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## Report - MG1028 - 2020-03-11

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

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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):**

Per Johansson, pj@kth.se, Lasse Wingård, lw@kth.se

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**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.**

LEQ12-enkäten skickades ut den 26/2 och avslutades den 10/3. 5 studenter besvarade enkäten. Vi har dessutom träffat och pratat med studenterna under labbar, handledningstillfälle och redovisning av inlämningsuppgift och där fått en del positiv feedback, dock inget som särredovisas här. Det går inte heller att urskilja några skillnader beroende på kön eller eventuell funktionsnedsättning, då alltför få studenter svarat på enkäten. Kursenkät och kursanalys publiceras inom kort på kursinformationssidan.

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**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.)**

Inga möten utöver ovan nämnda schemalagda kursaktiviteter, men där har vi haft flitig interaktion med studenterna.

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**COURSE DESIGN**

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

Tre CAD-övningsuppgifter som utförs under tre timmar i datosal, och som var och en föregås av en föreläsningstimme med genomgång av system och övningsuppgift. Övningarna utförs enskilt eller i par. Efter tredje CAD-övningen delas den betygsgrundande inlämningsuppgiften ut. Även denna genomförs enskilt eller i par. Varje student tilldelas en hopfällbar produkt av sex, som de ska modellera i CAD-systemet, och i princip utföra samma saker som de gjort under de tre övningarna, men för en ny produkt och utan ytterligare skrivna instruktioner. Om man jobbar i par så får paret välja en av de två produkter de tilldelats. Som hjälp för inlämningsuppgifternas genomförande, så hölls ett schemalagt handledningspass en vecka innan redovisningarna för inlämningsuppgiften, studenterna välkomnades att titta på och mäta de verkliga fysiska produkterna och vi besvarade ytterligare frågor per mail eller under besök på vårt kontor.

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**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?**

Ja, de flesta studenter ägnar nog ungefär totalt 40h på denna 1,5hp-kurs.

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## 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?

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Ser ungefär ut som tidigare år. Möjligen är det en något större andel studenter som inte redovisat inlämningsuppgiften i samband med redovisningstillfället i år än tidigare år. Detta kan bero på att studentgruppen som läser denna kursomgång kommer från många olika program och årskurser, så det kan vara svårt med schemat.

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## STUDENTS' ANSWERS TO OPEN QUESTIONS

### What does students say in response to the open questions?

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Kommentarer till arbetsbelastningen under kursen:

- Den individuella uppgiften skulle ta 10-20 h men jag anser att de olika produkterna var olika svåra och skulle absolut ta olika lång tid för mig. Spegeln var t.ex. mycket enklare än lampan. Jag la minst 20 h på lampan och vi var ändå 2 som hjälptes åt.
- Lagom stor för antal hp om man gick på lektionerna för att få hjälp med labbarna. Jobbade succesivt med CAD under hela kursen för att inte ha en jättemycket i slutet.
- Bra upplägg på kursen. Goda möjligheter till självstudier. Tummen upp!

What was the best aspect of the course? (I worked: 3-5 timmar/vecka)

- SUPERROLIG!! Den individuella uppgiften var väldigt utmanande och gav

What was the best aspect of the course? (I worked: 6-8 timmar/vecka)

- Bra grundläggande bas inom området Solid edge var ett så smidigt verktyg att använda, vilket underlättade mycket.

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

- Lite ottyliga instruktioner på betygsuppgiften. Man visste inte riktigt vad som krävdes. Tycker föreläsningarna blev lite för långa.

What advice would you like to give to future participants? (I worked: 3-5 timmar/vecka)

- Var väldigt noga med alla steg på labbarna, lätt att missa viktiga delar

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

- Gå på labbarna, be om hjälp tidigt. Försök att få förståelse vid labbarna, underlättar vid projektet.

What advice would you like to give to future participants? (I worked: 12-14 timmar/vecka)

- Jobba på grunderna! Fullt bestämda skisser =)

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

- Väldigt trevliga examinatorer.

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## SUMMARY OF STUDENTS' OPINIONS

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

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I stort sett som förväntat. Inga åsikter som sticker ut jämfört med tidigare kursomgångar. Väl inarbetat kursupplägg, som sett ungefär likadant ut under 15-talet år med omkring 5000 studenter som gått igenom kursen eller motsvarande kursmoment, som en del i andra kurser.

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## 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?
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I stort sett alla påståenden har en extremt hög instämmandegrad. Bara påstående nr 19 (om kursen erbjöd möjlighet att själv välja sätt att lära sig) hade en instämmandegrad (5,8) som var lägre än 6.

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## PRIORITIZED COURSE DEVELOPMENT

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

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Vi fortsätter som tidigare. Dock funderar vi på att ta bort eller ersätta en av produkterna i inlämningsuppgiften, rakspegeln, då vi kan instämma i att den är aningen lättare än de övriga, och detta gör att vi får väldigt många rakspegelmodeller redovisade.

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**OTHER INFORMATION**

**Is there anything else you would like to add?**

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Nej!



## MG1028 - 2020-02-25

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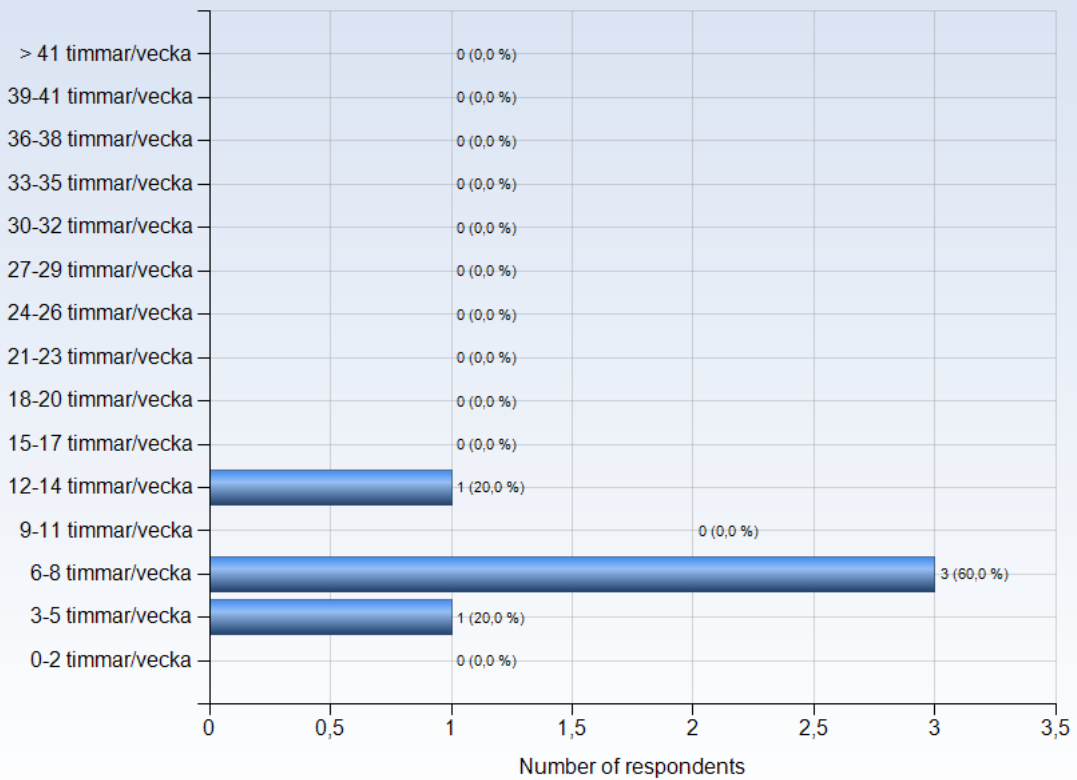
Antal respondenter: 26  
Antal svar: 5  
Svarsfrekvens: 19,23 %

