



Report - AH2923 - 2022-02-02

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):

Milan Horemuz, horemuz@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.

LEQ survey published after the exam. 4 student answered.

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.)

The course was discussed with all students at the last lecture, frequent contact with the students during labs.

COURSE DESIGN

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

The course consists of lectures, computer labs and a field exercise.

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?

Yes, the workload indicated by students is about 15 hours/week.

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?

There were no significant differences compared to the previous offerings.

Most of the students submitted lab reports on time and most of the students passed the examination. Grade distribution:

- A - 3
- B - 4
- C - 2
- D - 4
- E - 2
- F - 2

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The students were satisfied with the labs and Matlab coding.

The exam can be done better, and maybe explain beforehand exactly what is to be expected.

SUMMARY OF STUDENTS' OPINIONS

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

The students were generally satisfied with the course. They find the topics interesting and challenging.

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.

Due to Covid, the course were given mostly on-line, which limited the interaction between students and between students and teachers.

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?

It is not possible to draw any conclusions about the differences between different groups of student due to low frequency of answers.

PRIORITIZED COURSE DEVELOPMENT

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

More information about the exam will be given.

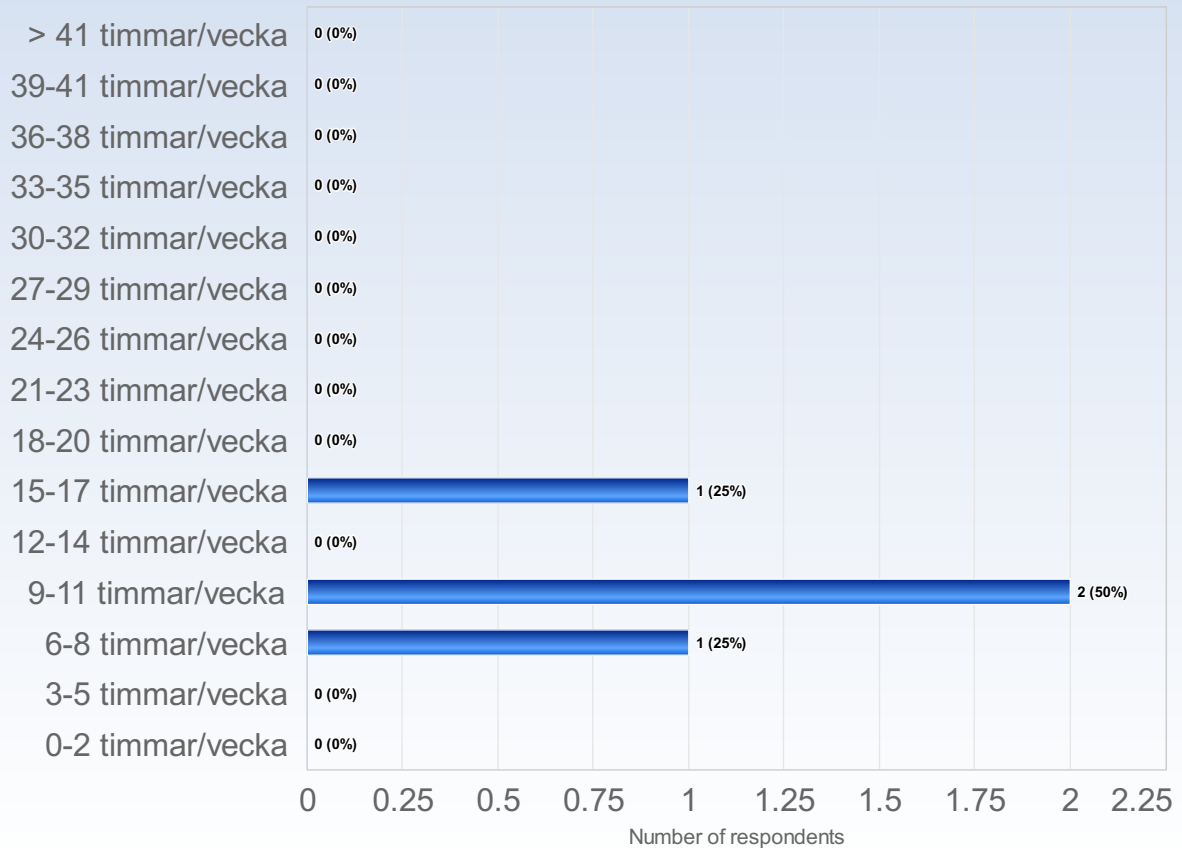


AH2923 - 2021-06-08

Antal respondenter: 20
Antal svar: 4
Svarsfrekvens: 20,00 %

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)

There are not so many lectures but what really takes times is labs and reports.



