DH2323 Course Analysis and Survey

Overview

The 2019 iteration of DH2323 generally proceeded without issue and a number of previous aspects in the course appear to have been fixed i.e. labs, where more options have been provided, including a new Unity-based lab. It was good to see positive feedback from students in relation to gender and the importance that students attribute to the student-led projects, which the course team believe are critical to study and research at Master level. In relation to how the projects are run, there a number of comments concerned help and guidance, positive and negative. We address the issues raised below.

Aspect	Comment
Projects – more examples needed, more detailed project guidelines/project suggestions so you do not have to come with an idea on your own.	A large amount of background material is provided to demonstrate examples of high quality work, in addition to the grading criteria and other explanatory material. This is in addition to specific lectures on the projects and surrounding specification/feedback process and multiple lab sessions in which feedback can be sought from the TAs. The main aim is that the student should be an active participant in the specification process rather than a passive recipient of specification details from the instructors. We will try to improve the availability of these links in Canvas since it is possible it is difficult to find them. A main way in which students get feedback is by specifying what it is they intend to do according to an iterative specification and feedback process. This has more similarities with practice real-world problem definition and solving than typical approaches in which problems are predefined for the students and grading criteria are easier to specify. It relies on students to actively iteratively seek advice from the course team when they need it. While it is very difficult to do this remotely, students who are shy about seeking help may use the options for online specification submission. We may investigate alternatives i.e. specific project brain-storming sessions, but in the past, student participation has not been very good at them. Timing may be an issue, since there appears to be variation in when students finish the labs and start the project across different programmes. This is often attributable to variable workloads outside of the course and it is not clear what could be done apart from the current approach of allowing projects to be discussed in all lab sessions. Imposing stricter deadlines would solve the problem for the course team, but would likely degrade the student experience and freedom on the course.
It should not be necessary to define a project yourself.	An important learning outcome of the course is for the student to define i.e. specify and examine a problem in a computer graphics topic. This is conducted with the support of the course team (if sought), a specification process and other course materials, including examples of previous work. The process of defining a problem is challenging, as pointed out in the lectures during the course, but the requirements are relaxed for lower grades i.e. we also provide general project suggestions and examples for lower grades. We will investigate providing project exemplars for various grade levels in future.
More project guidance	We do not provide detailed guidance in the form of project

and help from assistants and examiners.	specifications, since developing those (with feedback from the course team) is an important learning outcome in the course. We do provide guidance in the form of a methodology for iteratively creating a specification and guidance in the form of feedback about presented ideas and suggestion of new ideas is a central part of it.
Some things gets repeated in this course if you have taken another graphics course at KTH.	It is inevitable that there will be overlap for some students in the course, given that multiple programmes take the course. We have recommended that students first take DH2320 Introduction to Computer Graphics and Visualization. Unfortunately, many do not and an informal show of hands at the first lecture showed that a majority did not. Previous feedback (DGI18) from those who did not take DH2320 suggests they were unhappy that some concepts were not described, even though they appeared in that course. So we believe we have struck a good balance between both possibilities for a cohort with mixed competencies. Especially, a primary course element is the project (with labs acting as educational scaffolding for those who are less experienced). There is little to stop more experienced students embarking on the project a lot earlier in the course and suggestions of simple projects are indeed available for beginners (in addition to the feedback process).

We reiterate the good advice noted by students:

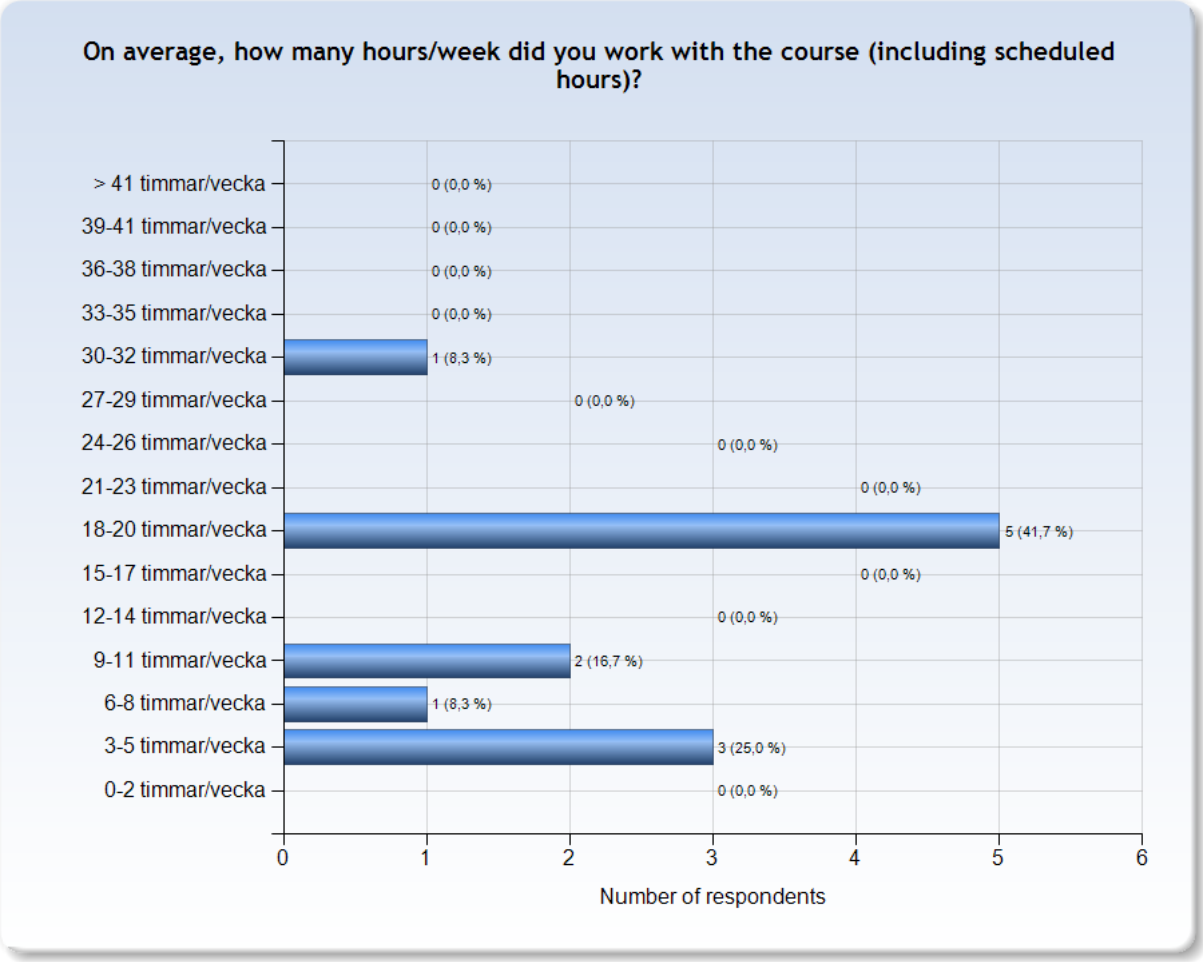
Start thinking about the labs and projects as early as possible during the course if you want to do a more involved project.

Do something challenging. The project is a pretty good opportunity for you and can also be used as part of your portfolio of work supporting employment opportunities.

DH2323 - 2019-06-20

Antal respondenter: 95
Antal svar: 13
Svarsfrekvens: 13,68 %

ESTIMATED WORKLOAD



Comments

Comments (I worked: 3-5 timmar/vecka)
I have not completed the course yet since I had other more pressing matters. That might be worth considering.
Was busy with other courses.

Comments (I worked: 9-11 timmar/vecka)
Overall the workload is not high. To some extent, the workload really depends on ourselves since the project is chosen by ourselves. I like this but it makes me really busy these days.

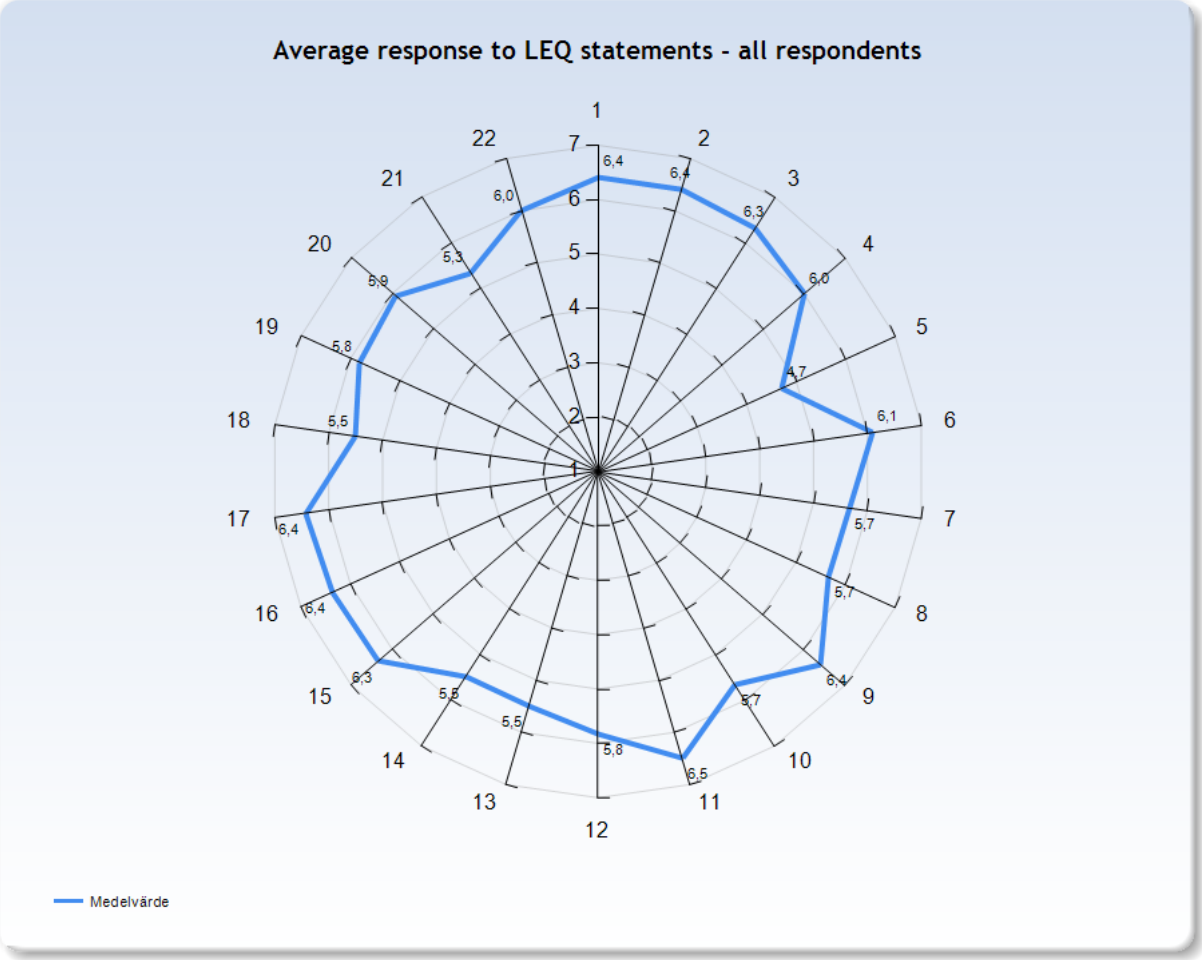
Comments (I worked: 18-20 timmar/vecka)
The course was not very intense in terms of lectures and so on, and students could plan their time individually.
If possible I want more lectures, others I feel good

LEARNING EXPERIENCE

The polar diagrams below show the average response to the LEQ statements for different groups of respondents (only valid responses are included). The scale that is used in the diagrams is defined by:

1 = No, I strongly disagree with the statement
4 = I am neutral to the statement
7 = Yes, I strongly agree with the statement

Note! A group has to include at least 3 respondents in order to appear in a diagram.


Average response to LEQ statements - all respondents
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6,0
Medelvärde

KTH Learning Experience Questionnaire v3.1.4

Meaningfulness - emotional level

Stimulating tasks

1. I worked with interesting issues (a)

Exploration and own experience

2. I explored parts of the subject on my own (a)
3. I was able to learn by trying out my own ideas (b)

Challenge

4. The course was challenging in a stimulating way (c)

Belonging

5. I felt togetherness with others on the course (d)
6. The atmosphere on the course was open and inclusive (d)

Comprehensibility - cognitive level

Clear goals and organization

7. The intended learning outcomes helped me to understand what I was expected to achieve (e)
8. The course was organized in a way that supported my learning (e)

Understanding of subject matter

9. I understood what the teachers were talking about (f)
10. I was able to learn from concrete examples that I could relate to (g)
11. Understanding of key concepts had high priority (h)

Constructive alignment

12. The course activities helped me to achieve the intended learning outcomes efficiently (i)
13. I understood what I was expected to learn in order to obtain a certain grade (i)

Feedback and security

14. I received regular feedback that helped me to see my progress (j)
15. I could practice and receive feedback without being graded (j)
16. The assessment on the course was fair and honest (k)

Manageability - instrumental level

Sufficient background knowledge

17. My background knowledge was sufficient to follow the course (f)

Time to reflect

18. I regularly spent time to reflect on what I learned (l)

Variation and participation

19. The course activities enabled me to learn in different ways (m)
20. I had opportunities to influence the course activities (m)

Collaboration

21. I was able to learn by collaborating and discussing with others (n)

Support

22. I was able to get support if I needed it (c)

Learning factors from the literature that LEQ intends to examine

We tend to learn most effectively (in ways that make a sustained, substantial, and positive influence on the way we think, reflect, act or feel) when:

a) We are trying to answer questions, solve problems or acquire skills that we find interesting, exciting or important

b) We are able to speculate, test ideas (intellectually or practically) and learn from experience, even before we know much about the subject

c) We are able to do so in a challenging and at the same time supportive environment

d) We feel that we are part of a community and believe that other people have confidence in our ability to learn

e) We understand the meaning of the intended learning outcomes, how the environment is organized, and what is expected of us

f) We have adequate prior knowledge to deal with the current learning situation

g) We are able to learn inductively by moving from concrete examples and experiences to general principles, rather than the reverse

h) We are challenged to develop a true understanding of key concepts and gradually create a coherent whole from the content

i) We believe that the work we are expected to do will help us to achieve the intended learning outcomes

j) We are able to try, fail, and receive feedback before, and separate from, each summative assessment of our efforts

k) We believe that our work will be considered in an honest and fair way

l) We have sufficient time for learning and devote the time needed to do so

m) We believe that we have control over our own learning, and not that we are being manipulated

n) We are able to collaborate with other learners struggling with the same problems