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## 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)

Den individuella uppgiften skulle ta 10-20 h men jag anser att de olika produkterna var olika svåra och skulle absolut ta olika lång tid för mig. Spegeln var t.ex. mycket enklare än lampan. Jag la minst 20 h på lampan och vi var ändå 2 som hjälptes åt.

Comments (I worked: 6-8 timmar/vecka)

Lagom stor för antal hp om man gick på lektionerna för att få hjälp med labbarna.

Jobbade succesivt med CAD under hela kursen för att inte ha en jättemycket i slutet.

Comments (I worked: 12-14 timmar/vecka)

Bra upplägg på kursen. Goda möjligheter till självstudier. Tummen upp!



## 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:

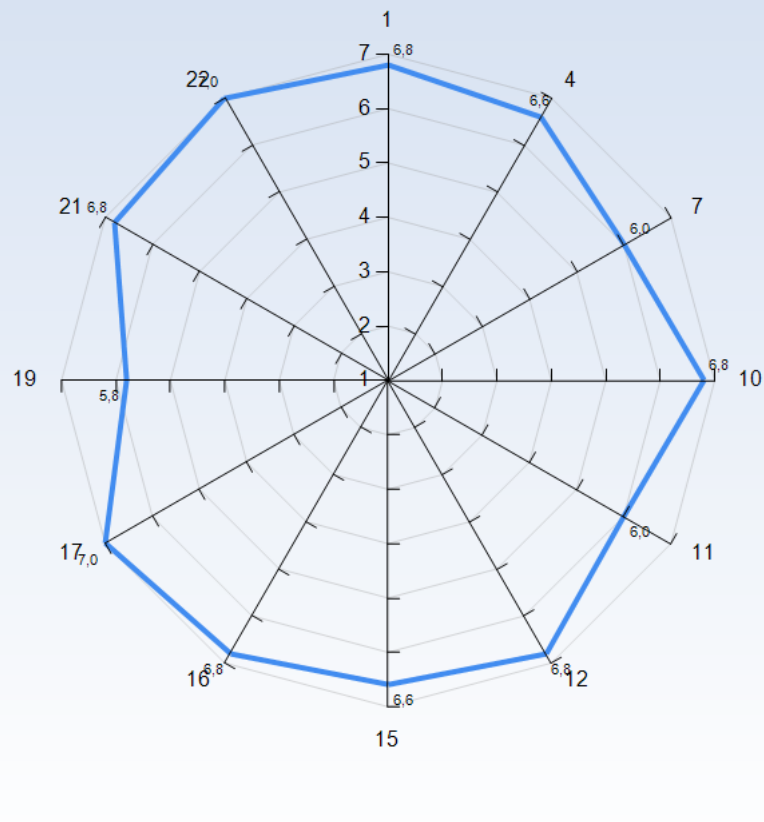
1 = No, I strongly disagree with the statement

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





## **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.

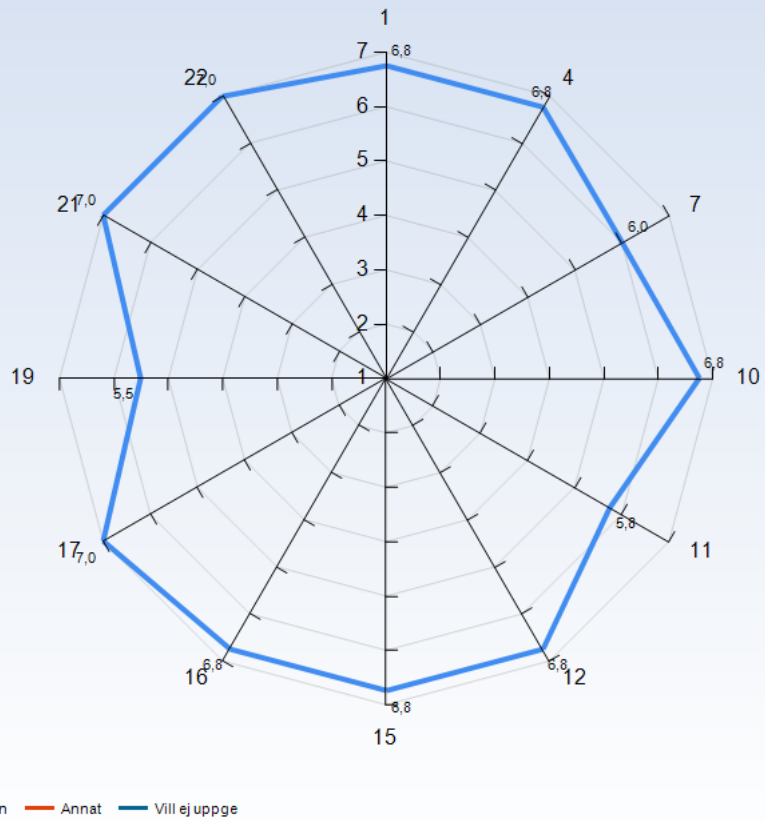
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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.

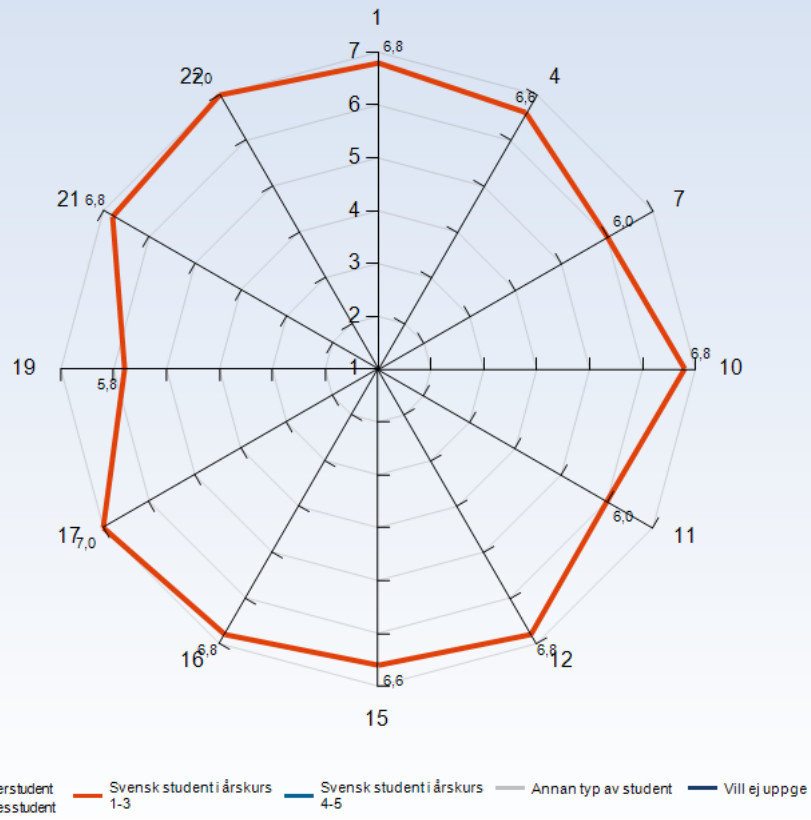
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.