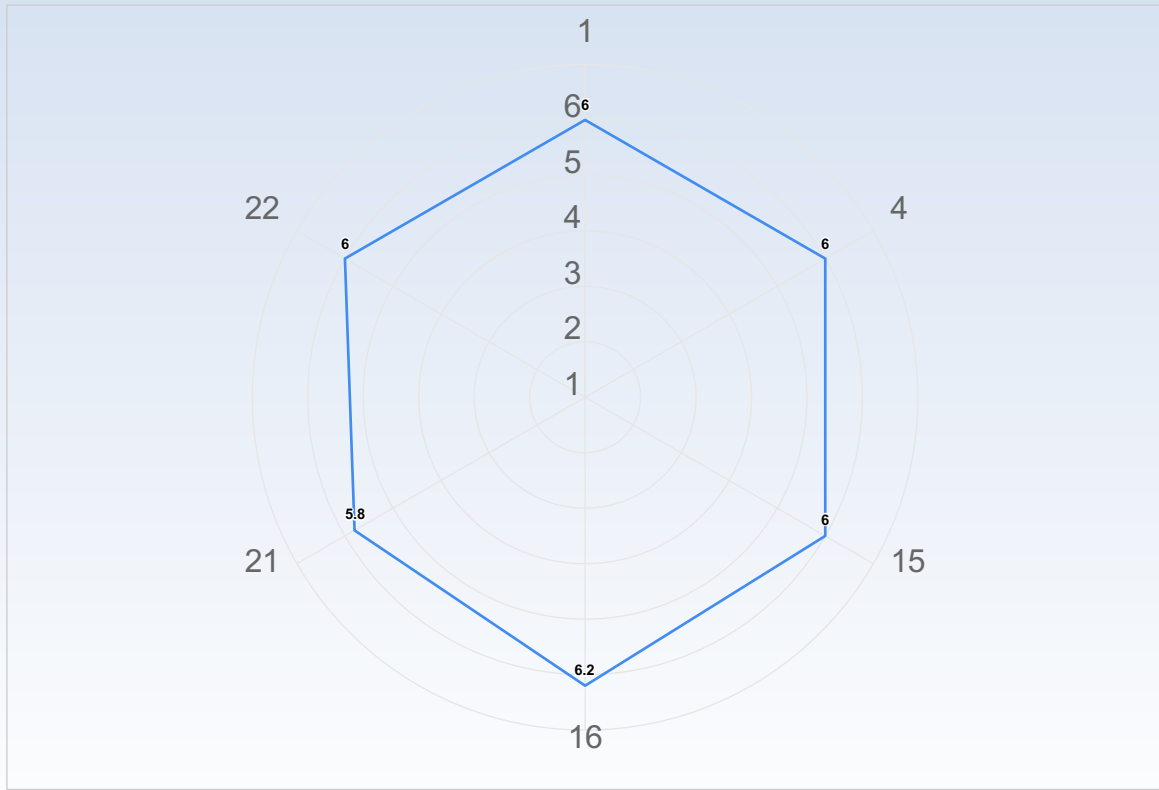
LEARNING EXPERIENCE

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



— Mean



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.

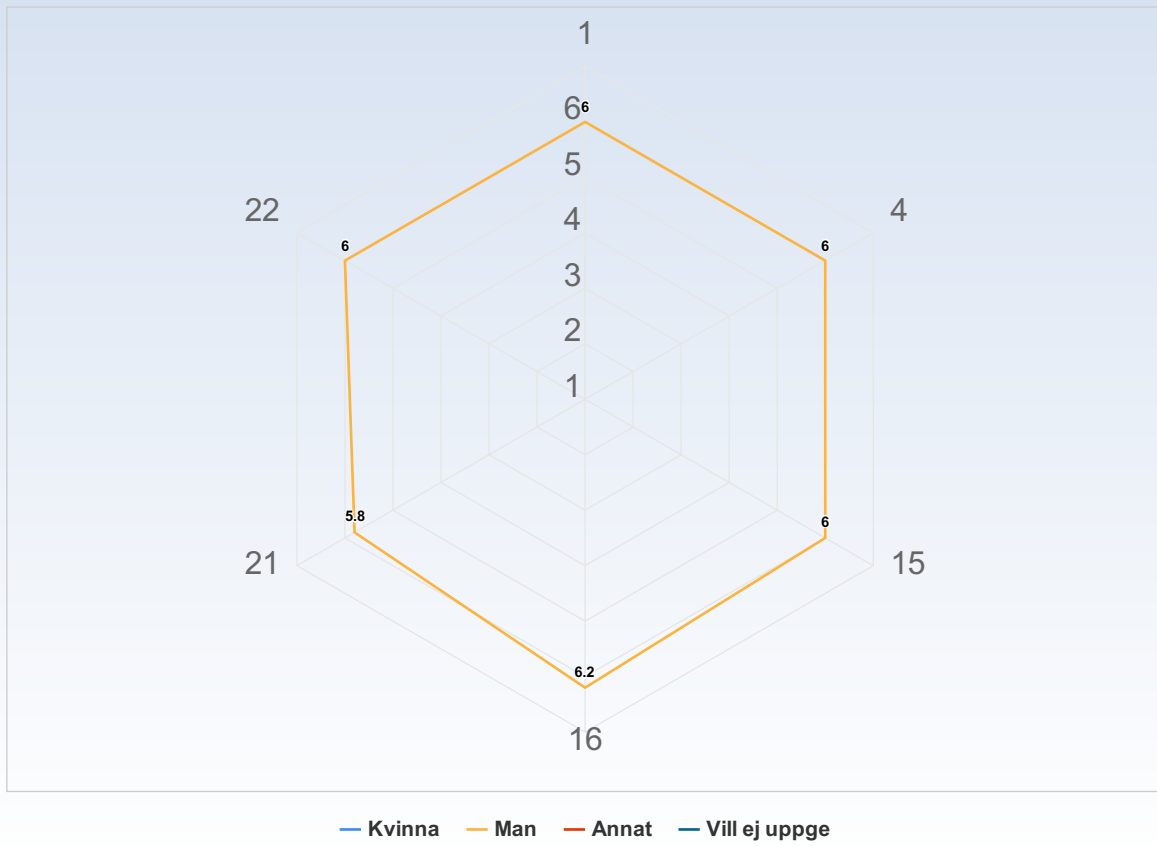
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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.

