was taught and examination agree with what is stated in the course syllabus?	4.88	0.33	6.80 %	4.00	5.00	5.00	5.00	5.00

9. What is your overall evaluation of the course?

What is your overall evaluation of the course?	Number of Responses
5 - Highest	20 (77%)
4	6 (23%)
3	0 (0%)
2	0 (0%)
1 - Lowest	0 (0%)
Total	26 (100%)
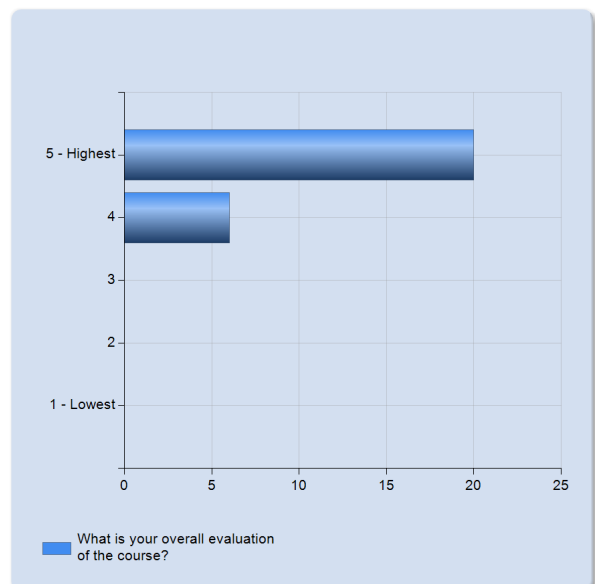
What is your overall evaluation of the course?

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
What is your overall evaluation of the course?	4.77	0.43	9.01 %	4.00	5.00	5.00	5.00	5.00

10. LiU works actively to counter all forms of discrimination, harassment, victimisation and exclusion. Have you seen or witnessed any problems during the course with respect to this? If so, give details in the box for free-text replies below.
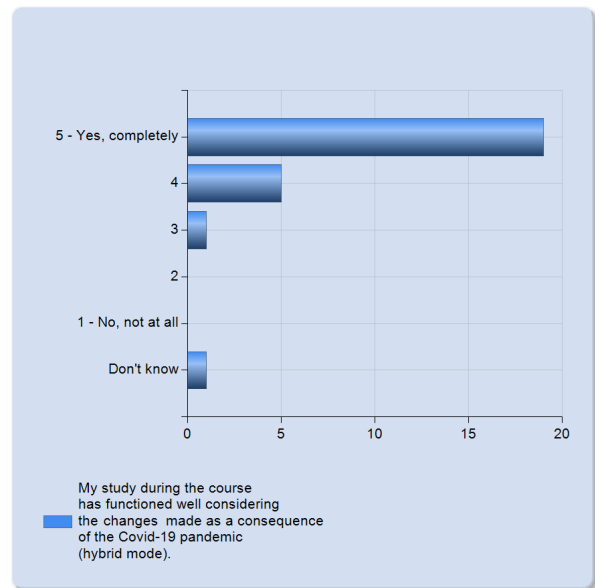
LiU works actively to counter all forms of discrimination, harassment, victimisation and exclusion. Have you seen or witnessed any problems during the course with respect to this? If so, give details in the box for free-text replies below.	Number of Responses	Cumulated Responses
Yes	0 (0.0%)	0 (0.0%)
No	25 (100.0%)	25 (100.0%)
Don't know	0 (0.0%)	25 (100.0%)
Total	25 (100.0%)	25 (100.0%)

