



## KURSANALYS

- kursansvarigs summering och reflektioner

Denna blankett fylls i av kursansvarig efter avslutad kursomgång.

Kursanalysen anslås på KTH:s webb under rubriken Kursens utveckling och historik, på Kursinformationssidan

Kurskod: EP2790	Kursnamn: Security Analysis of Large-Scale Computer Systems	
Läsår: 2021	Period: P4	
Högskolepoäng: 7,5	Antal studenter: 13	Svarsfrekvens kursvärdering: 38%
Examinationsgrad/prestationsgrad: 77%	Läraktiviteter: Föreläsningar, gästföreläsningar, formativa inlämningar, handledning och frågestunder.	
Examinationsmoment fördelade på högskolepoäng: <ul style="list-style-type: none"><li>• PRO1 - Project work, 6.0 credits, Grading scale: A, B, C, D, E, FX, F</li><li>• SEM1 - Seminars, 1.5 credits, Grading scale: P, F</li></ul>		
Undervisande lärare: Robert Lagerström, Mathias Ekstedt, Zeeshan Afzal, Ashish Dwivedi		
Examinator: Robert Lagerström		
Kursansvarig lärare: Robert Lagerström		

### Beskrivning av eventuella genomförda förändringar efter tidigare kursanalys

Due to covid-19 all lectures, seminars, and Q&As took place on Zoom.

The number of drafts to hand in was reduced.

Lectures were recorded and provided beforehand. (All but the first lecture which was held live.)

The examples provided were updated.

Suggested literature was updated.

### Sammanfattning av kursdeltagarnas svar på kursvärderingen

Grafer och citat från kursvärderingen kan läggas som bilaga om så önskas

Overall, they seemed happy with the course.



## **KURSANALYS**

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### **Kursens starka sidor utifrån kursvärderingen och lärares reflektion, även i förhållande till de förändringar som genomförts inför kursomgången**

Comments from students (What was the best aspect of the course?):

- Insight from industry, real-life examples, guest lectures.
- the subject
- Structure of course
- It feels very connected to real life work and what happens in the industry.

### **Kursens svaga sidor utifrån kursvärderingen och lärares reflektion, även i förhållande till de förändringar som genomförts inför kursomgången**

Comments from students (What would you suggest to improve?):

- More examples
- An alternative approach to the course could be to divide it into modules, corresponding to each phase. And have some peer-review after each module or similar. And emphasize on just building up a draft of each/skeleton.
- Informing the students that phase 5 is one of if not the biggest phase. So they have time to spend on the iterations. The impression I first had was that you did some risk assessment, suggest some changes and then its done. I missed the iteration part and time became scarce. I was not the only one that got into trouble with this.

### **Ansvarig lärares sammanfattande synpunkter**

Fördelar:

Gästföreläsningarna. Mycket bra. Relevanta och intressanta. Bra att de är obligatoriska (EP2790). Tex med praktiska exempel (tex hitta attackmönster med Shostack).

Riktigt, riktigt bra med "draft"-upplägget. Bra med peer-reviews och feedback från lärare.

Draft – kanske ändra upplägget. En hel iteration. Var går gränsen? Vad är rimligt att hinna?

Sprida ut föreläsningar och drafts.

Nackdelar:

Praktiska exempel saknas kring Yacraf. Tidigt. En missade helt att det fanns exempel.

Information strukturerat på ett ännu bättre sett. Bättre flöde.

Kursmaterial – lång canvas sida. Lätt att missa saker och kanske slumpmässigt vad man hittar och man missar. Dela upp vad som är viktigt och vad som är mindre viktigt.

Annat:

Vissa gillar online och distans medan andra föredrar att läsa kursen på plats.

Exempelrapporter önskas.

Bra med inspelade föreläsningar. Många tittade på dem flera gånger.

Men kanske ska de också hållas live (och spelas in).

En möjlighet är att göra projekten som grupparbeten.



## **KURSANALYS**

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Handledning i början som av-checkning. Speciellt om grupparbeten.

### **Förslag på eventuella förändringar av kursen**

- More examples.
- Example reports
- Lecture walking through examples
- Group project instead of individual projects
- More clear connection between draft hand-ins and phases in Yacraf
- Live online lectures that are recorded and shared

**Kursansvarig:** Robert Lagerström

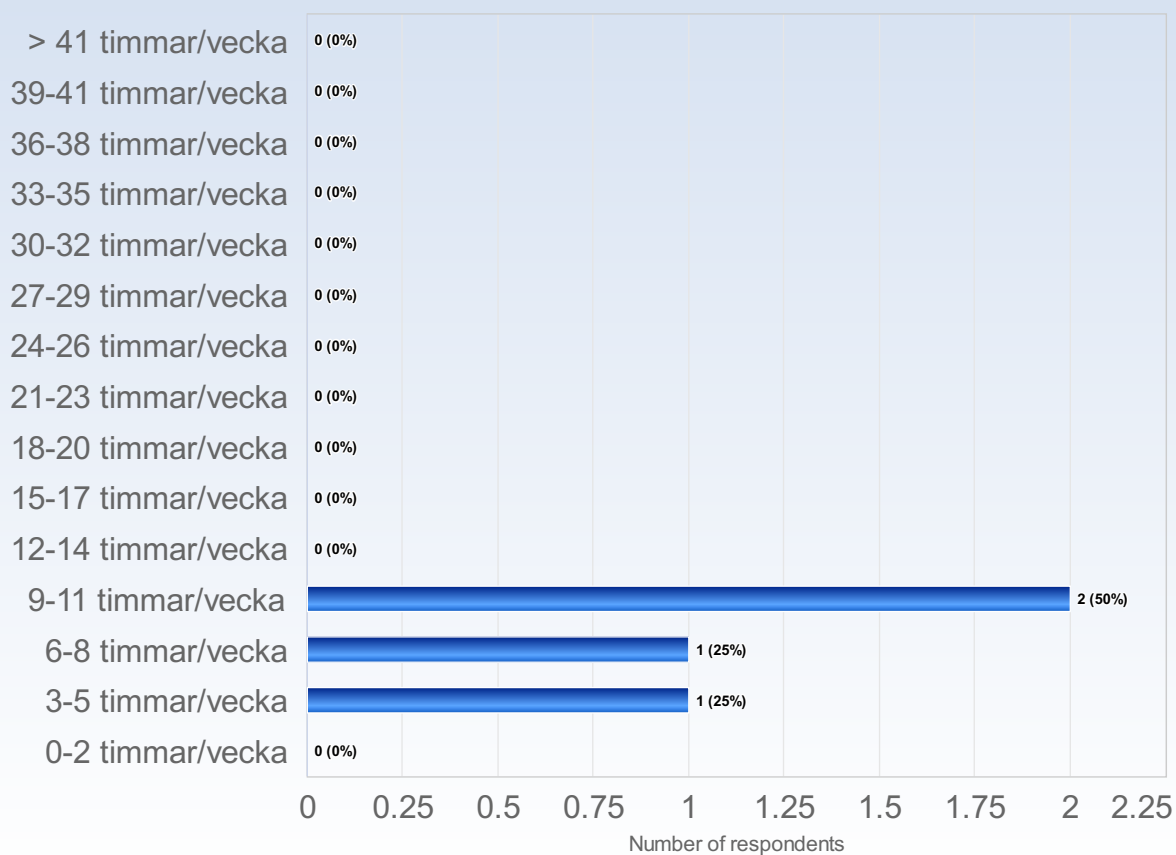


# EP279U - 2022-01-20

Antal respondenter: 39  
Antal svar: 4  
Svarsfrekvens: 10,26 %

## ESTIMATED WORKLOAD

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



### Comments

Comments (I worked: 3-5 timmar/vecka)  
varierade stort mellan veckorna

Comments (I worked: 9-11 timmar/vecka)  
A bit hard to grasp at first but good. Missing a complete example which I think should have been provided at the end.