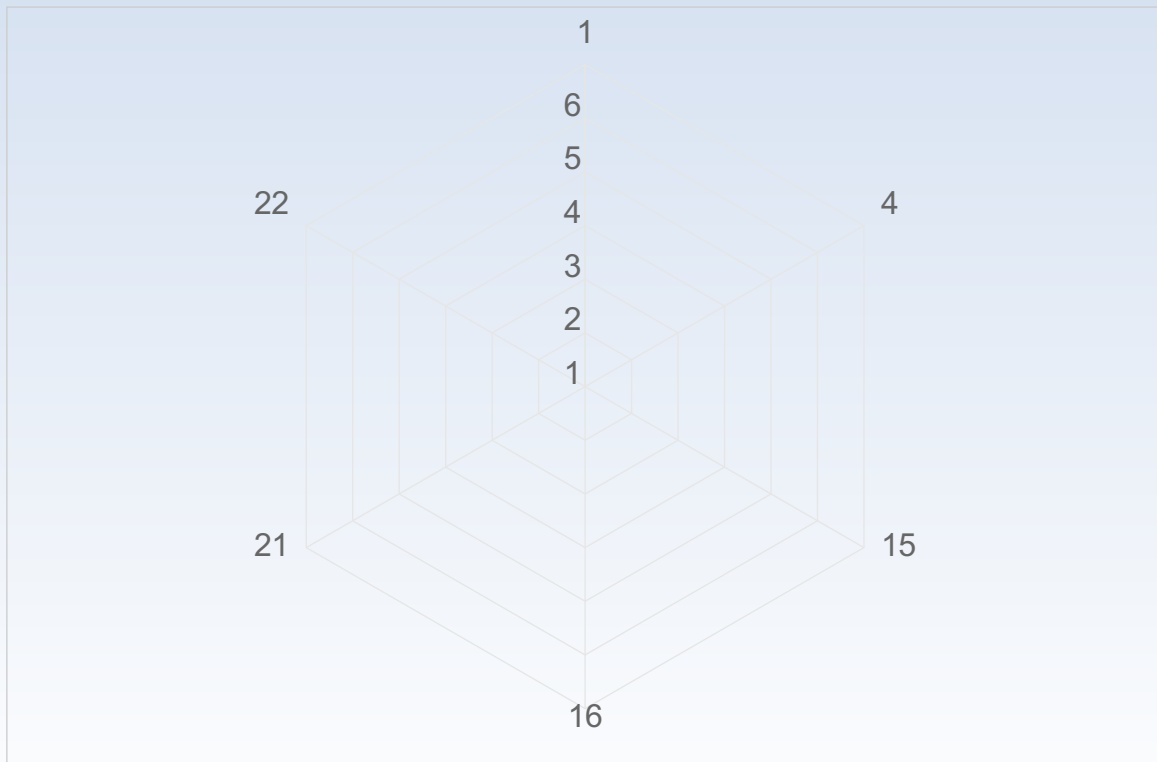
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.

