

Report - FEL3210 - 2023-09-11

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):

Elling W. Jacobsen, jacobsen@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.

During lectures and other course meetings as well as a final course survey (attached).

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.)

Requested and received feedback from students during lectures and breaks. Final course survey.

COURSE DESIGN

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

Phd course with 8 compulsory lectures covering the theory, 8 corresponding compulsory homeworks (with handin) covering both theory and its applications. A final take-home open book written exam.

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?

Most students indicate around 20 hrs per week which seems reasonable.

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?

All students passed the course, and demonstrated a profound knowledge within the topics covered in the course.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The students found the course stimulating and challenging.

SUMMARY OF STUDENTS' OPINIONS

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

The students seem to be happy with the course content and teaching. Some students would have preferred to have supervised homework sessions. One student proposed to have a small research project on current use of the theory, instead of having a written exam, which I think is an excellent idea.

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.

Satisfied with the course offering and very satisfied with the student results.

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?
-

Too few answers on survey to draw any conclusions.

PRIORITIZED COURSE DEVELOPMENT

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

Before next course offering we will

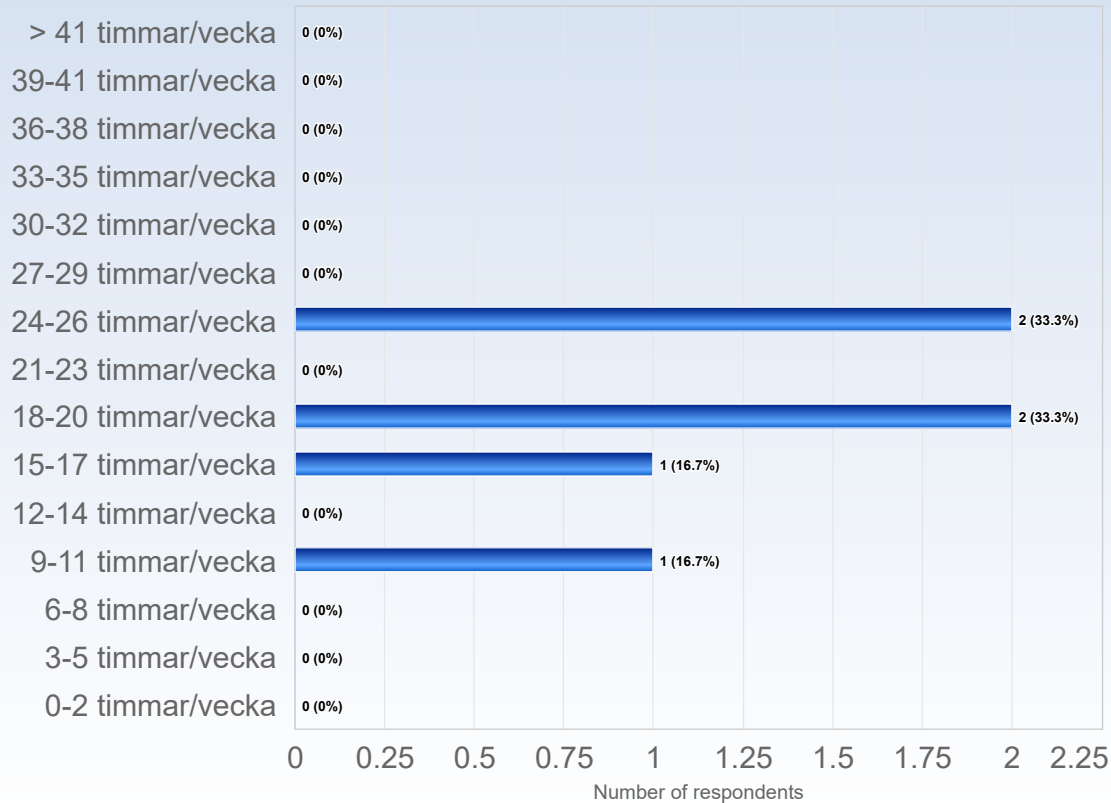
- Add sustainability as a course objective. The corresponding activity will probably be relevant problems in the homework and examples on lectures.
 - Add a project on the current status of the theory, and its application, covered in the course. Possibly replace exam with the project.
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FEL3210 - 2023-06-26

Antal respondenter: 6
Antal svar: 6
Svarsfrekvens: 100,00 %

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)

It is an all-in course for me.