## LEARNING EXPERIENCE

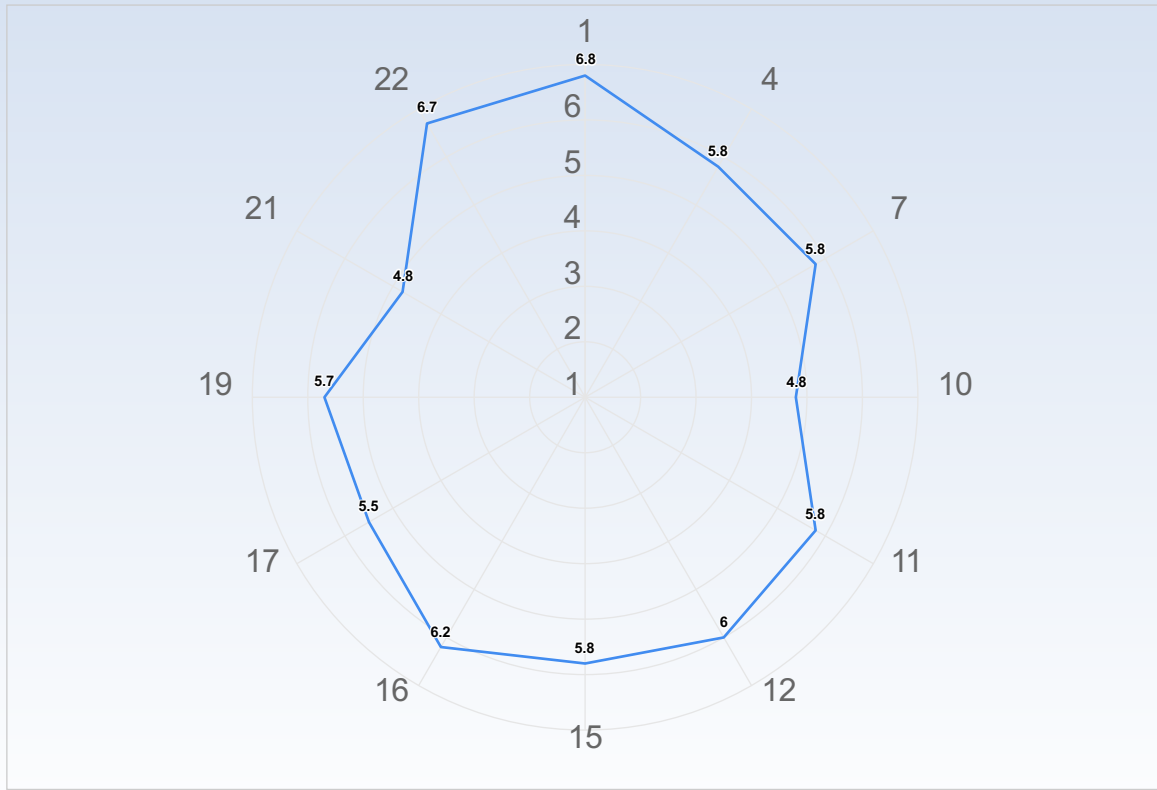
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The polar diagrams below show the average response to the LEQ statements for different groups of respondents (only valid responses are included). The scale that is used in the diagrams is defined by:

- 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.

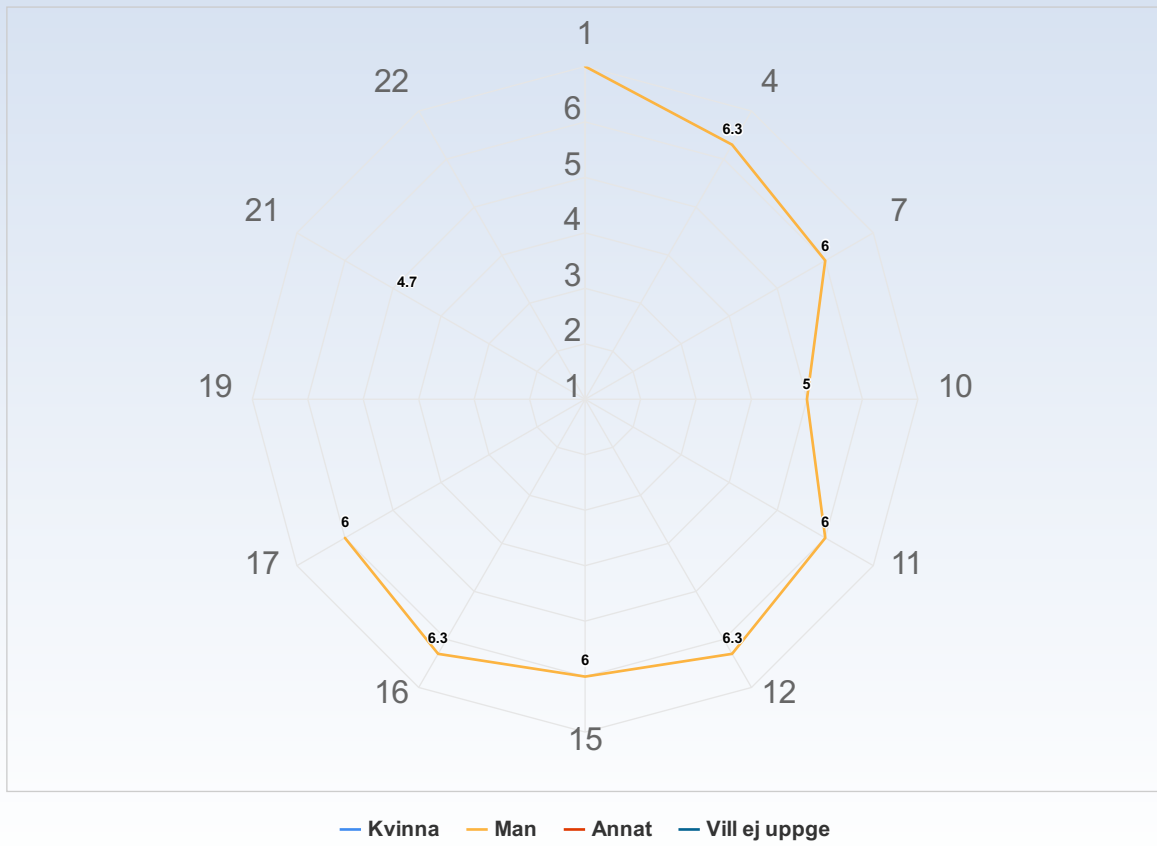
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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.

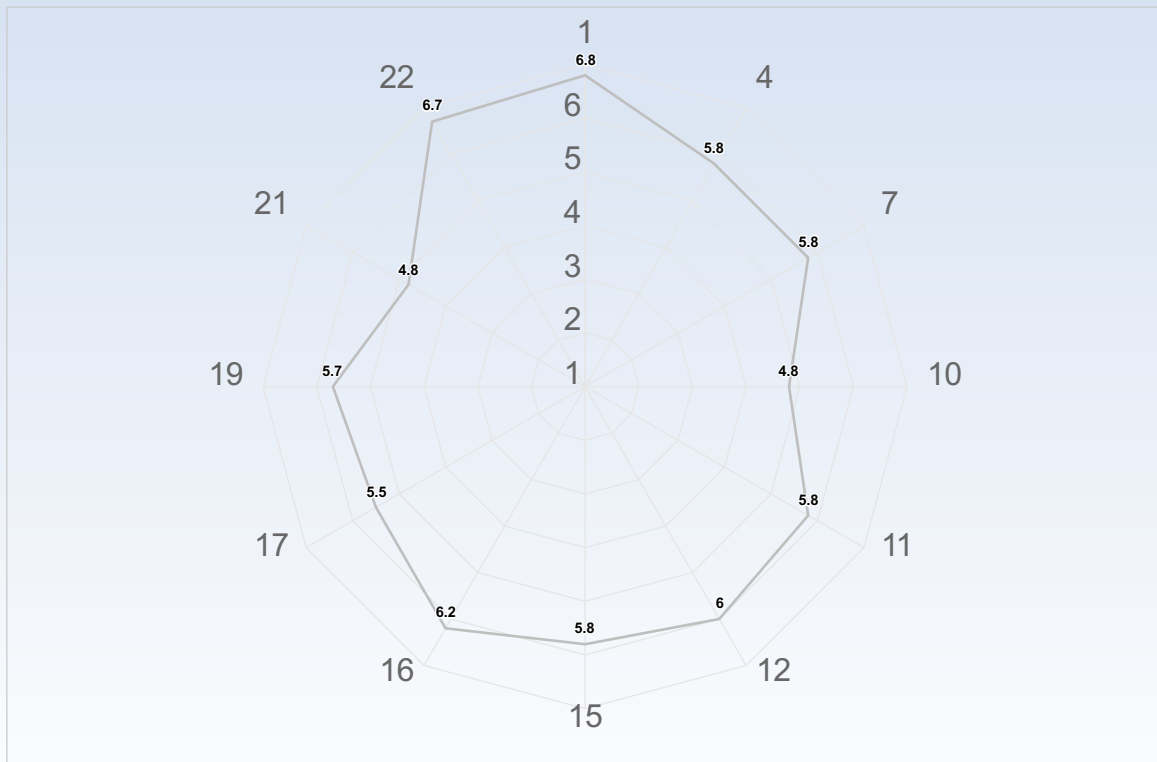
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.

