

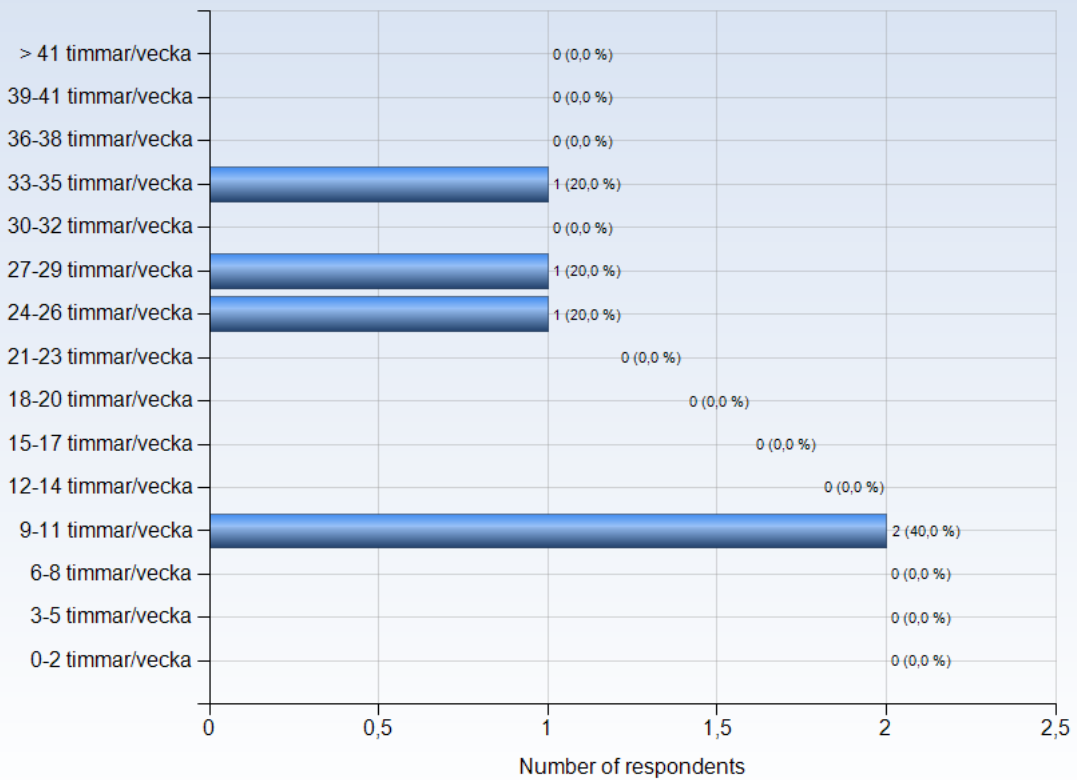


EI2420 - 2019-03-04

Antal respondenter: 8
Antal svar: 5
Svarsfrekvens: 62,50 %

ESTIMATED WORKLOAD

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



Comments

Comments (I worked: 9-11 timmar/vecka)

Constantly having some work to do is a little bit tiring but very effective.

Comments (I worked: 24-26 timmar/vecka)

The load is heavy but worthy.

Comments (I worked: 33-35 timmar/vecka)

I have never worked this hard on a single course.



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:

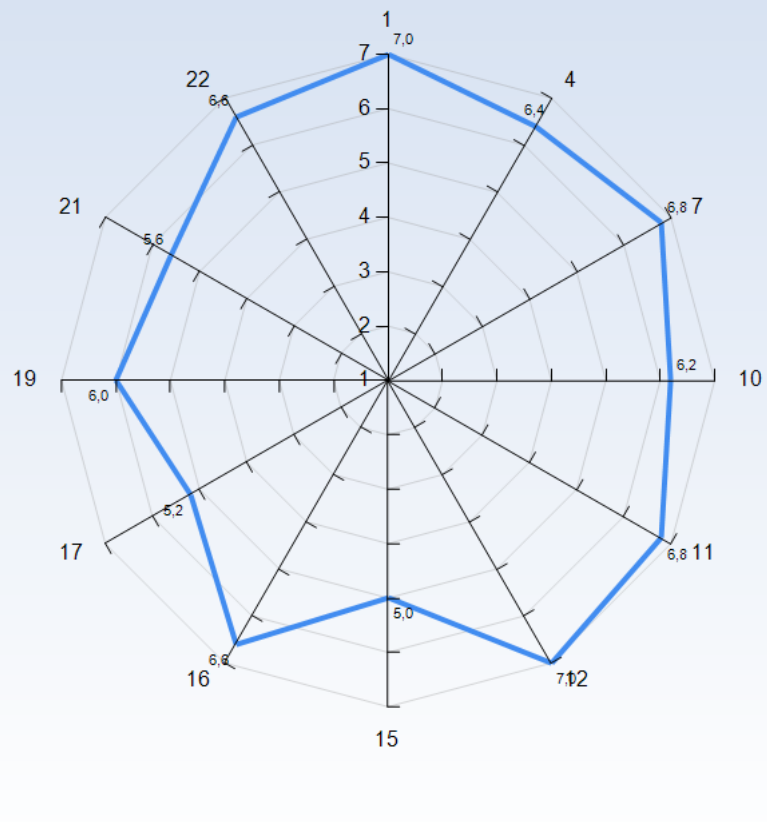
1 = No, I strongly disagree with the statement

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.

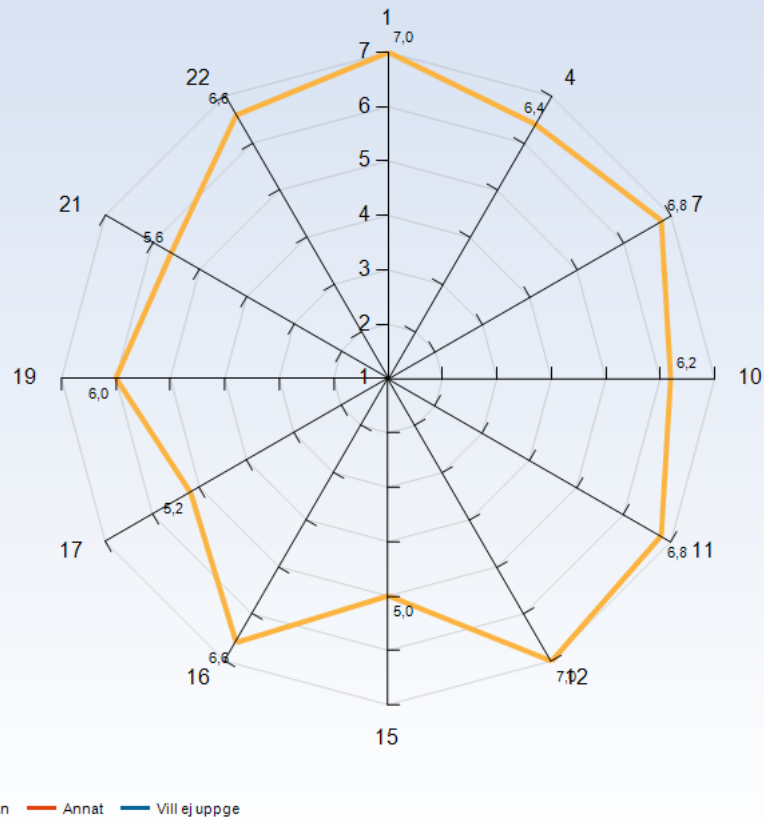
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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