The course included a weekly homework assignment with multiple questions, so the number of hours I worked with the course reflects that in addition to the scheduled hours and the time spent on self reading.

LEARNING EXPERIENCE

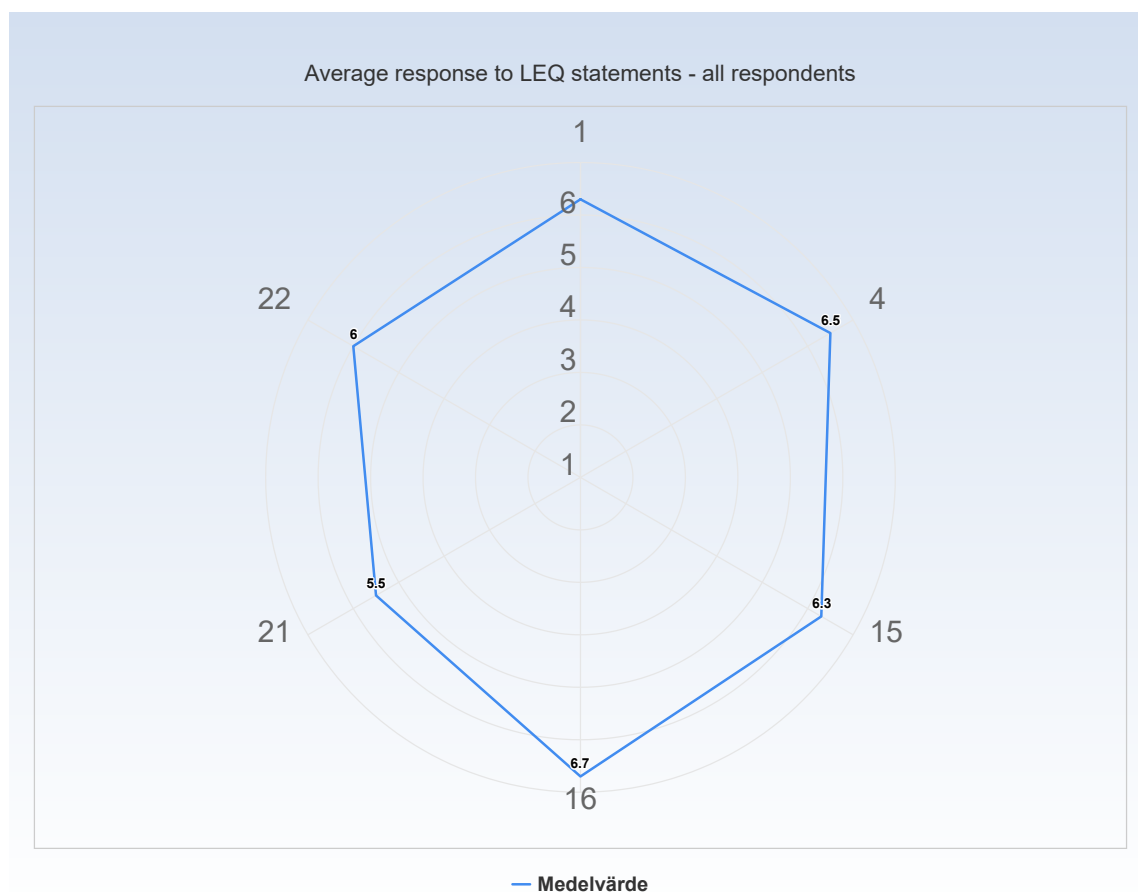
The polar diagrams below show the average response to the LEQ statements for different groups of respondents (only valid responses are included). The scale that is used in the diagrams is defined by:

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.



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.