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 utbyesstudent
- Annan typ av student
- Svensk student i årskurs 1-3
- Vill ej uppge

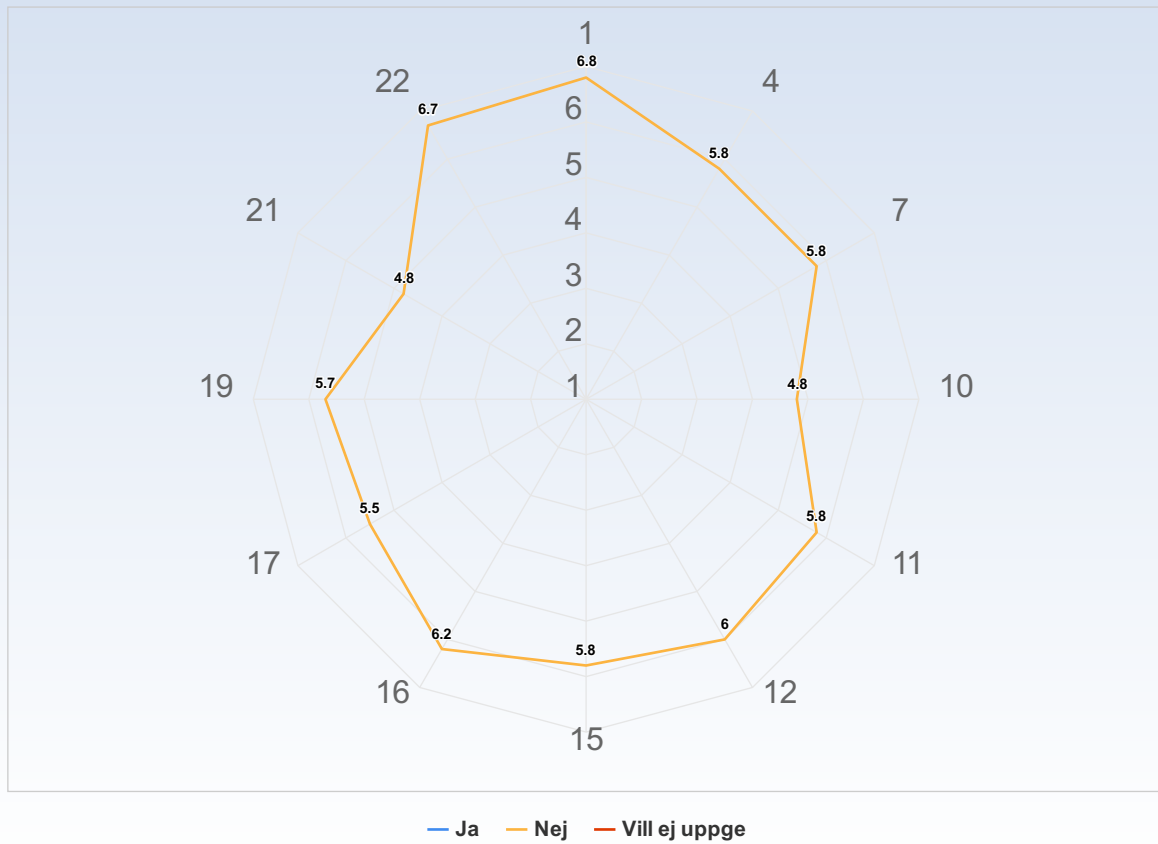
Comments

Comments (I am: Annan typ av student)

My main university studies happened in the 90's so some parts I haven't used for a long time. It was smart to bring in people from the industry (like me) and let them take the same course but with lower demands on reporting - for lower amount of credits.

livslångt lärande

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: 3-5 timmar/vecka)

Gästföreläsningarna !!!!

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

Very open discussions with teachers and reasonably good discussions with other students. On-site is better!





What would you suggest to improve?

What would you suggest to improve? (I worked: 3-5 timmar/vecka)

oklart vad som krävdes per respektive 7,5 och 3 p kurs  
möjlighet till gruppövningar  
live föreläsningar som också spelas in

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

Run on-site!

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)

börja i tid med inlämningen

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 3-5 timmar/vecka)

ganska komplext men också intressant kurs

## SPECIFIC QUESTIONS

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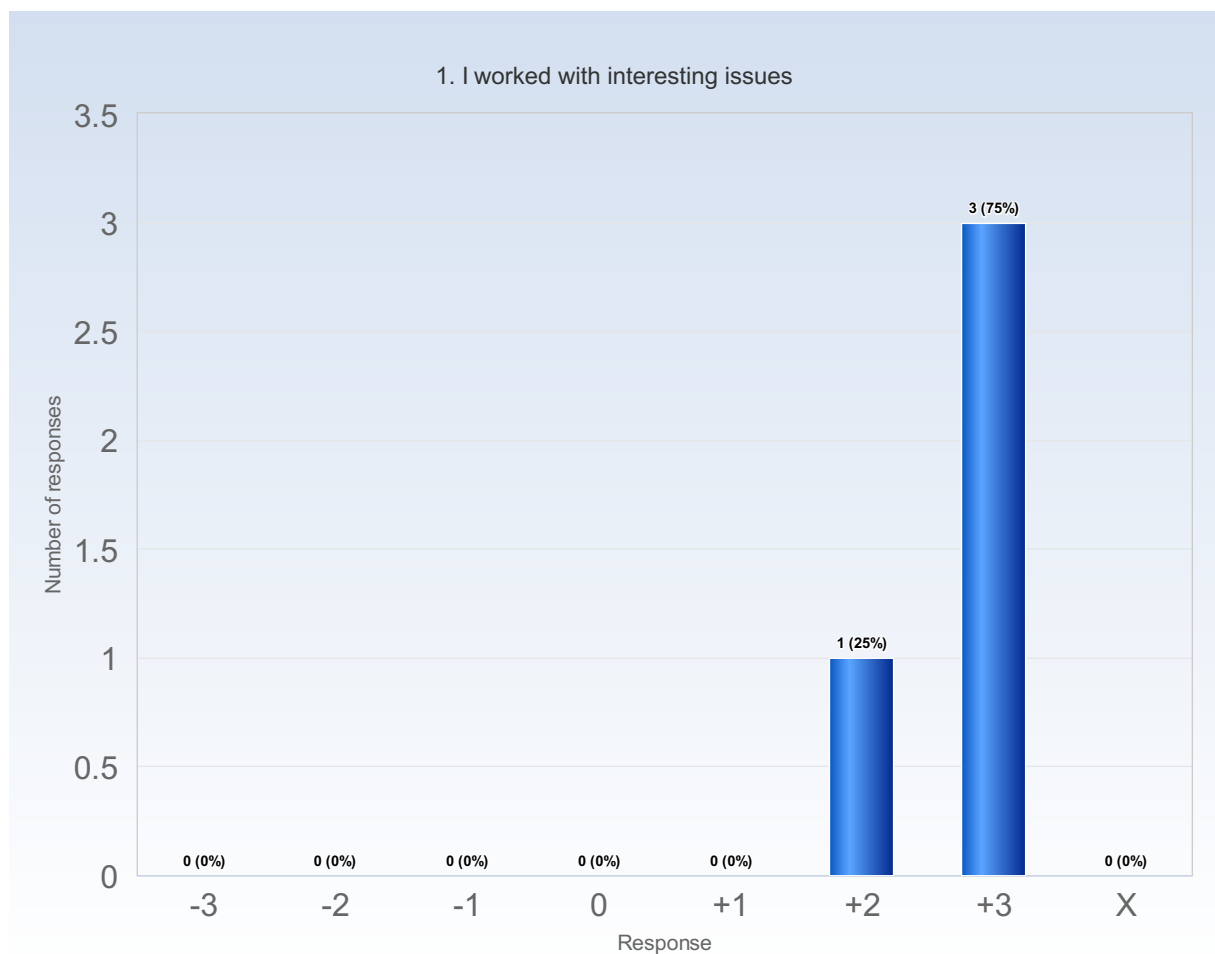