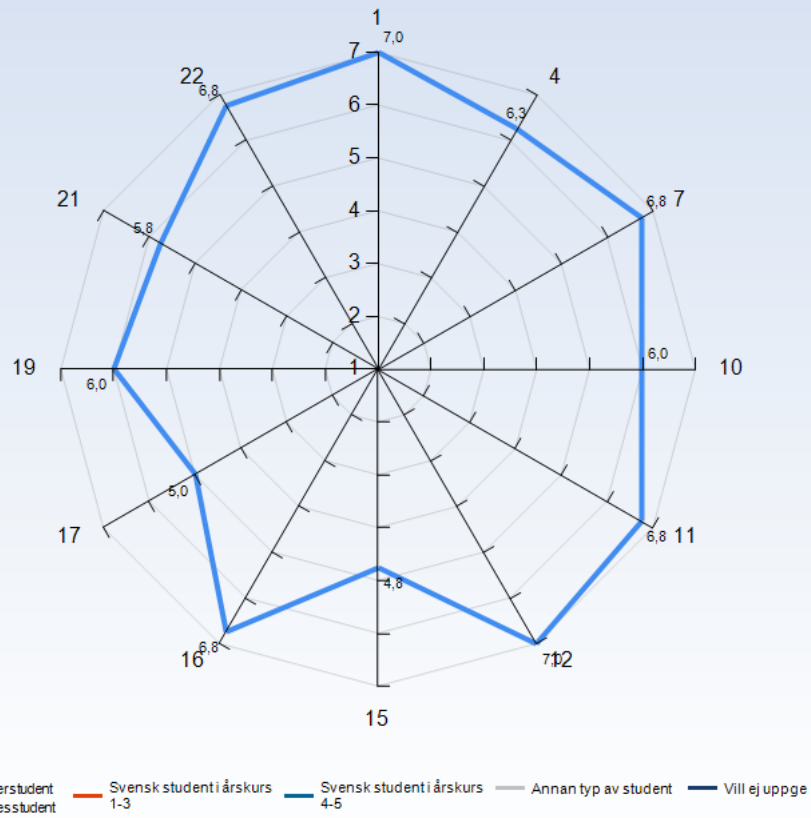


Comments

Comments (I am: Man)

No comments

Average response to LEQ statements - per type of student

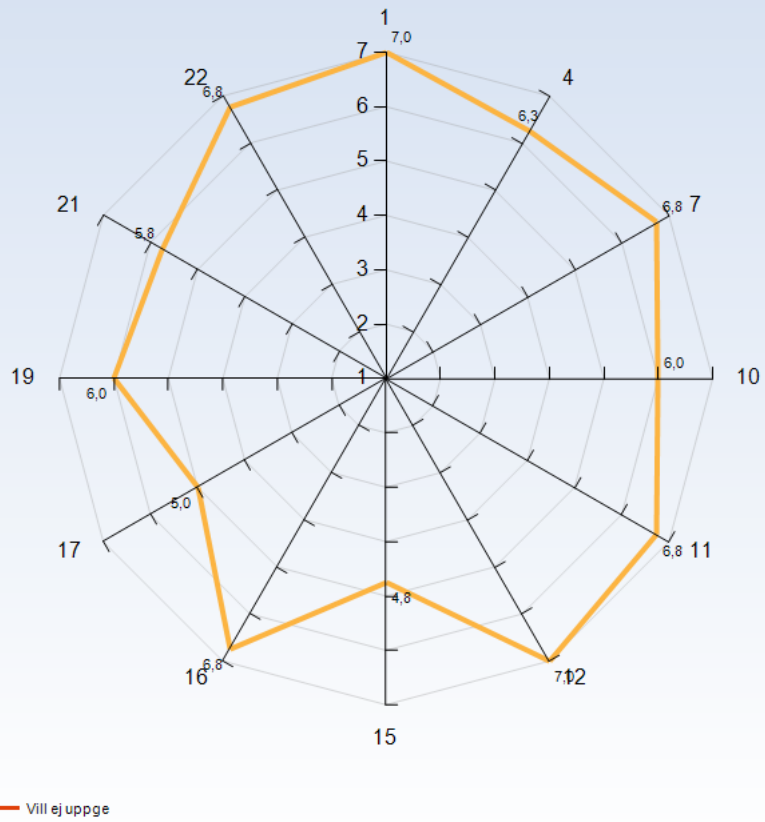


Comments

Comments (I am: Internationell masterstudent)

Some regular symbol method and technical phrases can be taught before the class starting, this might help international student if they haven't have same use of some expression in their own country.

Average response to LEQ statements - per disability



Comments



GENERAL QUESTIONS

What was the best aspect of the course?

What was the best aspect of the course? (I worked: 9-11 timmar/vecka)

A very difficult course is organized very neatly.

Mathematical rigorous derivation throughout the course while keeping track of the key concepts.

What was the best aspect of the course? (I worked: 24-26 timmar/vecka)

The class is small so that each of us can get more help from Professor.

What was the best aspect of the course? (I worked: 27-29 timmar/vecka)

Practicing to solve bigger problems in the hwp.

What was the best aspect of the course? (I worked: 33-35 timmar/vecka)

My mathematical skills had atrophied over that past few years. This course forced me to clear up many gaps in my understanding and skills. This improvement will make the next few courses I take significantly easier.

The grading structure incentivized regular practice. This is what made me improve, other courses could learn from this structure.

What would you suggest to improve?

What would you suggest to improve? (I worked: 9-11 timmar/vecka)

Exercises containing application problems based on concepts.

What would you suggest to improve? (I worked: 24-26 timmar/vecka)

Think it's better not to have home work problem and exercises due on same day.

What would you suggest to improve? (I worked: 33-35 timmar/vecka)

The workload was very high but that may be necessary.