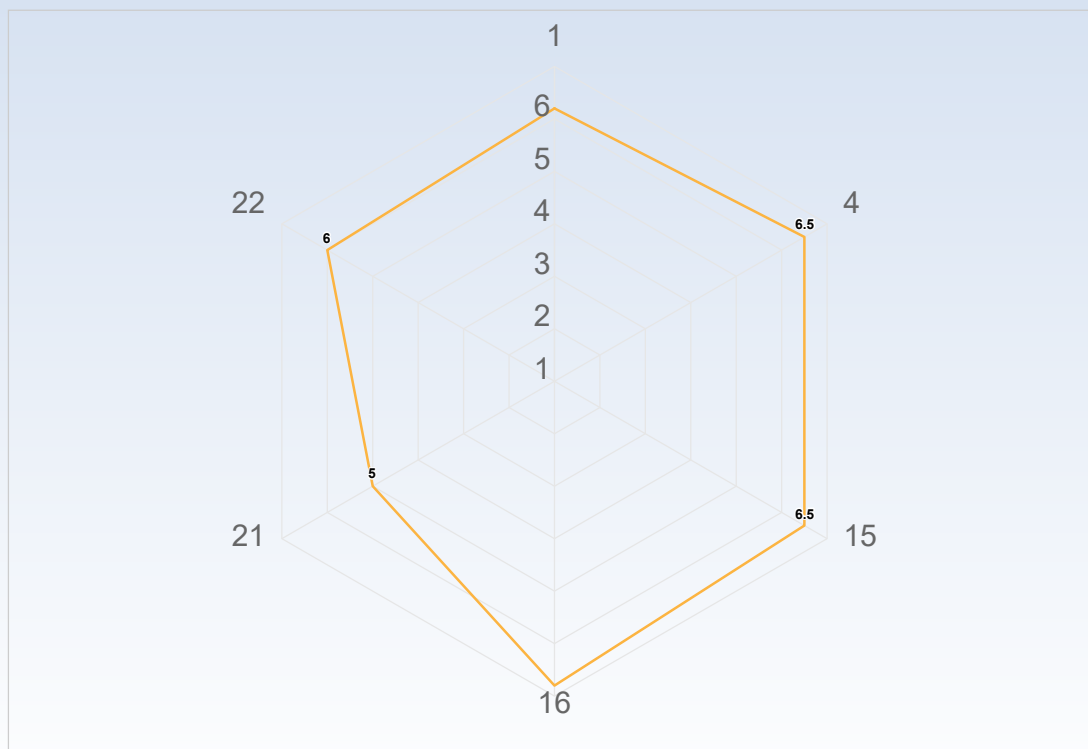
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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.

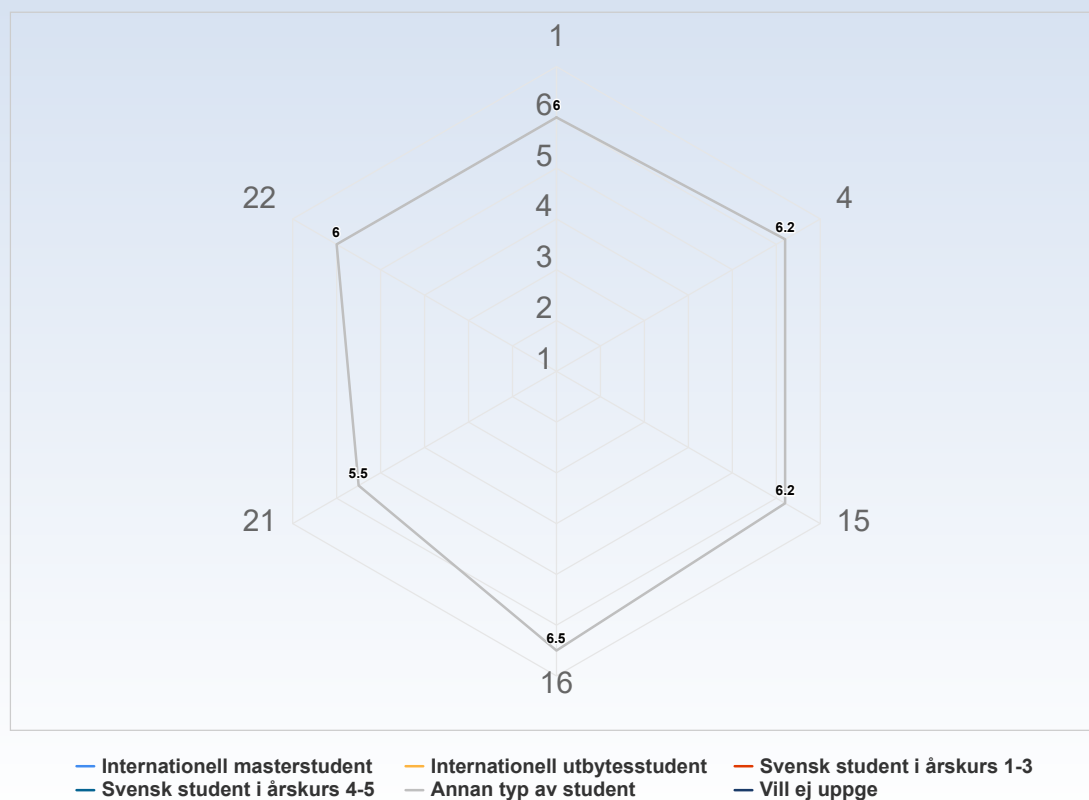
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.