## RESPONSE DATA

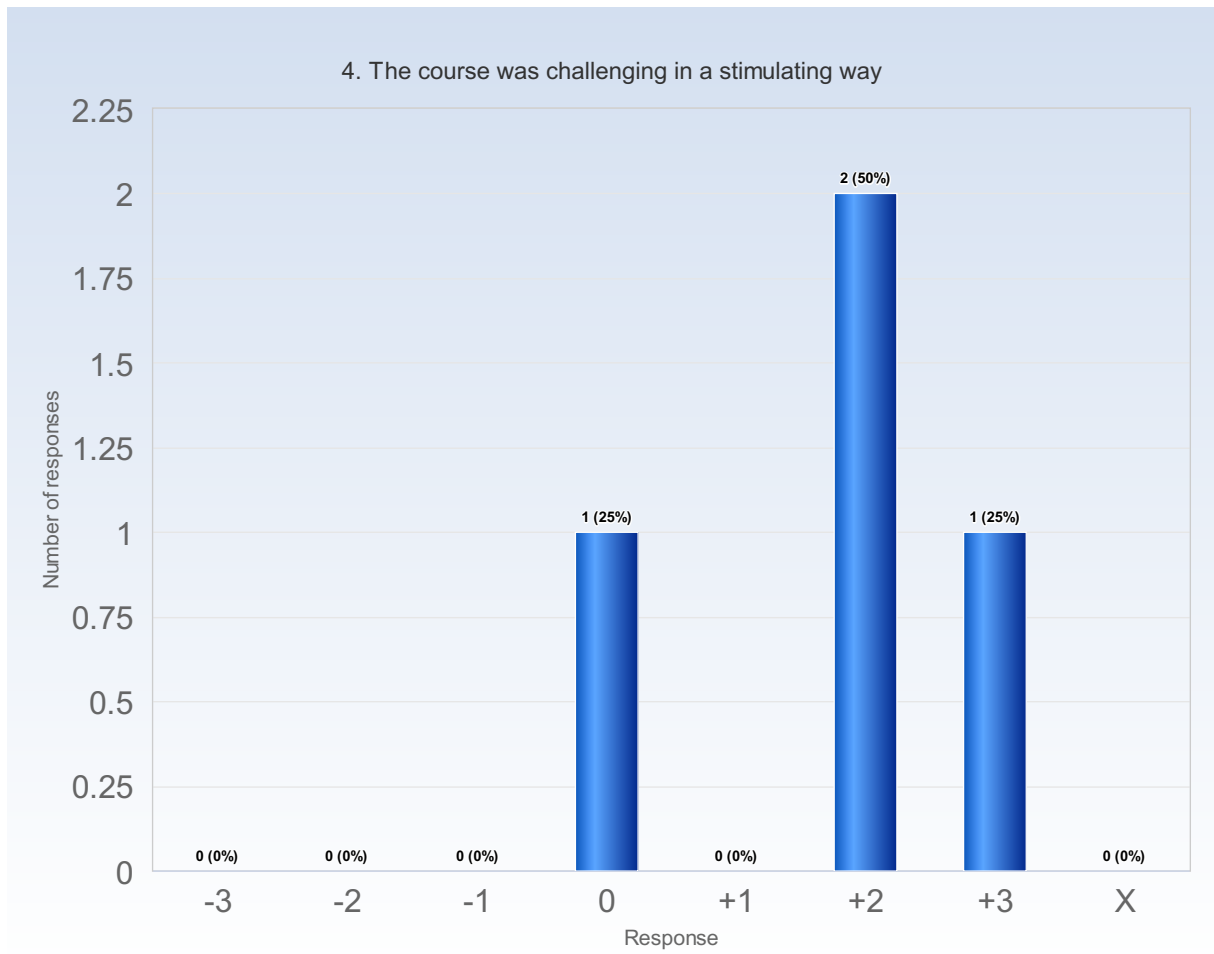
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

