



Report - DD2442 - 2021-05-23

Respondents: 1
Answer Count: 1
Answer Frequency: 100.00%

Please note that there is only one respondent to this form: the person that performs the course analysis.

Course analysis carried out by (name, e-mail):

Johan Håstad, johanh@kth.se

DESCRIPTION OF THE COURSE EVALUATION PROCESS

Describe the course evaluation process. Describe how all students have been given the possibility to give their opinions on the course. Describe how aspects regarding gender, and disabled students are investigated.

A course evaluation was published and 8 of 13 students responded.

DESCRIPTION OF MEETINGS WITH STUDENTS

Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)

No meeting to discuss with the students was arranged.

COURSE DESIGN

Briefly describe the course design (learning activities, examinations) and any changes that have been implemented since the last course offering.

No changes were implemented. The examination was through weekly homework sets and a presentation.

THE STUDENTS' WORKLOAD

Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?

The reported workload agrees rather well with the expected workload. The average response to the question "I worked on interested issues" was 2.75 and all student gave +3 on the question "the course was challenging in a stimulating way"

THE STUDENTS' RESULTS

How well have the students succeeded on the course? If there are significant differences compared to previous course offerings, what can be the reason?

12 students did at least one homework and 10 of these passed the course and 6 of these received an A.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

I felt the students were mostly positive. Maybe this message that the level of mathematics needed to follow the course is fairly high should be stated more clearly. This obviously surprised one student.



SUMMARY OF STUDENTS' OPINIONS

Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

I think the students were mostly happy with the course. A challenging course that gave them a taste of research.

OVERALL IMPRESSION

Summarize the teachers' overall impressions of the course offering in relation to students' results and their evaluation of the course, as well as in relation to the changes implemented since last course offering.

I think it is a nice course that has a small but rather positive audience.

ANALYSIS

Is it possible to identify stronger and weaker areas in the learning environment based on the information you have gathered during the evaluation and analysis process? What can the reason for these be? Are there significant difference in experience between:

- students identifying as female and male?
 - international and national students?
 - students with or without disabilities?
-

The number of students is small and unfortunately not a single women started the course.

The learning might be improved by in a publishing more information on what to read if the background of a student is not so strong but the student still wants to follow the course.

PRIORITIZED COURSE DEVELOPMENT

What aspects of the course should be developed primaily? How can these aspects be developed in short and long term?

Given the format I think the course worked well. It is an expensive course with few students but well liked by those that attend.

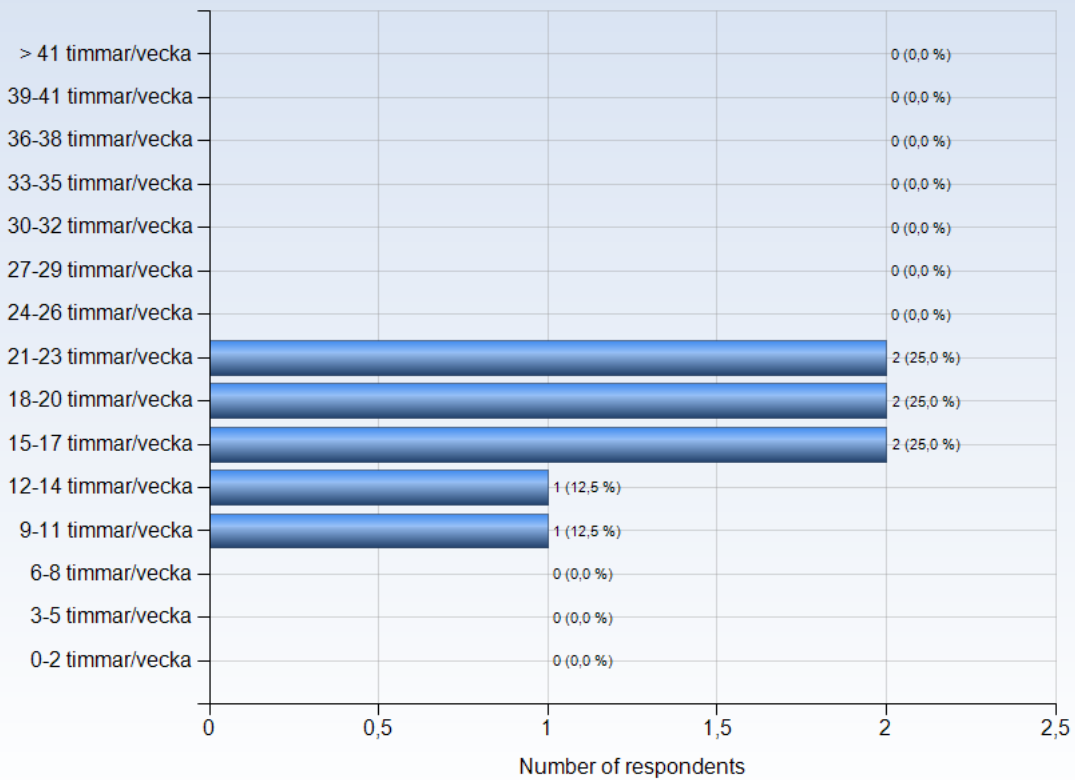


DD2442 - 2020-10-16

Antal respondenter: 13
Antal svar: 8
Svarsfrekvens: 61,54 %

ESTIMATED WORKLOAD

On average, how many hours/week did you work with the course (including scheduled hours)?



Comments

Comments (I worked: 18-20 timmar/vecka)

Had to think and work a lot for this unit but this was expected

ungefär lagom omfattning men det kanske är för lite marginal och för korta deadlines.

Comments (I worked: 21-23 timmar/vecka)

It is quite a work-intensive course, but you learn a lot. The assignments require a good understanding of the course material.

Includes lectures, note taking and presentations. The workload was ok and sufficient for the points the course gives.



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:

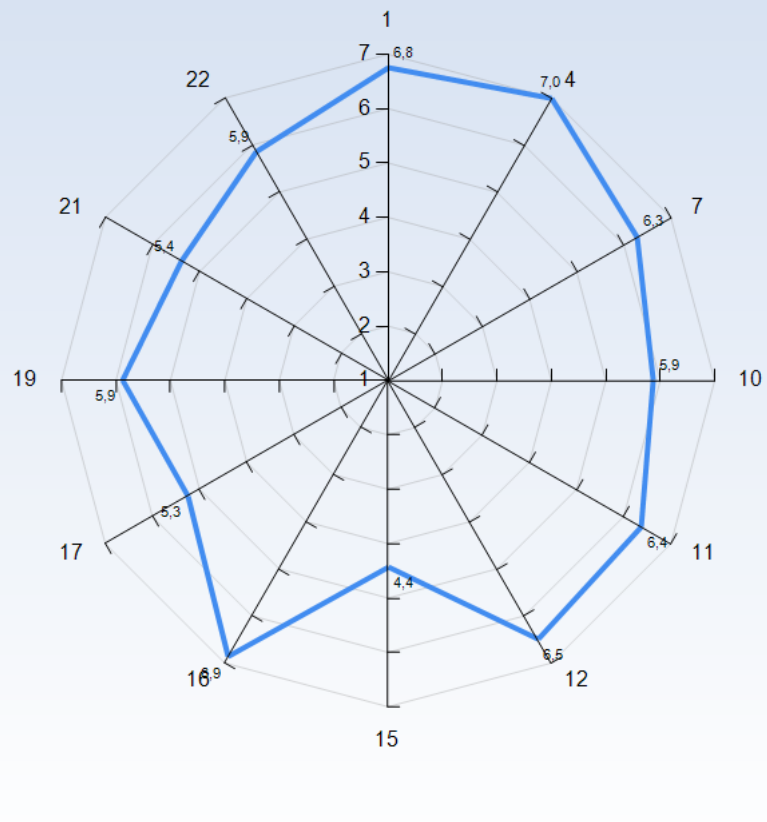
1 = No, I strongly disagree with the statement

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





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.