### Average response to LEQ statements - per gender



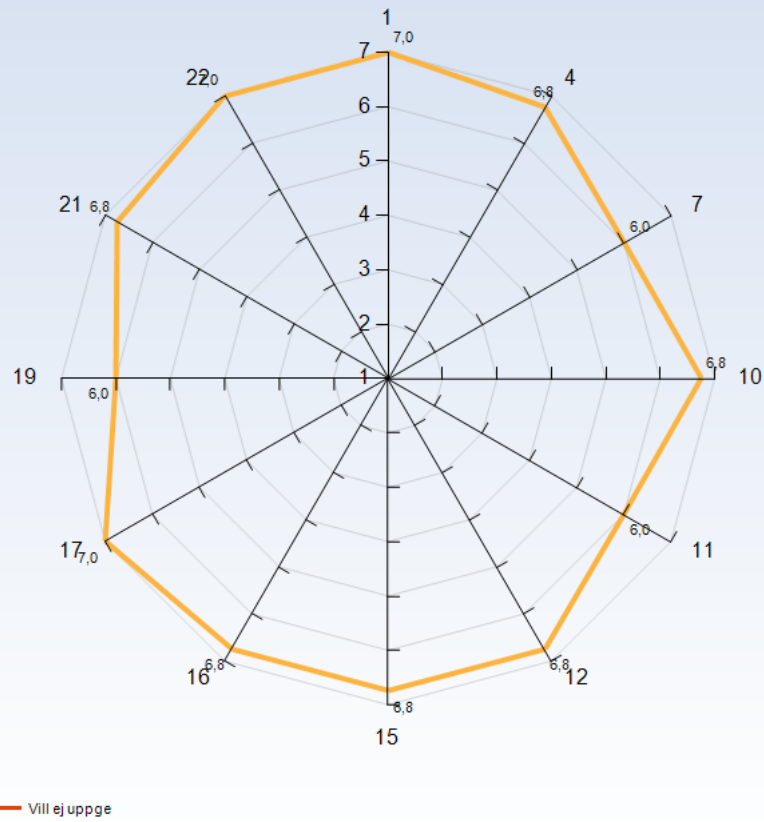
Comments

### Average response to LEQ statements - per type of student



Comments

### Average response to LEQ statements - per disability



Comments



## GENERAL QUESTIONS

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### What was the best aspect of the course?

What was the best aspect of the course? (I worked: 3-5 timmar/vecka)

SUPERROLIG!! Den individuella uppgiften var väldigt utmanande och gav

What was the best aspect of the course? (I worked: 6-8 timmar/vecka)

Bra grundläggande bas inom området

Solid edge var ett så smidigt verktyg att använda, vilket underlättade mycket.

### What would you suggest to improve?

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

Lite otygliga instruktioner på betygsuppgiften. Man viste inte riktigt vad som krävdes.

Tycker föreläsningarna blev lite för långa.

### 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)

Var väldigt noga med alla steg på labbarna, lätt att missa viktiga delar

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

Gå på labbarna, be om hjälp tidigt.

Försök att få förståelse vid labbarn, underlättar vid projektet.

What advice would you like to give to future participants? (I worked: 12-14 timmar/vecka)

Jobba på grunderna! Fullt bestämda skisser =)

### Is there anything else you would like to add?

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

Väldigt trevliga exinatorer.

## SPECIFIC QUESTIONS

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## RESPONSE DATA

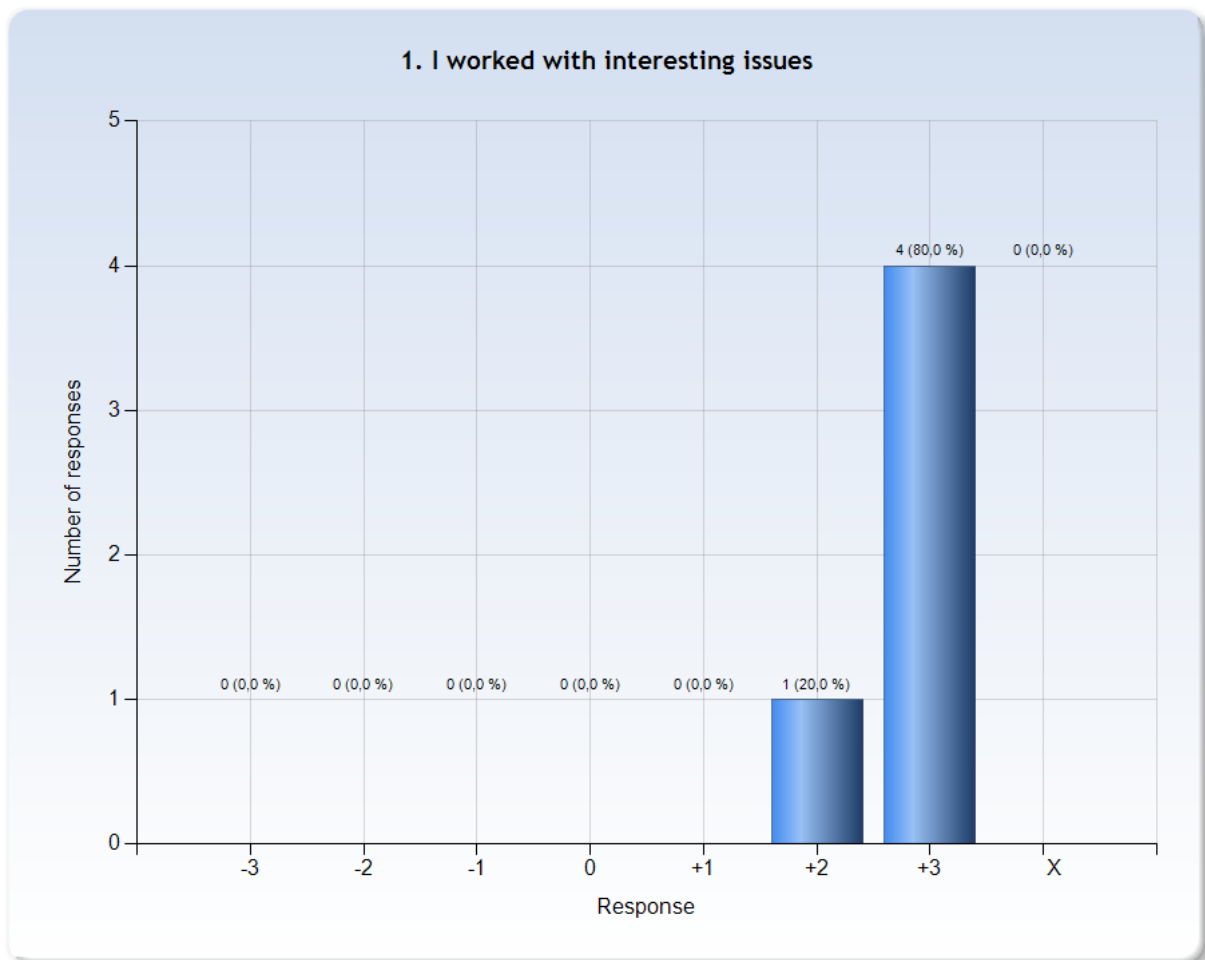
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-3 = No, I strongly disagree with the statement