- 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



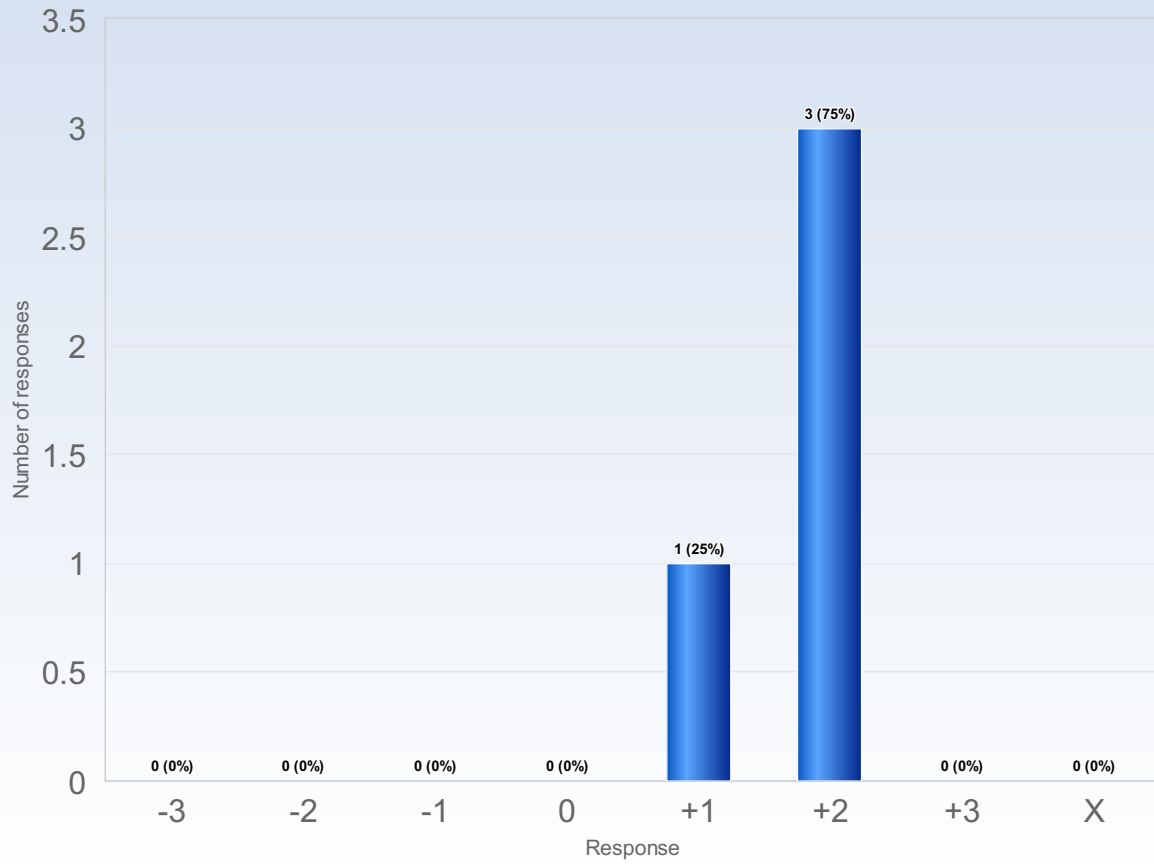
Comments

Comments (My response was: +2)  
Missing practical examples

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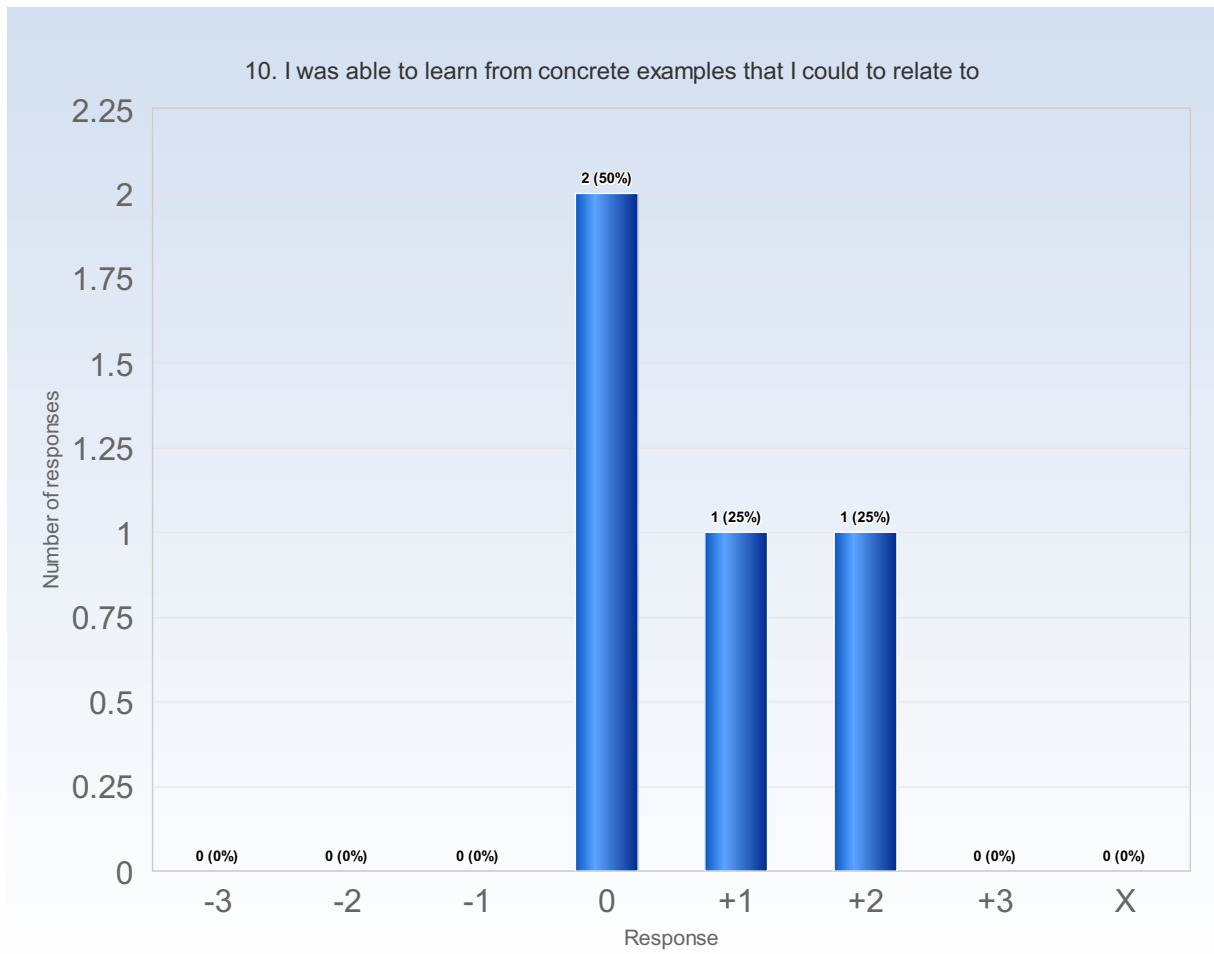
7. The intended learning outcomes helped me to understand what I was expected to achieve



Comments

Comments (My response was: +2)

Maybe a bit to massive amount of info. Dividing it into primary & optional info would have helped to first understand the concept and THEN dig into details.

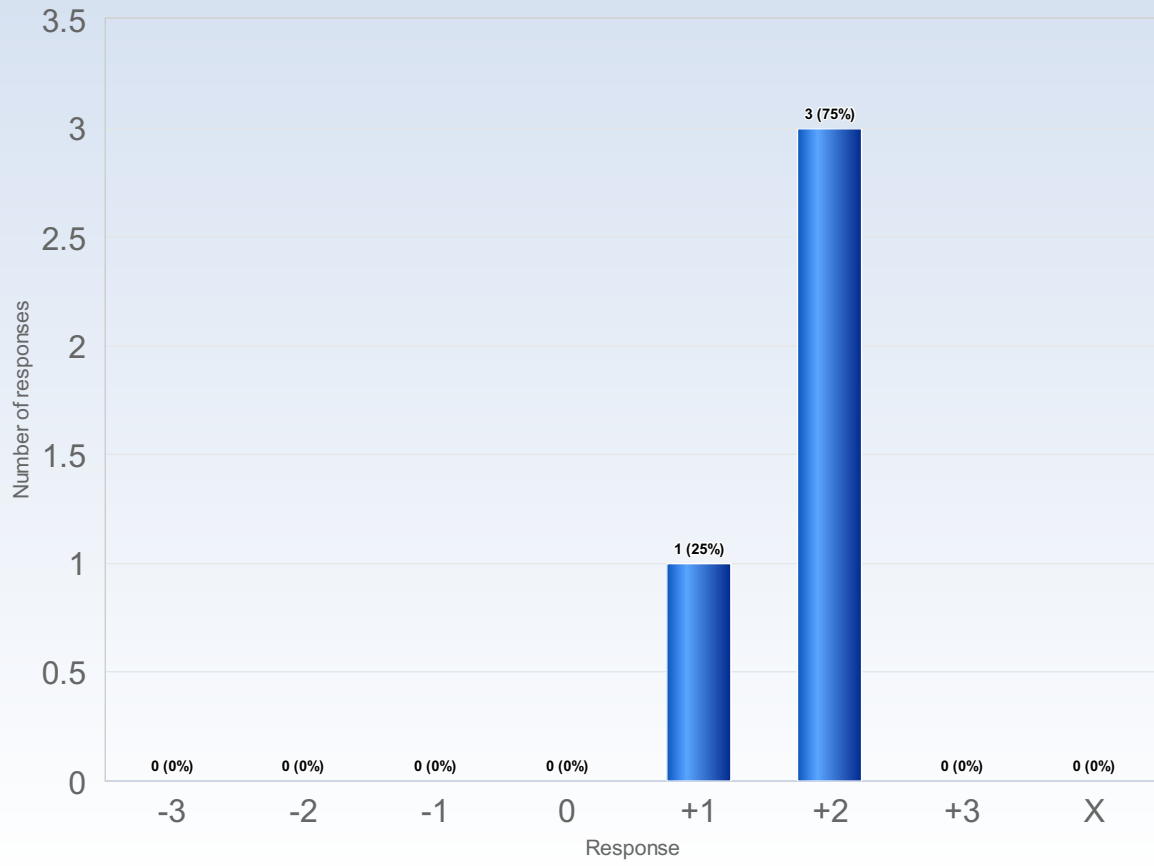


Comments

Comments (My response was: 0)