Average response to LEQ statements - per gender



Comments

Average response to LEQ statements - per type of student

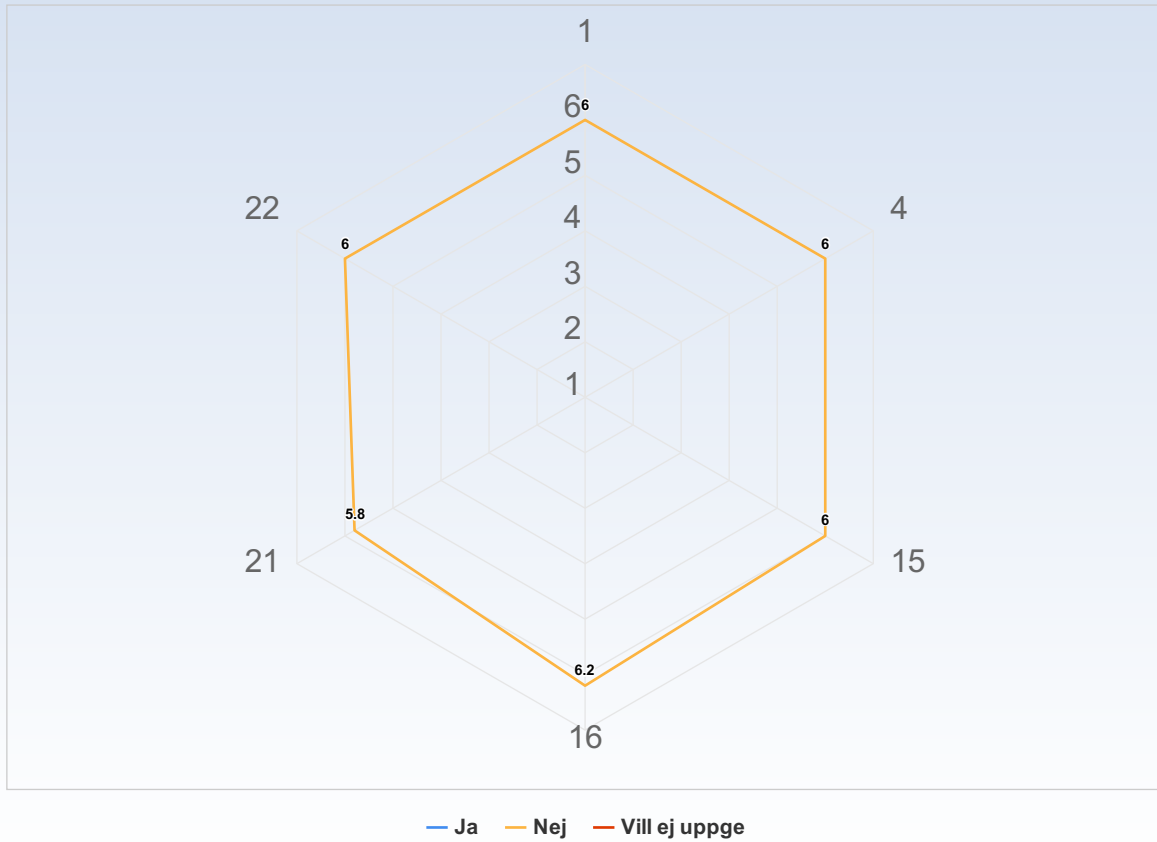


- Internationell masterstudent
- Svensk student i årskurs 4-5
- Internationell utbytesstudent
- Annan typ av student
- Svensk student i årskurs 1-3
- Vill ej uppge

Comments

Comments (I am: Annan typ av student)
 Double degree student.

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: 6-8 timmar/vecka)

Coding and seeing it works

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

The lab were interesting (but not all of them). Sometimes, we understood well but had problem with the matlab code, it was hard for Armin to help us with this, the lab being remoted working on programming.



What would you suggest to improve?

What would you suggest to improve? (I worked: 6-8 timmar/vecka)

The exam can be done better, and maybe explain beforehand exactly what is to be expected.

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

I don't know

Make a study visit to an institution or company related to GNSS.

What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 6-8 timmar/vecka)

Study a lot for the exam

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

Finish the lab during planned hours because it can take time to fix your code for the reports

Learn Matlab before the course

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 6-8 timmar/vecka)

No

Is there anything else you would like to add? (I worked: 9-11 timmar/vecka)