0 = I am neutral to the statement

+3 = Yes, I strongly agree with the statement

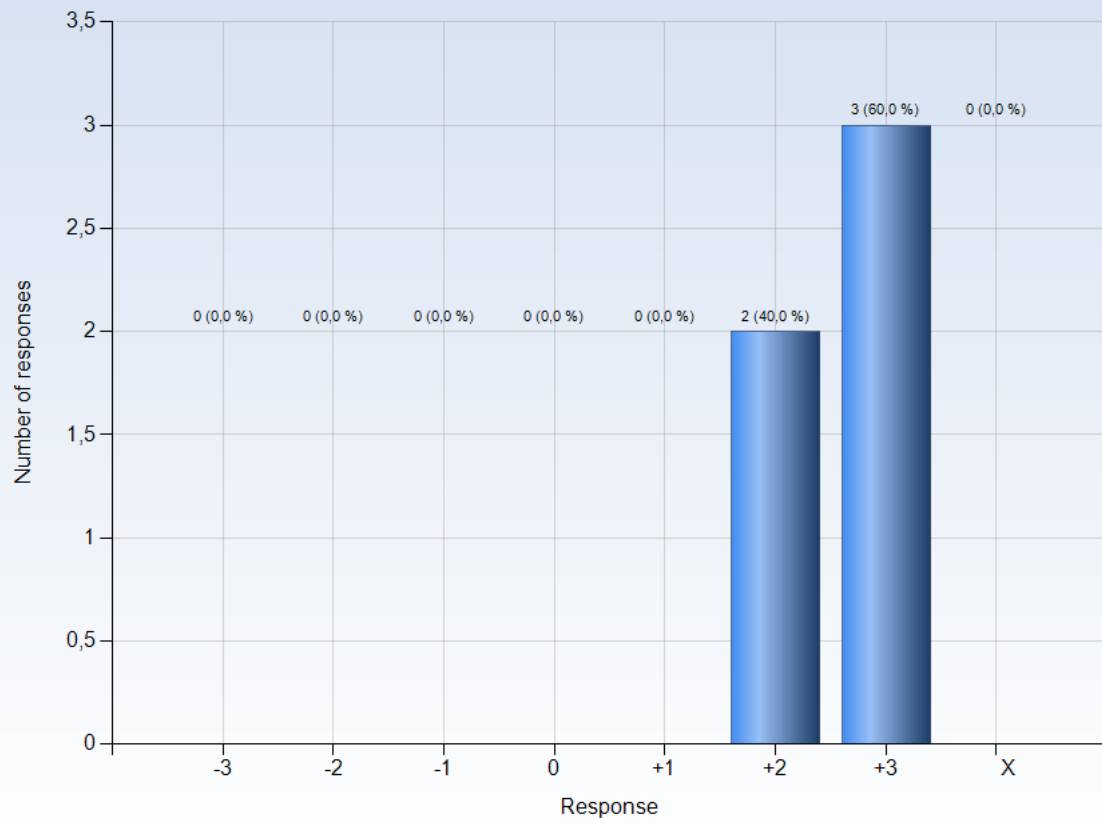
X = I decline to take a position on the statement