Literature

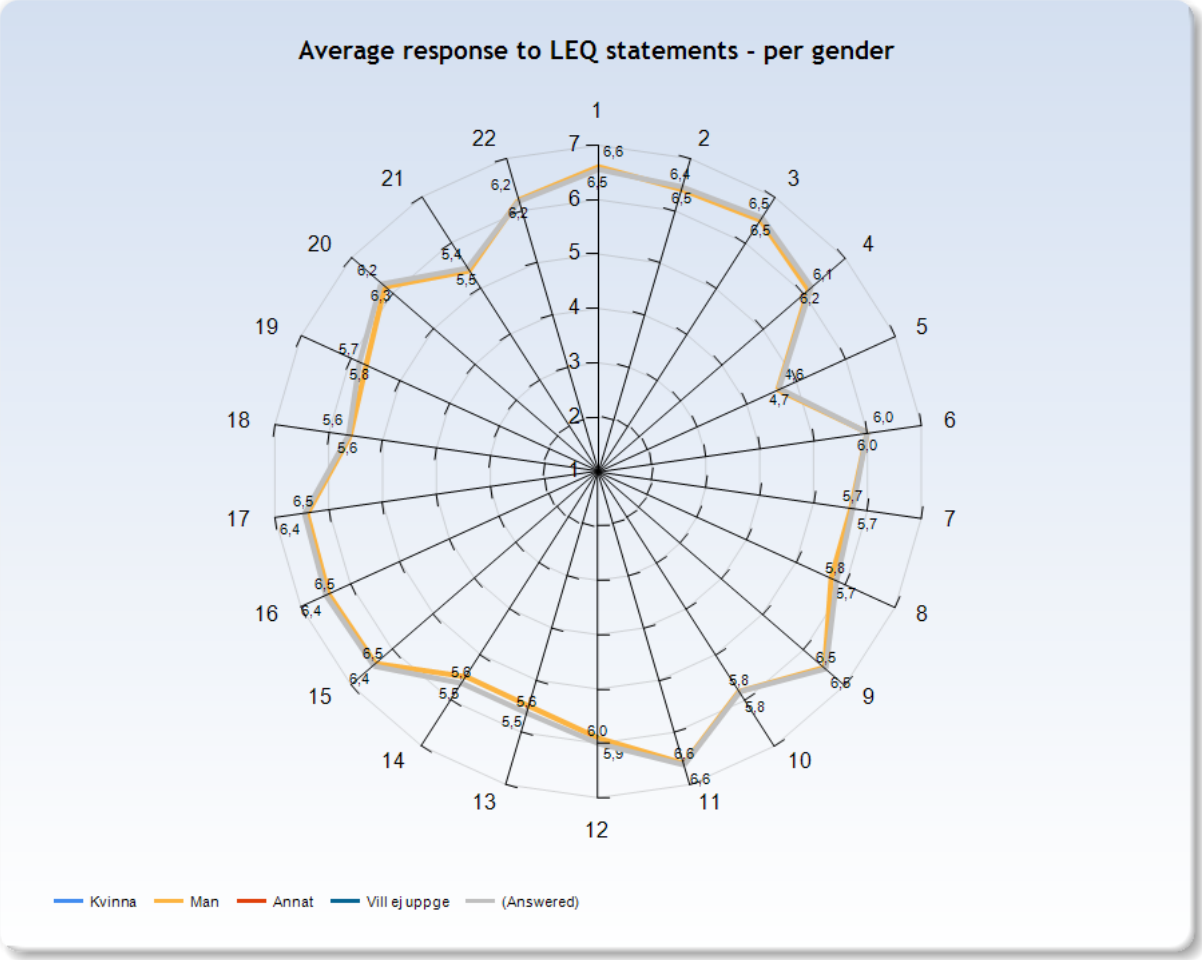
Bain, K. (2004). *What the Best College Teachers Do*, Chapter 5, pp. 98-134. Cambridge: Harvard University Press.

Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

Elmgren, M. & Henriksson, A-S. (2014). *Academic Teaching*, Chapter 3, pp. 57-72. Lund: Studentlitteratur.

Kember, K. & McNaught, C. (2007). *Enhancing University Teaching: Lessons from Research into Award-Winning Teachers*, Chapter 5, pp. 31-40. Abingdon: Routledge.

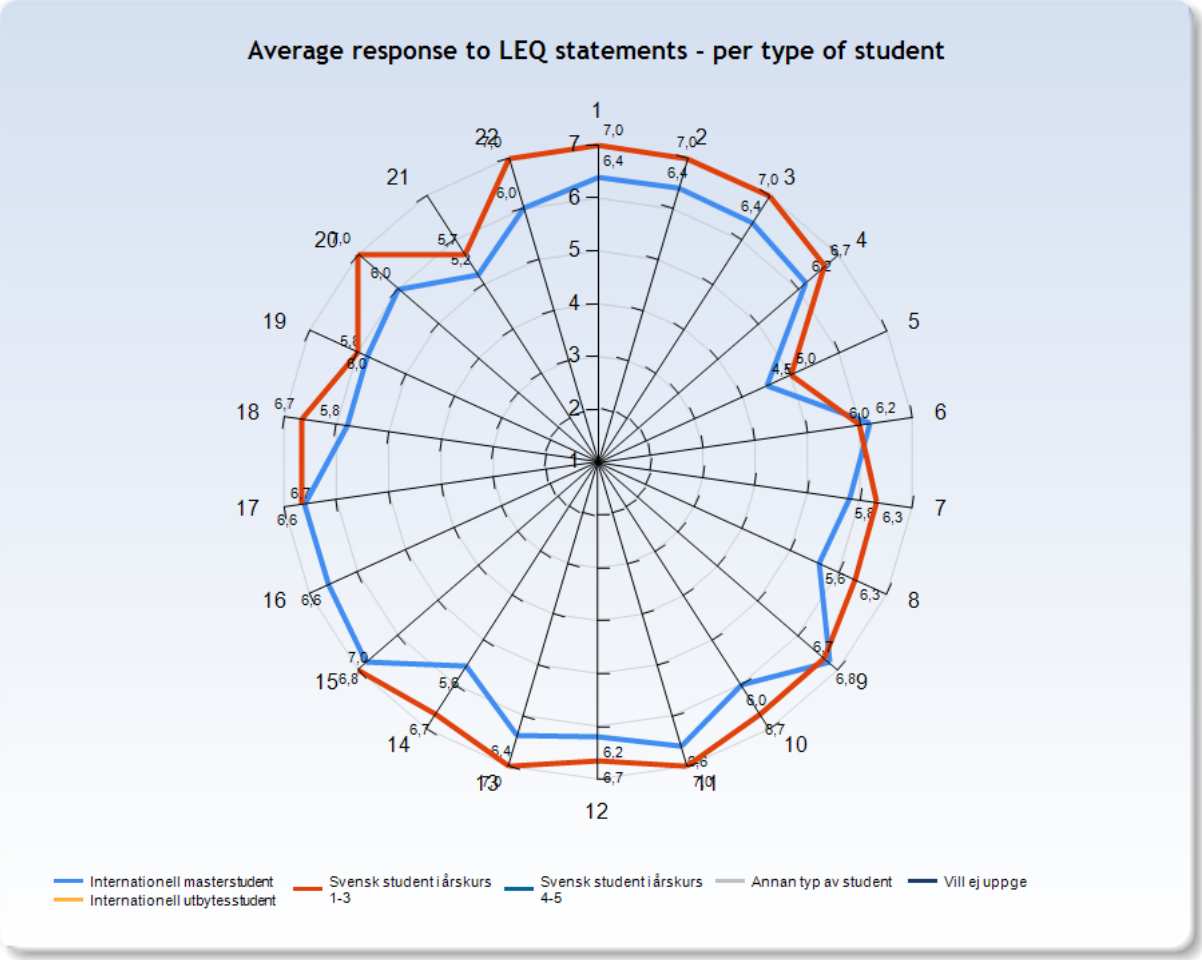
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.



Comments

Comments (I am: Kvinna)
Friendly

Comments (I am: Man)
No gender-based differences in the course to my knowledge.
Of course, we can study on equal terms.
I am extra manly.



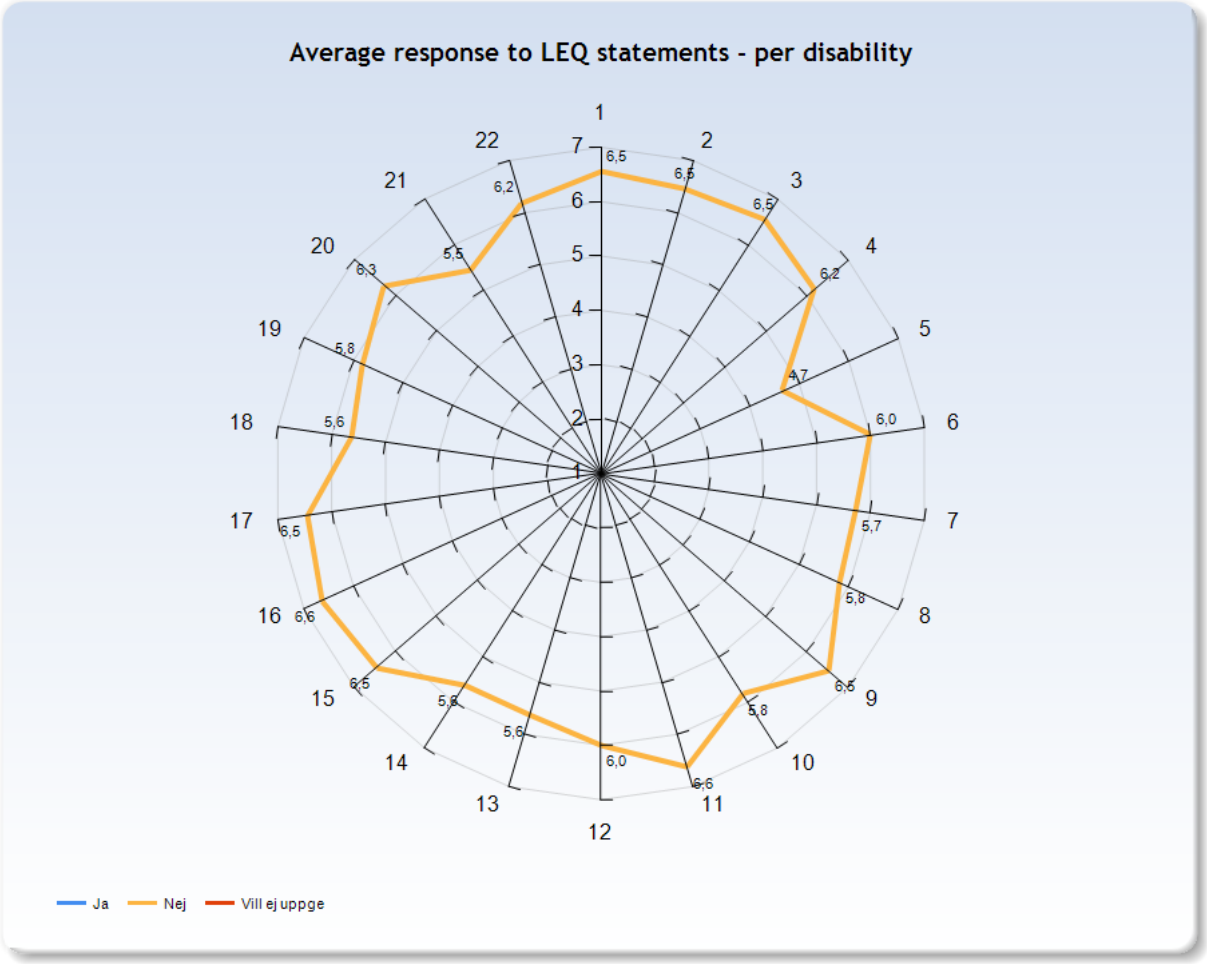
Comments

Comments (I am: Internationell masterstudent)

Friendly

Comments (I am: Internationell utbytesstudent)

Taking the introduction course in P3 was very useful to follow this course!


Average response to LEQ statements - per disability
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6,6
6,0
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5,8
6,5
6,6
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6,3
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6,2
Ja
Nej
Vill ej uppge

Comments

GENERAL QUESTIONS

What was the best aspect of the course?

What was the best aspect of the course? (I worked: 3-5 timmar/vecka)
The teacher was very open and very friendly. He's also very good at explaining and clearly likes what he is doing and is trying his best. This is always very very appreciated by the students.
Freedom and good basics. Good design of the course structure that makes one learn effectively.

What was the best aspect of the course? (I worked: 9-11 timmar/vecka)
I think it is the project. I can do whatever I want to do as long as it is related to computer graphics.

What was the best aspect of the course? (I worked: 18-20 timmar/vecka)
Got to choose our own projects AND got guidance for feasibility of the project.
The course is interesting, Christopher talks about the topics in an interesting way in lectures.
The lab and the project, it helps me learn to create something by myself
Choosing of different track, whether you want "easier" or more "interesting" the choice is yours.

What would you suggest to improve?

What would you suggest to improve? (I worked: 3-5 timmar/vecka)
Maybe the slides. In a way such that we could understand them from home.
Assume that the students know the basics.

What would you suggest to improve? (I worked: 9-11 timmar/vecka)
I think we can go deeper since most of us have already learned Introduction to Computer graphics.

What would you suggest to improve? (I worked: 18-20 timmar/vecka)
I cant think of anything, this course was near perfection for my taste
I would add even more lab times, to make it easier to start programming early in the course.
Maybe more active classes
Example projects, some given ideas with their grades so that you don't HAVE to come up with an idea of your own.

What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 3-5 timmar/vecka)
Don't wait before working on the labs because labs + project is more work than expected and you should not understimate it.
Don't do the Unity lab since you will find yourself wanting to make a project that is not primarily a Unity project.

What advice would you like to give to future participants? (I worked: 9-11 timmar/vecka)
Do something challenging yourself. The project is a pretty good opportunity for you.

What advice would you like to give to future participants? (I worked: 18-20 timmar/vecka)
Start thinking about projects as early as possible during the course if you want to do a more involved project.
Do not set the bar too high for the project at first.
Just find what you interest in and work hard on it
Use the internet. Similar code, guides etc. can be found and help with understanding a problem.

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 3-5 timmar/vecka)
No, but thank you for this course.
Some things gets repeated in this course if you have taken another graphics course at KTH.

SPECIFIC QUESTIONS

Kursen had ett projekt istället för en tentamen. Tycker du att en examen eller ett projekt är att föredra i denna typ av kurs?