No thank you

SPECIFIC QUESTIONS



RESPONSE DATA

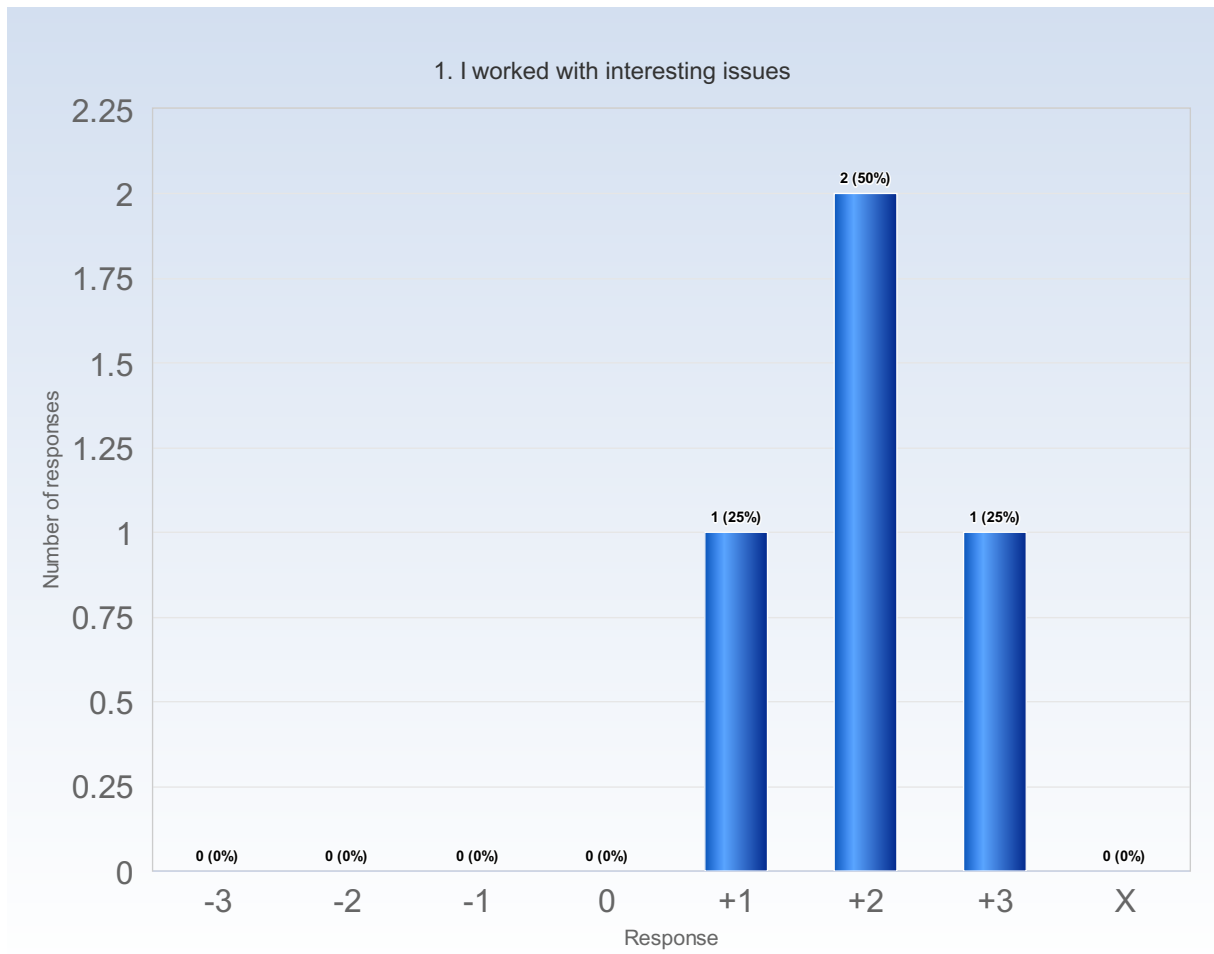
The diagrams below show the detailed response to the LEQ statements.
The response scale is defined by:

-3 = No, I strongly disagree with the statement

0 = I am neutral to the statement

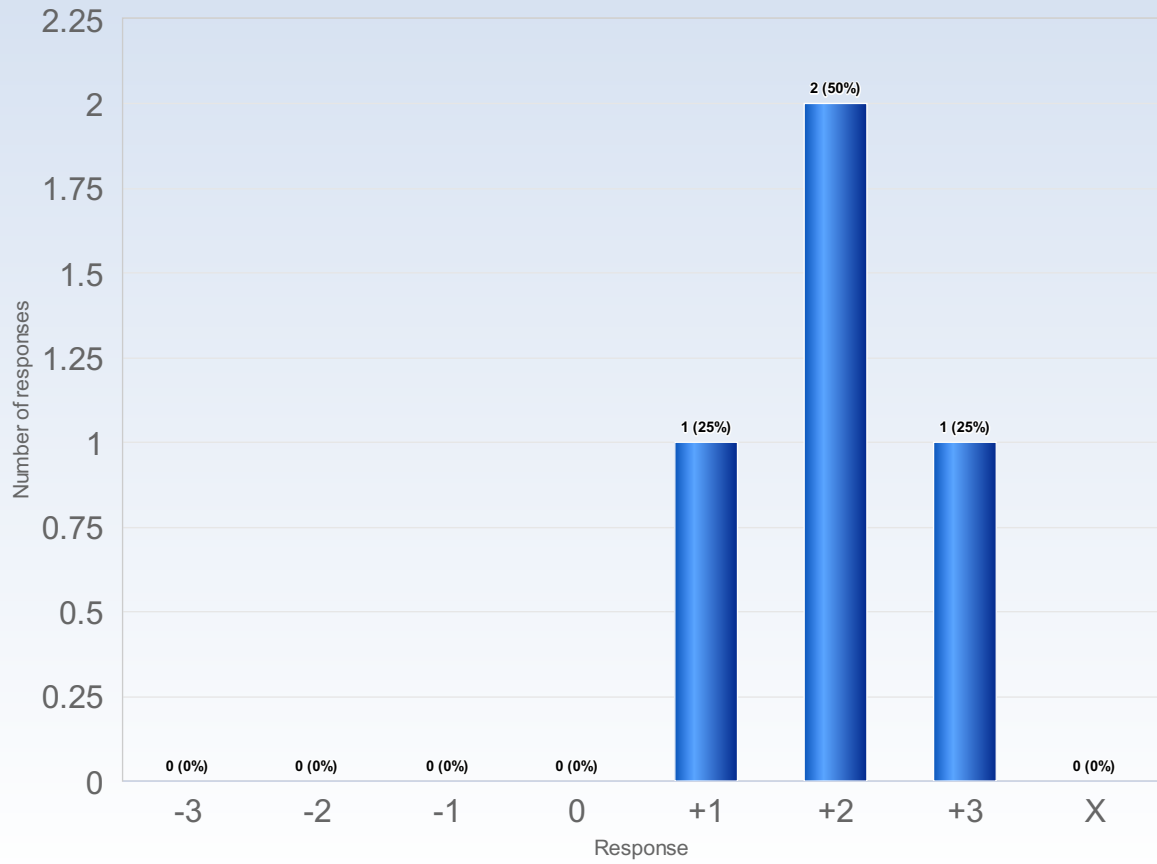
+3 = Yes, I strongly agree with the statement