Average response to LEQ statements - per gender



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Average response to LEQ statements - per type of student

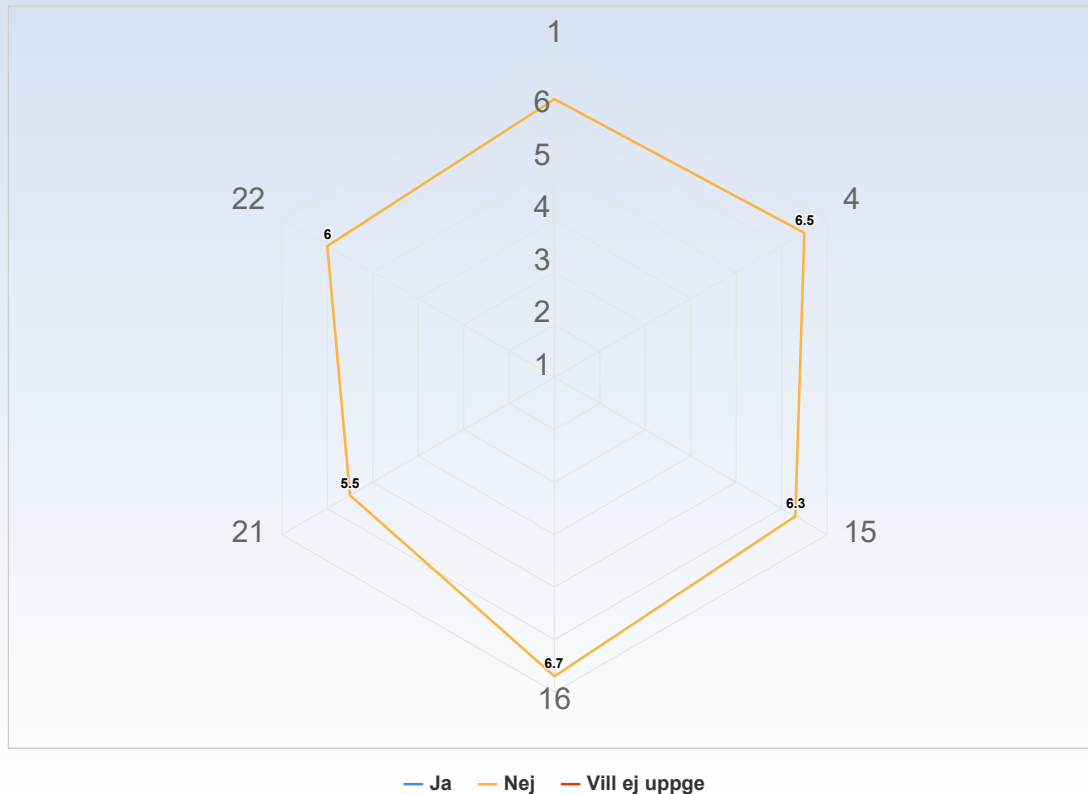


Comments

Comments (I am: Annan typ av student)

PhD Student.

Average response to LEQ statements - per disability



Comments

Comments (My response was: Nej)

I don't have any disability, to the best of my knowledge.

GENERAL QUESTIONS

What was the best aspect of the course?

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

The homeworks are really helpful for digesting the concepts and methodologies in the course.