Kursen had ett projekt istället för en tentamen. Tycker du att en examen eller ett projekt är att föredra i denna typ av kurs?
Maybe a smaller project that includes less work with an examen that don't count for too much for the final grade could be great.
Project by FAR. It allows for greater control of grade in relation to knowledge and is way more fun. Exams in DH/DD courses are rarely good for evaluating a student, since the same examination criteria are often found in the labs. Also, DD/DH exams are SO easy for a student to mess up e.g due to having to write code "that compiles or you fail". Such requirements in exams are just an unfair way to balance out the grading curve, and anyone who passes those criteria most likely cannot satisfy it a week later. Basically, labs&projects support substantial learning and exams support memorising knowledge, practising old exams, trying to figure out what the teacher likes as answers, and exams base examination on the assumption that no unintentional mistakes were done by the students (which is often not true in exams). It annoys me that exams are still a thing in D courses, as if that is the only way to counteract plagiarism. It is great that we use projects in this course.
Yes, because you can set your own bar of performance requirements and also do something you're interested in.
No, the project is more suitable for this course.
Yes, absolutely
Project. The course is digital and an exam is very analog, wouldn't make much sense to be tested in the theoretic bits as those are covere either way in implementation in the project.
Project. I would prefer doing something interesting to me.
Project is good but hard to control in regards to cheating.

I projektspecifikationsprocessen bad vi dig om önskad betygs- och presentåterkoppling när det gäller råd om hur man uppnår det. Tror du att processen var användbar? Om du inte deltog i det t.ex. genom att skriva ett förslag eller be om feedback, varför inte?

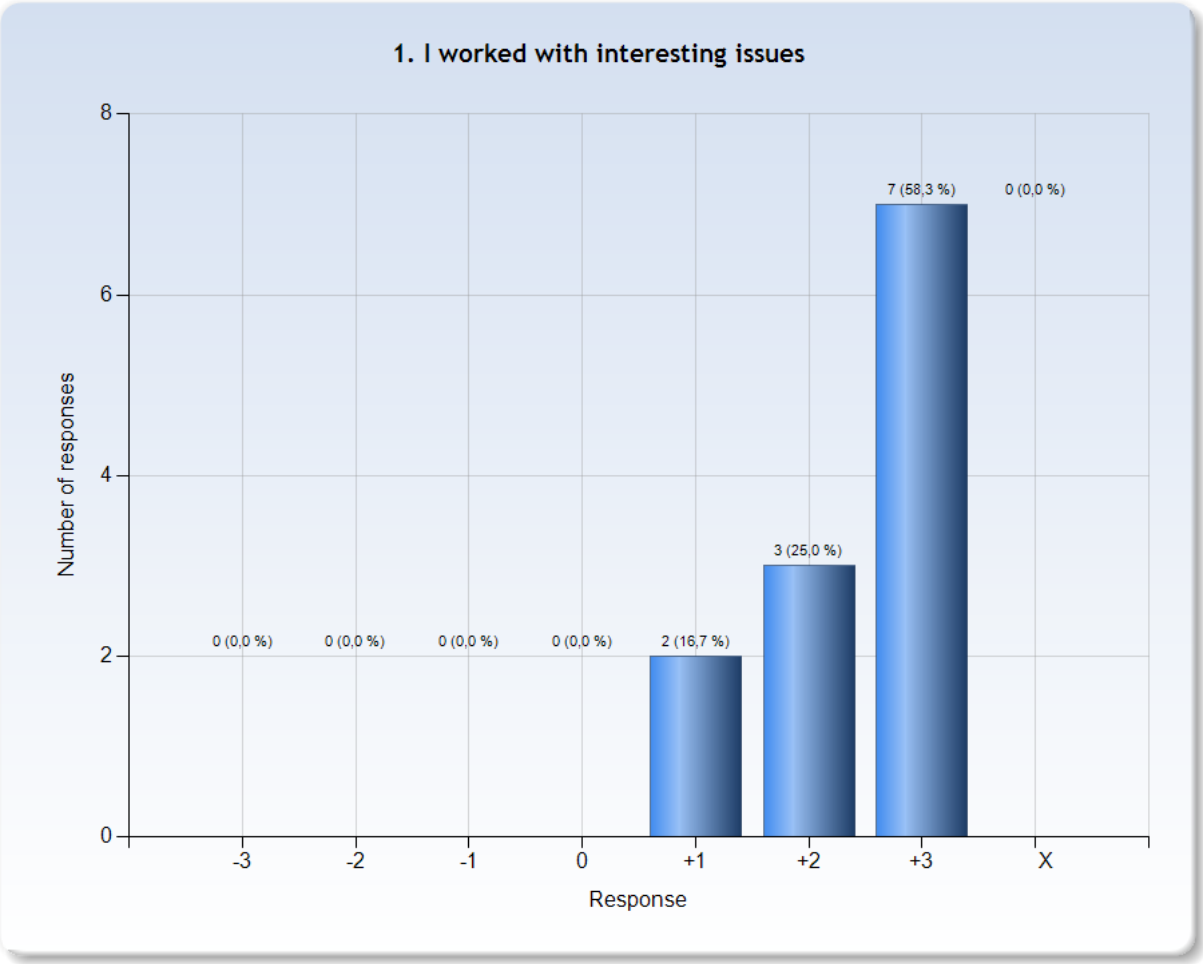
I projektspecifikationsprocessen bad vi dig om önskad betygs- och presentåterkoppling när det gäller råd om hur man uppnår det. Tror du att processen var användbar? Om du inte deltog i det t.ex. genom att skriva ett förslag eller be om feedback, varför inte?
Yes!
Yes it was very useful, since it gave a good estimate of hoe much is needed for a certain grade.
Yes, because you could specify your exact requirements so the project was pretty straight forward.
I think it can be very difficult for a student to realize what is involved in a certain grade. Perhaps having a list of example projects and their respective grades could be a useful guide in this respect.
Yes, very useful, and effective feedback
I think it was useful, but examples would have helped in getting good ideas and a sense of what is possible.
It is pretty good. The feedback told me what to do and how to do in order to achieve my desiring grade, so I won't be so confused when starting my project.
Maybe the assistants should just give tips to what is needed for every single grade A-E in order to remove ambiguity.

RESPONSE DATA

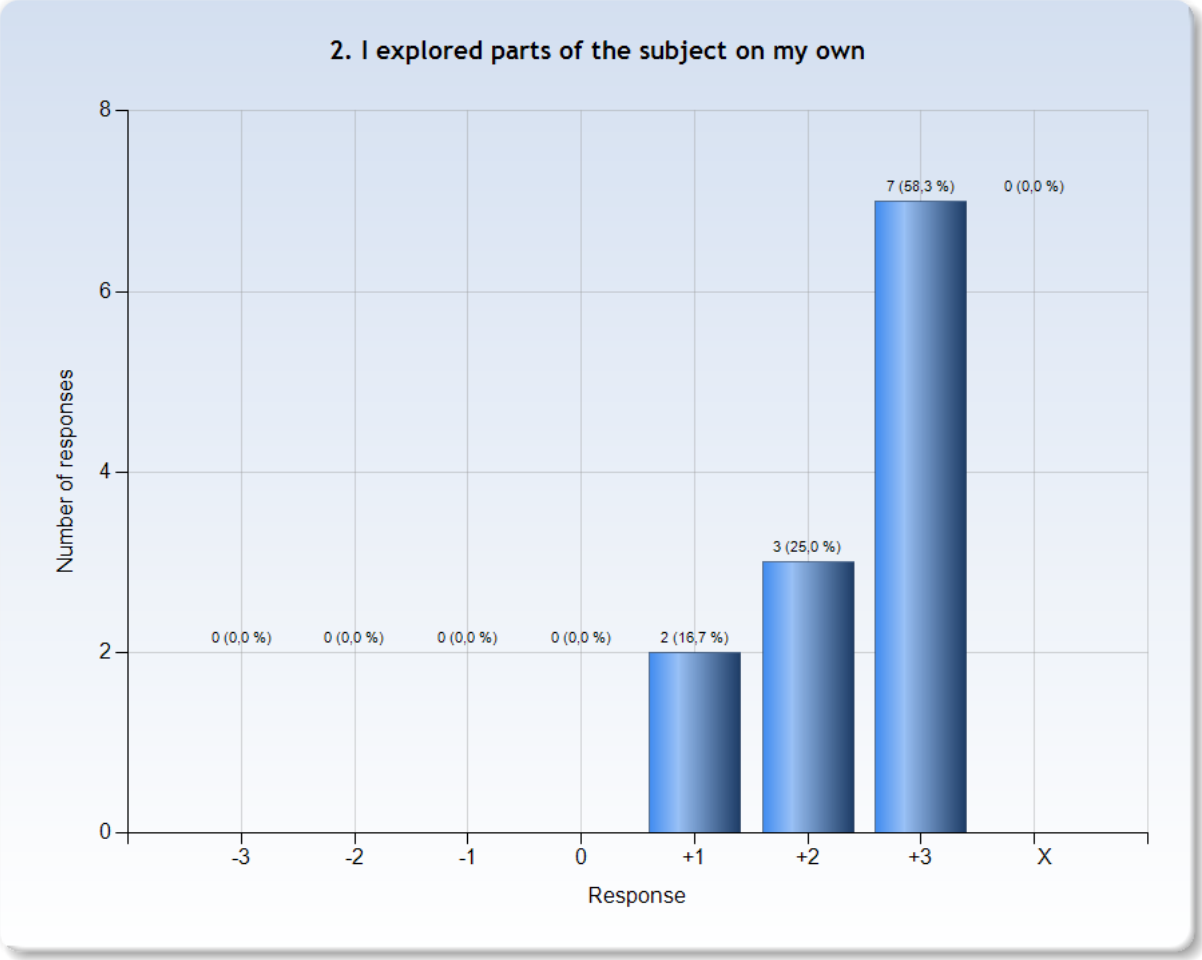
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-3 = No, I strongly disagree with the statement
0 = I am neutral to the statement
+3 = Yes, I strongly agree with the statement

X = I decline to take a position on the statement



Comments


2. I explored parts of the subject on my own
Number of responses
8
6
4
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0
0 (0,0 %)
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0 (0,0 %)
2 (16,7 %)
3 (25,0 %)
7 (58,3 %)
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-3
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+1
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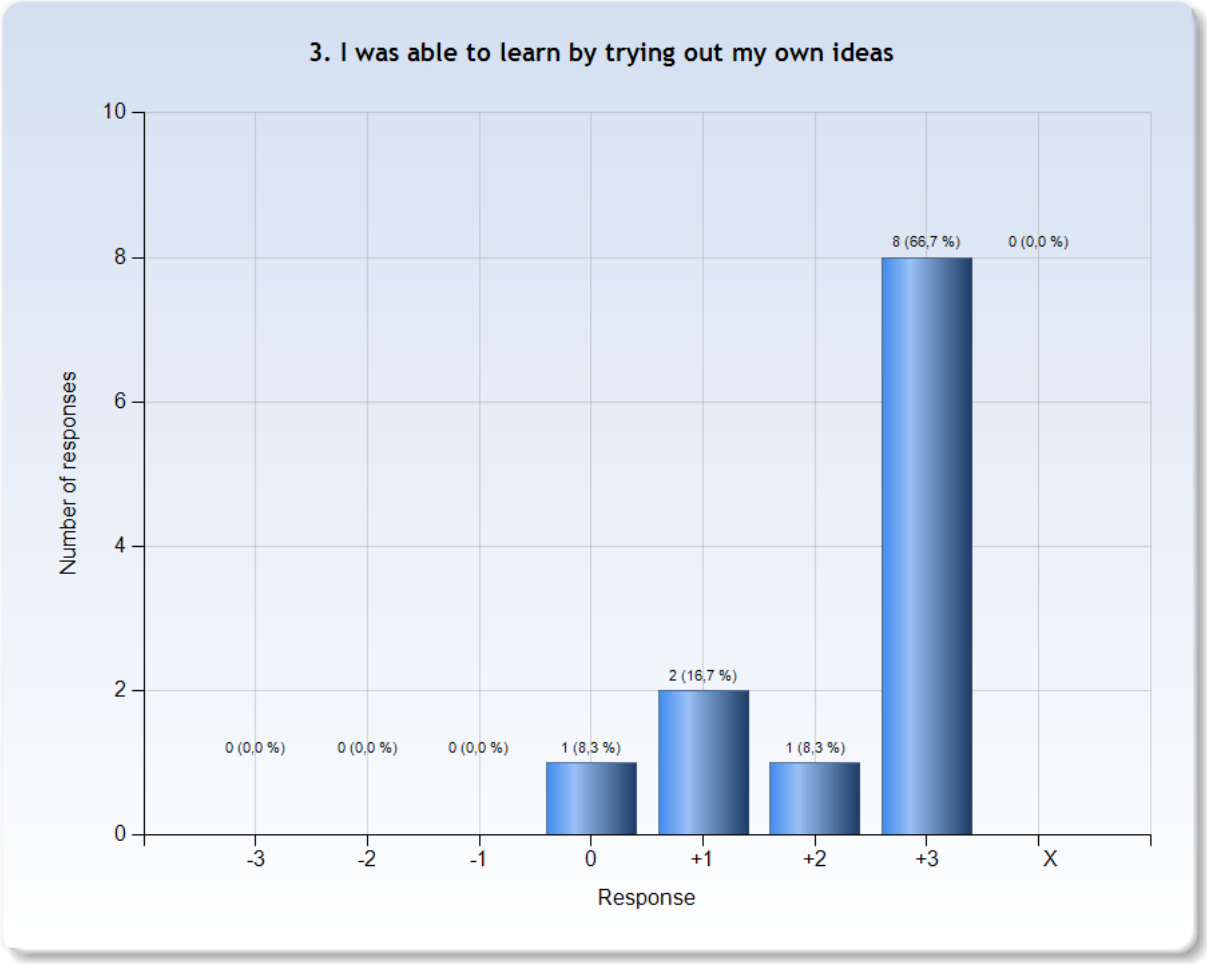
X
Response