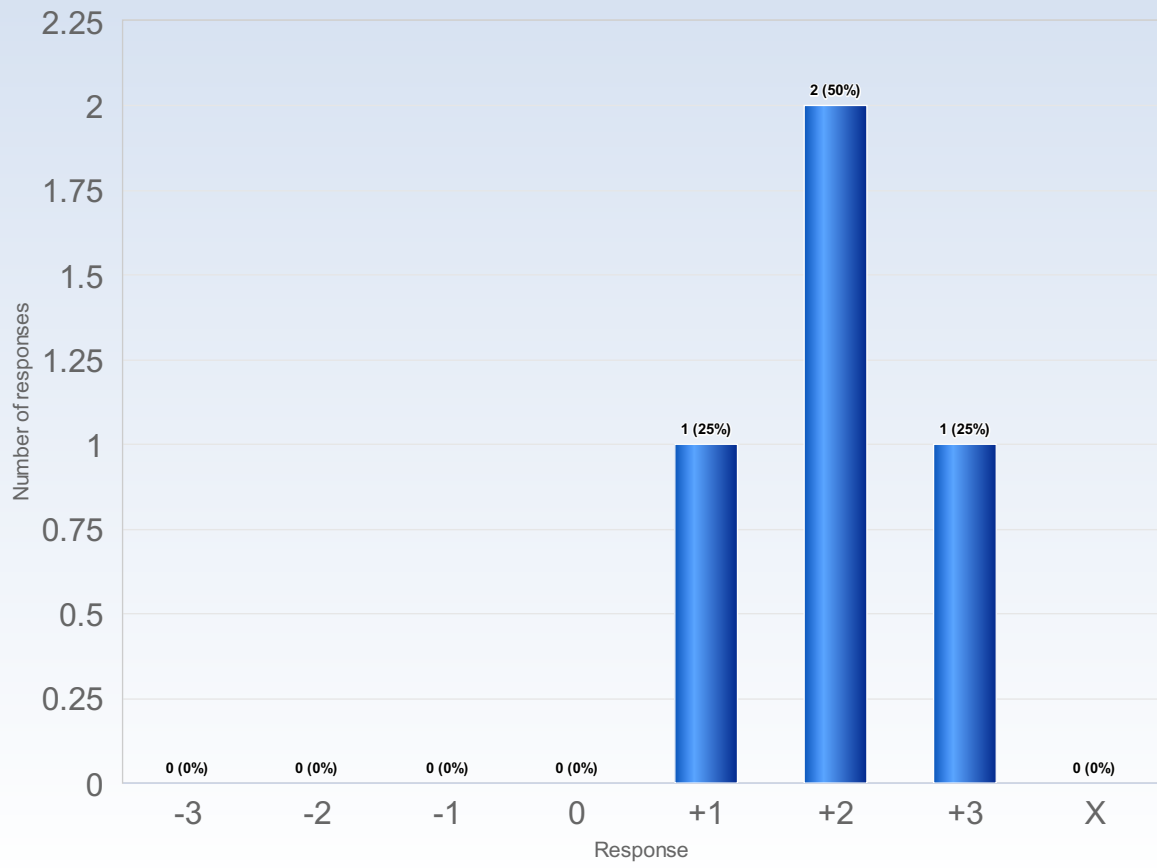
Had to find my own

11. Understanding of key concepts had high priority



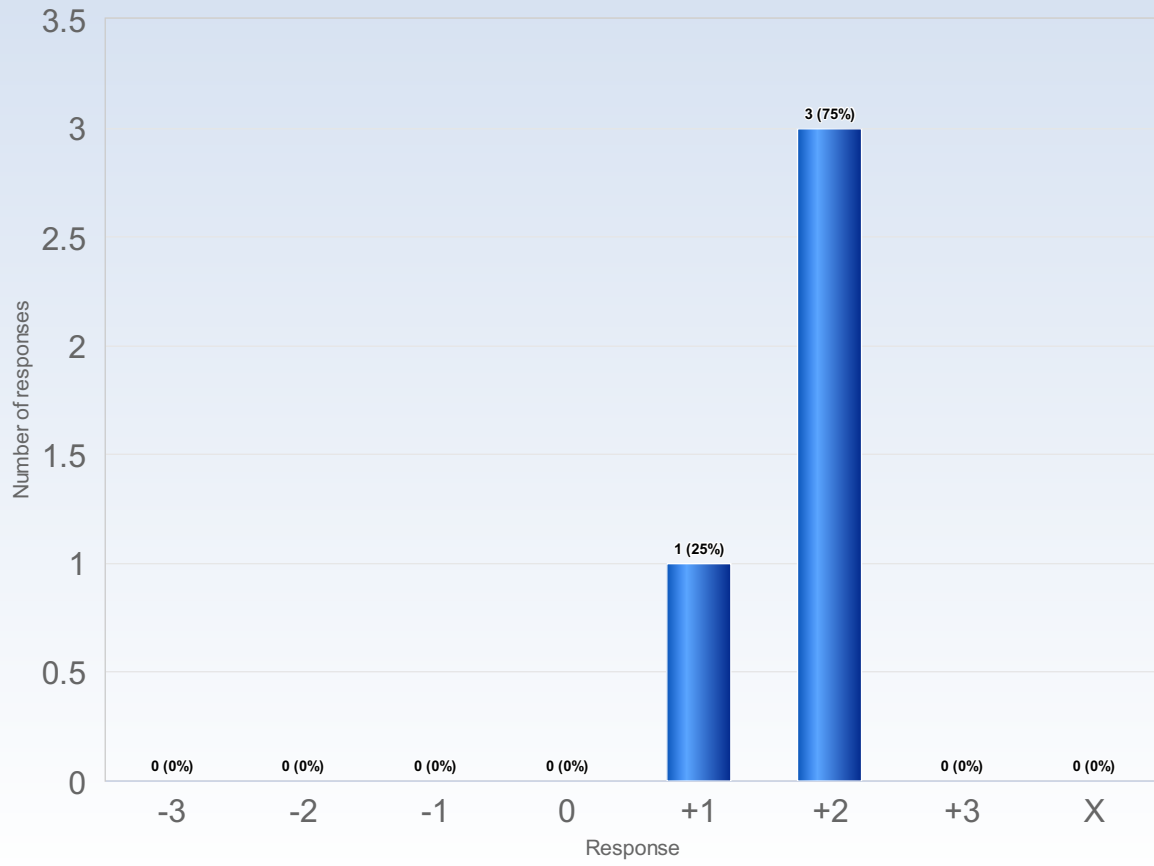
Comments

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



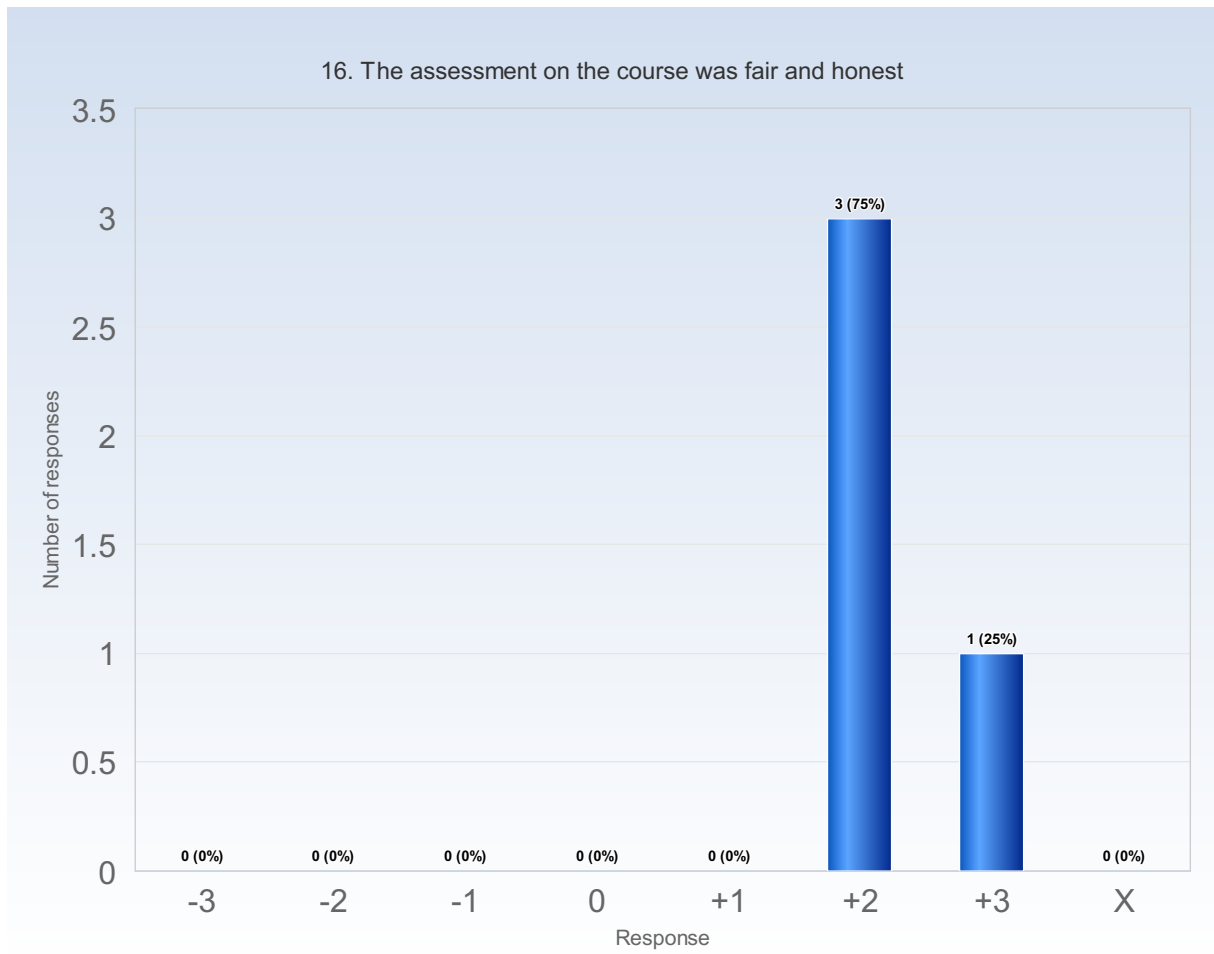
Comments

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



Comments



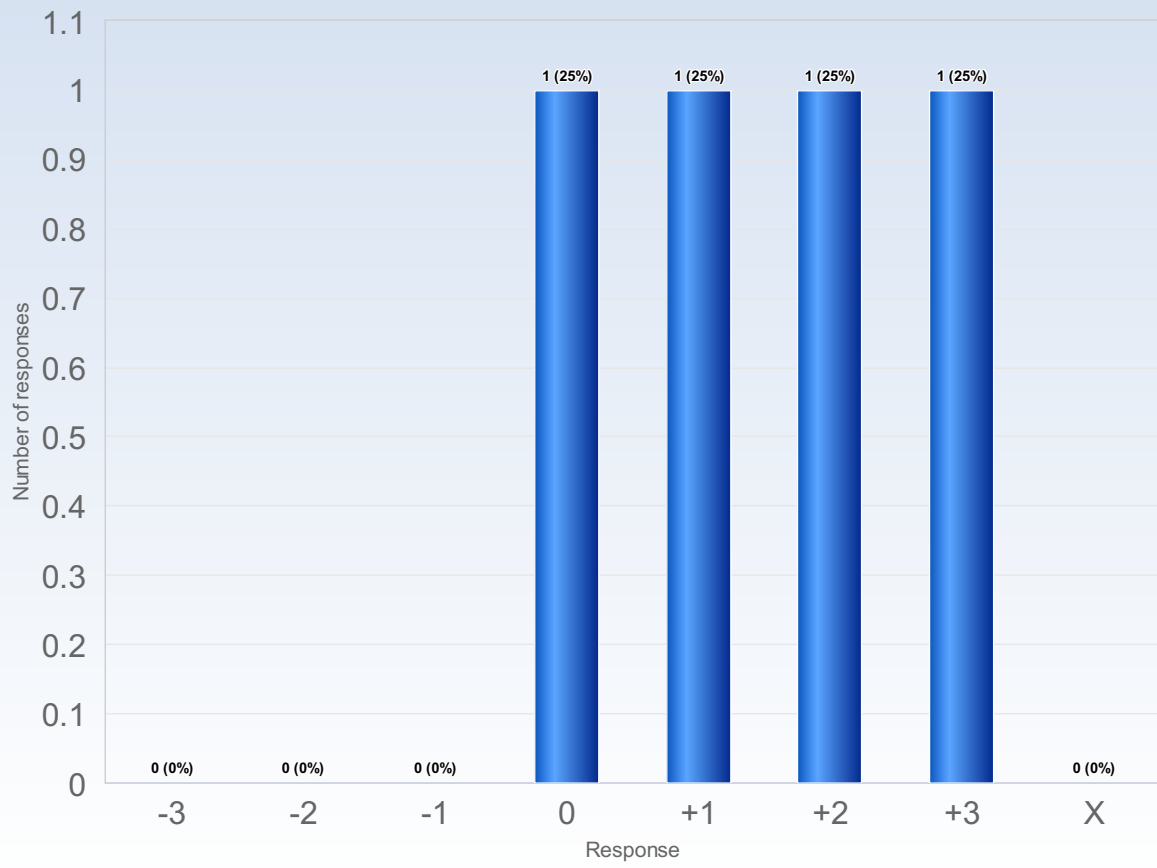