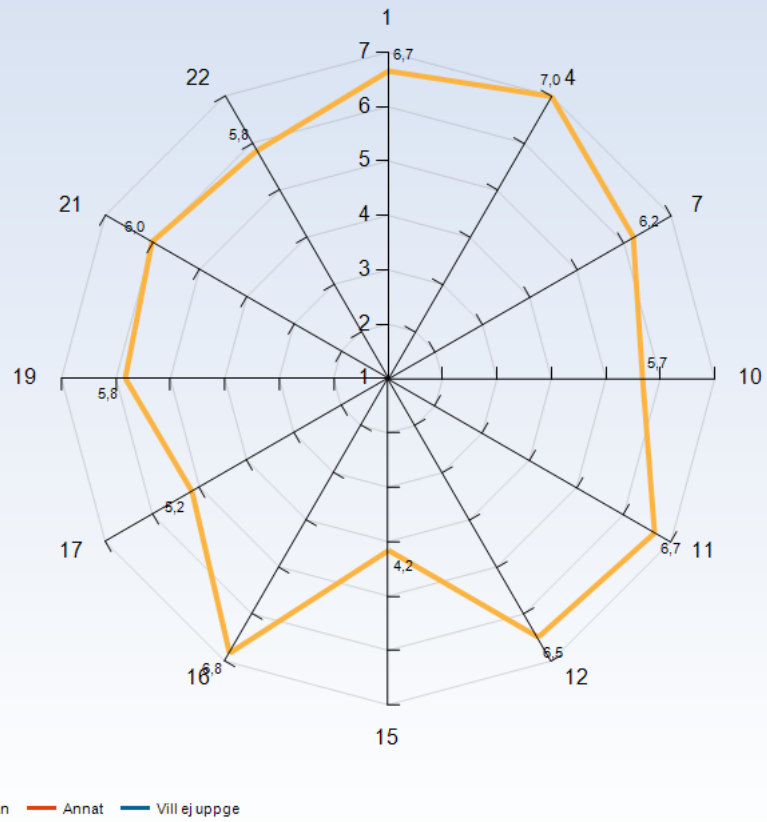
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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.

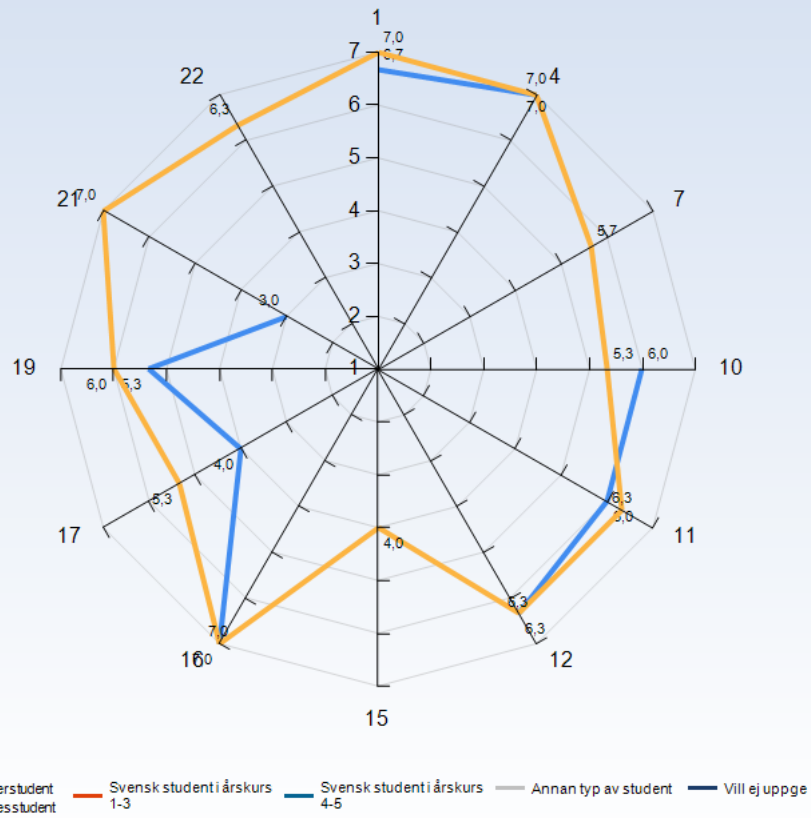
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.

Average response to LEQ statements - per gender



Comments

Average response to LEQ statements - per type of student



Comments

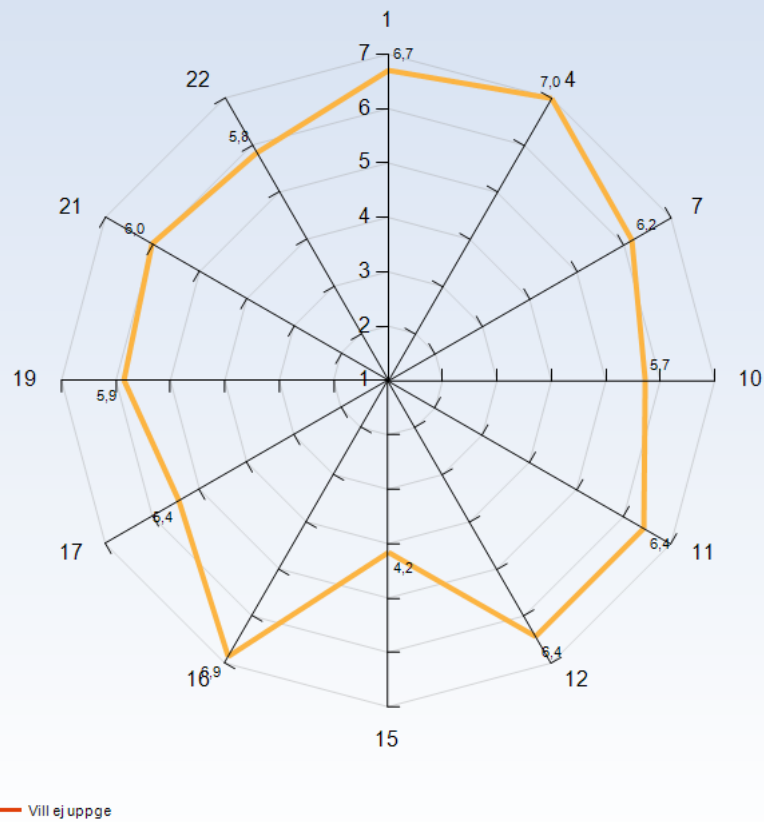
Comments (I am: Internationell masterstudent)

Nothing to add, the course is in english so that is great.