LiU works actively to counter all forms of discrimination, harassment, victimisation and exclusion. Have you seen or witnessed any problems during the course with respect to this? If so, give details in the box for free-text replies below.
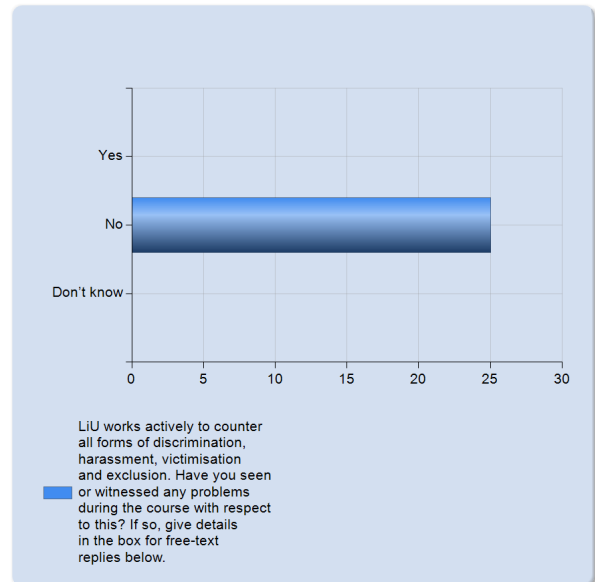
11. My study during the course has functioned well considering the changes made as a consequence of the Covid-19 pandemic (hybrid mode).

My study during the course has functioned well considering the changes made as a consequence of the Covid-19 pandemic (hybrid mode).	Number of Responses
5 - Yes, completely	19 (73%)
4	5 (19%)
3	1 (4%)
2	0 (0%)
1 - No, not at all	0 (0%)
Don't know	1 (4%)
Total	26 (100%)

My study during the course has functioned well considering the changes made as a consequence of the Covid-19 pandemic (hybrid mode).

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
My study during the course has functioned well considering the changes made as a consequence of the Covid-19 pandemic (hybrid mode).	4.72	0.54	11.47 %	3.00	5.00	5.00	5.00	5.00

12. Describe one component that has functioned extremely well in hybrid mode. Why was this component successful?

Describe one component that has functioned extremely well in hybrid mode. Why was this component successful?
Labs were delivered bettered and course evaluation was on point. No chances of cheating or misconduct. Also, the labs will make sure that student has studied and unsderstood the subject well
this course in particular worked very well in distance mode. I liked in particular the wide array of video material made available and the final conference was a really fun concept executed well. the lectures and lab sessions also went smoothly (when my internet didn't give up on me mid session).
The recorded lectures in combination with a "discussion" session on Monday.
Marcos way of teaching have been great, he's awesome in person and still pulled of a great course in this hybrid format.
The lectures functioned relatively well for a distance course and this is most likely due to the pre-recorded lectures leading in to the real lectures.
The video were really nice
Lab supervision via Teams worked very well
The concept was probably the best I've seen so far in one year of COVID-19. The organization was excellent and MS Teams was used ideally. Unfortunately, the teaching experience still falls far short of face-to-face teaching.
Nice to have presentations postponed now that we don't have to be on campus for the final presentations! It gave us some much needed time to actually work on the project.
Communication with the examiner, in particular, but also with the lab assistant functioned extremely well.
The communication between students, lab assistants and examiner has worked really well. Marco takes feedback very seriously, listens to the students and are making sure that there is no confusion. You have been able to get questions answered between labs, and you usually get really quick responds. This course has probably worked better than most courses I've taken before the whole distance mode situation.
The lectures are particularly amazing. The fact that you are also able to pause them / go back is great for taking notes, and the way they are split up into chunks makes it easier to follow along without getting tired.
The video lectures were very good.
The videos are extremely well-produced and i love that we can go back and watch them throughout the course

13. Describe one component that has not functioned well in hybrid mode. How could this component be changed to make it better?

Describe one component that has not functioned well in hybrid mode. How could this component be changed to make it better?

Problem solving session during lab could be improved. Also, the deadline for lab should be made compulsory, or may result in poor grading so that students may stick to deadline

Interaction during the labs. Normally you would overhear other groups getting help in the same room, but now you don't. It felt like this caused the lab assistant to not have as much time for each group, since I suppose more groups asked similar questions compared to physical labs.

As me and my labpartner had to do deeper learning than the set time for the course (equivalent to 6hp in the timeframe of a week) we often had problems with seeing the material for the monday morning seminar. Unfortunatly I do not have a good solution for this problem rather than tell what we had a ahrd time with: Most often we could find us stuck early in the week, around monday or tuesday, and having the first labsession on wednesday afternoon made us waiting in the labseries for quite a while. Then we and as it seemed on the friday labsessions, there was almost no questions. Maybe if it's possible to have the labsessions tuesday thursday would have helped us more and helped us keep moving.