Comments

Comments (My response was: +2)

I regret I could just participate a small part of the other assessments than my own due to a hard deadline  
oklart vad som krävdes per respektive 7,5 och 3 p kurs

17. My background knowledge was sufficient to follow the course



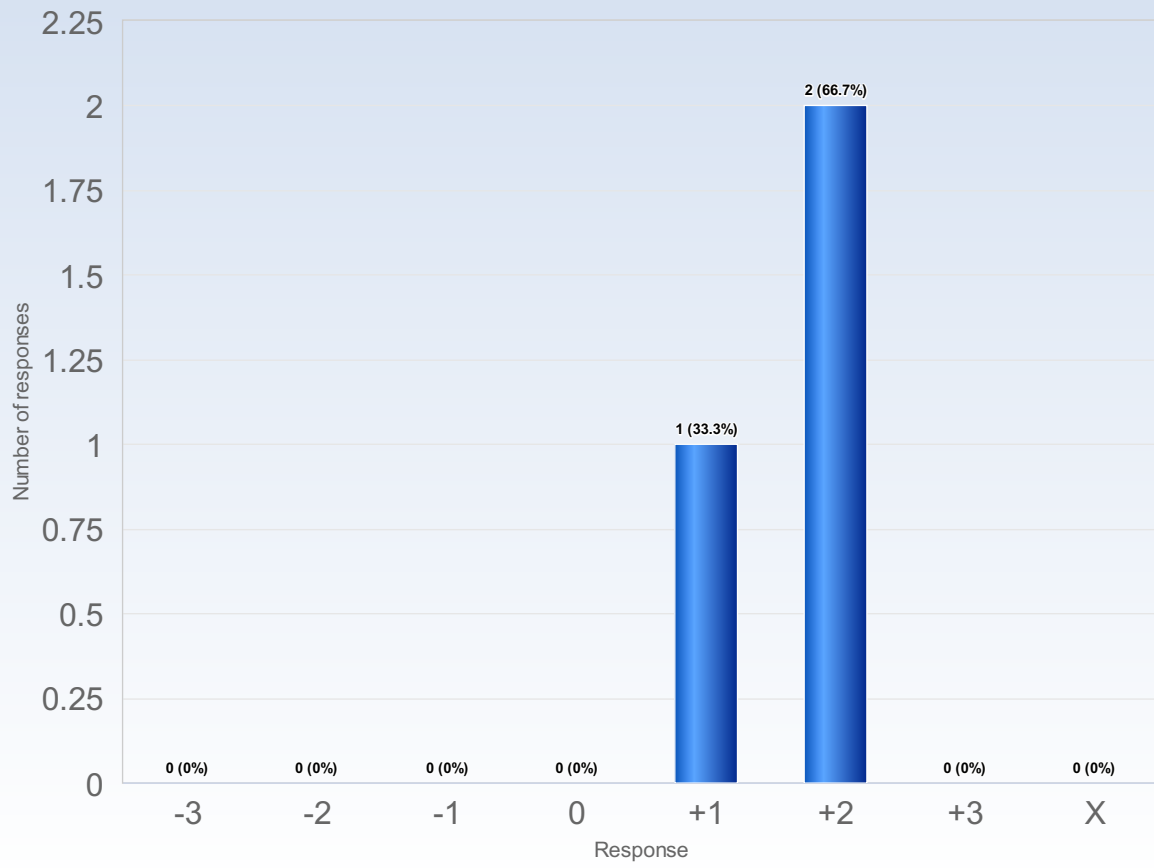
Comments

Comments (My response was: +2)