Comments

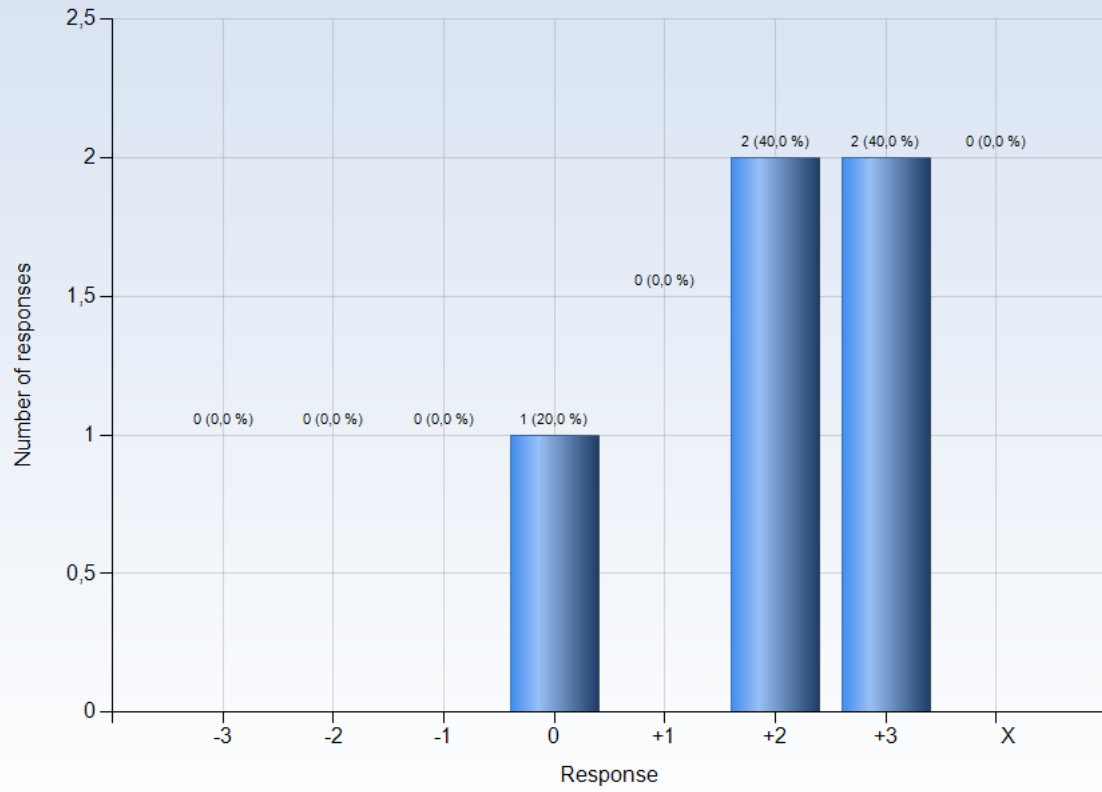


#### 4. The course was challenging in a stimulating way



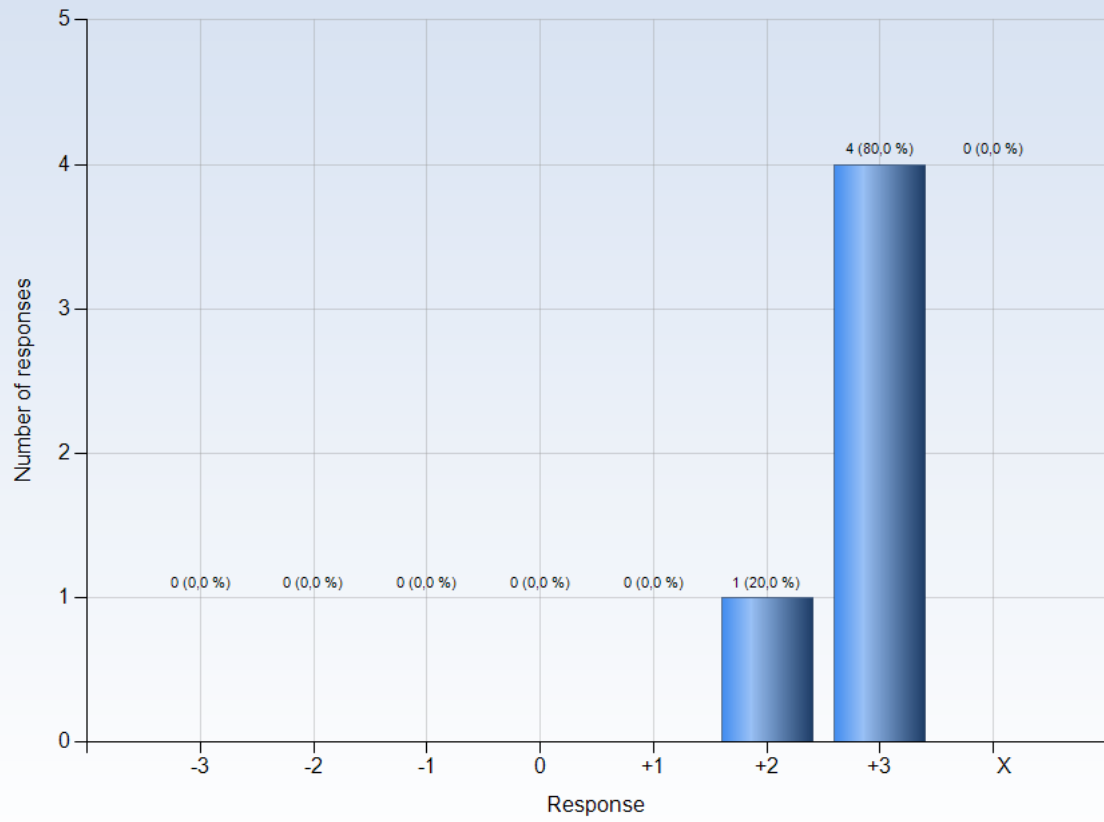
Comments

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



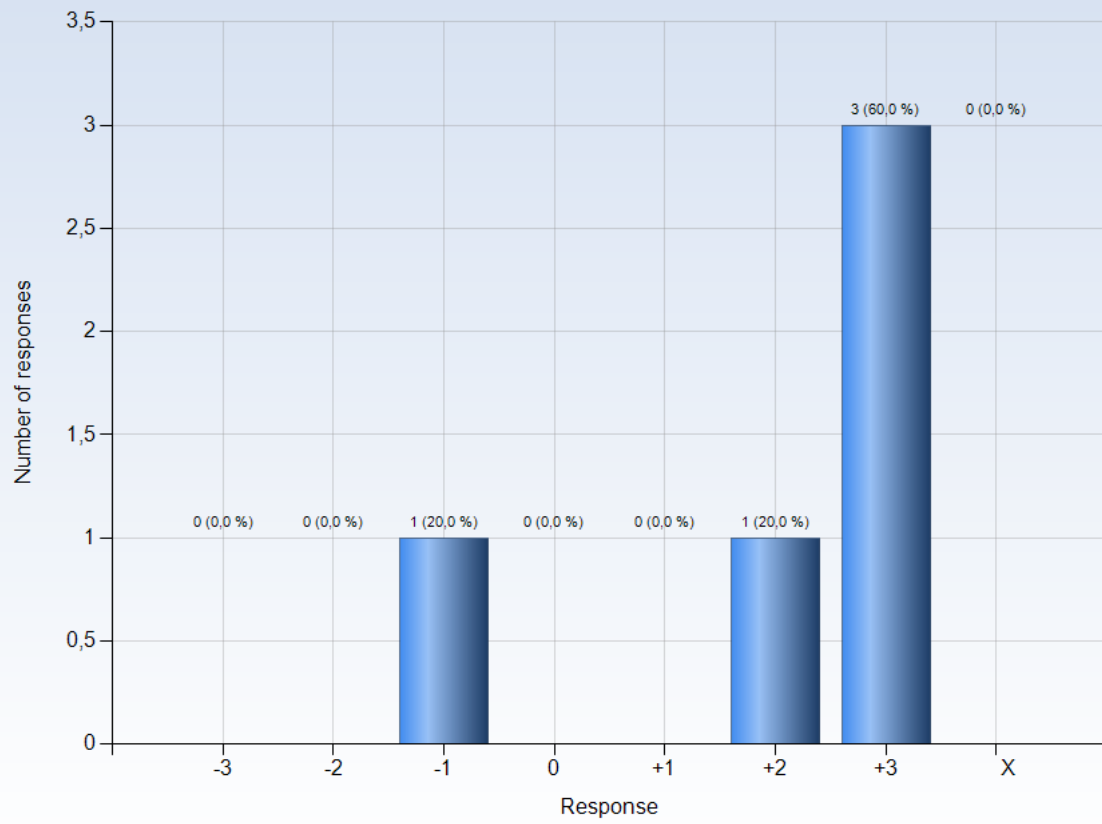
Comments