X = I decline to take a position on the statement



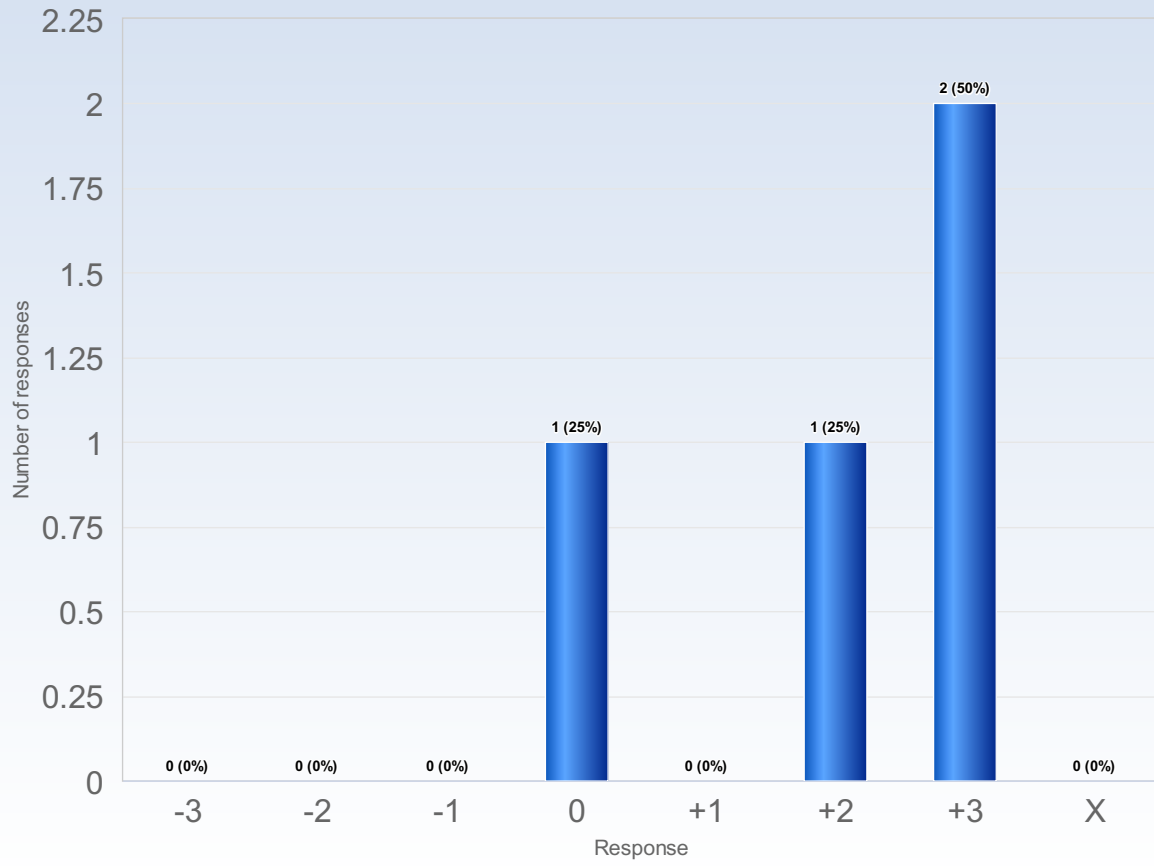
Comments

4. The course was challenging in a stimulating way