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

The professor provides excellent lectures with thorough lecture notes.

The weekly homework may have seemed burdensome at first, but in retrospect I think working on different problems really helped me get the best out of the course.

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

The course was well-structured in terms of contents and assignments. The assignments helped to understand the contents and get practiced.

What would you suggest to improve?

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

Maybe give one or two sections to discuss about the homeworks.

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

It will be better if the exercise can be provided with some solutions.

Perhaps instead of an exam, it would be better to have a presentation about any of the recent topics of interest in the research community regarding multivariable control. This will help put things into context with regards to how the results we had studied during the course are being applied or modified to fit with the current research problems.

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

The teaching could have cooperated with exercise sessions and discussion of the previous assignments.

Get solutions to the weekly homeworks

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)

read corresponding chapters in the textbook before the lecture starts.

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

It worths much time.

You can get the best out of the lectures if you have gone through the reading material beforehand.

Is there anything else you would like to add?

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

No

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

No.

SPECIFIC QUESTIONS

RESPONSE DATA

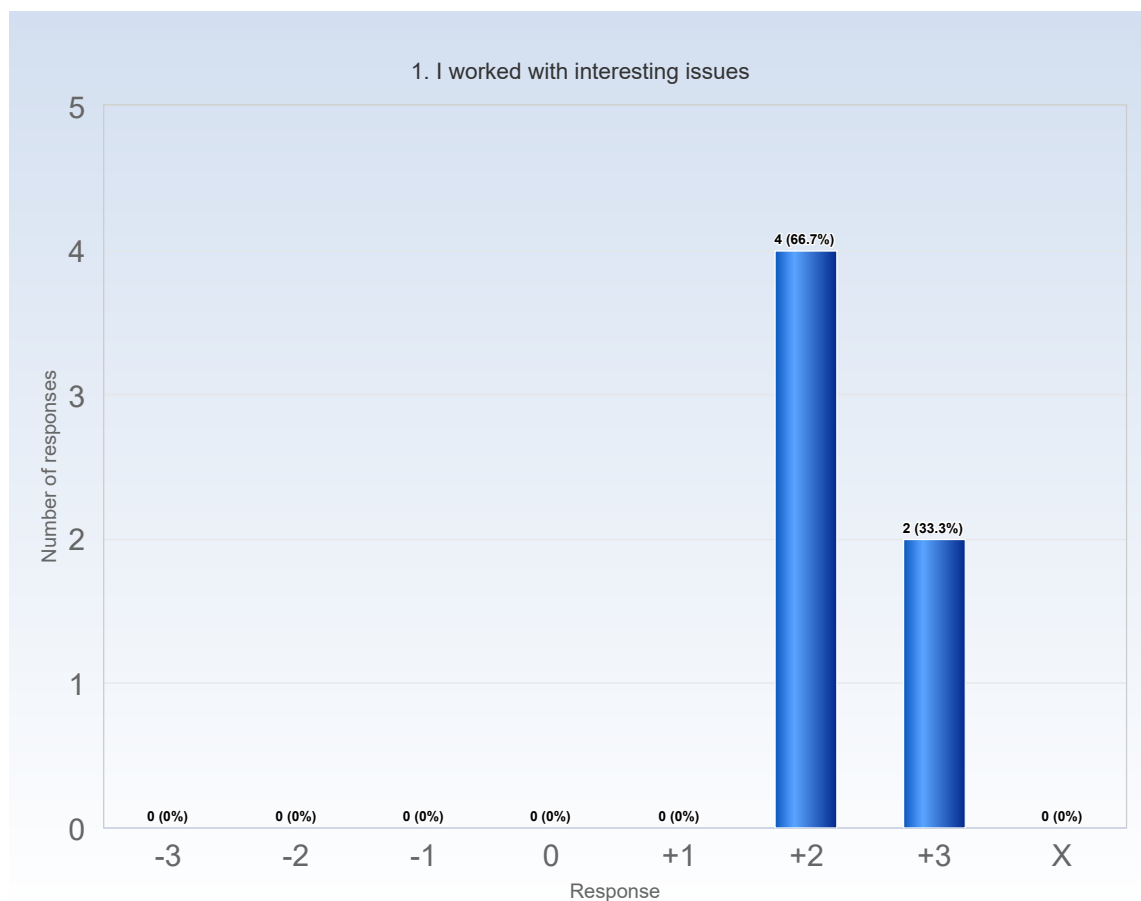
The diagrams below show the detailed response to the LEQ statements.
The response scale is defined by:

-3 = No, I strongly disagree with the statement

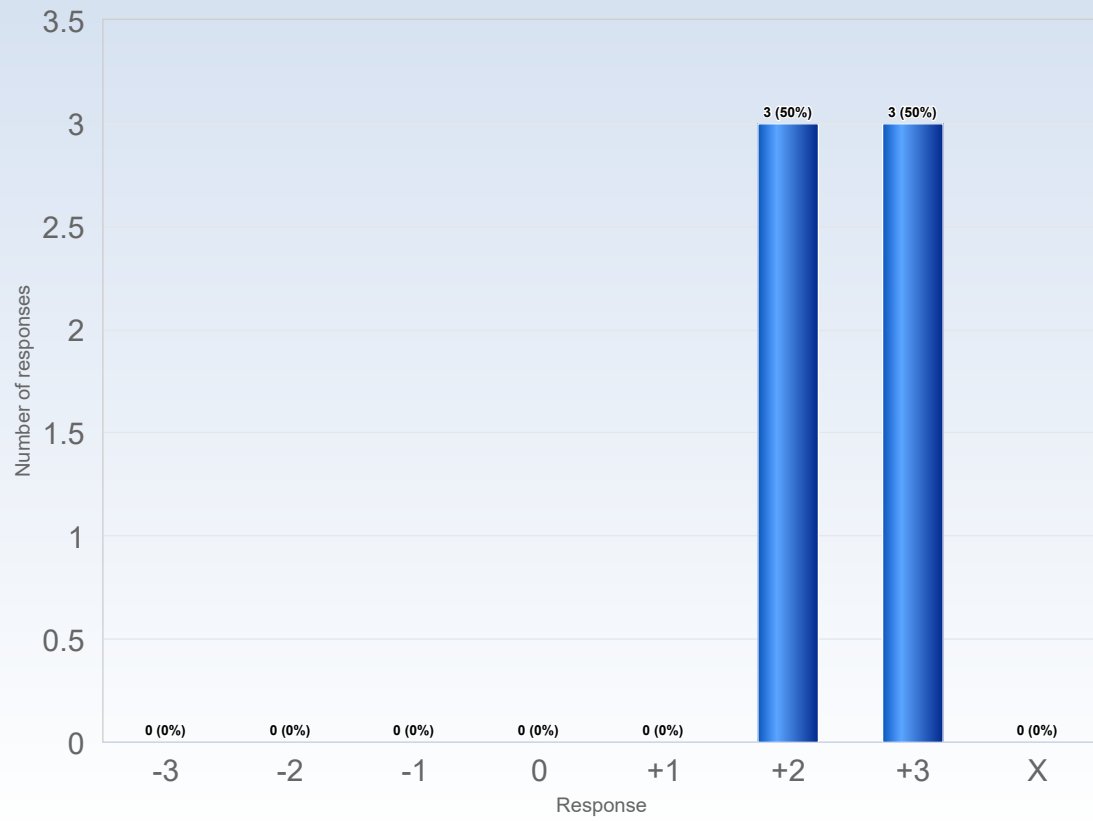
0 = I am neutral to the statement

+3 = Yes, I strongly agree with the statement