Comments (I am: Internationell utbytesstudent)

I had several courses on different topics of theoretical computer science at my home university; it was interesting to see how such a course is taught here.

Average response to LEQ statements - per disability



Comments

Comments (My response was: Nej)

en neuropsykiatrisk diagnos är väl inte en sorts funktionsnedsättning ? en diagnos är väl snarare en abstrakt klassificering, en teori eller en modell på pappret som kan existera oberoende av en faktisk funktionsnedsättning. en funktionsnedsättning är väl något i verkligheten medan en diagnos är en abstrakt klassificering ?



GENERAL QUESTIONS

What was the best aspect of the course?

What was the best aspect of the course? (I worked: 12-14 timmar/vecka)

During the course we could meet interesting problems. The homeworks were nice and challenging, I really liked spending time thinking about the problems and finding the solutions.

What was the best aspect of the course? (I worked: 15-17 timmar/vecka)

There was a direct connection with research in the field. The content was advanced and interesting. The subject is very interesting, and it is connected to my thesis work.

What was the best aspect of the course? (I worked: 18-20 timmar/vecka)

Not having the stress of an exam I suppose
vi fick en omfattande överblick och jobba aktivt med ny och kvalificerad datalogi

What was the best aspect of the course? (I worked: 21-23 timmar/vecka)

Some of the assignments were really fun and stimulating, also super interesting. Some of the lectures were also very nice.
Interesting topics, nice and exciting lectures

What would you suggest to improve?

What would you suggest to improve? (I worked: 12-14 timmar/vecka)

During the lectures, some small examples would make it easier to understand the topics.
A technical note that I would like to recommend is that when the professor writes notes on the board, it helps a lot if he also reads the things aloud; it makes it easier to make notes.

What would you suggest to improve? (I worked: 15-17 timmar/vecka)

My biggest issue with the course was that I felt that I didn't have enough background knowledge. The course page says that participants "need mathematical maturity and a willingness to learn new stuff", though I might have mistaken the meaning of this. Since I have gotten an A in all my math courses thus far I expected my knowledge to be adequate. But during the lectures I often felt lost because I wasn't familiar with the mathematics. I think the course prerequisites should be more clear what level of math is required (perhaps more specific). It may also help to give a quick review of more advanced topics at the start of a lecture, and ask the participants what they are familiar with. As an example, at one lecture you said "You should all be familiar with Fourier analysis" and then went on without explanation. If that is the expectation then I don't understand why it isn't a part of the prerequisites. At least you could instead say "Raise your hand if you are unfamiliar with Fourier analysis", to see if the expectation is true.

Sometimes it was difficult to follow the lecture. Maybe if the students had some material before each lecture to get familiar with the basics of the topic, there would be more time during the lecture for the things which are more difficult to understand.

What would you suggest to improve? (I worked: 18-20 timmar/vecka)

I don't know, to be honest, I quite liked the course
kanske mera djupgående om några teman istället för så här generellt. kanske mindre grafteori. förväntningar på framtida teorier.

What would you suggest to improve? (I worked: 21-23 timmar/vecka)

I would provide reading material to the students to prepare a bit for the lectures. It would really help to follow them better, because sometimes it is hard.
Maybe include not so many topics but go into a little more depth with explanations and background

What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 15-17 timmar/vecka)

Try to find someone to discuss the homework assignments with. Take notes during lectures.
It's not a problem if you don't understand everything during the lecture, but then try to understand it at home.

What advice would you like to give to future participants? (I worked: 18-20 timmar/vecka)

Start the sheets the day they come out, I started some of them on the weekend (due date Monday) and my marks on those really reflected that titta på poängsättningen och satsa där det är generöst med poäng

What advice would you like to give to future participants? (I worked: 21-23 timmar/vecka)

Work on the assignments on time. Sometimes you need several days to develop a complex idea in order to solve them.
Read background literature and papers, ask questions during the lectures



Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 18-20 timmar/vecka)

It was an honour and privilege to learn this content from Hästad

jag rekommenderar kursen till alla som är intresserade av teoretisk datalogi

Is there anything else you would like to add? (I worked: 21-23 timmar/vecka)

Thanks for the lectures!

I enjoyed it very much

SPECIFIC QUESTIONS

RESPONSE DATA

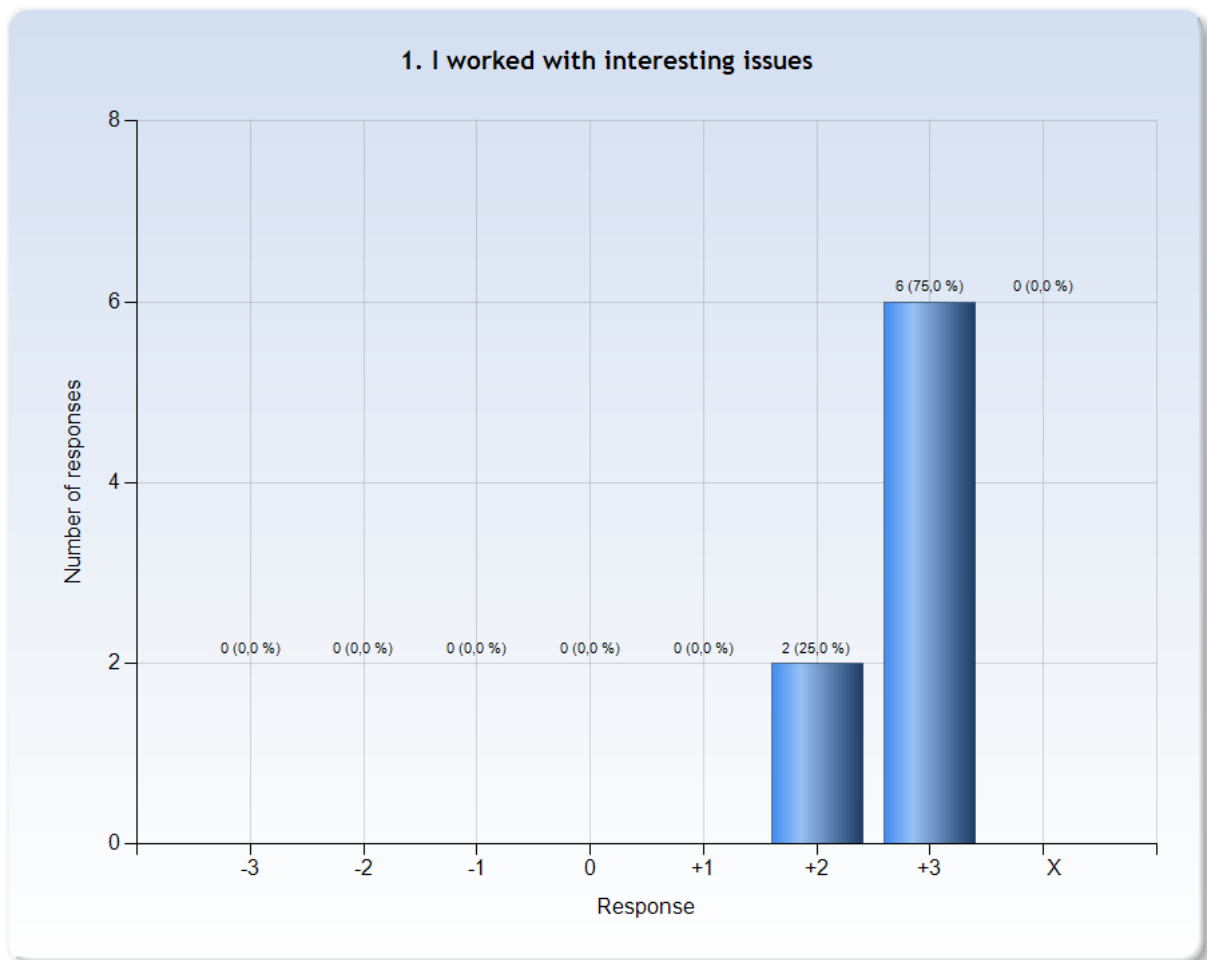
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-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