Comments


3. I was able to learn by trying out my own ideas
Number of responses
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2 (16,7 %)
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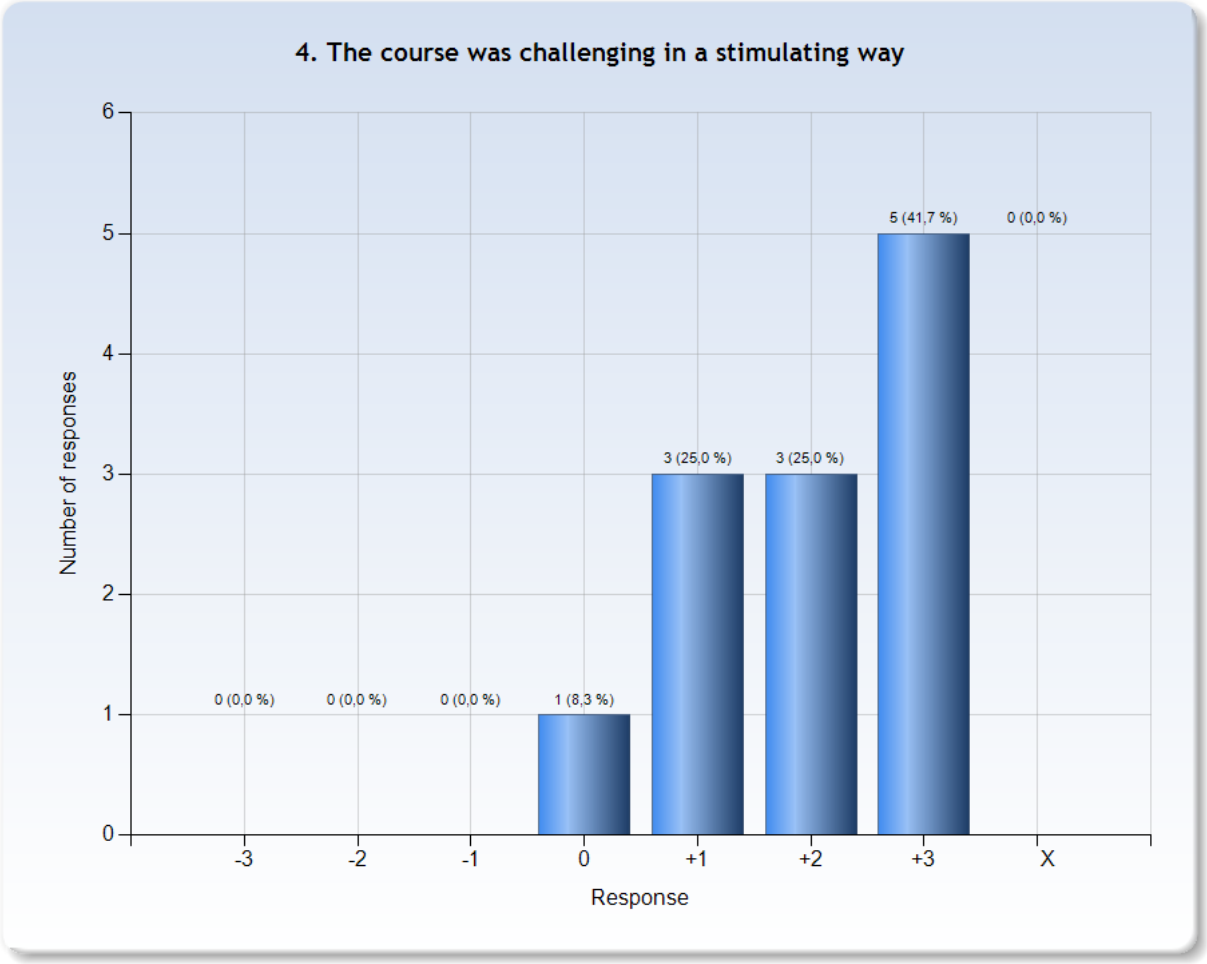
Response

Comments


4. The course was challenging in a stimulating way
Number of responses
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0 (0,0 %)
0 (0,0 %)
1 (8,3 %)
3 (25,0 %)
3 (25,0 %)
5 (41,7 %)
0 (0,0 %)
-3
-2
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+2
+3
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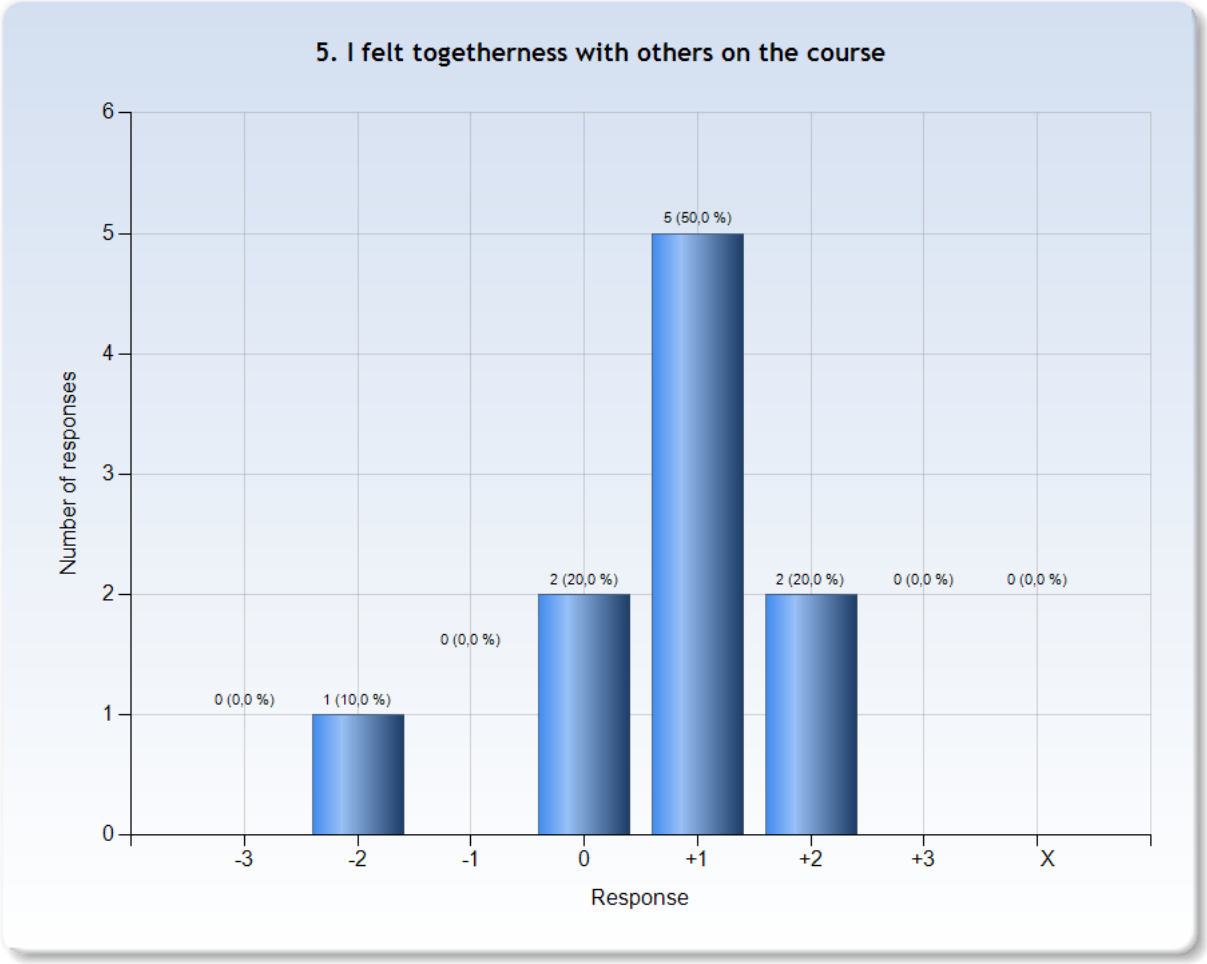
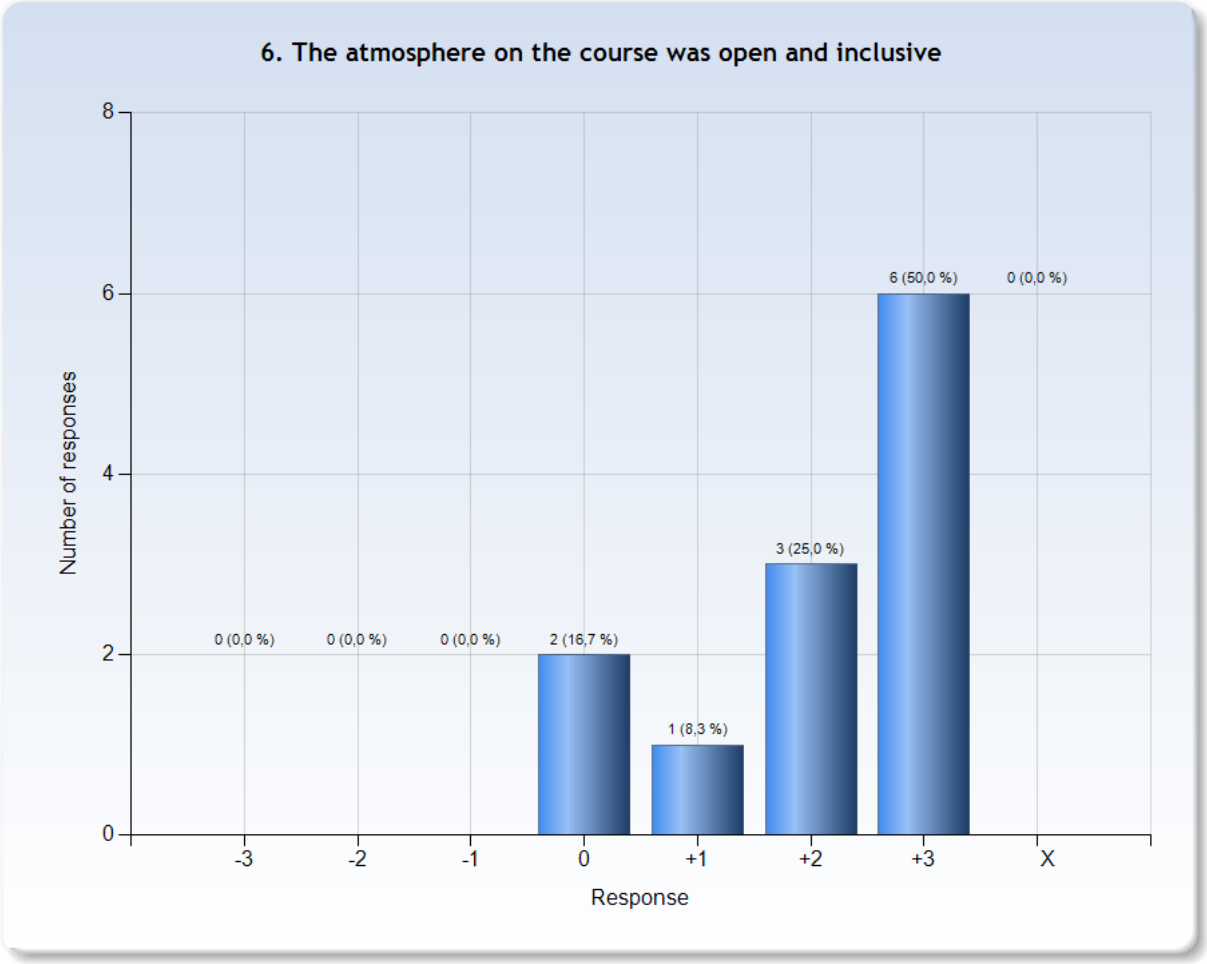
Response

Comments



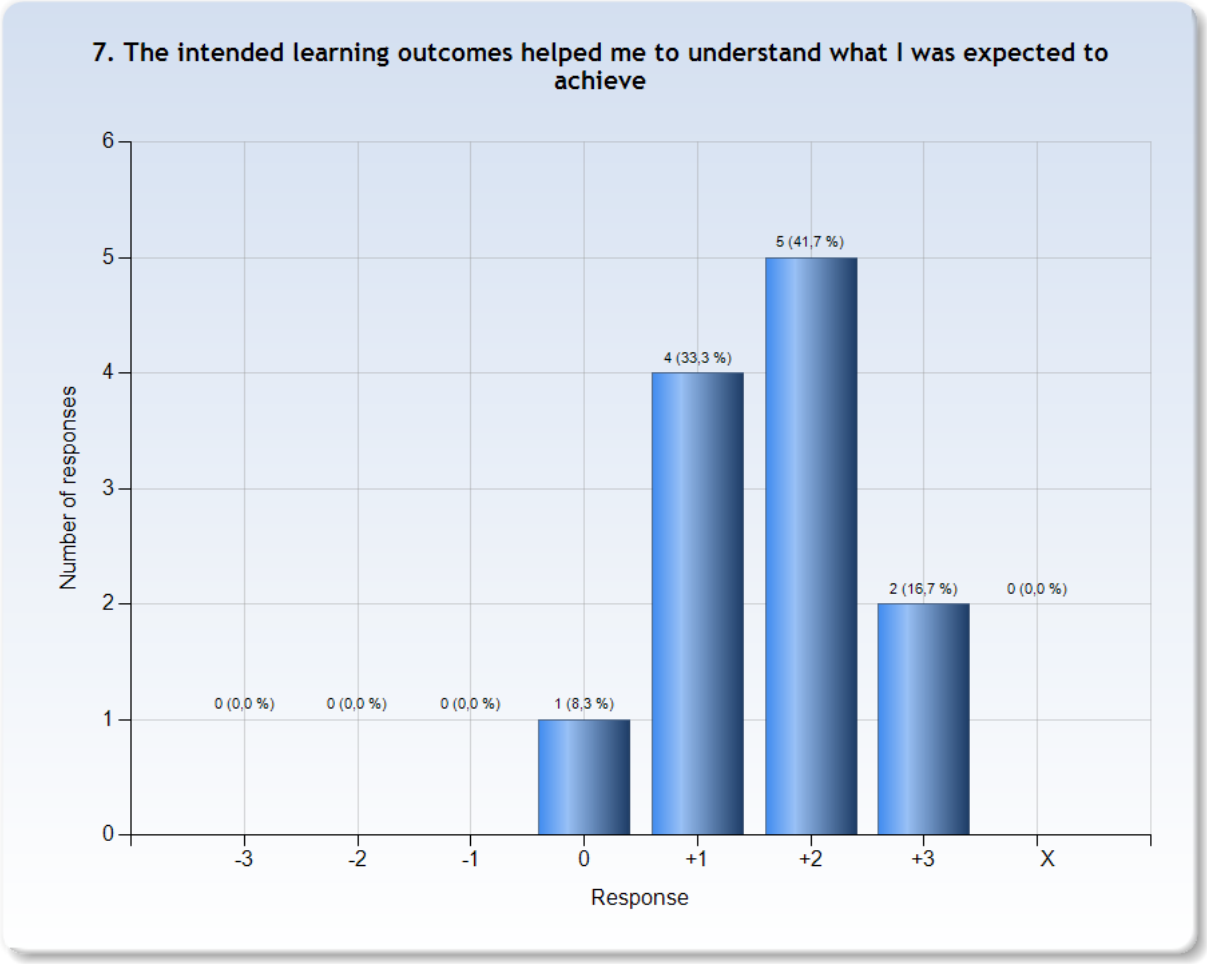
Comments

Comments (My response was: +1)
Lectures in VIC made environment a bit less intimidating



Comments

Comments (My response was: +2)
Peters made sure of it from day one inviting students to office.