What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 9-11 timmar/vecka)

If you don't want to fail, keep up to date with the exercises otherwise it is hard to catch up.

Enjoy the course.

What advice would you like to give to future participants? (I worked: 24-26 timmar/vecka)

Keep pushing to it. finally you will find it's interesting.

What advice would you like to give to future participants? (I worked: 27-29 timmar/vecka)

Start to work hard from the beginning

What advice would you like to give to future participants? (I worked: 33-35 timmar/vecka)

Attempt every single exercise.

Solve every HWP analytically, then check the analytic solution thoroughly before moving on to coding.

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 24-26 timmar/vecka)

Nothing.

Is there anything else you would like to add? (I worked: 27-29 timmar/vecka)

Lars did a great job as teacher with good lectures and support throughout the course.

Is there anything else you would like to add? (I worked: 33-35 timmar/vecka)

The English in the textbook could be edited. The language was rarely unclear but there were some grammar issues. I got impression that the textbook will be published someday and could use an editor before that happens.

Having a well organized textbook was much better than the mess of PDFs that has become common in university courses.



SPECIFIC QUESTIONS

Feedback om hemma-laborationerna (HWP 1-3) (var de svåra, enkla, intressanta...)

Feedback om hemma-laborationerna (HWP 1-3) (var de svåra, enkla, intressanta...)

The HWP1 was difficult, while 2 and 3 were not. Overall they are very interesting to me.

The first home assignment was significantly harder than the rest. There were also very slight ambiguities. Second and last home assignments are very fun to work with.

I thought they were good exercises. It was possible to do well on them with effort and it felt like the homework was just above my skill level.

Personally I need to doubt that I can do something in order to find it interesting and put full effort in.

Homework problems were interesting particularly because it involved solving a practical problem with multiple stages to solve it i.e. the analytical derivation and coding implementation.

Interesting and with a fair level

Feedback om övningstalen i boken

Feedback om övningstalen i boken

Exercises were sometimes difficult. But interesting.

Some of the assignments are impossible to solve without prior information(maybe this was something intended). For example, exercise 3.3 was such an assignment.

Having exercises without any solutions (unlike standard textbooks) forces you to do the exercises. I think that these exercises made me improve, though they took up a lot of my time. The exercises at the start of the book felt more difficult than the exercises at the end.

It helped in getting familiar with the tricks and methods used throughout the course.

Also fair and with good feedback on the lectures with problems that were common for the students.

RESPONSE DATA

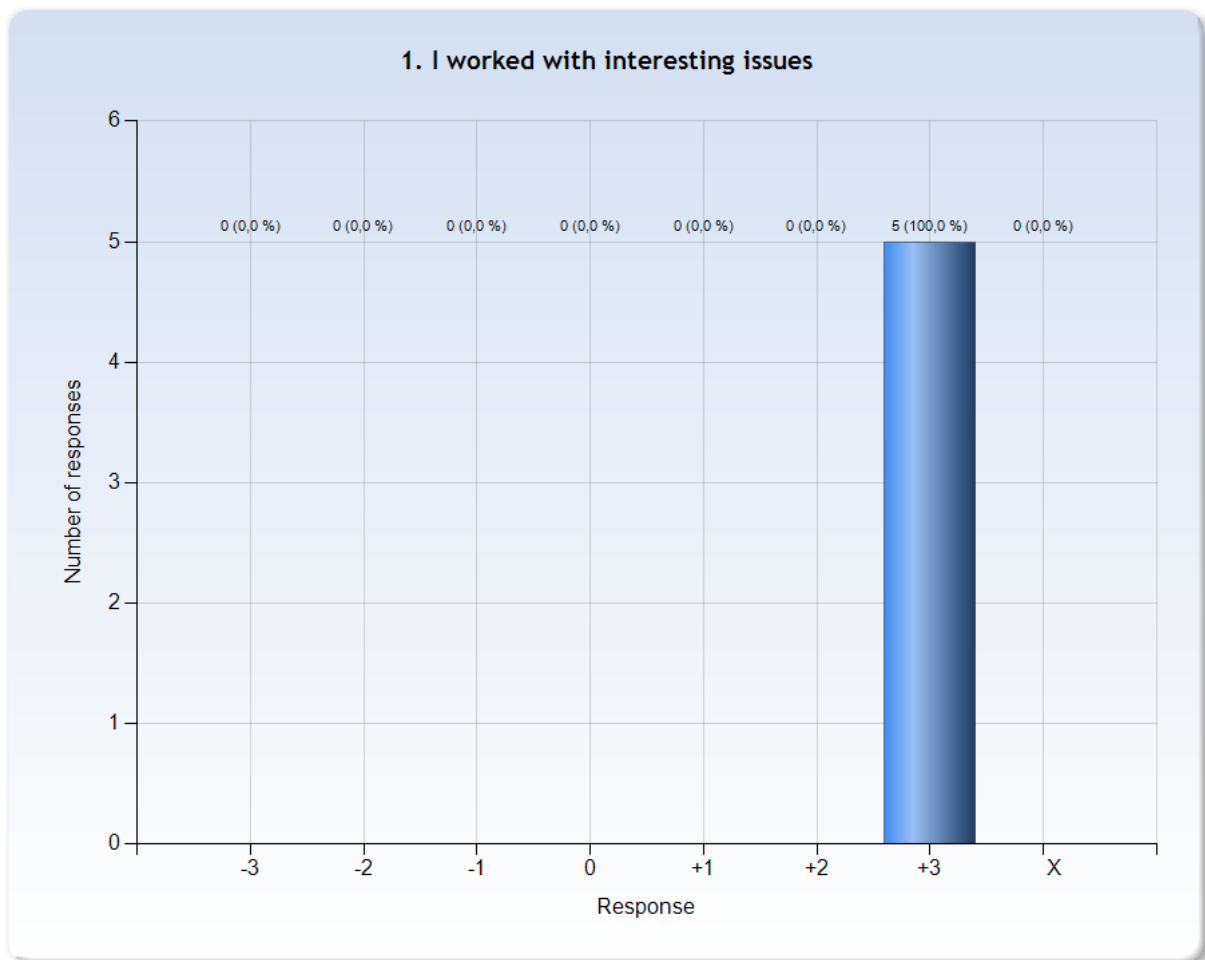
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-3 = No, I strongly disagree with the statement