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



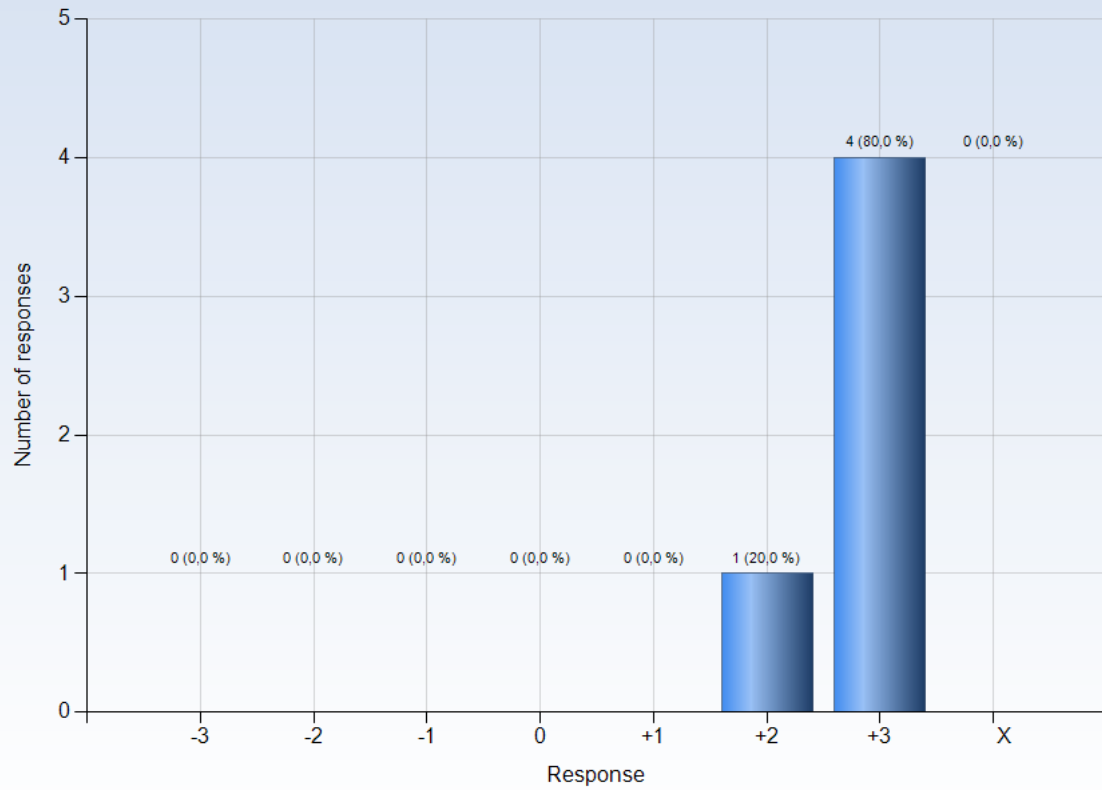
Comments

### 11. Understanding of key concepts had high priority



Comments

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

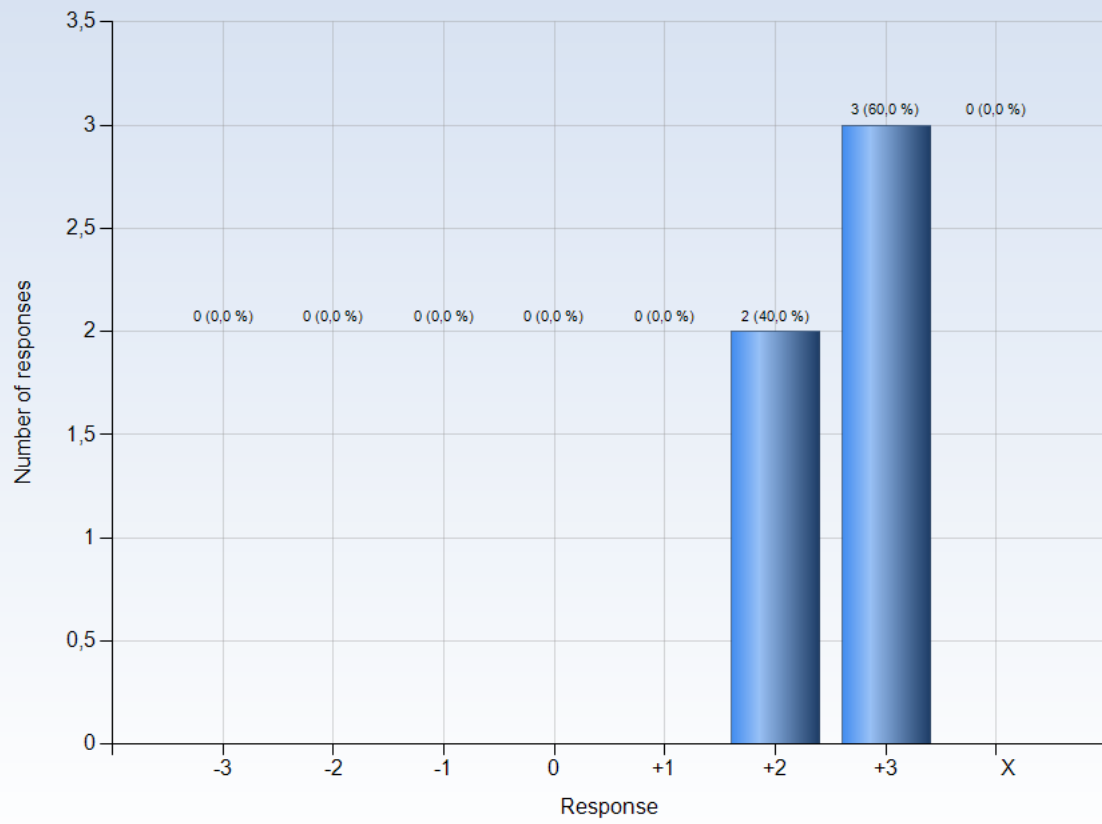


### Comments

Comments (My response was: +2)