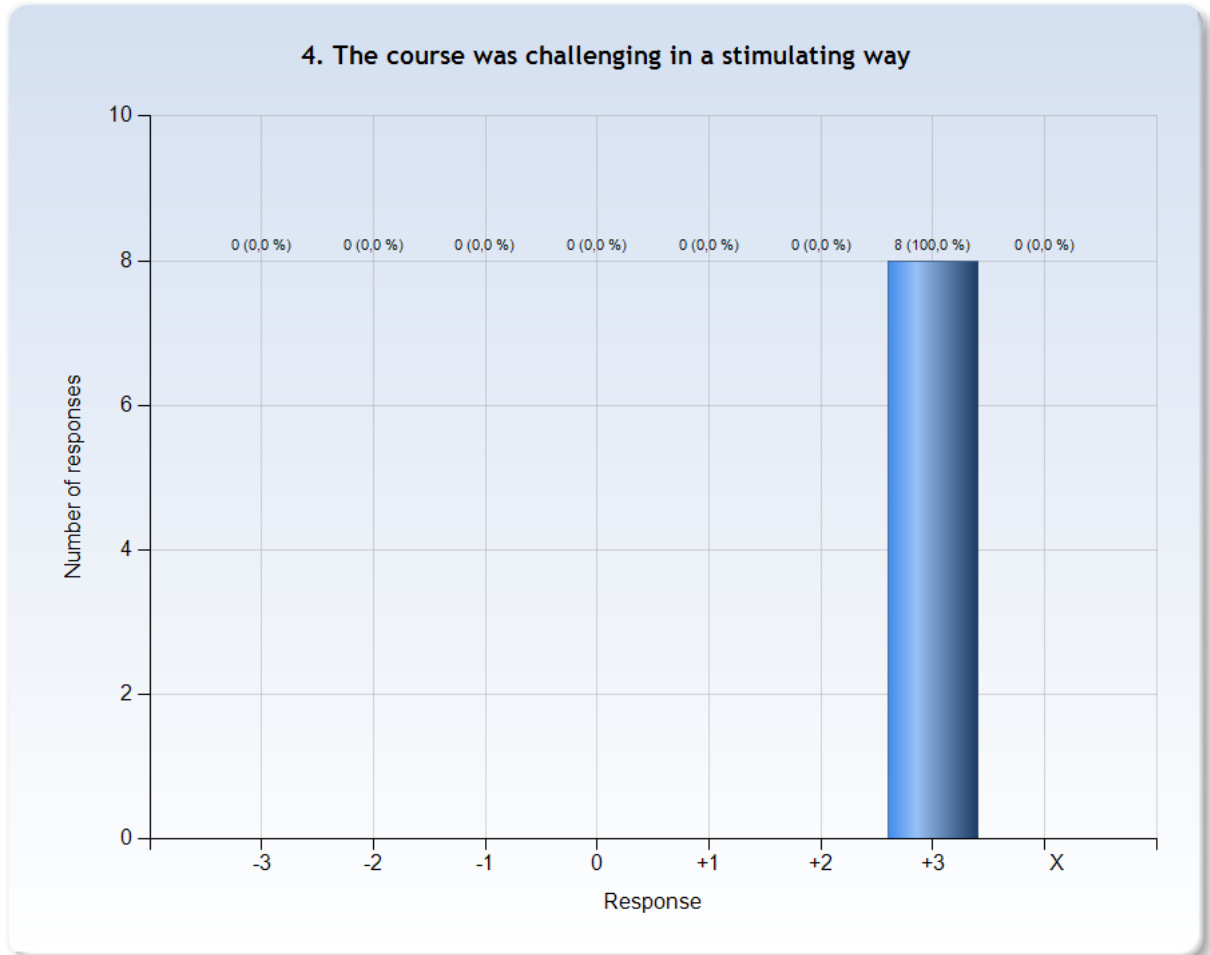




Comments

Comments (My response was: +3)

I was introduced to many very very. cool things I never knew existed, so yes
det var spännande och givande

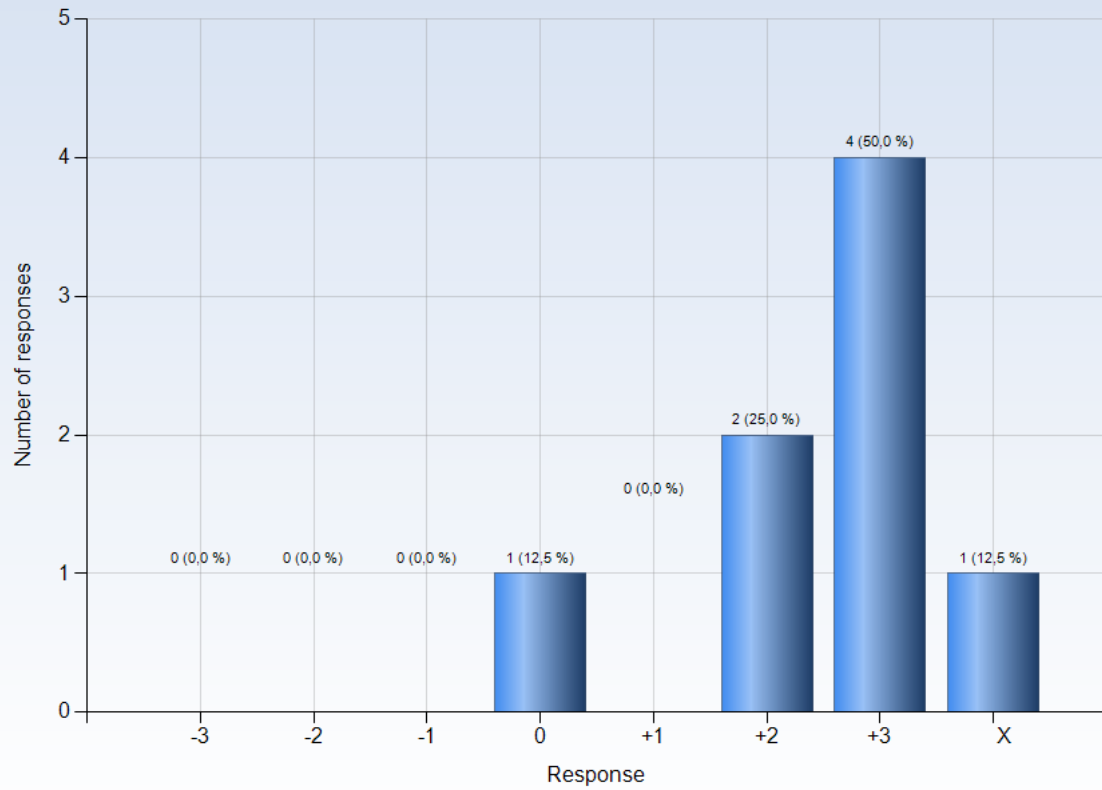


Comments

Comments (My response was: +3)