0 = I am neutral to the statement

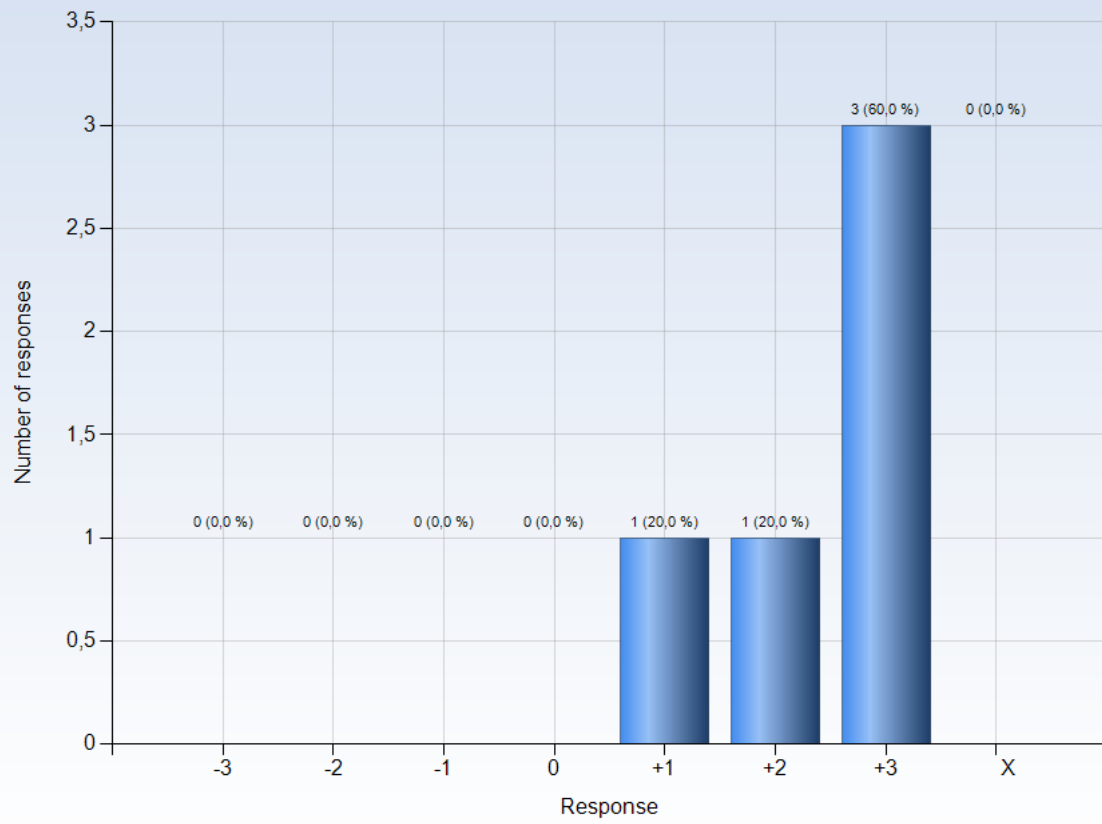
+3 = Yes, I strongly agree with the statement