7. The intended learning outcomes helped me to understand what I was expected to achieve
Number of responses
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4 (33,3 %)
5 (41,7 %)
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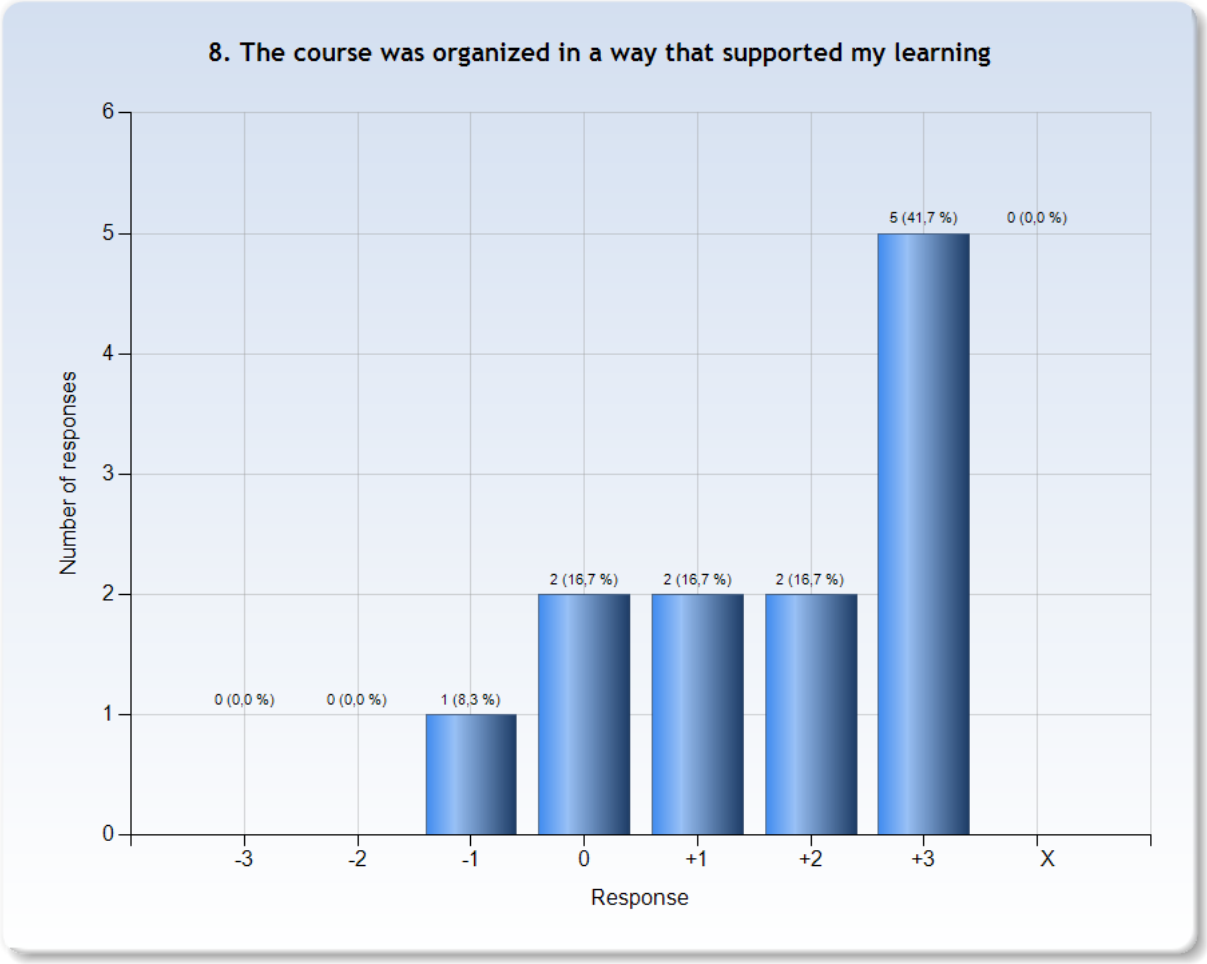
Response

Comments


8. The course was organized in a way that supported my learning
Number of responses
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1 (8,3 %)
2 (16,7 %)
2 (16,7 %)
2 (16,7 %)
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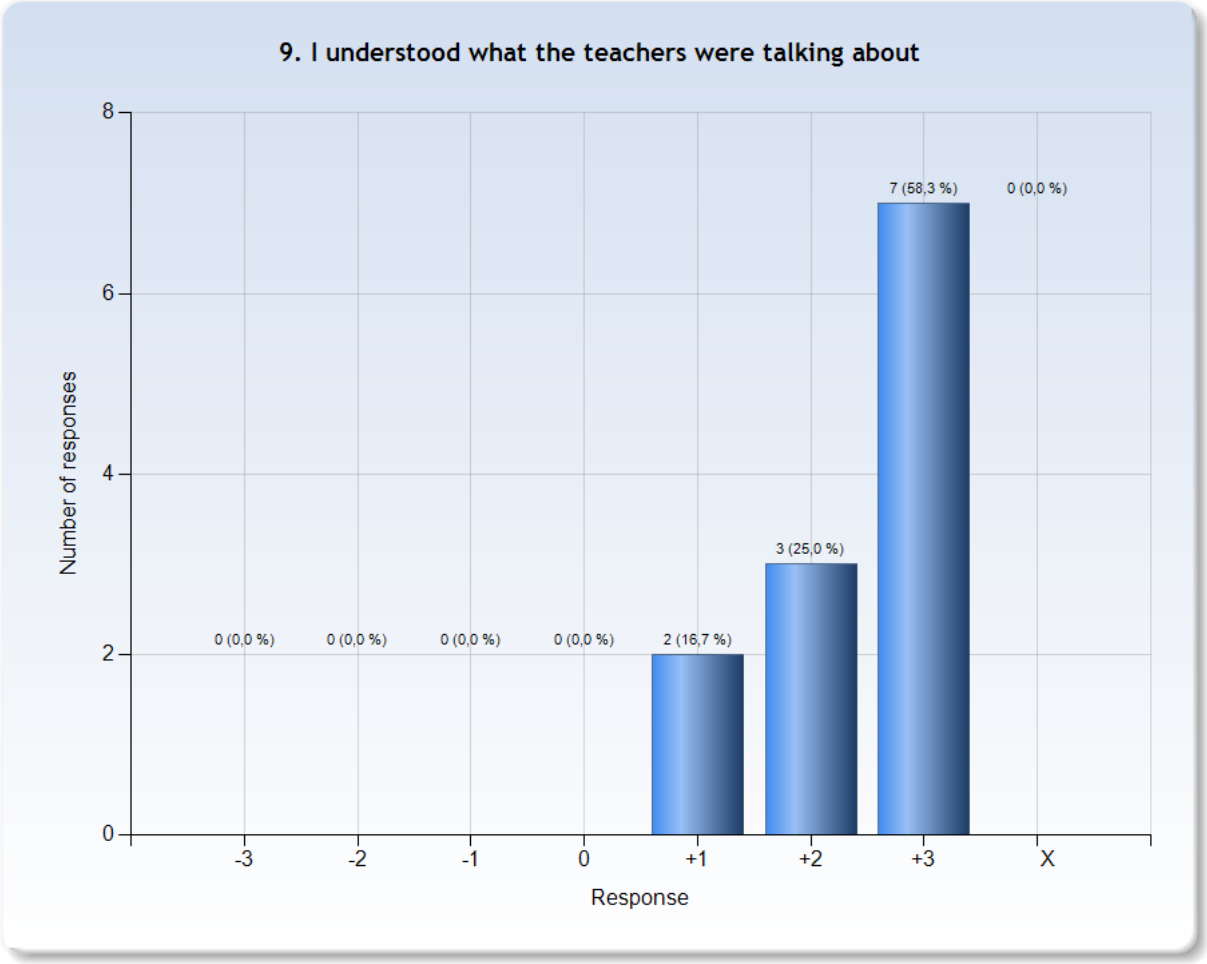
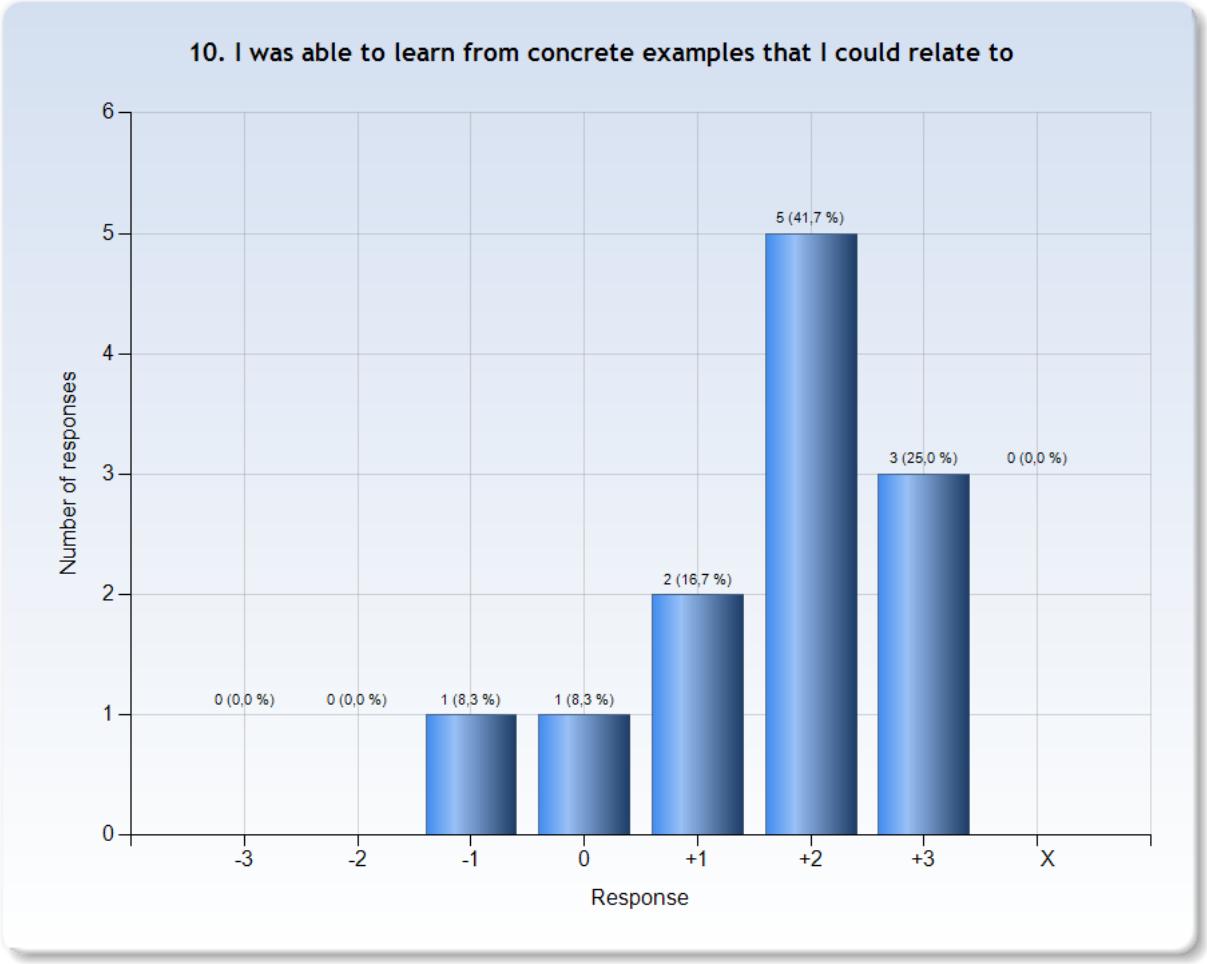
Response

Comments



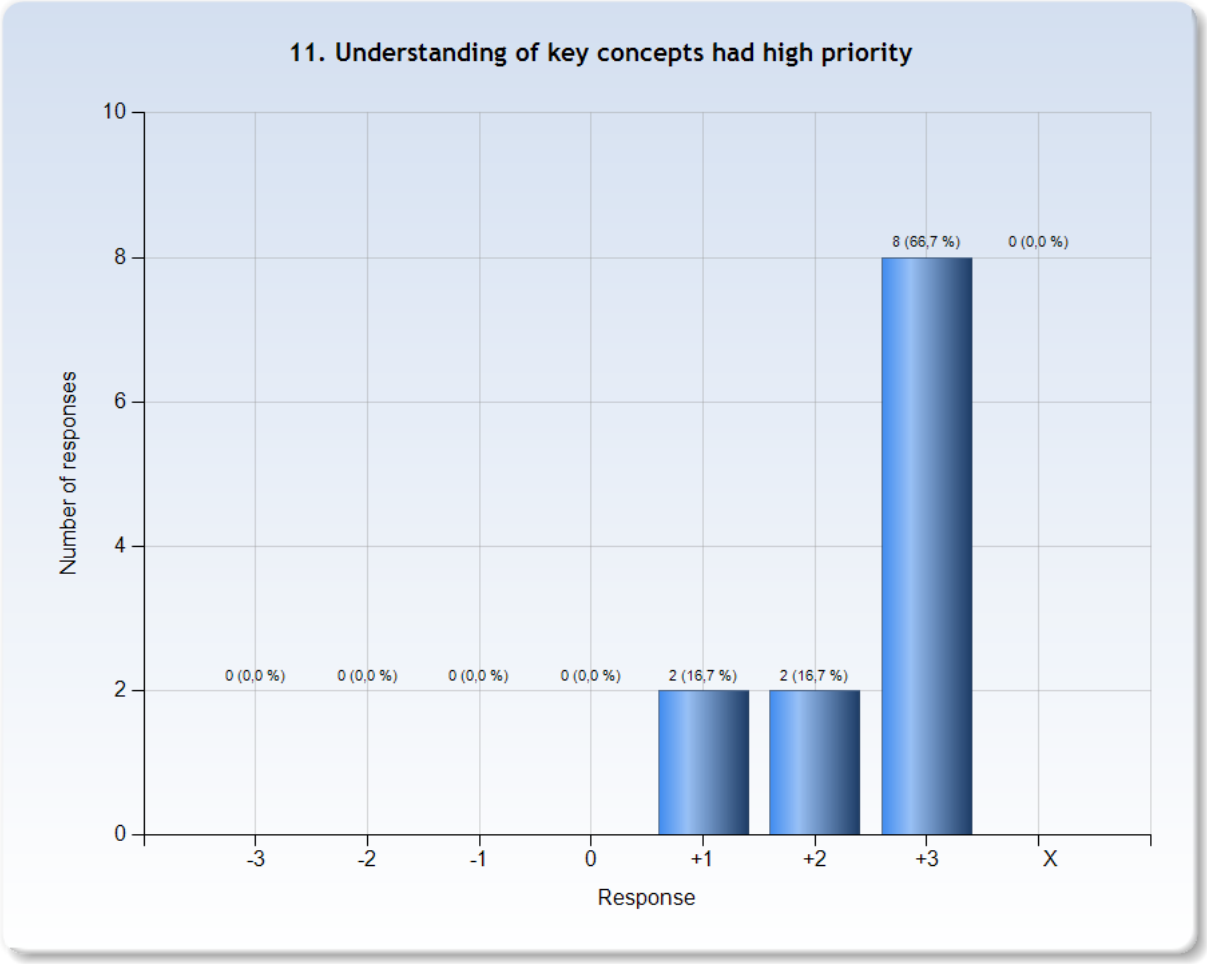
Comments

Comments (My response was: +2)
Scene Management was a bit tough to grasp (although i didnt prepare for it, so that might be why)



Comments

Comments (My response was: -1)
No such given, even though online resources could help.