It was hard go get help sometimes during the middle times when there weren't any labs. Though to make up for it, both the lab assistants and the examiner were available on teams to answer questions.

Another comment one something that didn't work too well as the amount of work that had to be done in the time span of a single study period. The amount of labs and project together became way too much work seeing as a single lab could take up to a whole week to complete in some instances, and considering that most students take multiple courses, I don't see how we student are even able to delegate enough time to complete all the courses that we are taking. Due to the overwhelming amount of work, personally I had to work extra hours on on weekends as well as late hours every single day.

I would recommend that the workload should be reduced somewhat so that students taking multiple courses to fill the criteria of 15 credits per period or 30 credits per term can have a chance to delegate and spend some time with the other courses. Personally for me, where I consider myself an average Joe with limited knowledge, I had to spend way too much time on this course compared to the other courses.

So either reduce the workload or maybe increase the amount of credits this course provides.

The lab session's and the feedbacks

Labs are always difficult to do well online as it's difficult to get a feel about how other groups are doing and also eavesdrop on other groups when you can hear that they're asking a question. However, I think it's more or less impossible to deal with this unless everybody is always in the same zoom room for asking questions, but this would likely only disturb students. I think being able to ask questions in Teams in written form is the best solution, but students tend to prefer to ask in private rather than let everyone see what they're struggling with, so I don't know what else can be done.

Having to watch pre-recorded lecture videos (as opposed to having lectures live, IRL, in a lecture hall) invites laziness in the form of not watching the videos unless necessary for a specific lab.

I can't think of anything. Working in hybrid mode is overall a bit harder than "normal mode", but I think this course have made it as good as possible considering.
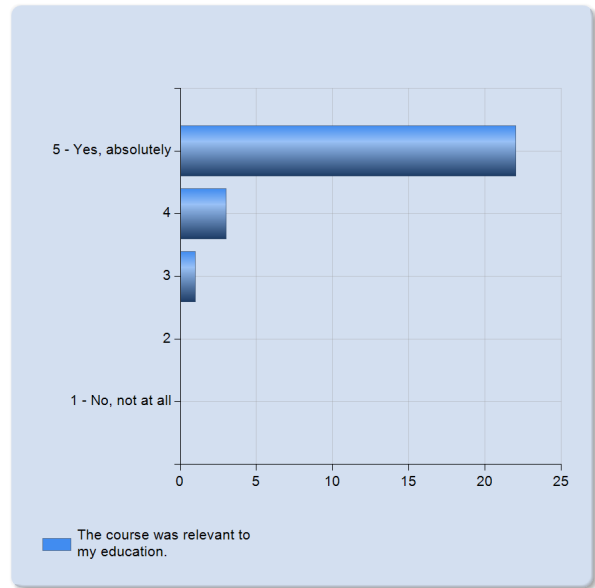
Nothing

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It was difficult to do the labs together at times, eg, could not figure out how to use git with the Jupyter notebook

14. The course was relevant to my education.

The course was relevant to my education.	Number of Responses
5 - Yes, absolutely	22 (85%)
4	3 (12%)
3	1 (4%)
2	0 (0%)
1 - No, not at all	0 (0%)
Total	26 (100%)

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course was relevant to my education.	4.81	0.49	10.22 %	3.00	5.00	5.00	5.00	5.00