X = I decline to take a position on the statement



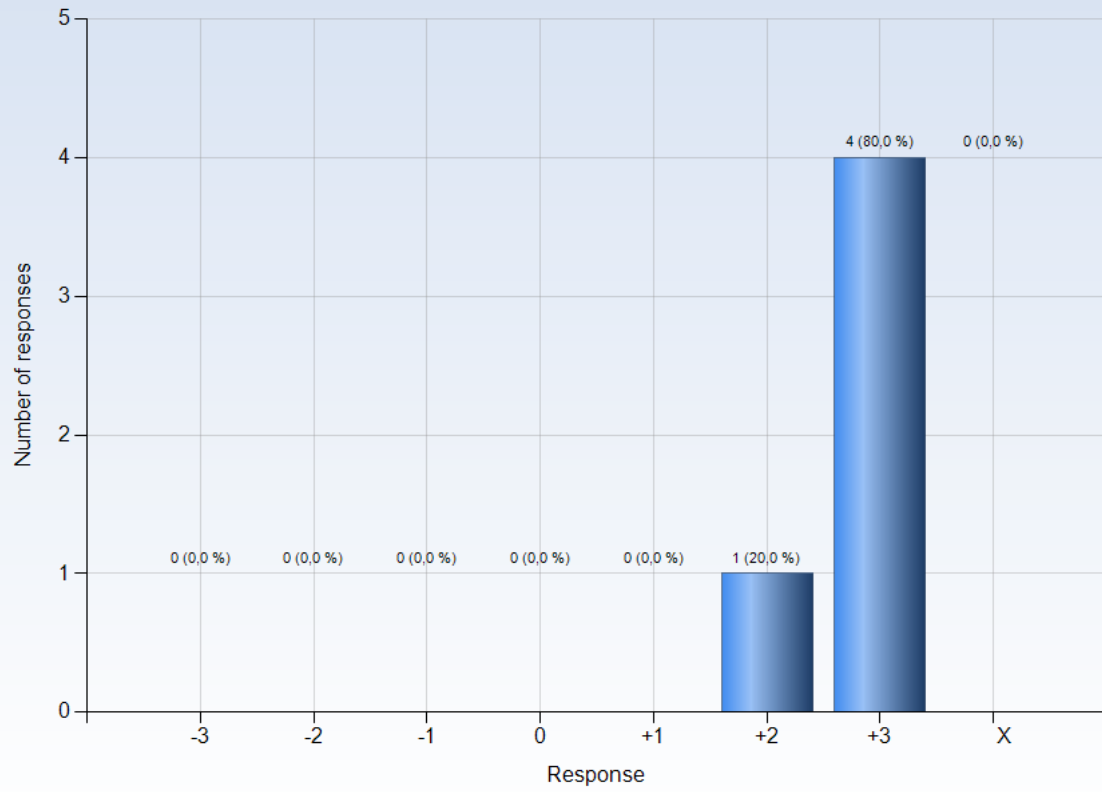
Comments

4. The course was challenging in a stimulating way



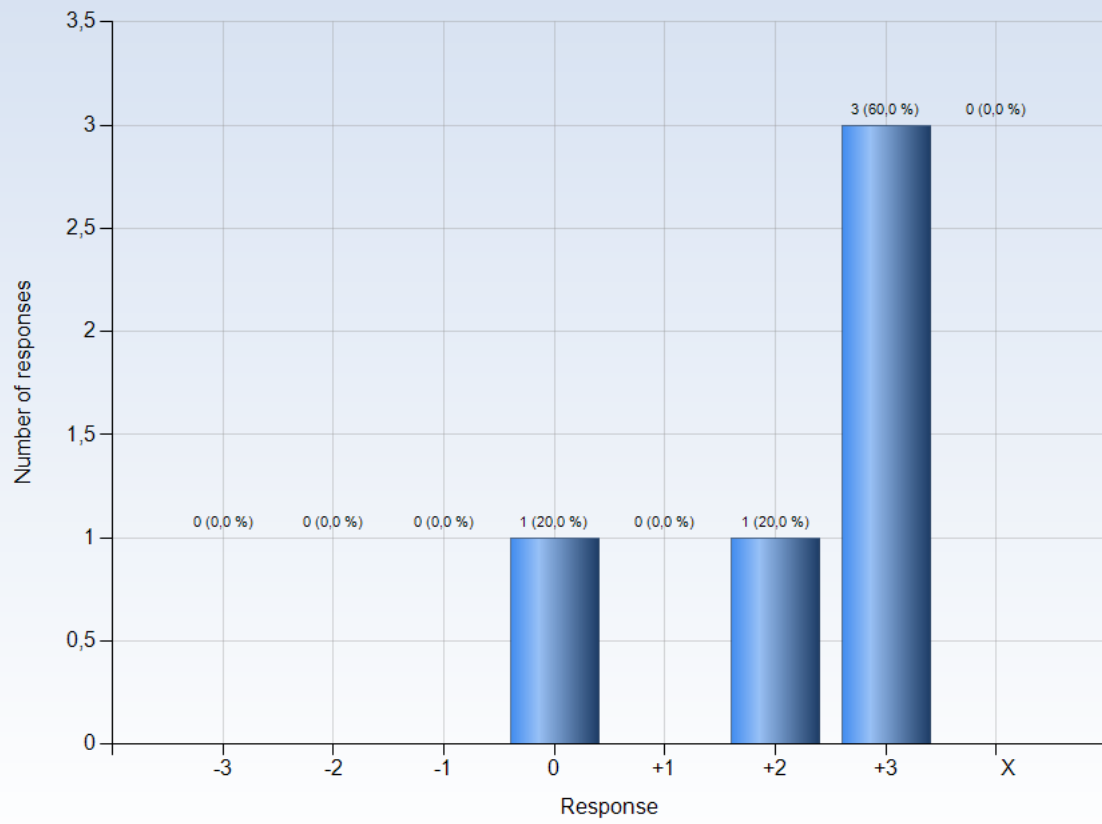
Comments

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



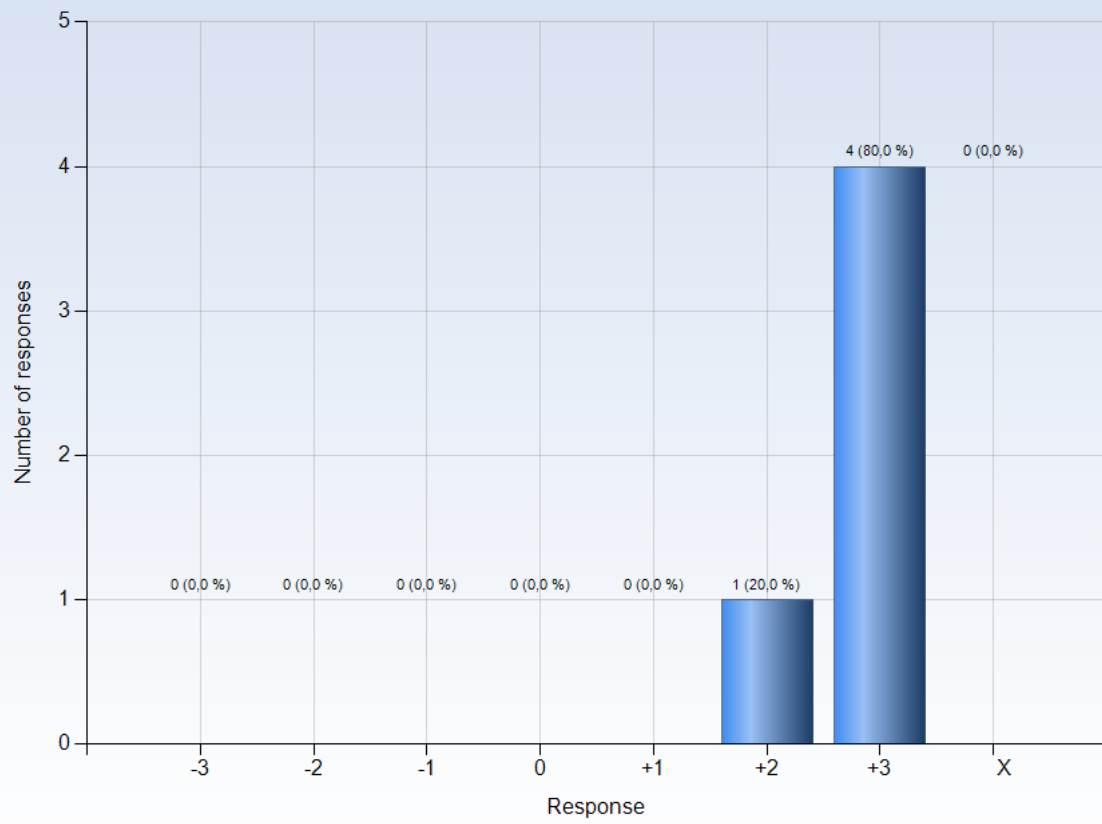
Comments

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