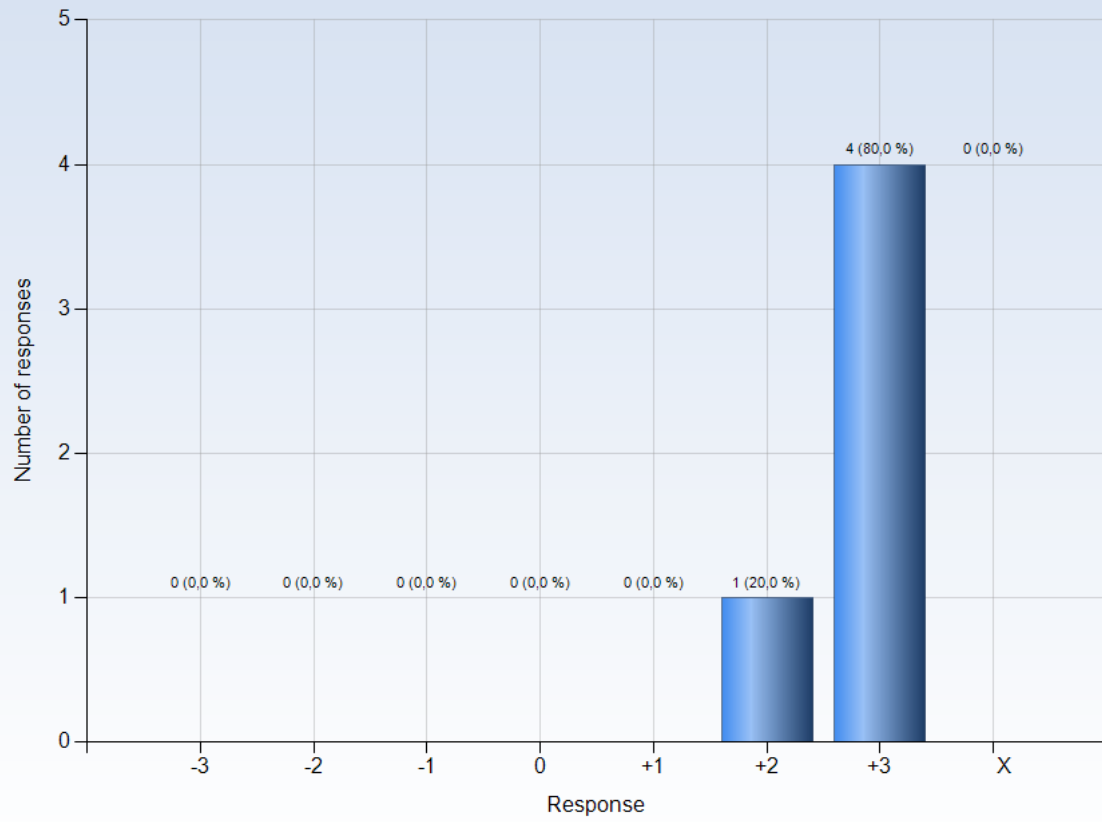
tog lång tid att få hjälp eftersom lärarna stannade väldigt länge hos varje person

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



Comments

### 16. The assessment on the course was fair and honest

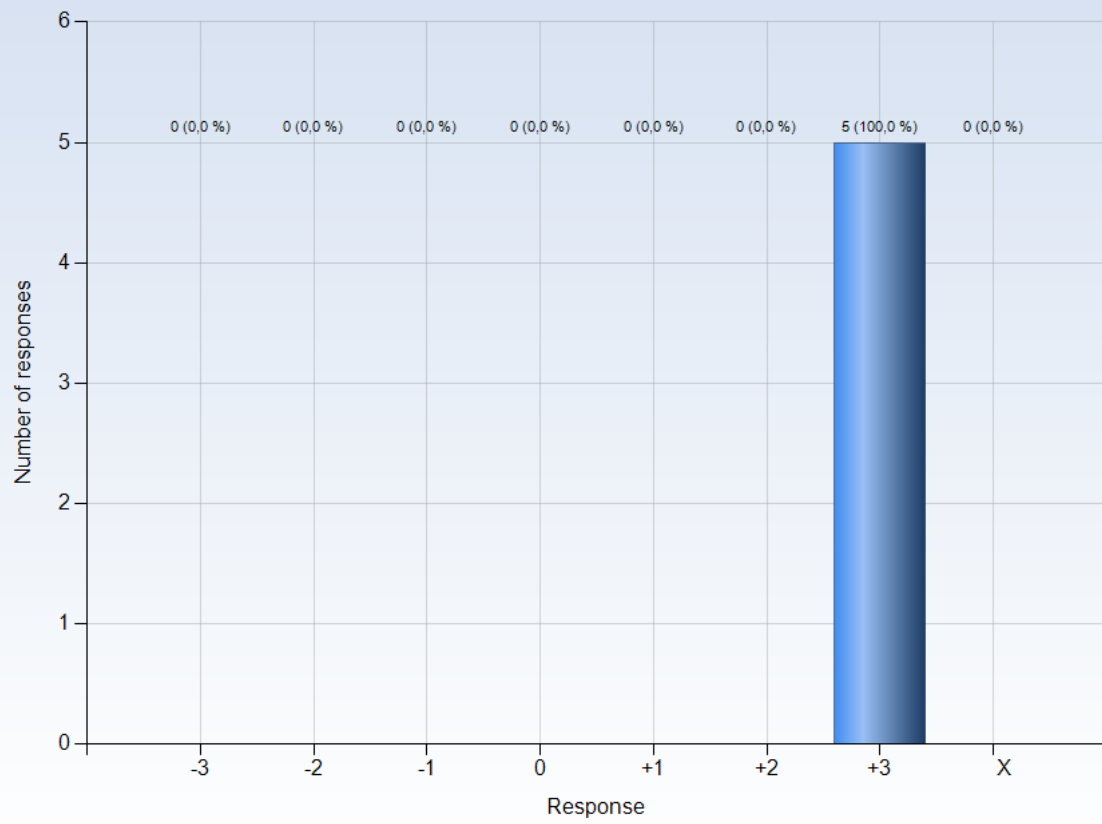


#### Comments

Comments (My response was: +2)

Lite konstigt att man inte fick ha ett enda fel för att få A men ja det är ju en liten kurs så det spelar inte så stor roll

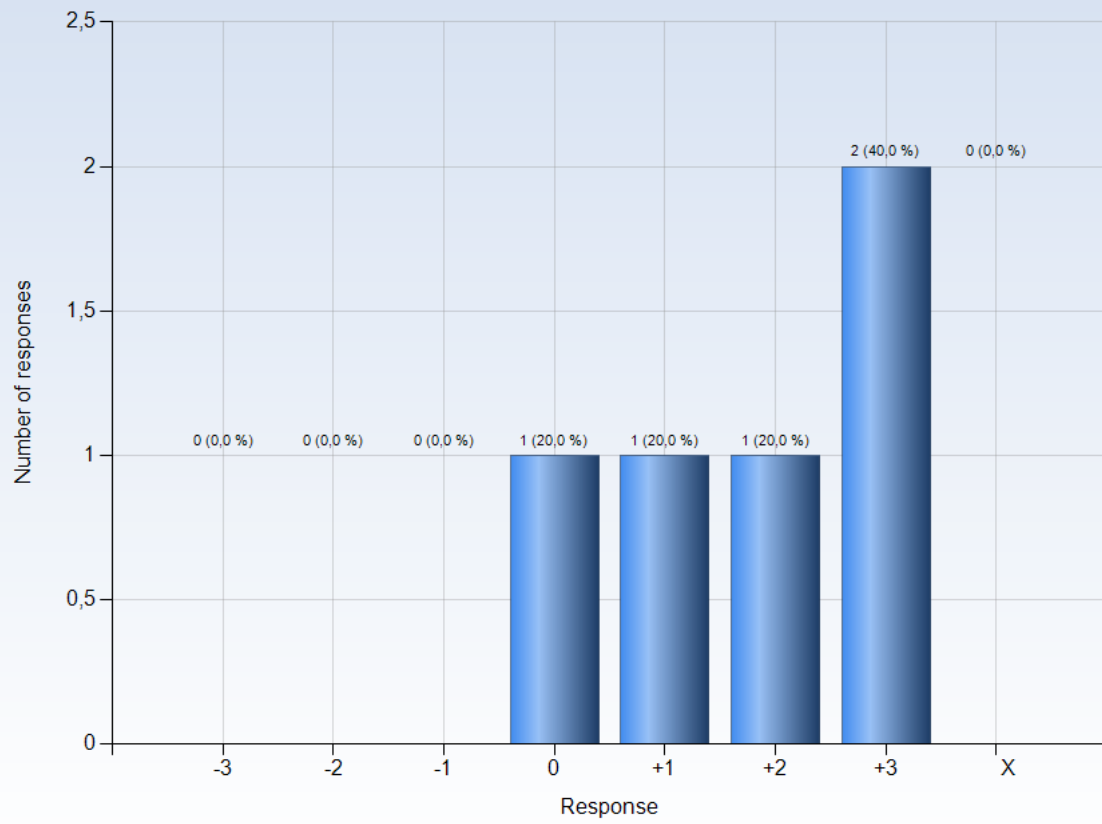
### 17. My background knowledge was sufficient to follow the course