11. Understanding of key concepts had high priority
Number of responses
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0 (0,0 %)
0 (0,0 %)
2 (16,7 %)
2 (16,7 %)
8 (66,7 %)
0 (0,0 %)
-3
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-1
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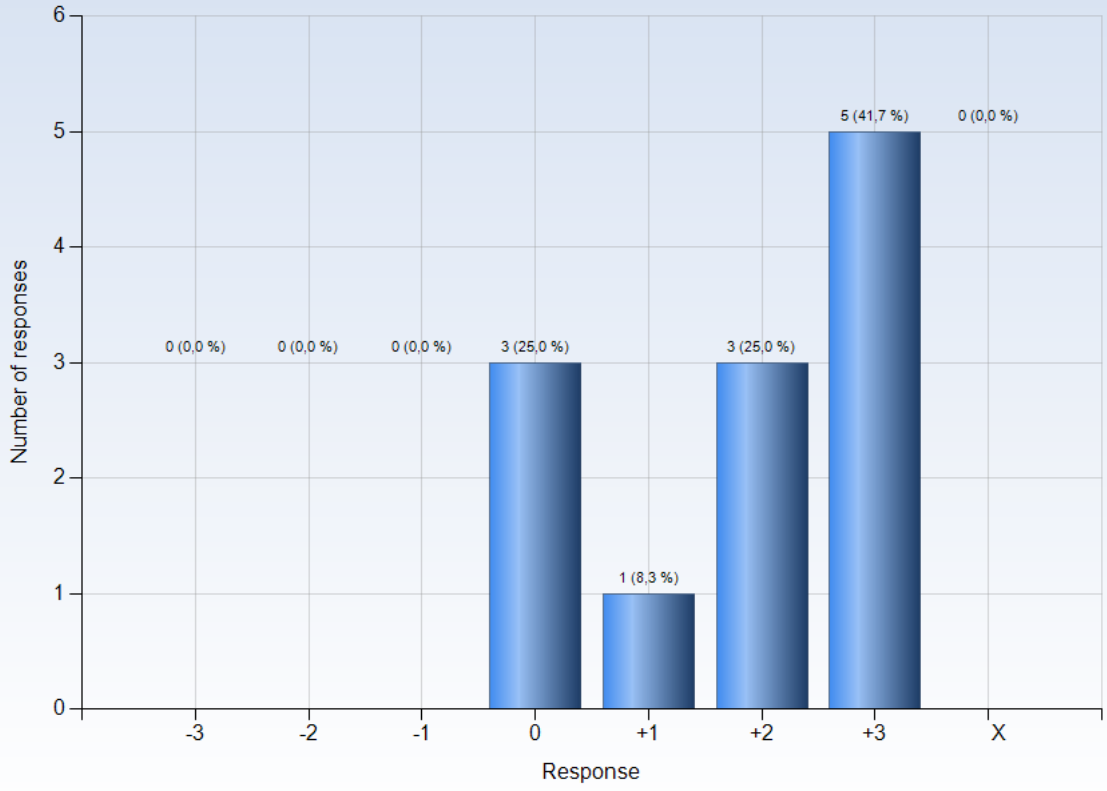
X
Response

Comments

12. The course activities helped me to achieve the intended learning outcomes efficiently



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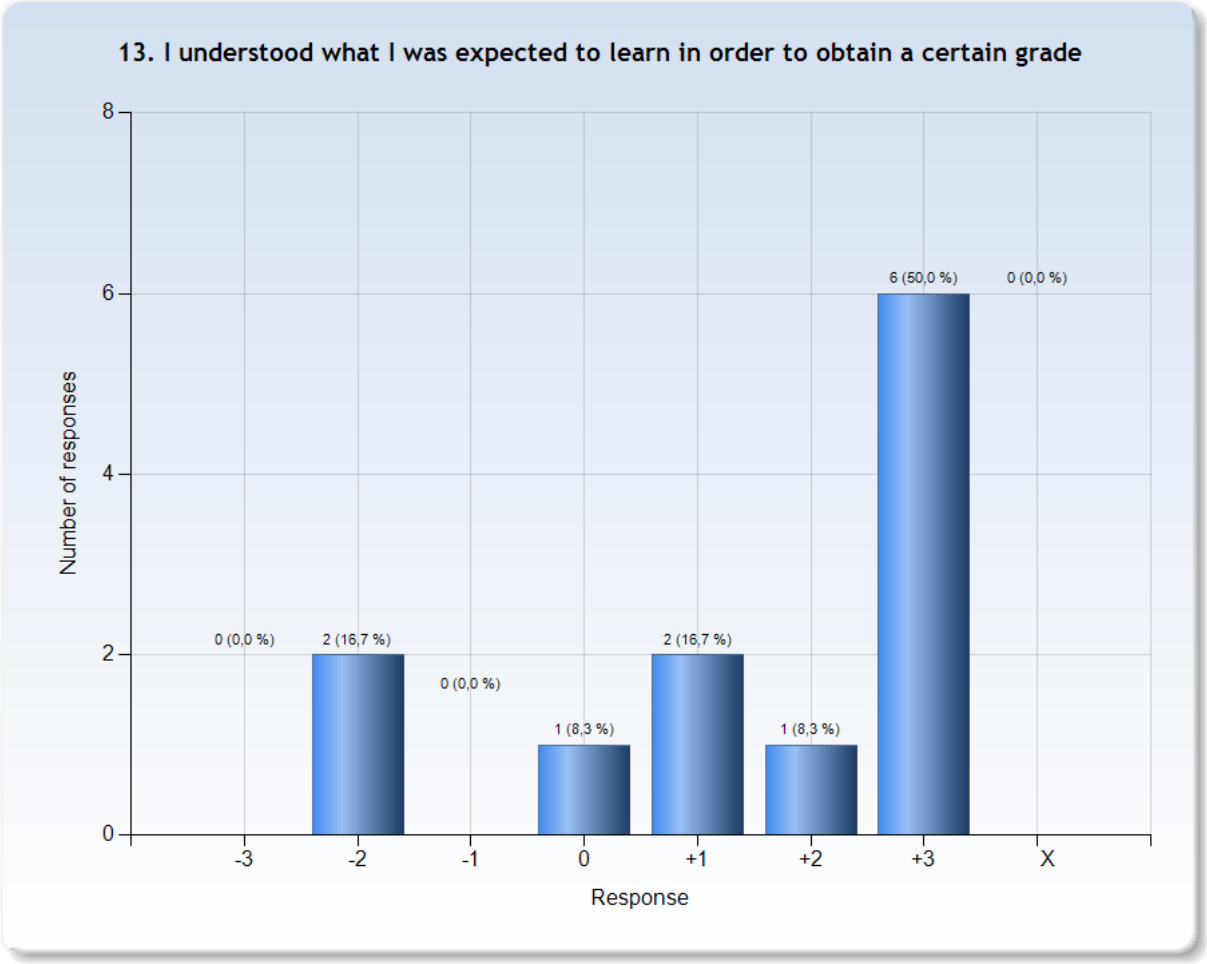
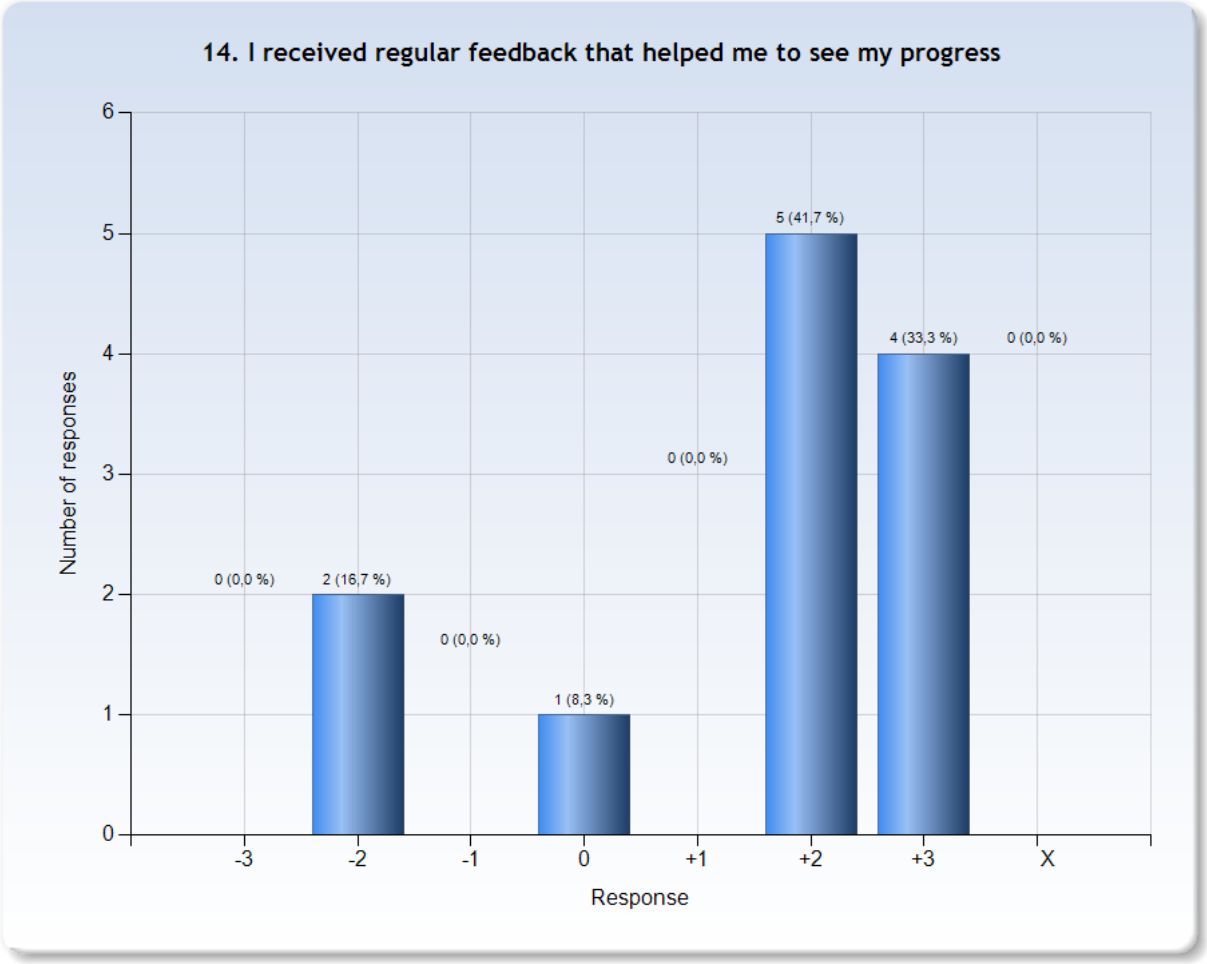


Comments

Comments (My response was: -2)

Project grading was vague. Being able to ask wahat grade your idea was on helped, but still a bit unclear what specific tasks raised/lowered grades and where focus should be put.