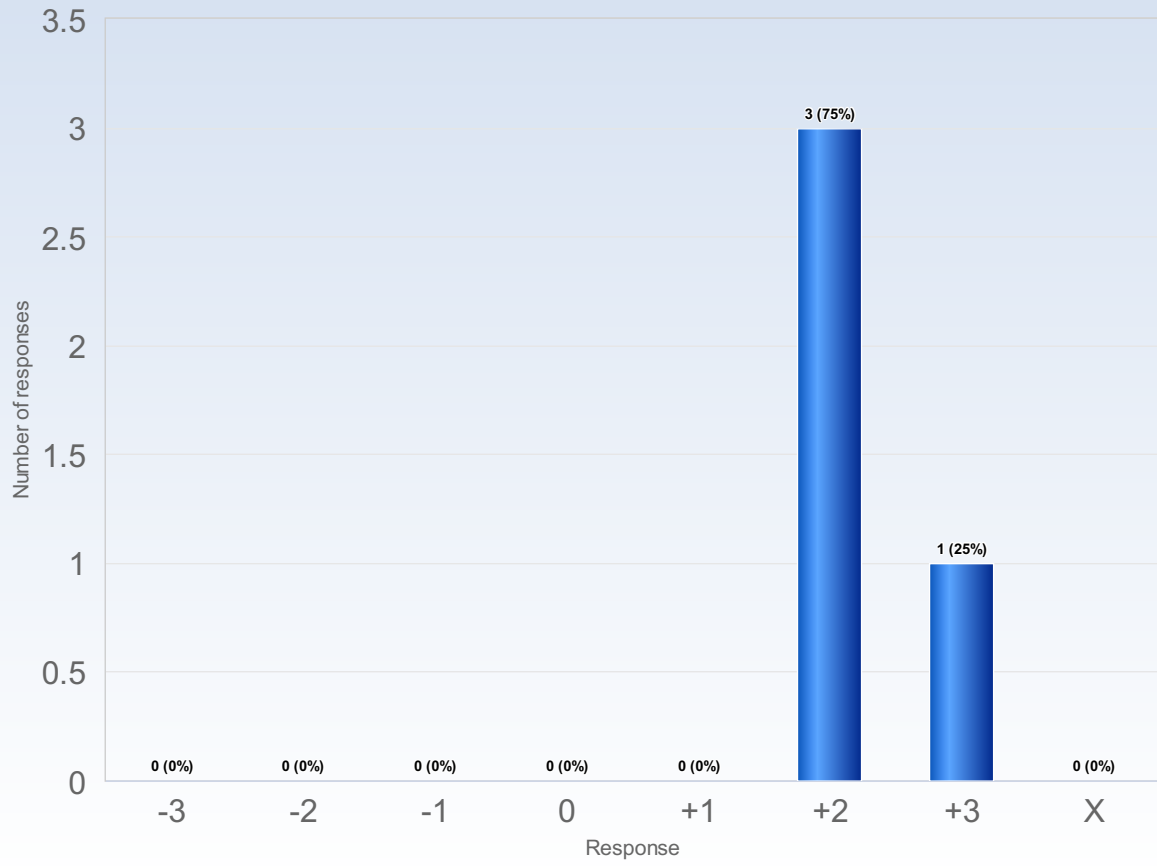
Comments

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



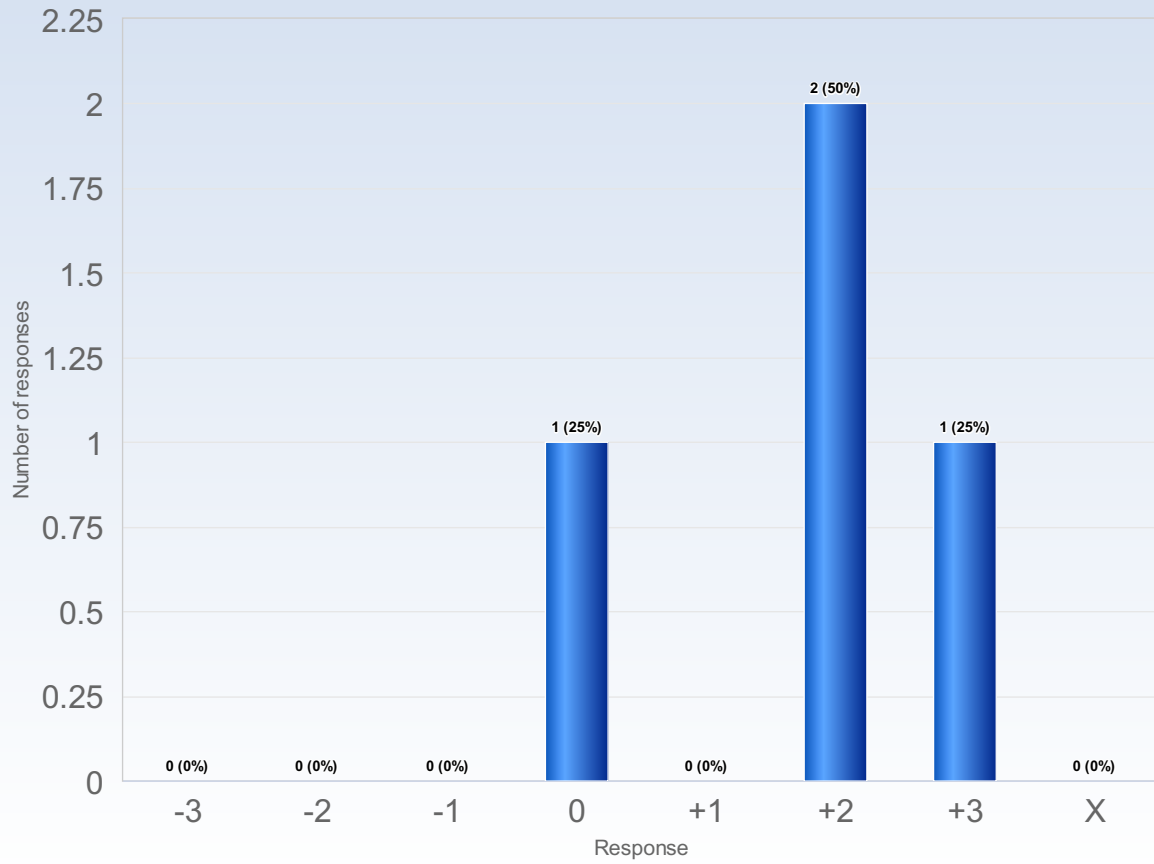
Comments