Comments

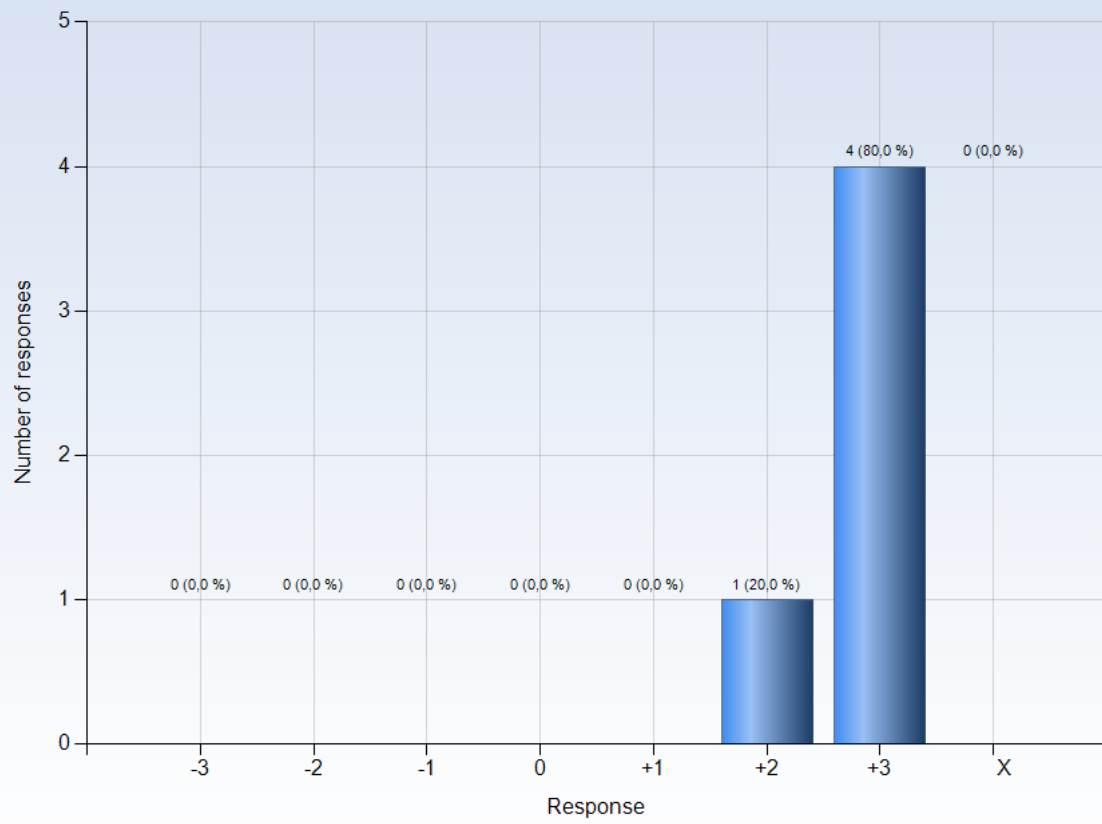


### 19. The course activities enabled me to learn in different ways



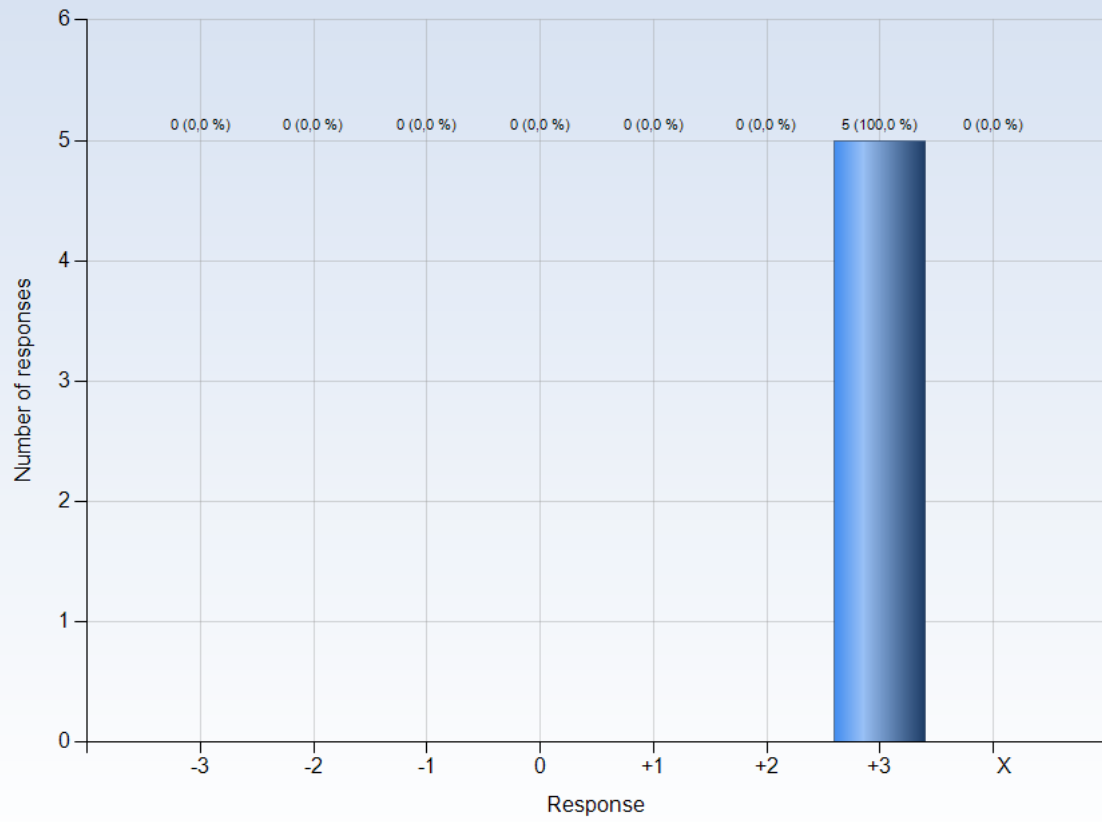
Comments

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