14. I received regular feedback that helped me to see my progress
Number of responses
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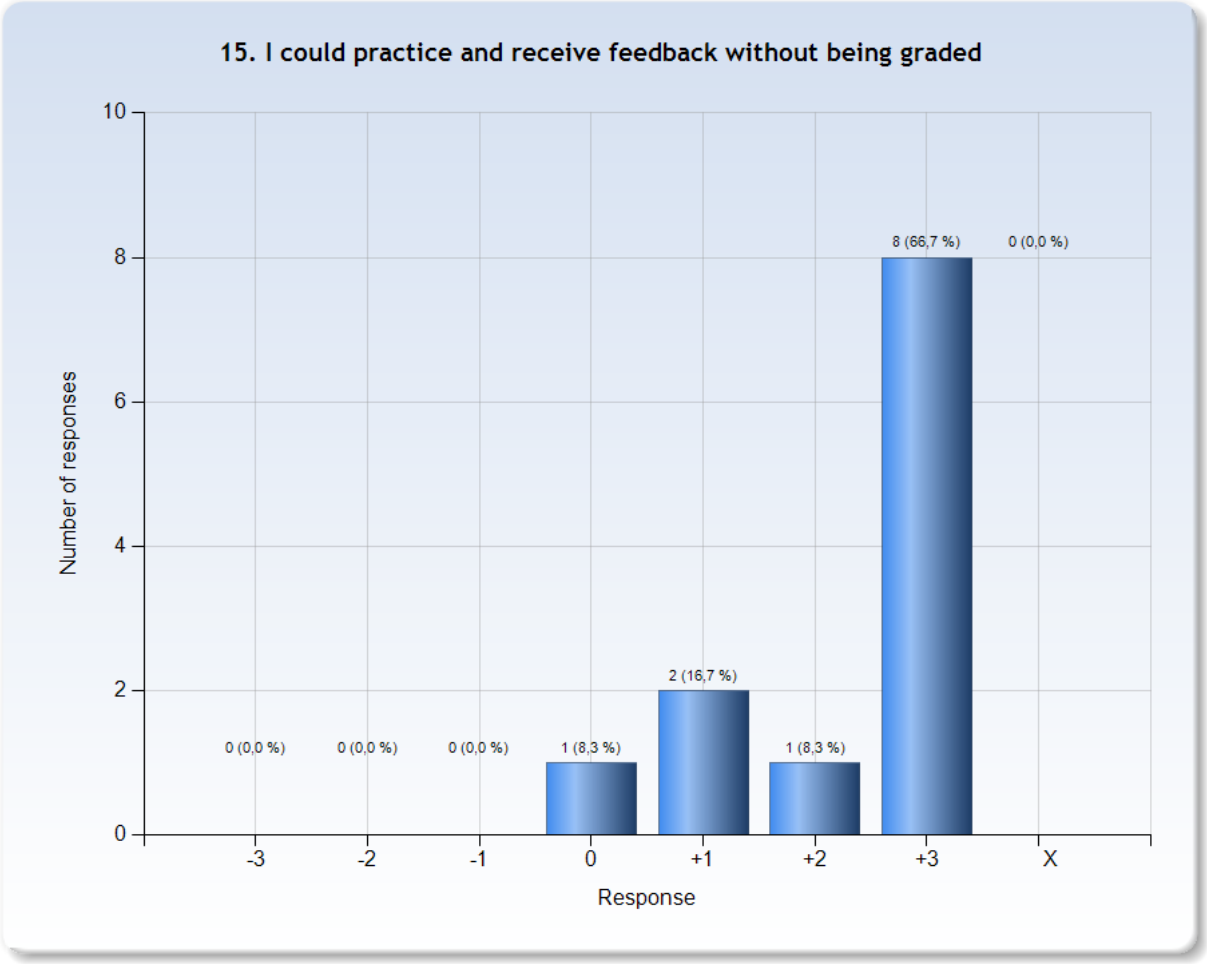
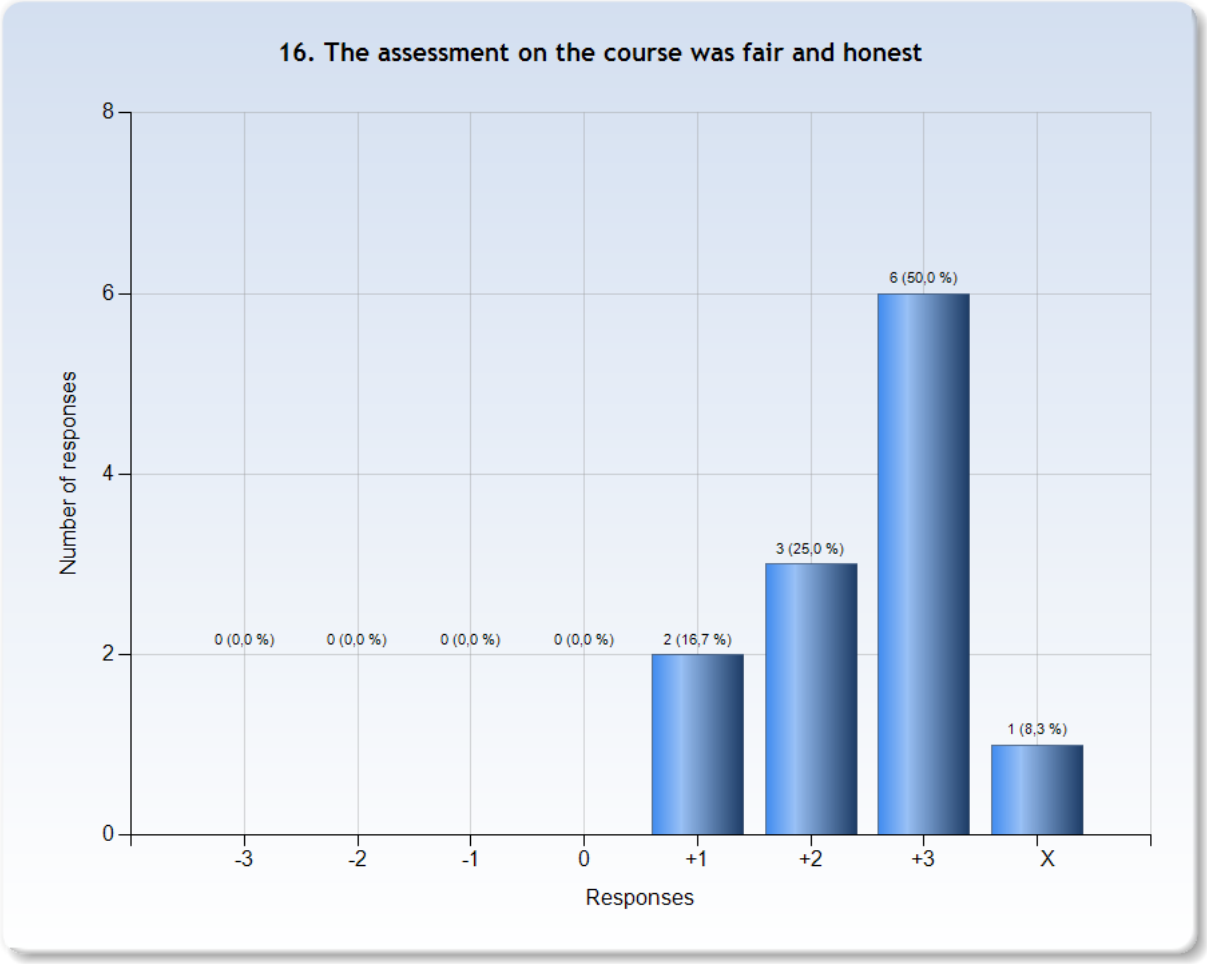
Response

Comments


15. I could practice and receive feedback without being graded
Number of responses
10
8
6
4
2
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (8,3 %)
2 (16,7 %)
1 (8,3 %)
8 (66,7 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

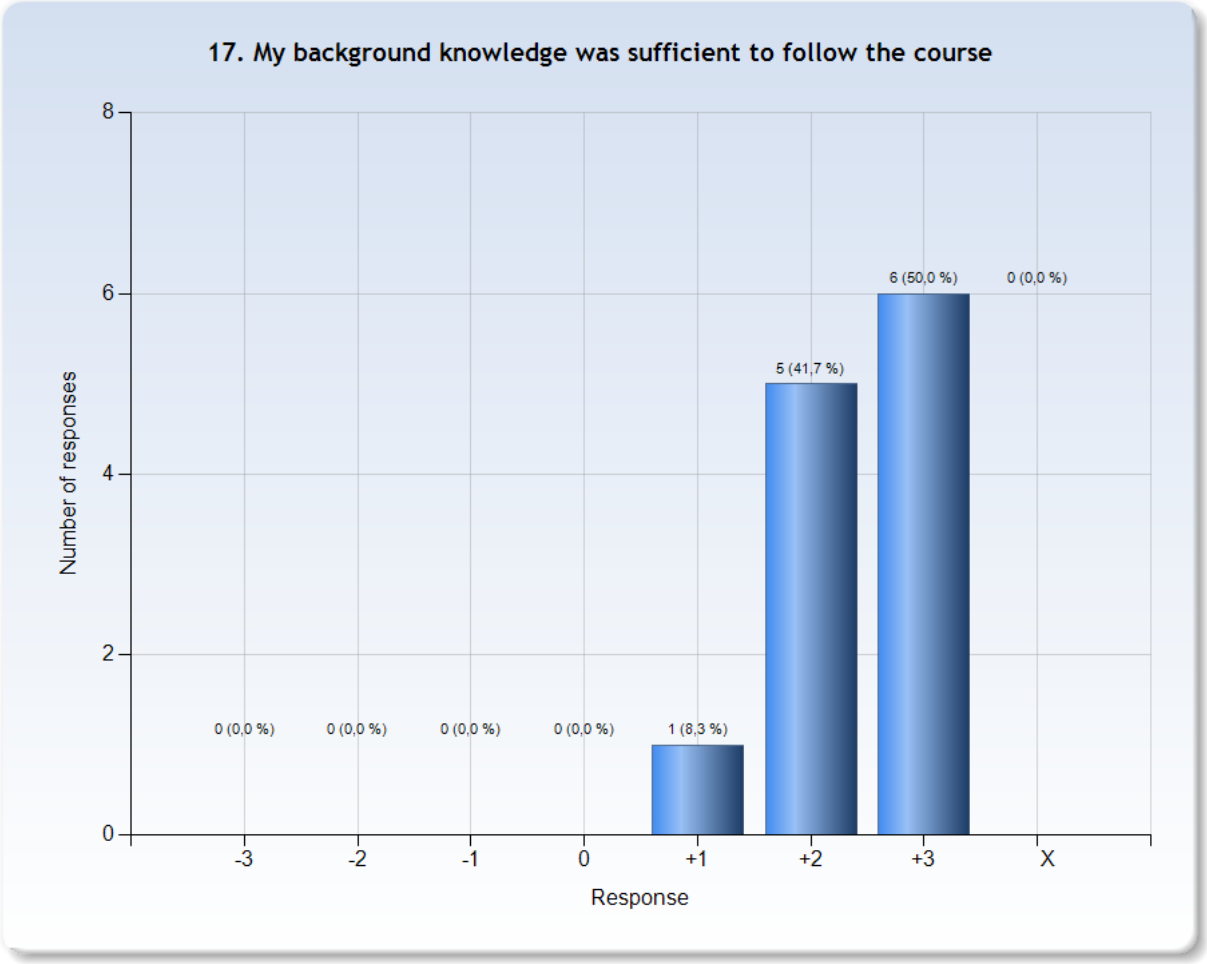
Comments



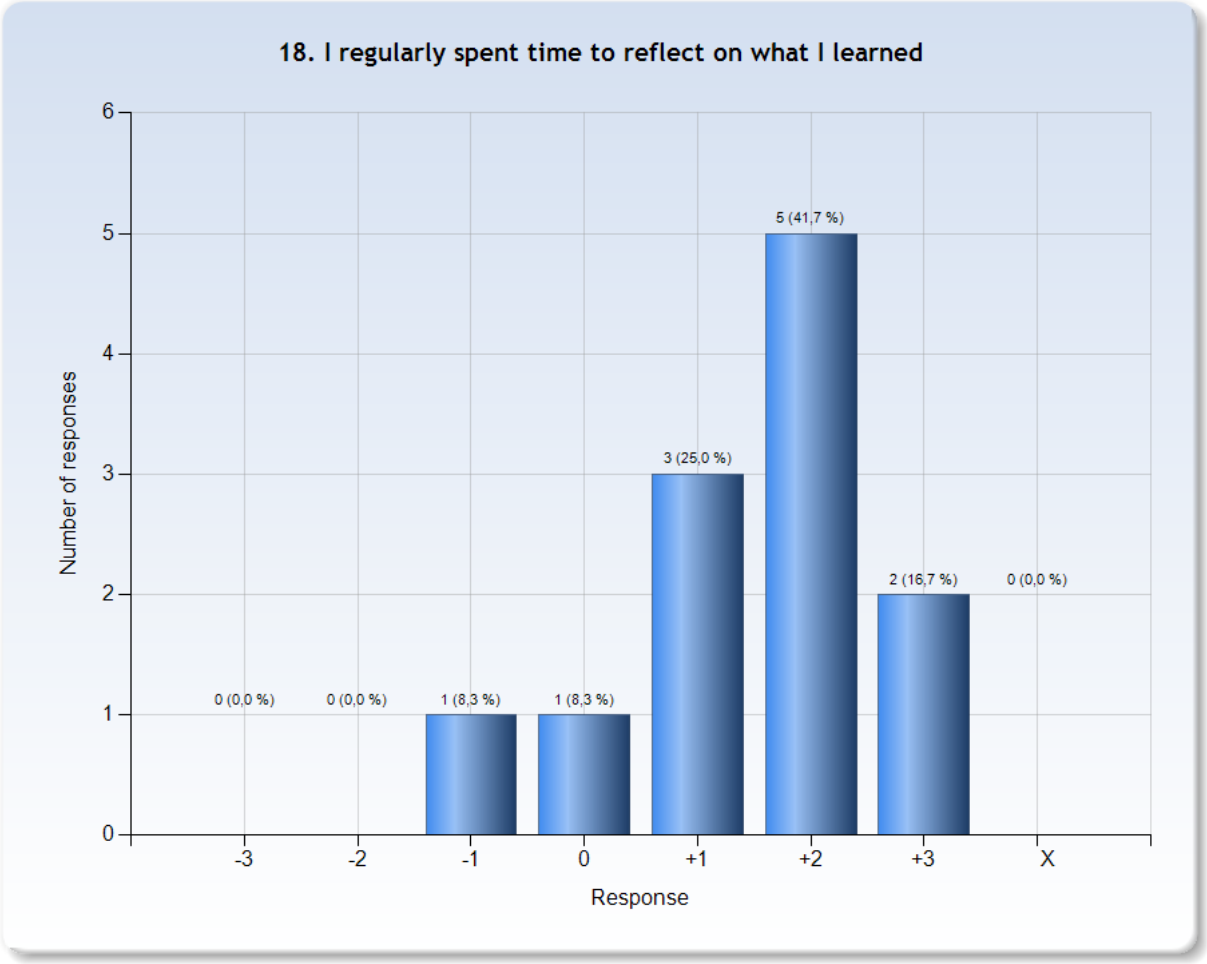
Comments

Comments (My response was: X)

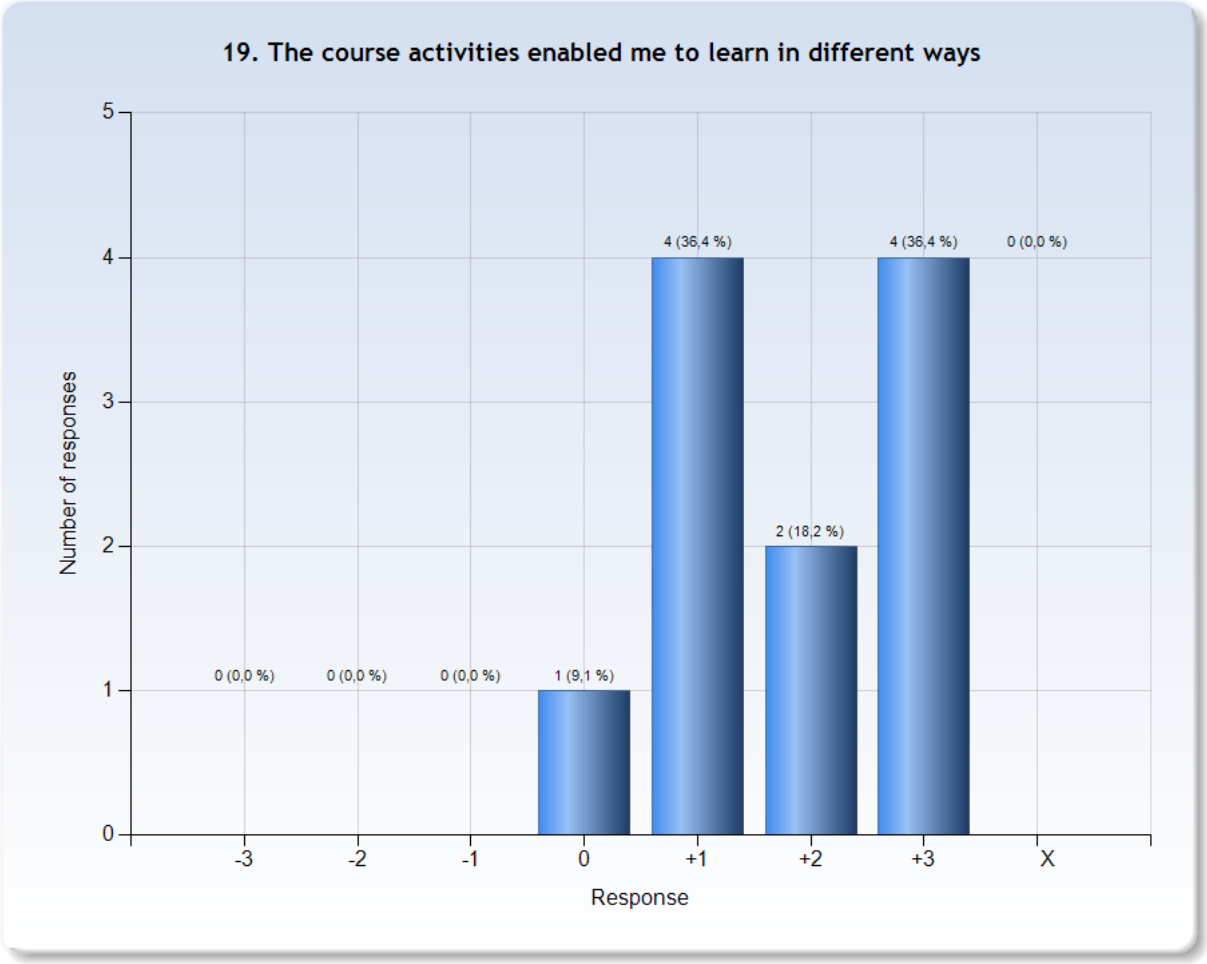
Haven't received all grades yet, but it seems that it is assessed fairly.