Weekly sheets really forced you to think

7. The intended learning outcomes helped me to understand what I was expected to achieve

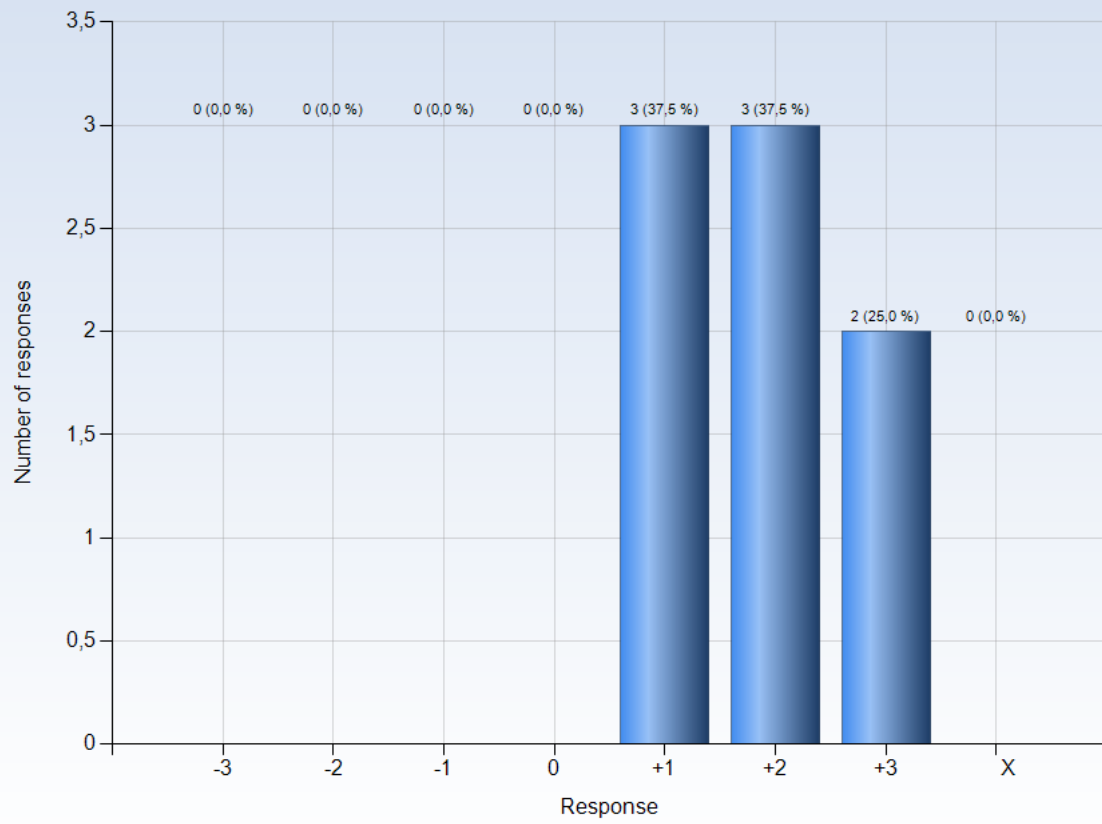


Comments

Comments (My response was: +3)

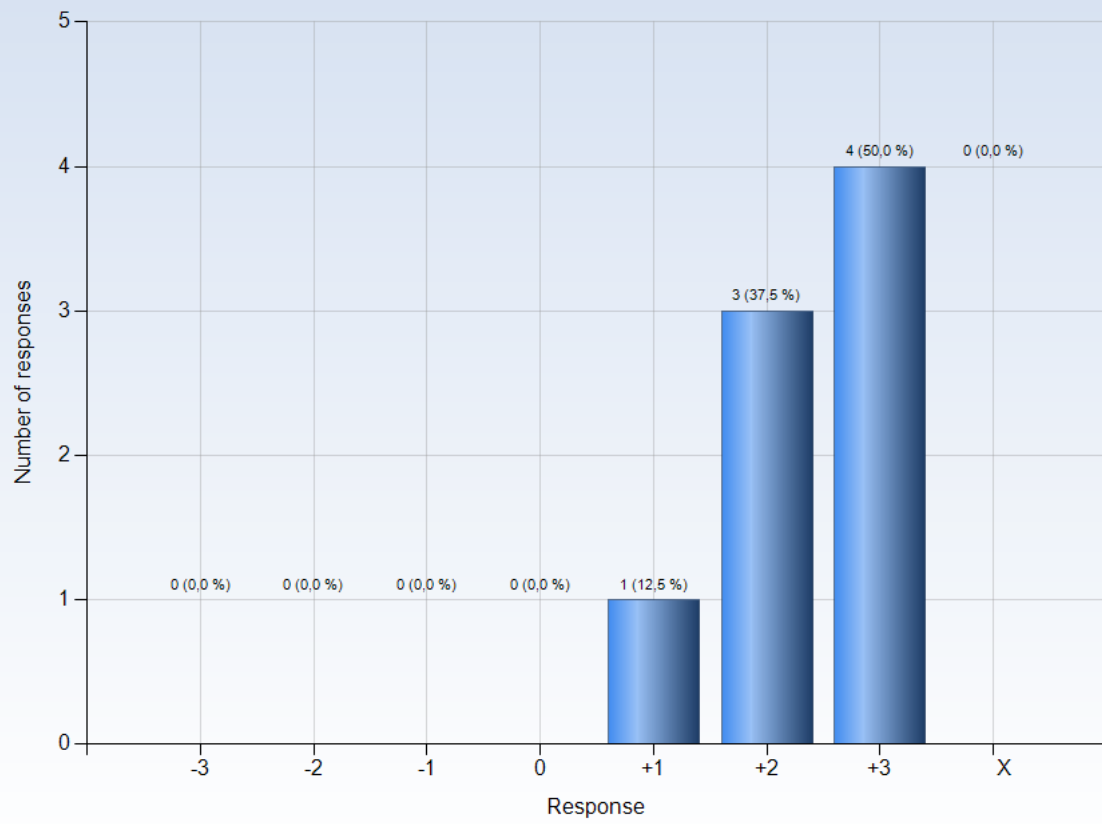
trevligt att få vara med och välja ämnen