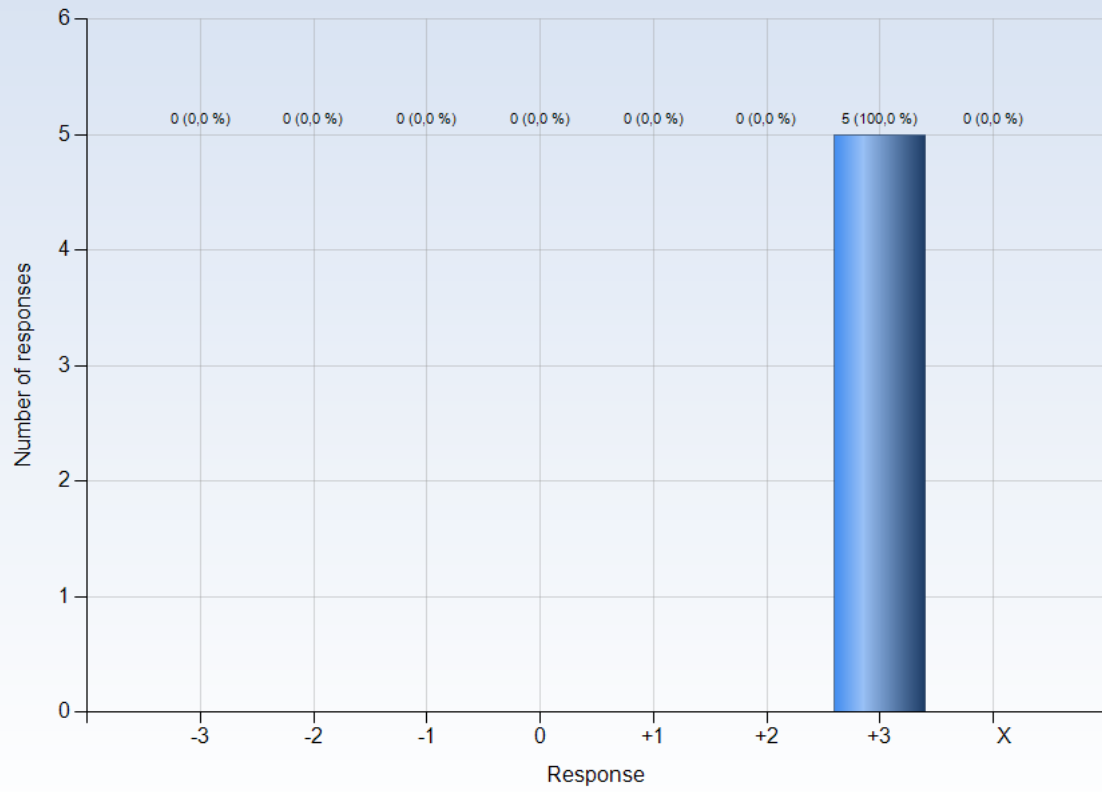
Comments

11. Understanding of key concepts had high priority



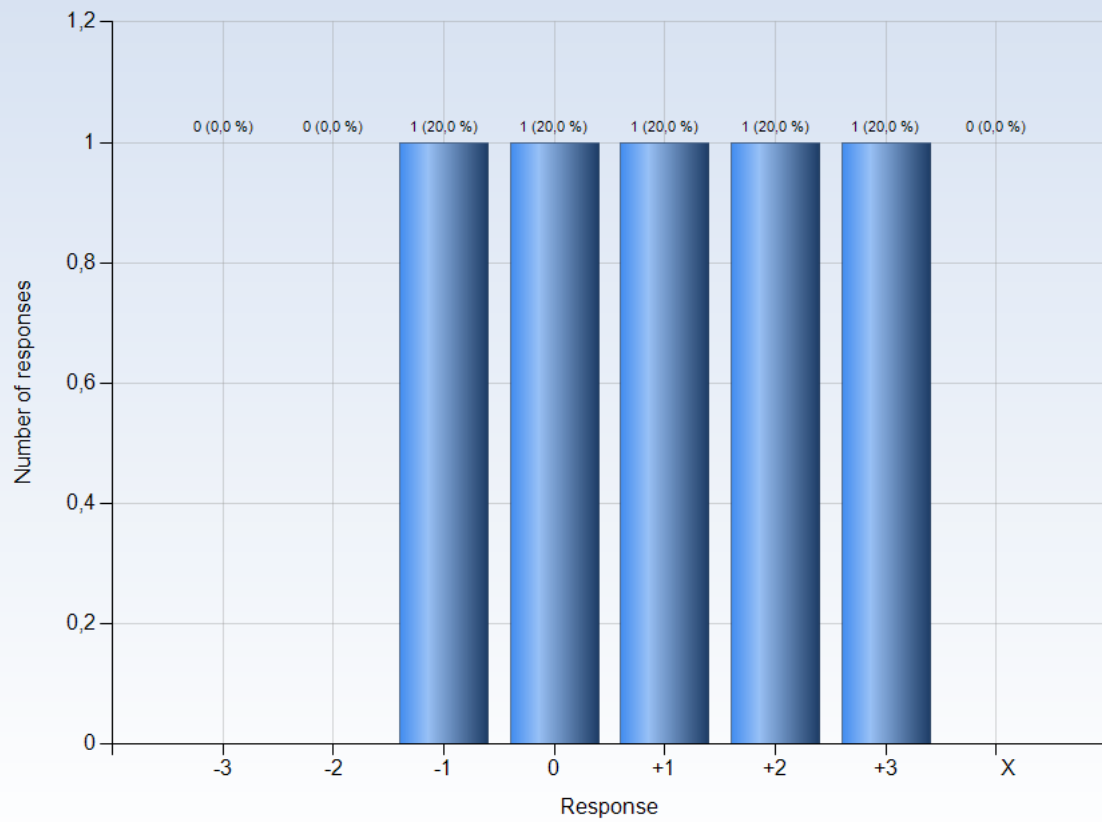
Comments

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



Comments

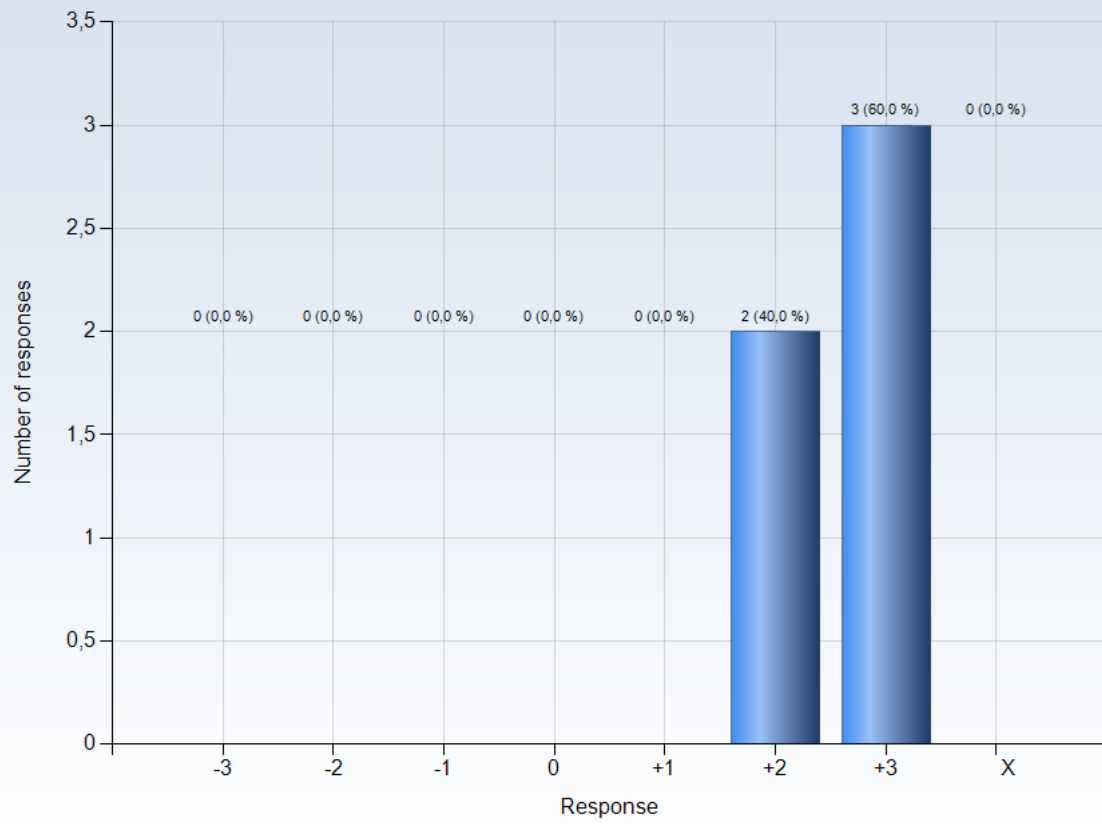
15. I was able to practice and receive feedback without being graded