16. The assessment on the course was fair and honest

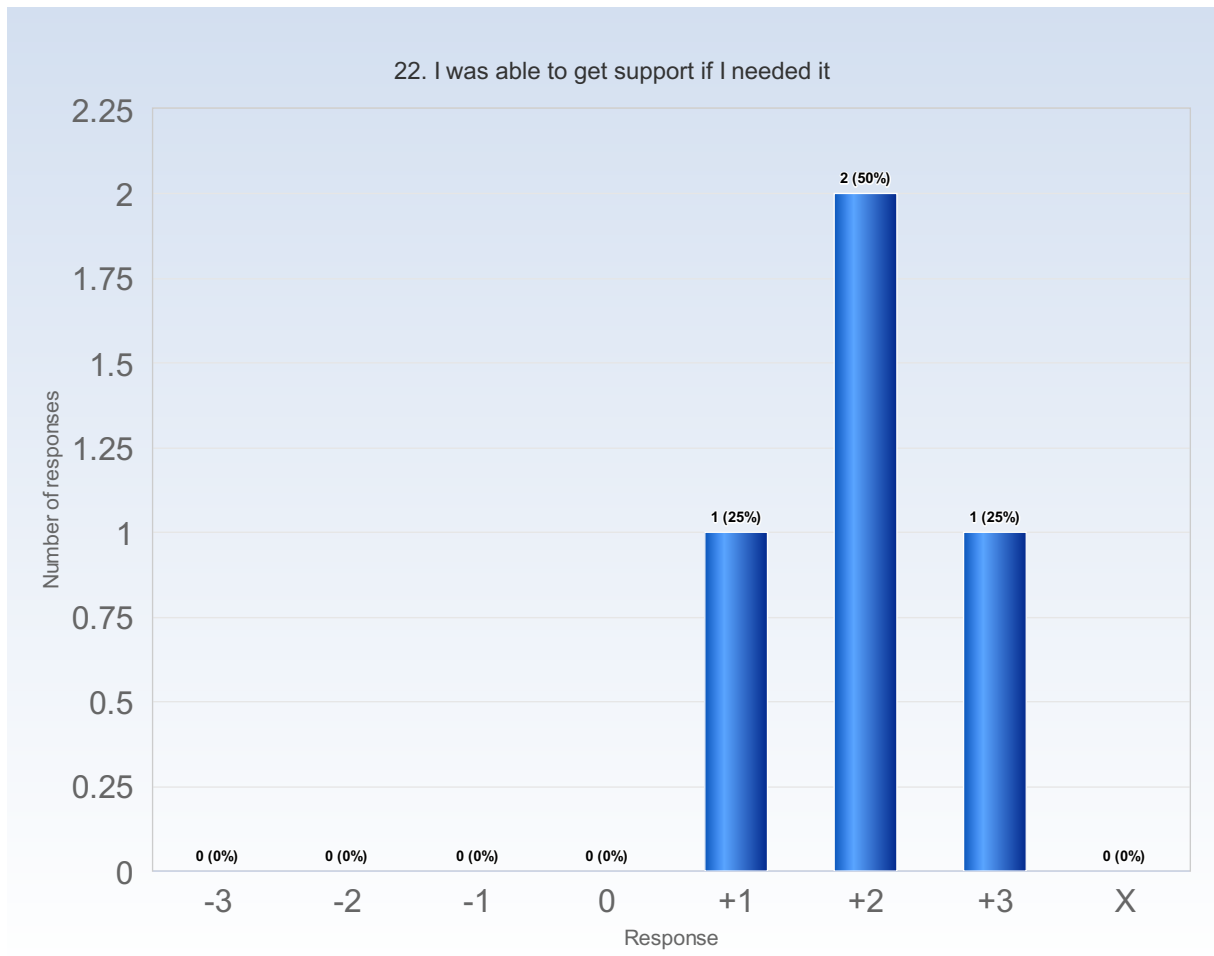


Comments

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



Comments



Comments