Mostly

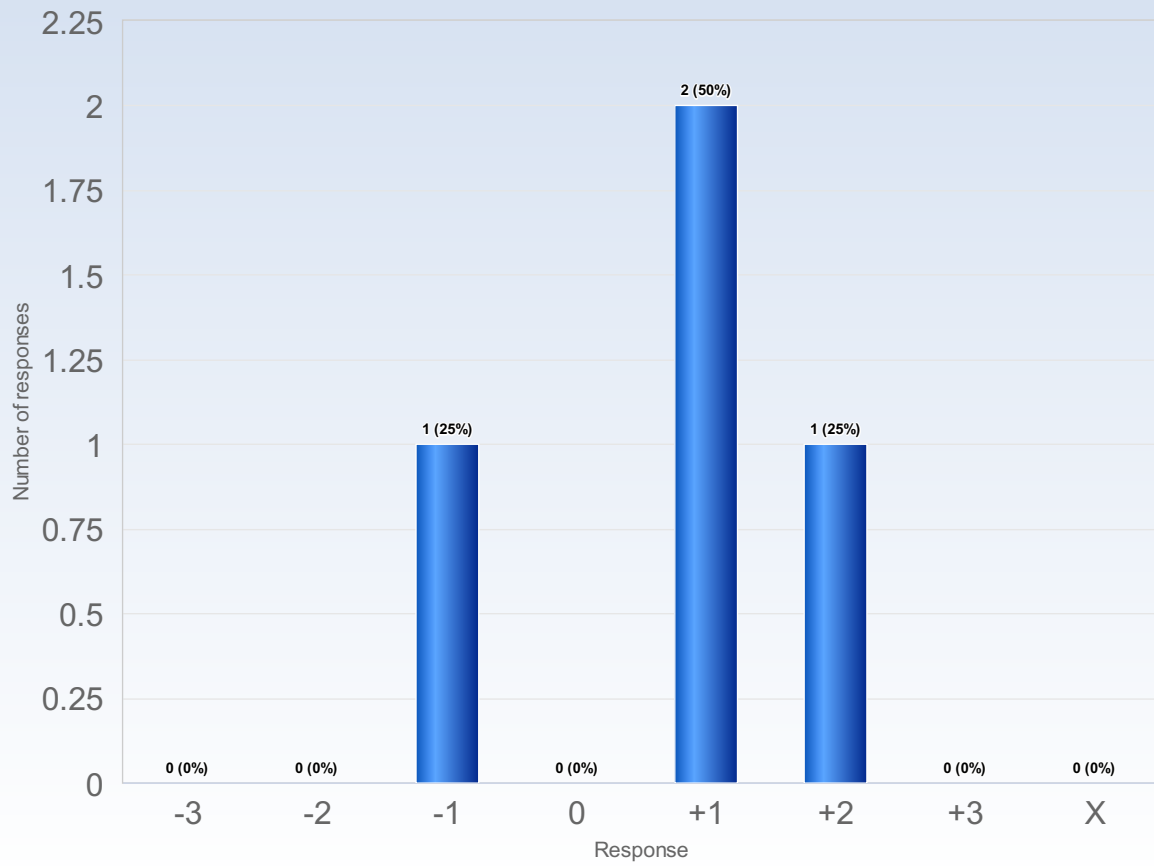


19. The course activities enabled me to learn in different ways



Comments

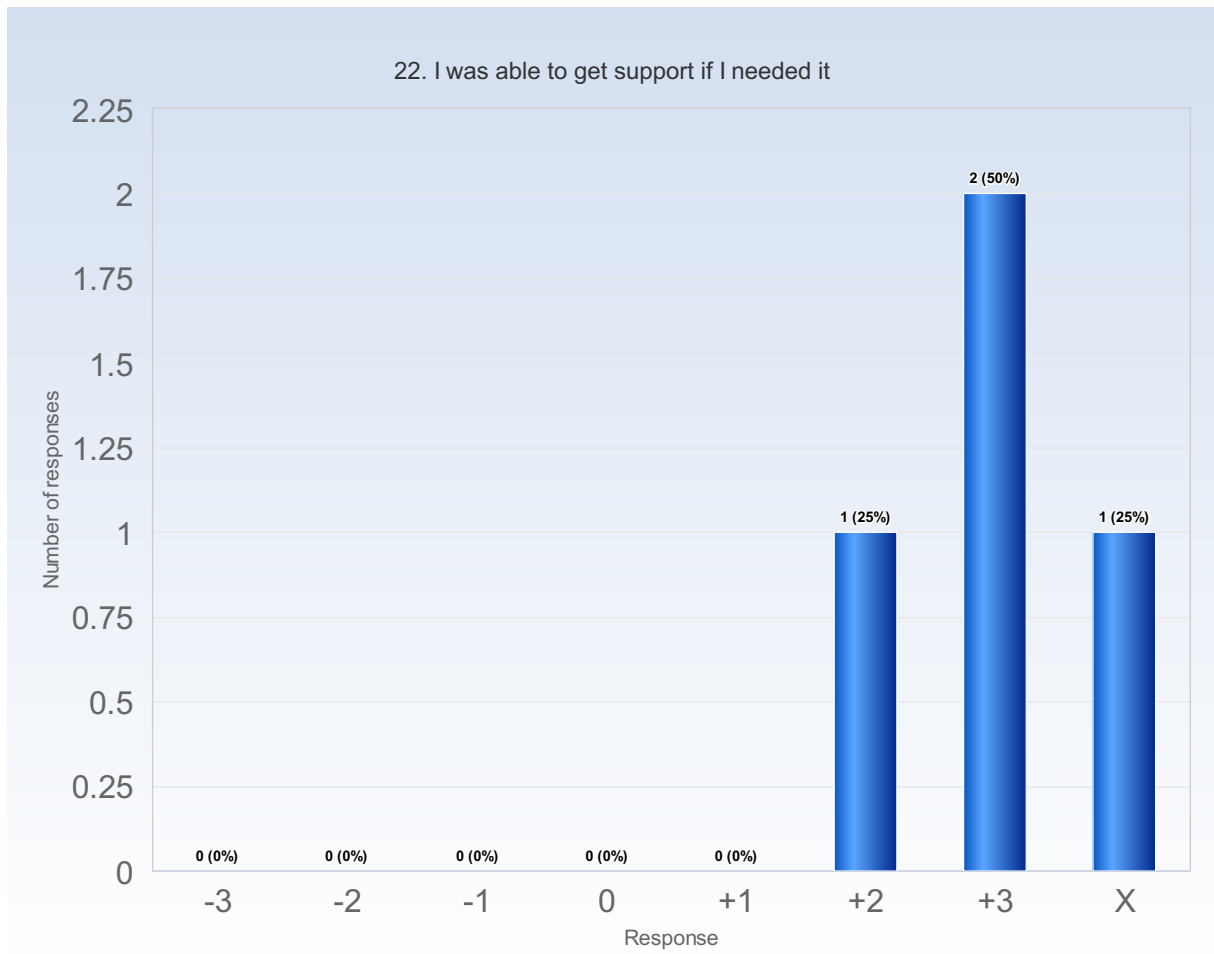
21. I was able to learn by collaborating and discussing with others



Comments

Comments (My response was: +1)  
On-site is better!

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Comments

Comments (My response was: +2)  
Worked well

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