Comments

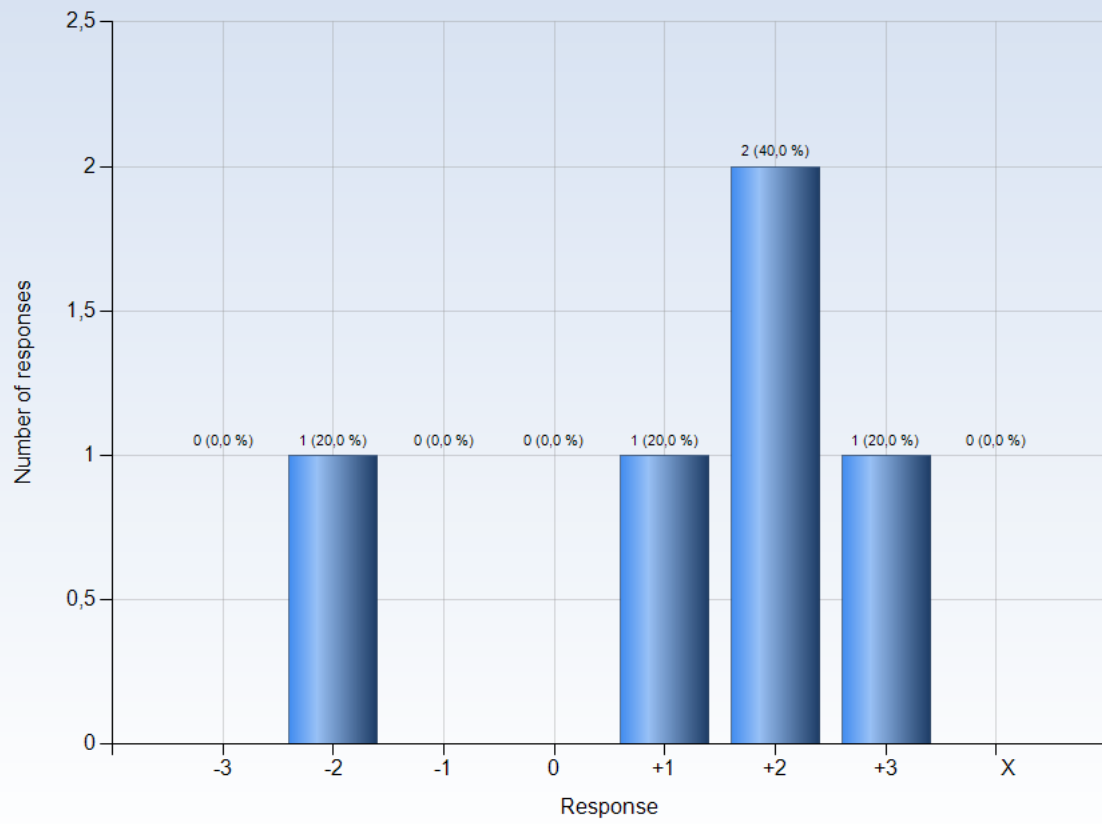
Comments (My response was: -1)
Everything being graded was a good thing.