10. I was able to learn from concrete examples that I could to relate to



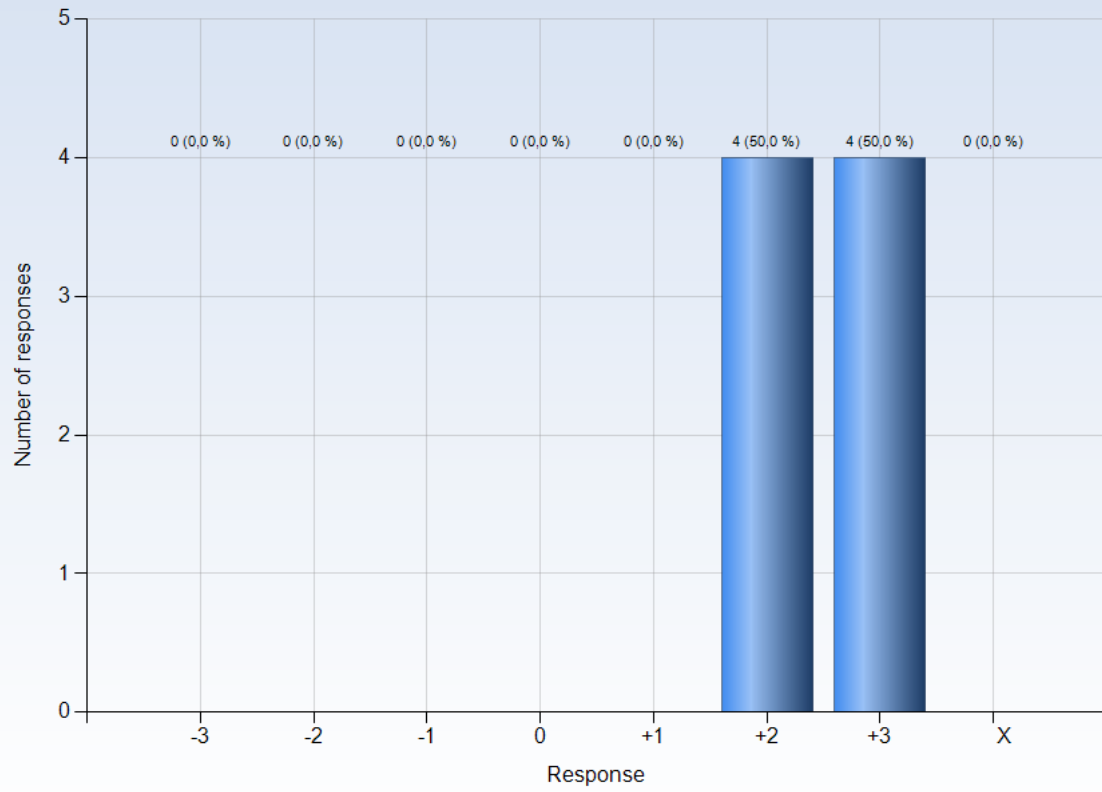
Comments

11. Understanding of key concepts had high priority



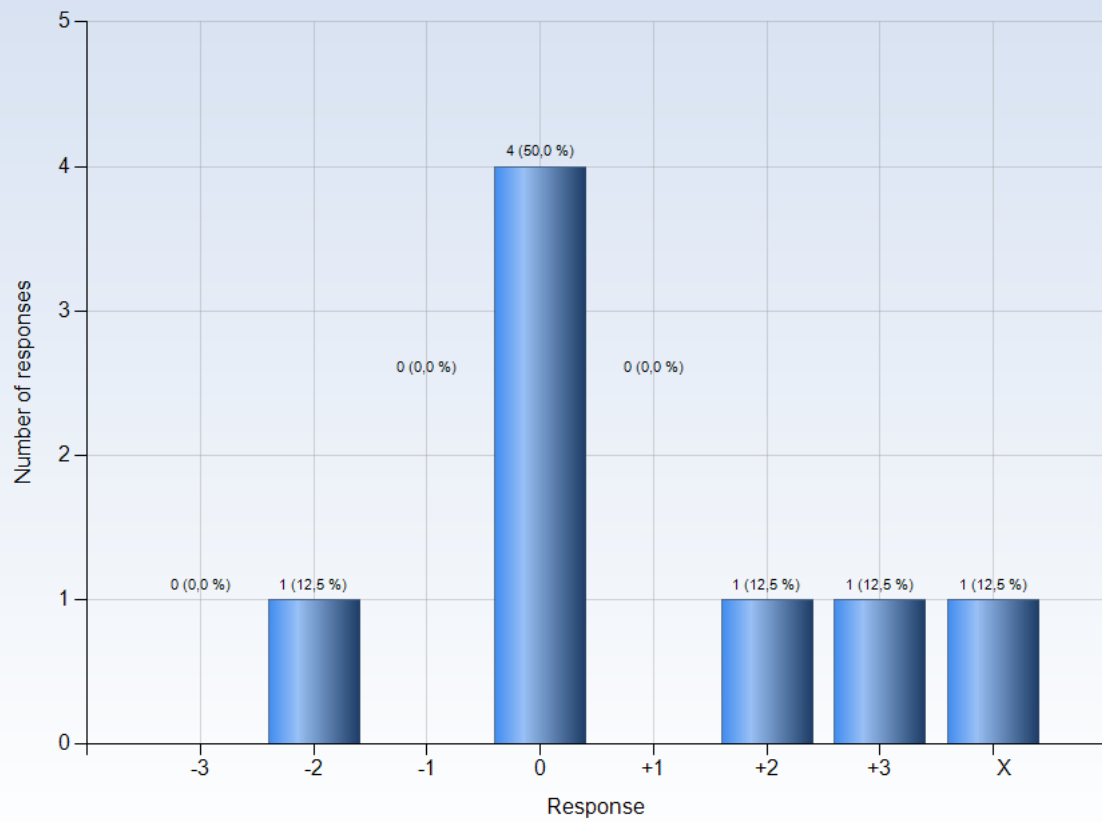
Comments

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



Comments

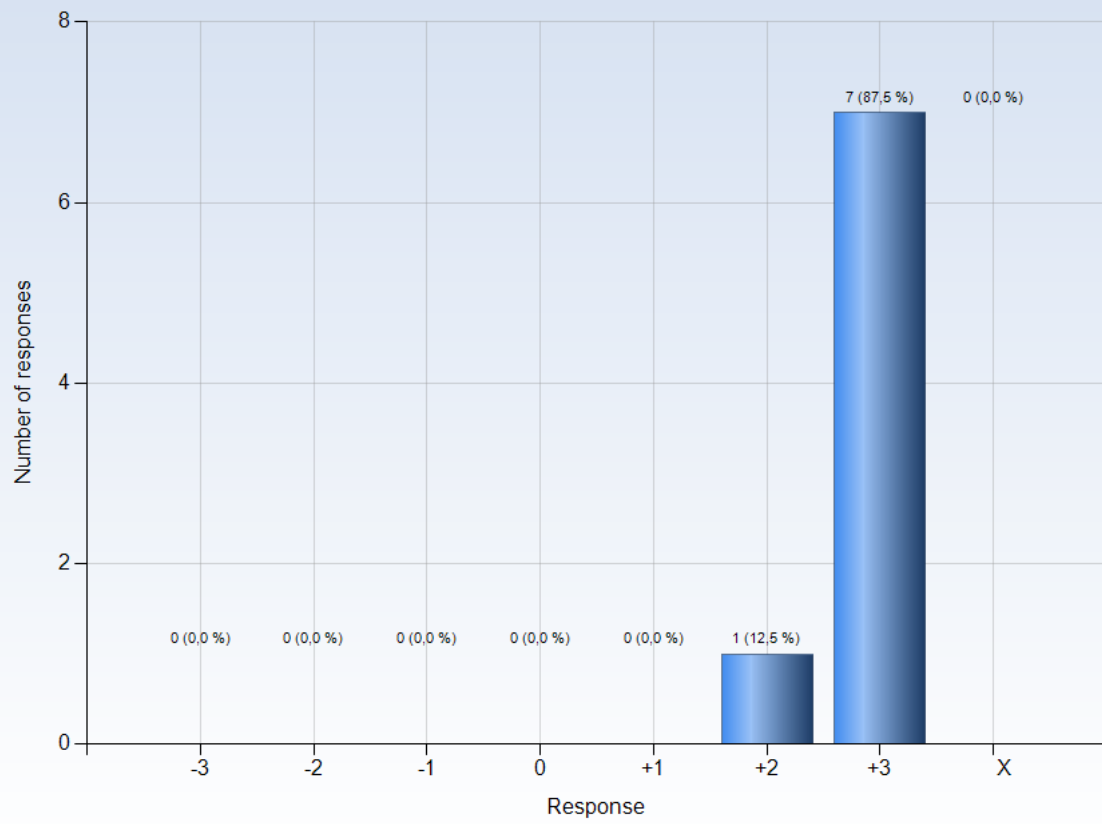
15. I was able to practice and receive feedback without being graded