**15. What did you like about how we used Jupyter notebooks?**

What did you like about how we used Jupyter notebooks?	Number of Responses
It is convenient that the lab instructions, code, and problem responses all come in one document	25 (96%)
It is easy to interactively experiment with the code	17 (65%)
Jupyter notebooks are a standard in ML/data science; it is good to get practical experience with them	16 (62%)
It was nice to follow along in the live notebooks that we used during some interactive sessions	11 (42%)
Total	69 (265%)
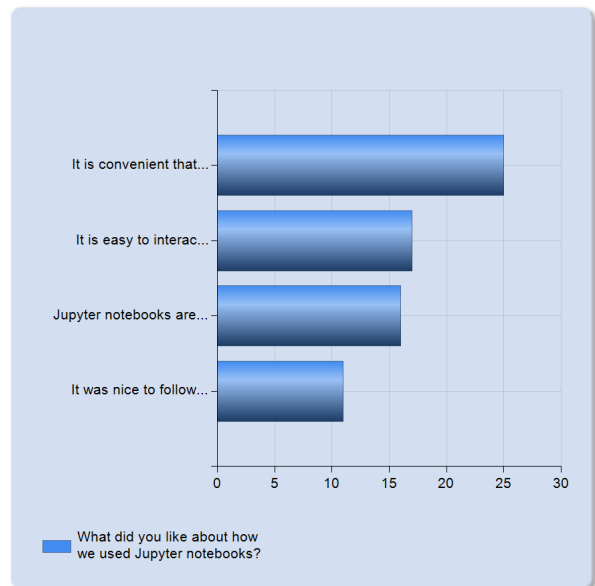
	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
What did you like about how we used Jupyter notebooks?	2.19	1.10	50.35 %	1.00	1.00	2.00	3.00	4.00

16. What could be improved in our use of Jupyter notebooks?

What could be improved in our use of Jupyter notebooks?	Number of Responses
There should be a video/a training session on how to use notebooks	5 (26%)
The lab instructions should become shorter, so that there is not so much text in the notebooks	1 (5%)
There should be a simple way to install a notebook environment on my own computer	5 (26%)
There should be more prepared notebooks outside of the labs, e.g., for own practice/experimentation	8 (42%)
LiU should host its own notebook service à la Google Colab	11 (58%)
Total	30 (158%)
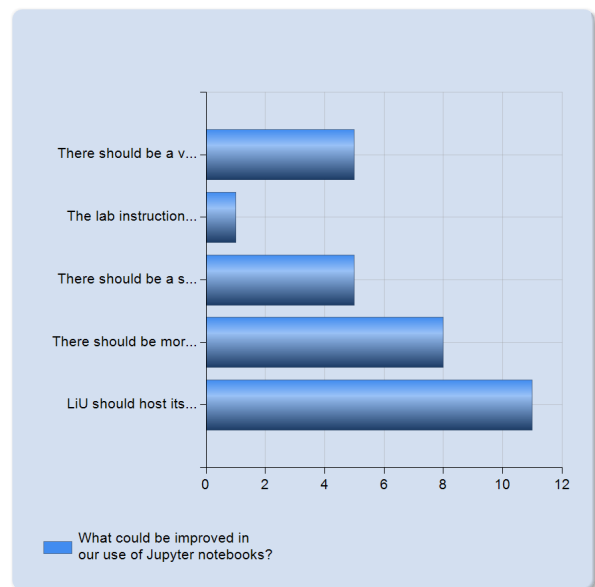
	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
What could be improved in our use of Jupyter notebooks?	0.27	2.86	NaN %	-4.00	-2.50	1.00	2.00	4.00

17. Any other comments regarding our use of Jupyter notebooks?

Any other comments regarding our use of Jupyter notebooks?
Debugging in notebook is terrible. Also, since we did labs and project in group, we used colab. Could be better if LIU hosted similar notebook on its own server, if possible
would be nice if the content was also made available in plain .py files as well so that it wouldn't be necessary to install a lab environment to do the labs. maybe write them so that they print their output to a .txt file for easier evaluation by lab assistants, since saving output is one of the benefits of jupyter notebooks.
It didn't work to edit the document simultaneously, not even having it open on several computers (the document randomly jumped to the top). We spent much time trying to do that. We also had some problems figuring out how to work with version handling/document history.
The last point in 16, We had no problems running much of our code in Google Colab, I really don't see the specific need for LiU to also host it's own version. Yet if that's something the university wants, it could be nice if Google Colab start having troubles.
Maybe have some instructional videos or guides on how to train models on the GPU to speed up training time, a lot of time were spend waiting for the model to train on the CPU while in most cases it could have been completed much faster with the GPU.
The blender notebooks never really worked for me, so I always had to open them in Colab. As Colab was recommended to use anyways, you could share the notebooks as a Colab link directly.
No they were great
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