16. The assessment on the course was fair and honest



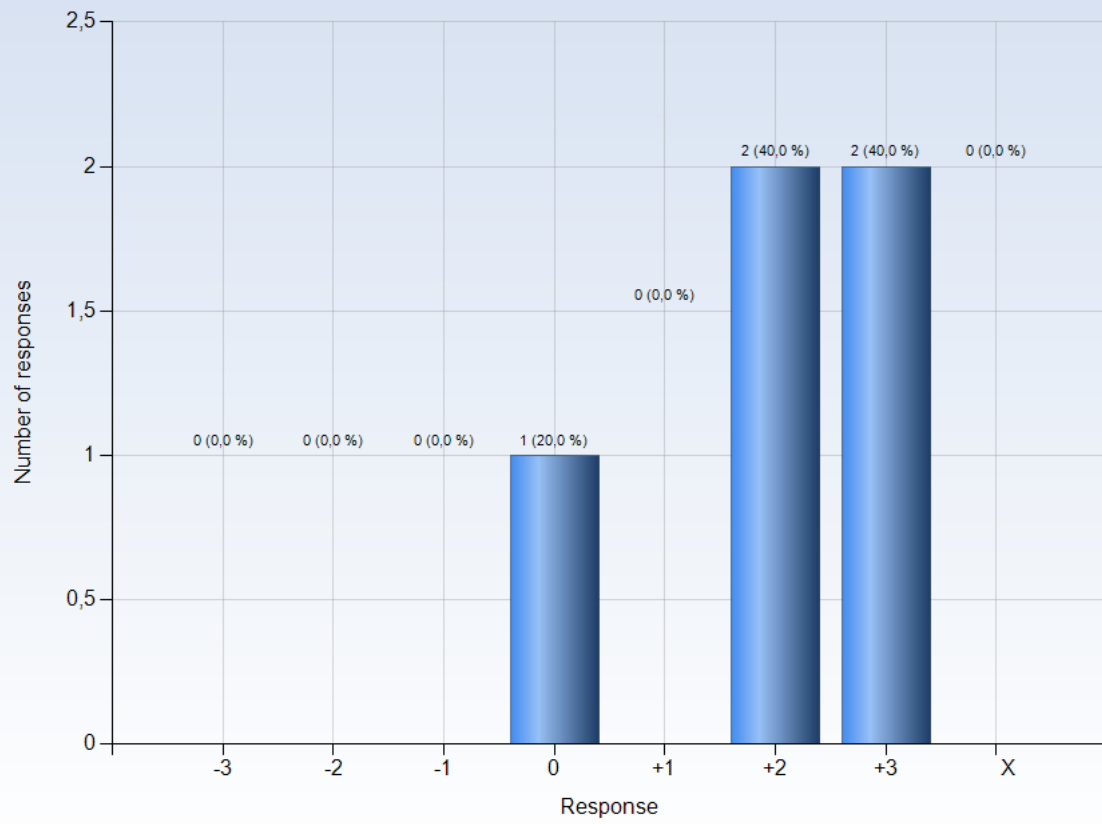
Comments

17. My background knowledge was sufficient to follow the course



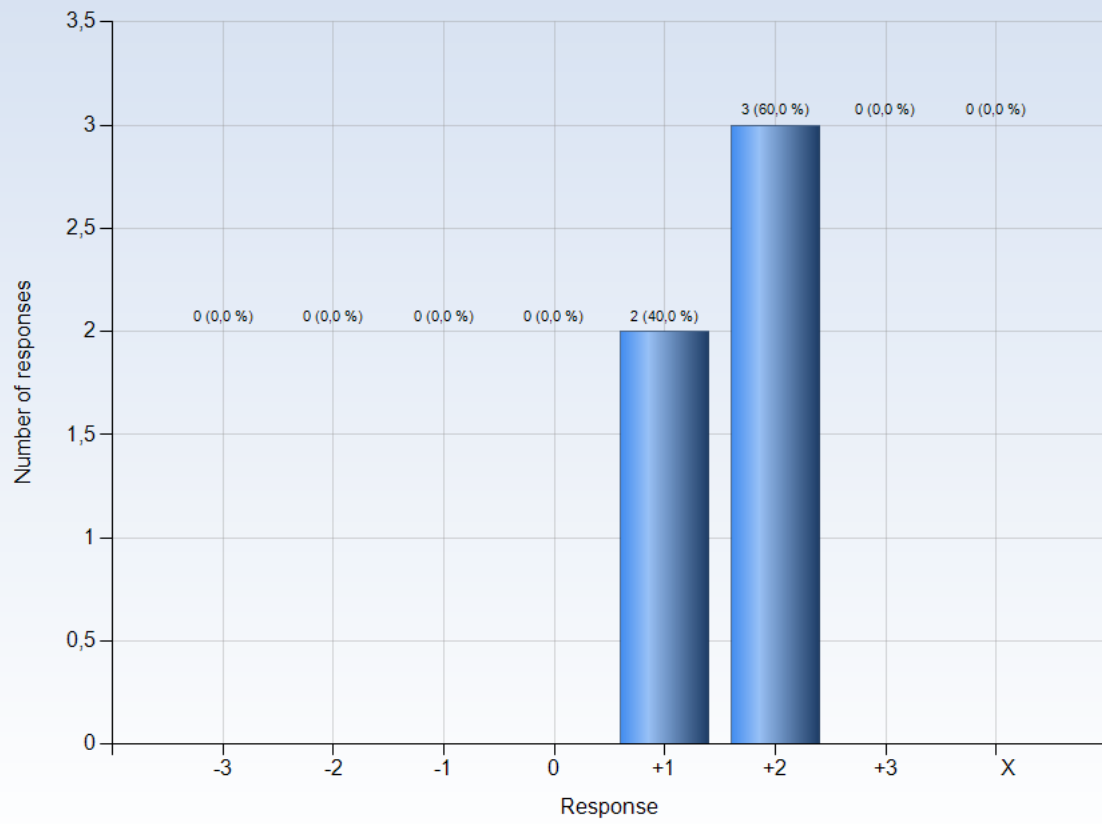
Comments

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



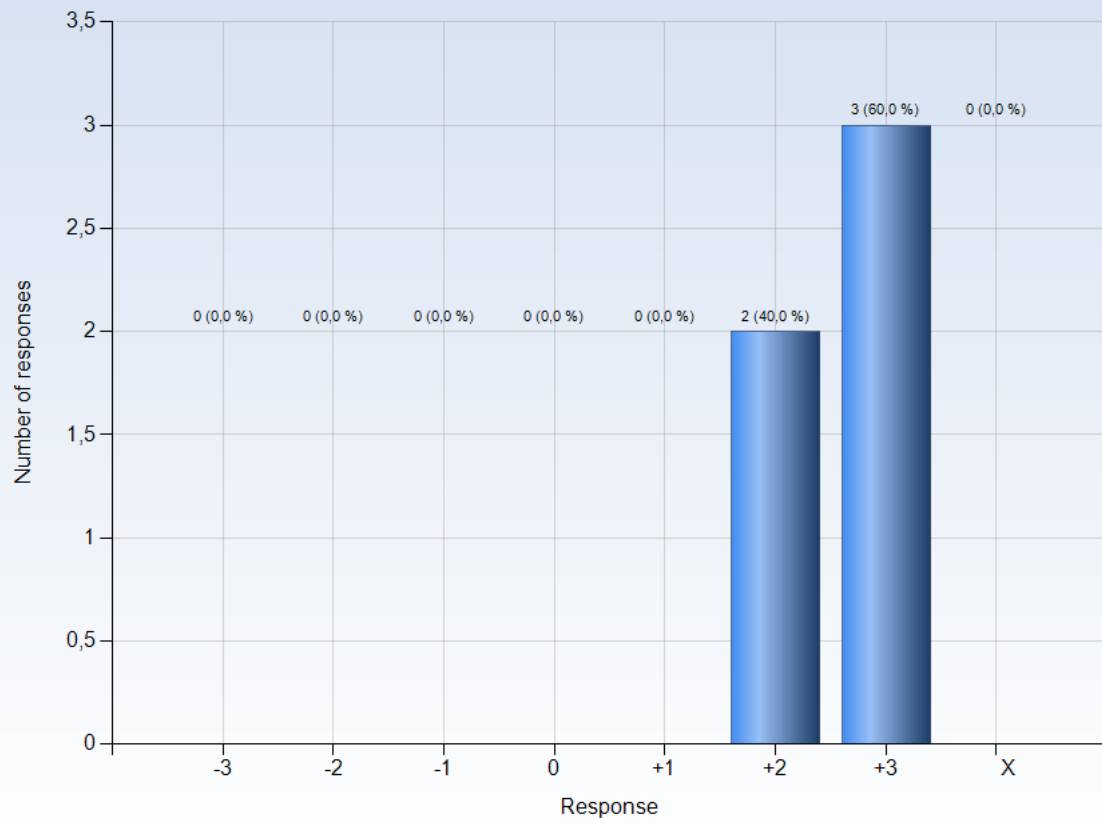
Comments

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



Comments

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



Comments