Comments

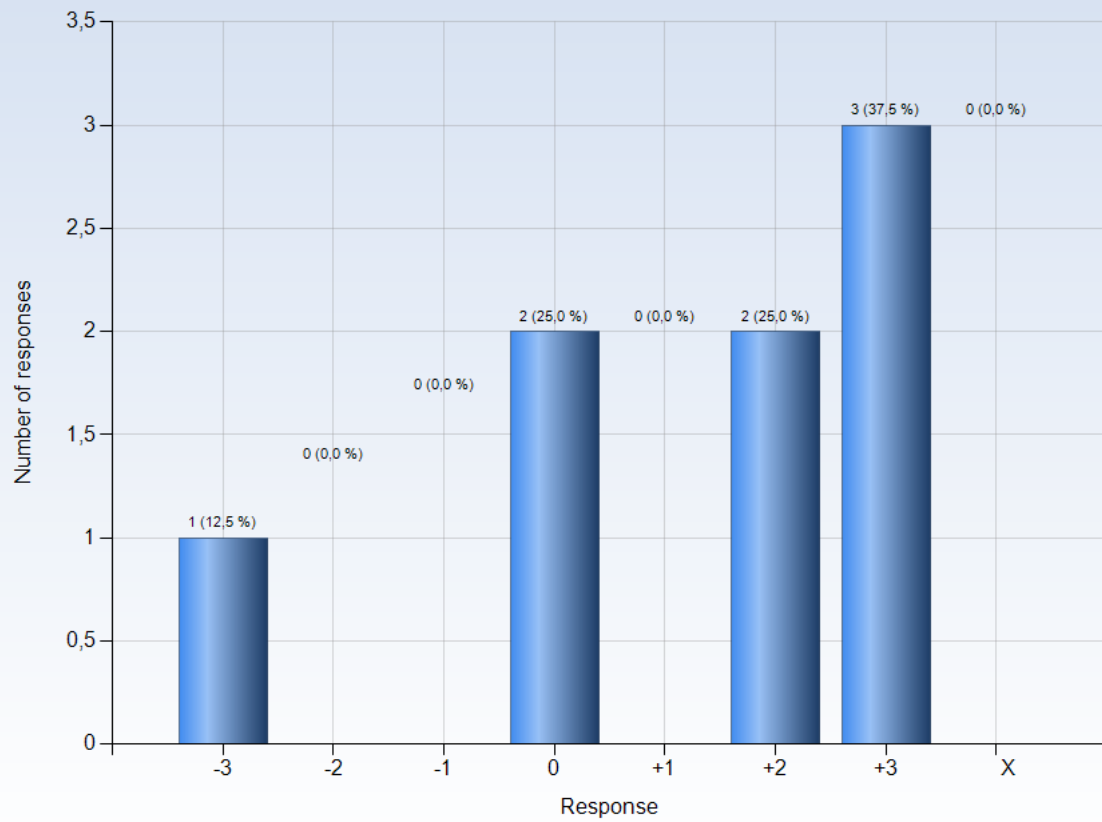
Comments (My response was: -2)
Though I didn't think this was a big issue.

16. The assessment on the course was fair and honest



Comments

17. My background knowledge was sufficient to follow the course



Comments

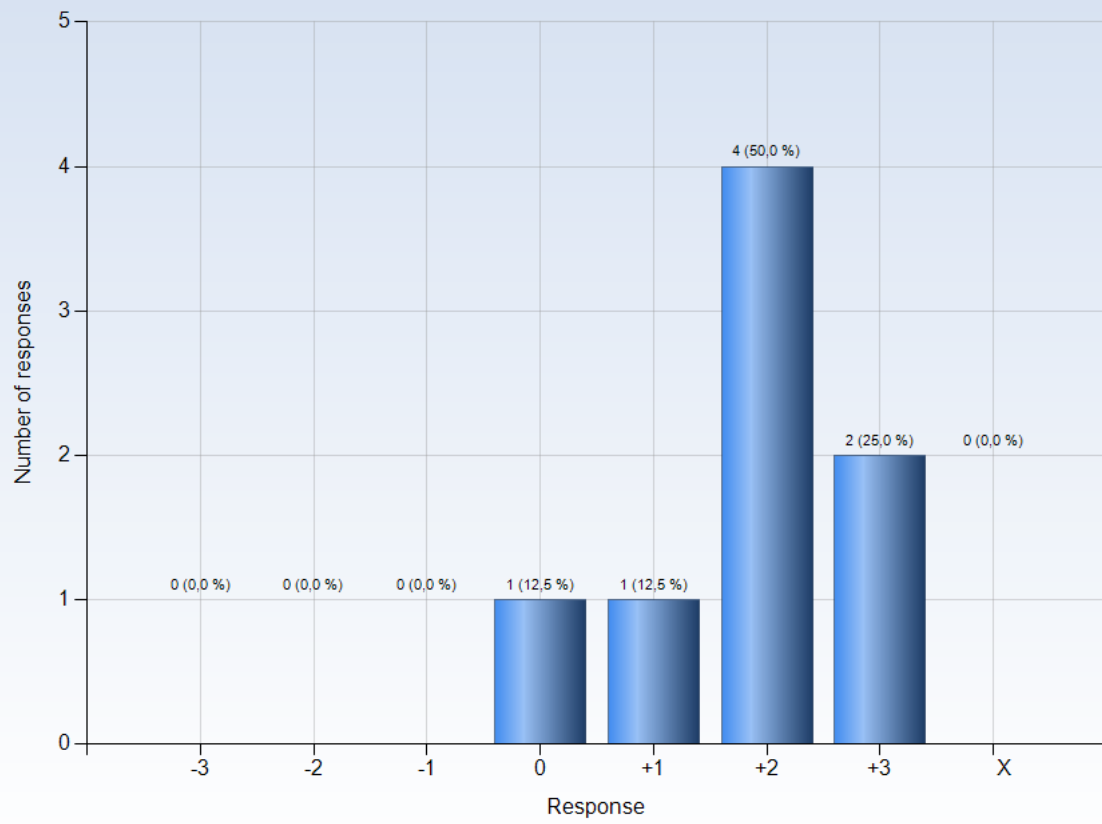
Comments (My response was: -3)

Sometimes TCS, but most often math.