17. My background knowledge was sufficient to follow the course
Number of responses
8
6
4
2
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (8,3 %)
5 (41,7 %)
6 (50,0 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

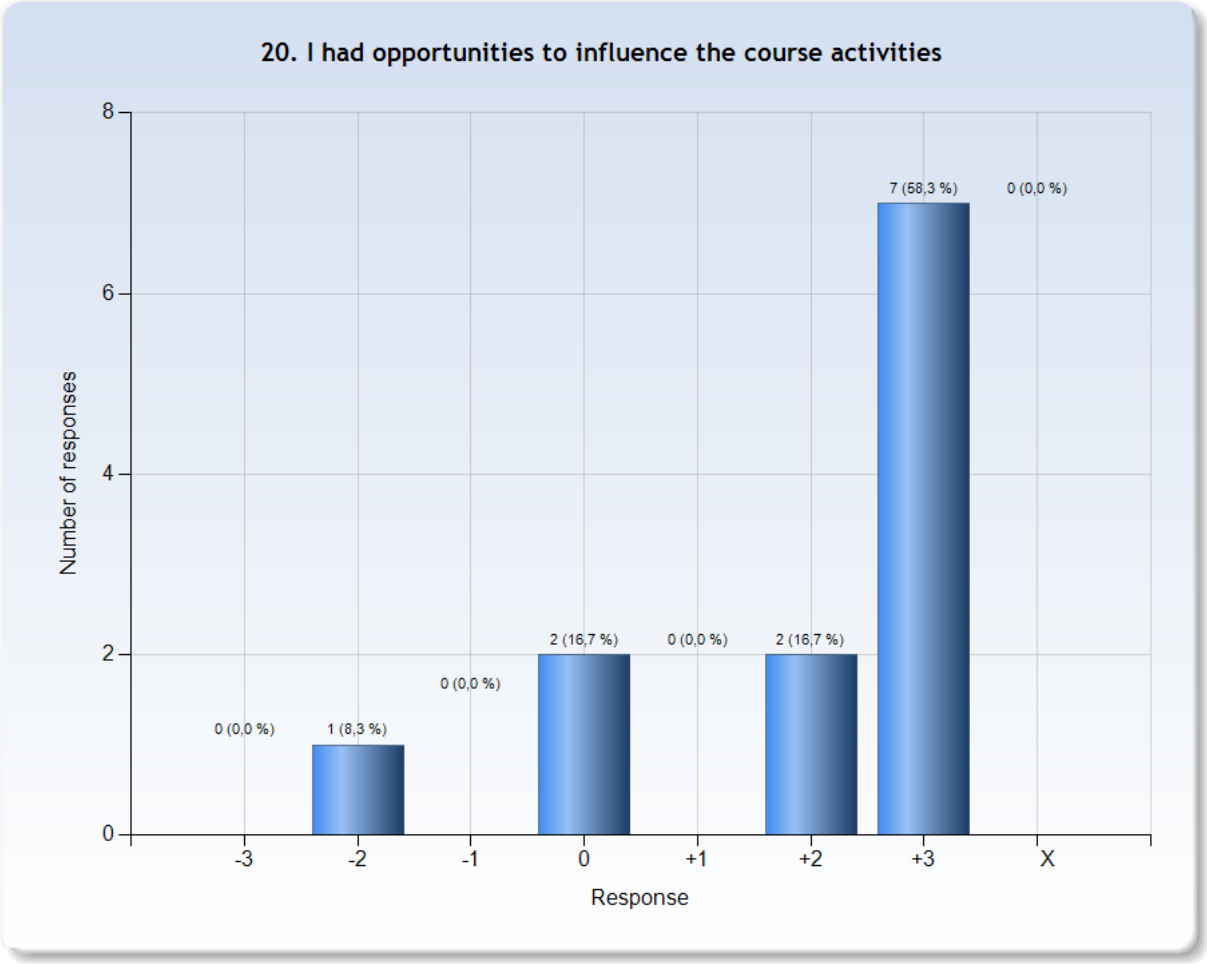

18. I regularly spent time to reflect on what I learned
Number of responses
0
1
2
3
4
5
6
0 (0,0 %)
0 (0,0 %)
1 (8,3 %)
1 (8,3 %)
3 (25,0 %)
5 (41,7 %)
2 (16,7 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments



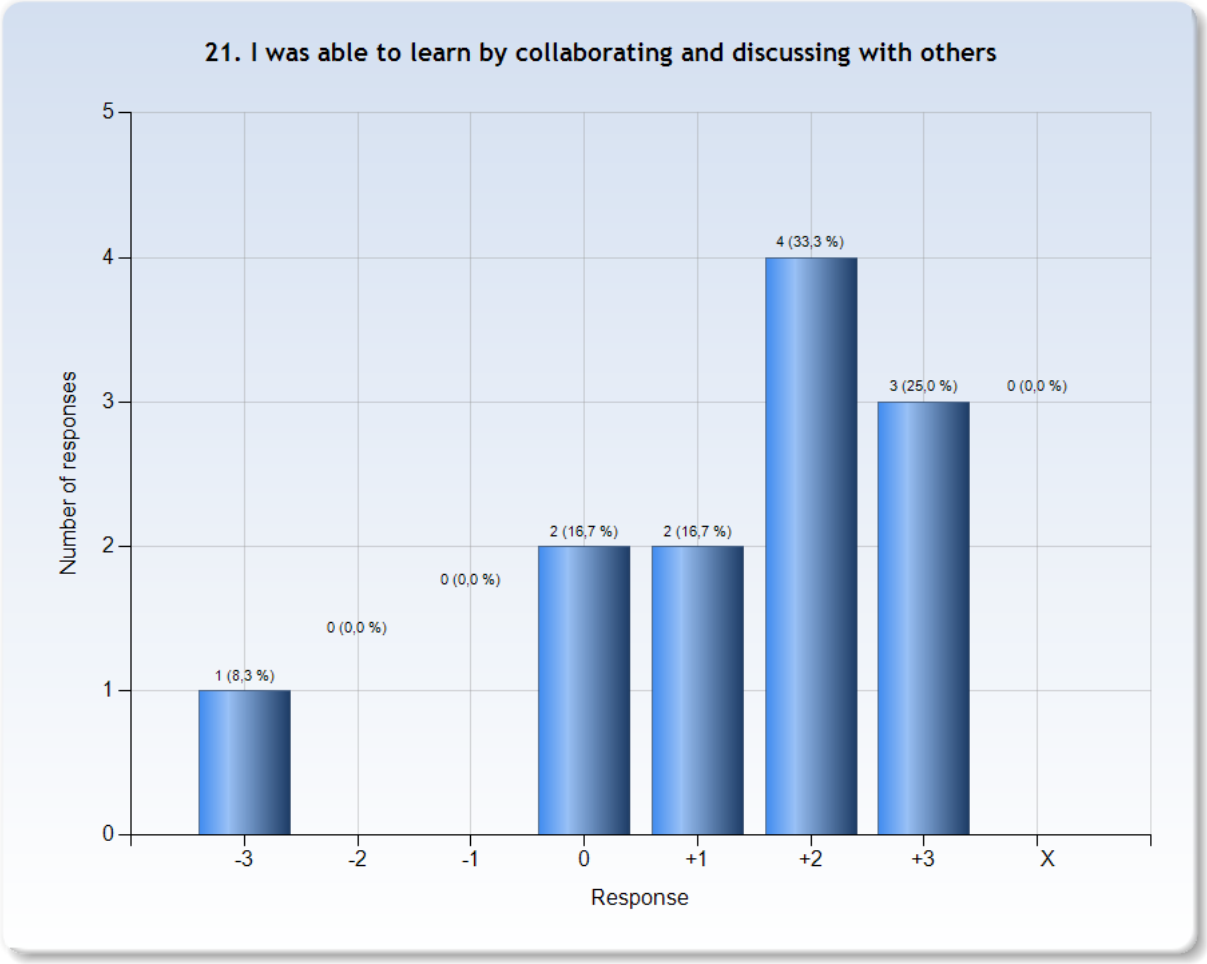
Comments

Comments (My response was: +2)
Labd were more implementstion focused, projects had more emphasis on scoping & finding a good topic to investigate as well.

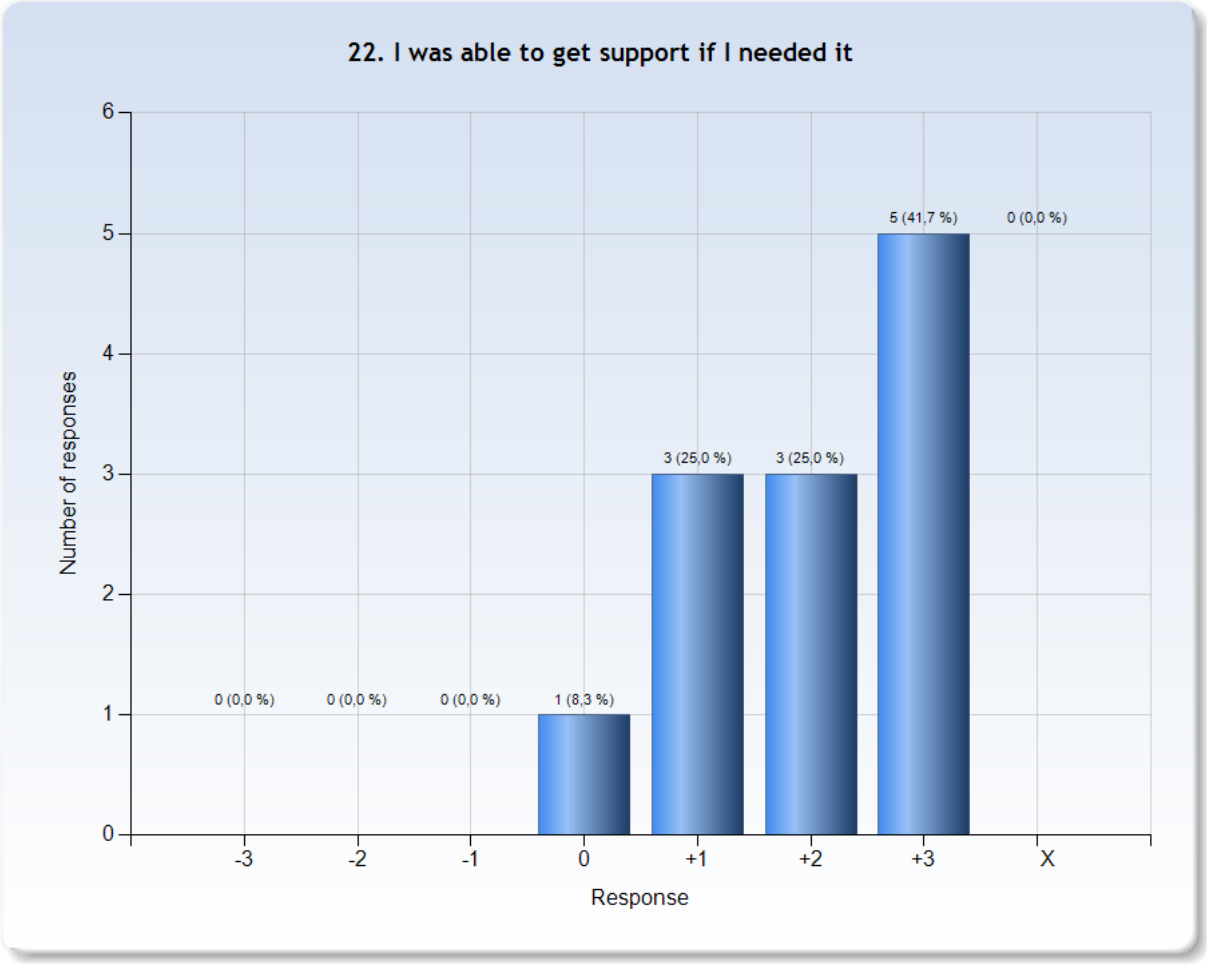


Comments

Comments (My response was: +3)
Both the lectures and the llabs/project
Choosing lab track and project quite freely. Nice


21. I was able to learn by collaborating and discussing with others
Number of responses
5
4
3
2
1
0
1 (8,3 %)
0 (0,0 %)
0 (0,0 %)
2 (16,7 %)
2 (16,7 %)
4 (33,3 %)
3 (25,0 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments


22. I was able to get support if I needed it
Number of responses
Response
0
1
2
3
4
5
6
-3
-2
-1
0
+1
+2
+3
X
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (8,3 %)
3 (25,0 %)
3 (25,0 %)
5 (41,7 %)
0 (0,0 %)

Comments