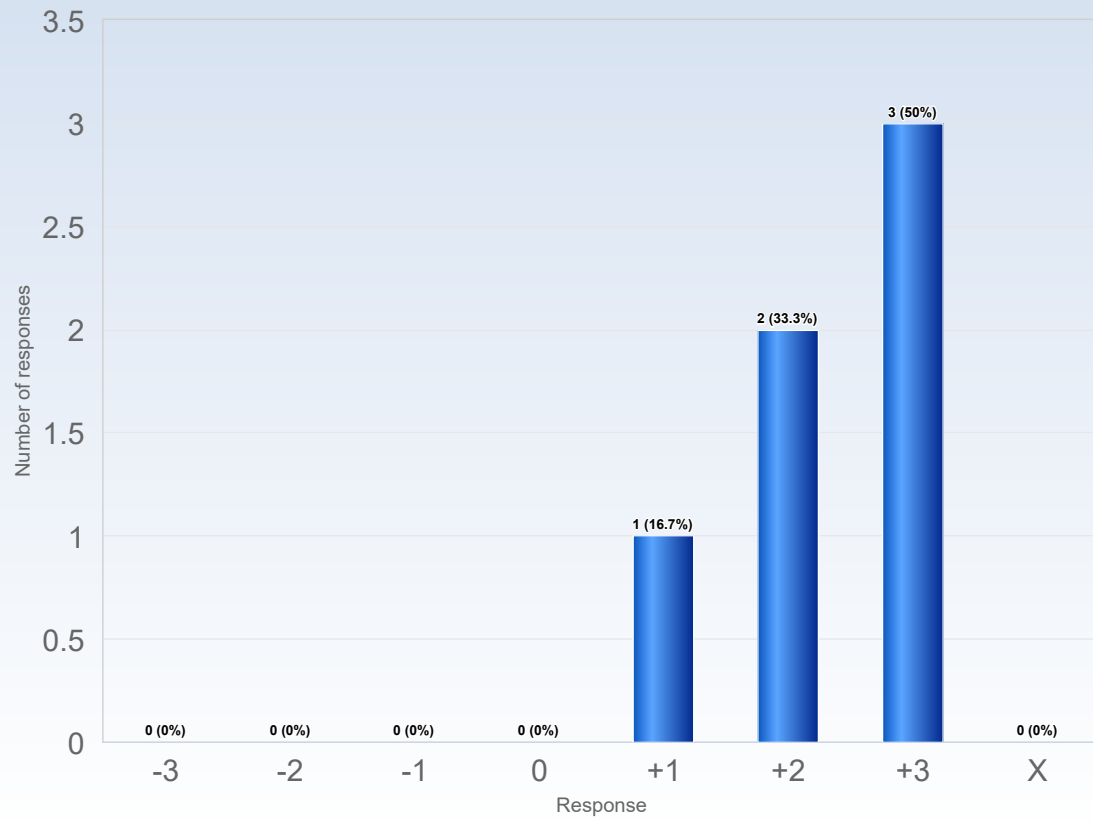
X = I decline to take a position on the statement



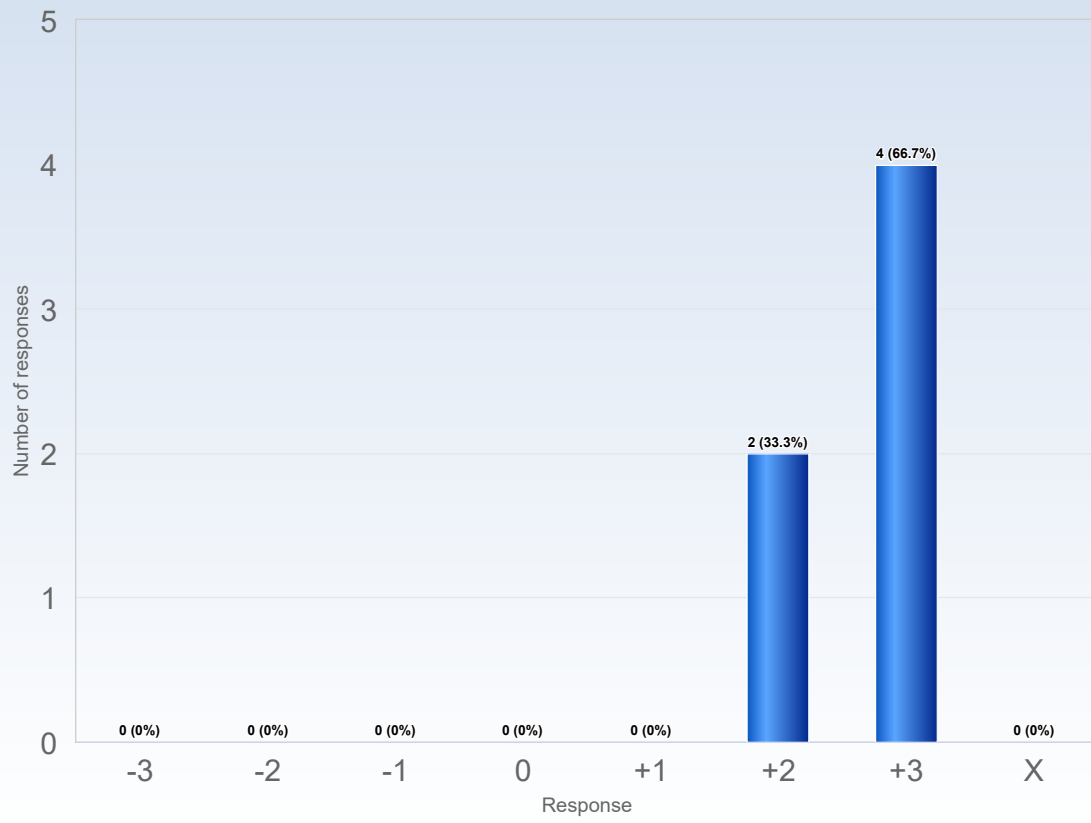
4. The course was challenging in a stimulating way