Comments (My response was: 0)

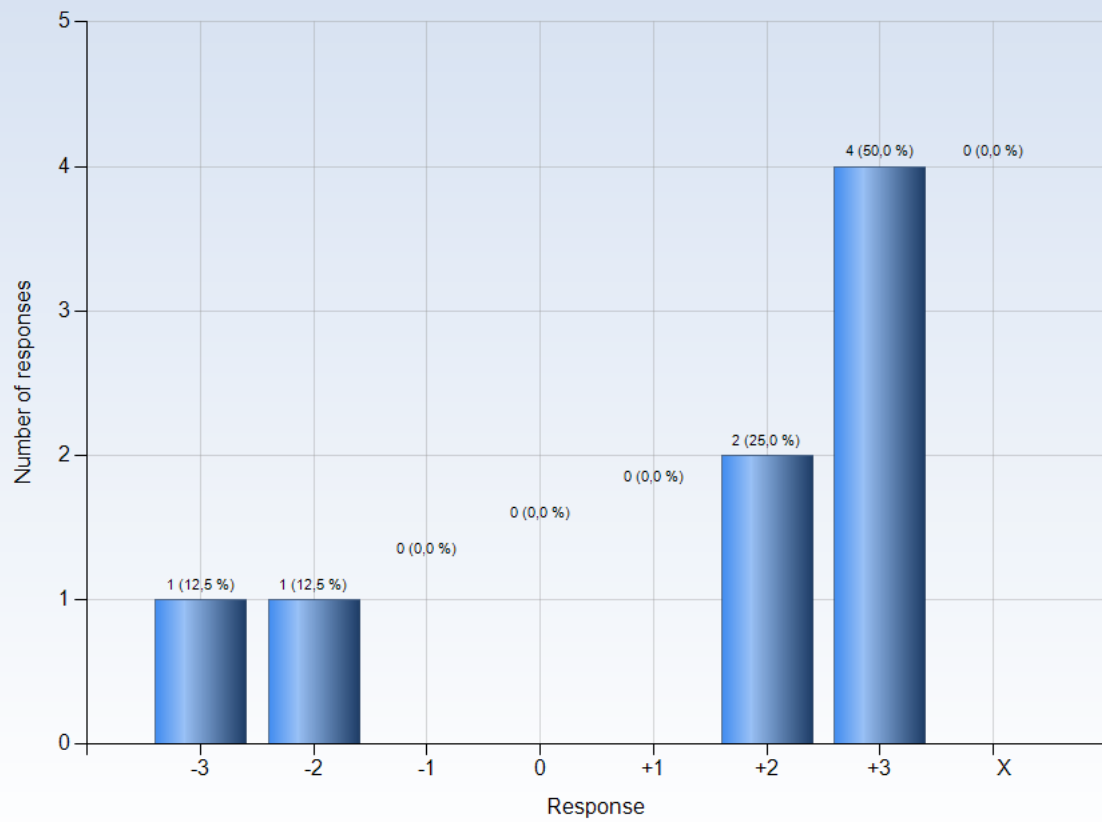
i took this course specifically to improve my weakness in this area

19. The course activities enabled me to learn in different ways



Comments

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



Comments

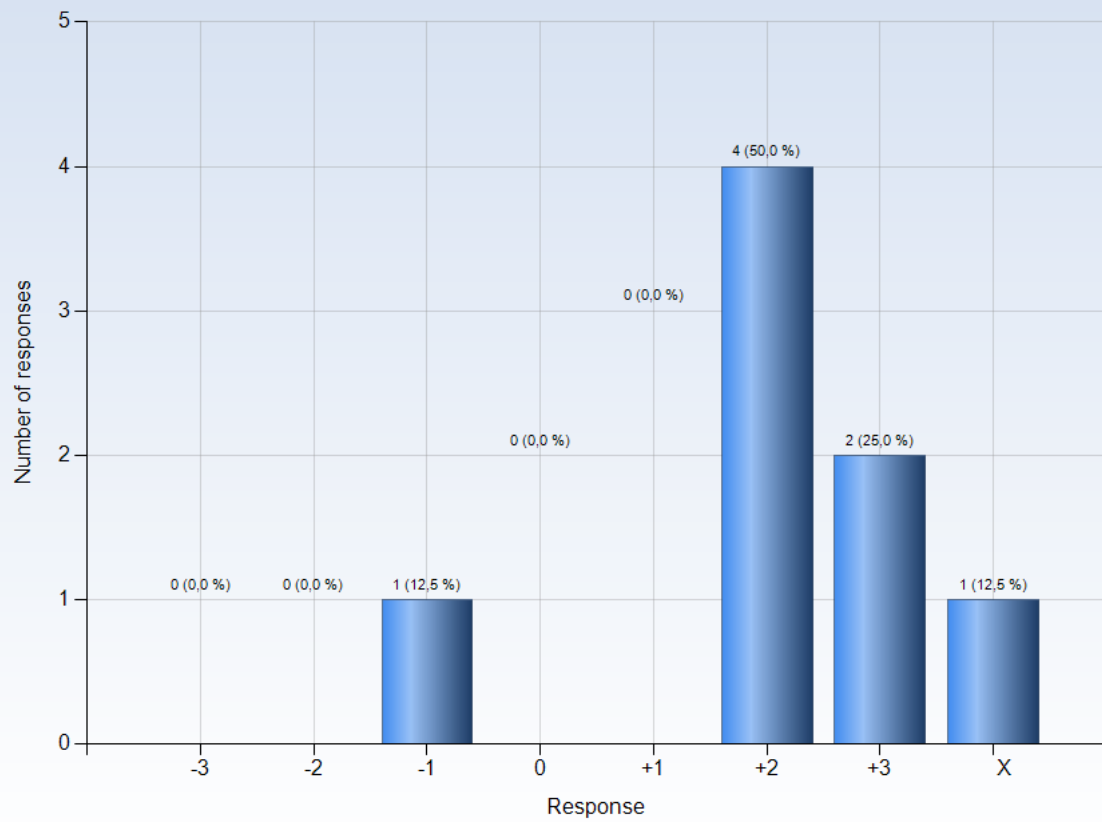
Comments (My response was: -3)

Life would have been a bit easier if I had someone to discuss the sheets with

Comments (My response was: -2)

I think the course would have been better had I paired up with someone. But since I didn't know anyone or have opportunity to get to know them I did all work by myself.

22. I was able to get support if I needed it



Comments

Comments (My response was: -1)

There was no clear channel to ask for help.