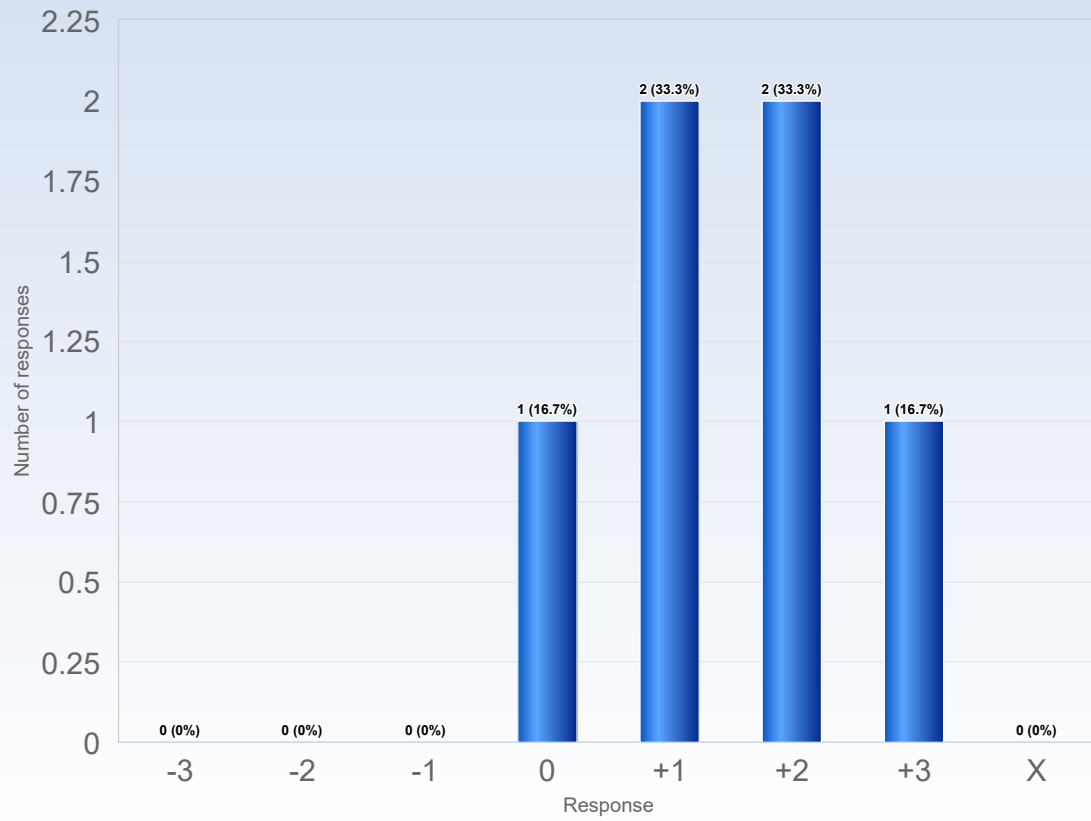
15. I was able to practice and receive feedback without being graded



16. The assessment on the course was fair and honest



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



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

