

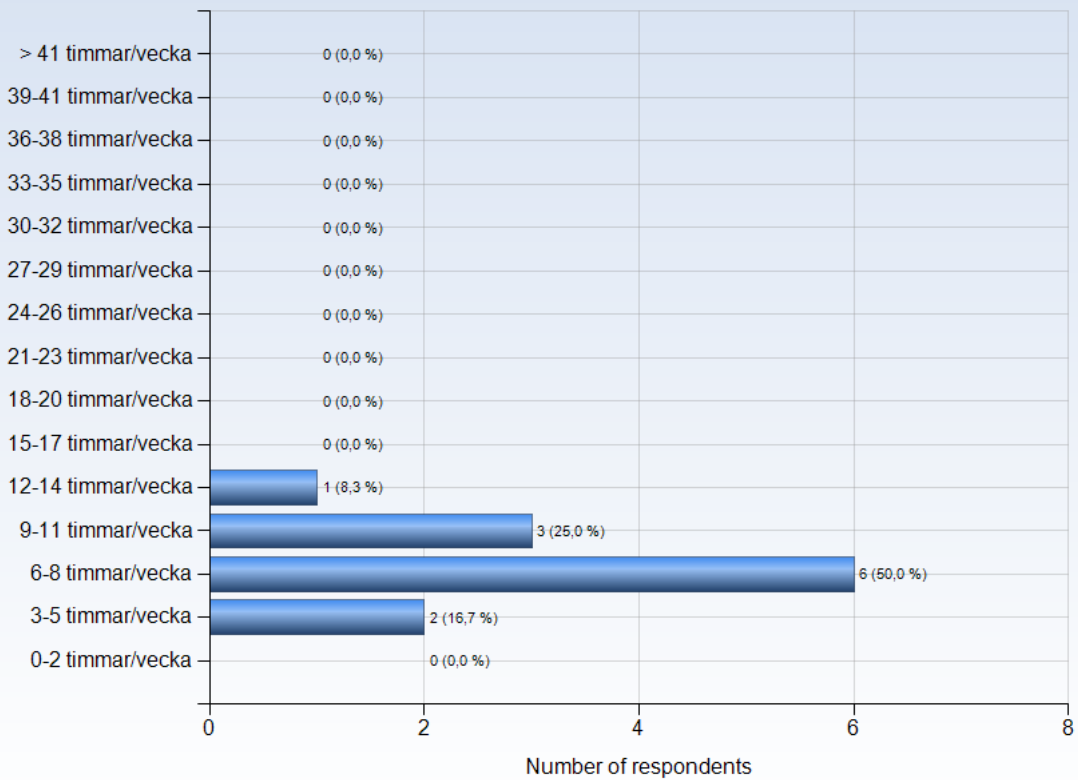


DD1354 - 2017-04-10

Antal respondenter: 46
Antal svar: 12
Svarsfrekvens: 26,09 %

ESTIMATED WORKLOAD

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



Comments

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

Most of the time was spent doing labs and working on the project.

I didn't attend many lectures since the math was too advanced and I didn't feel a great incentive to learn it (since it wasn't a part of the examination)



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:

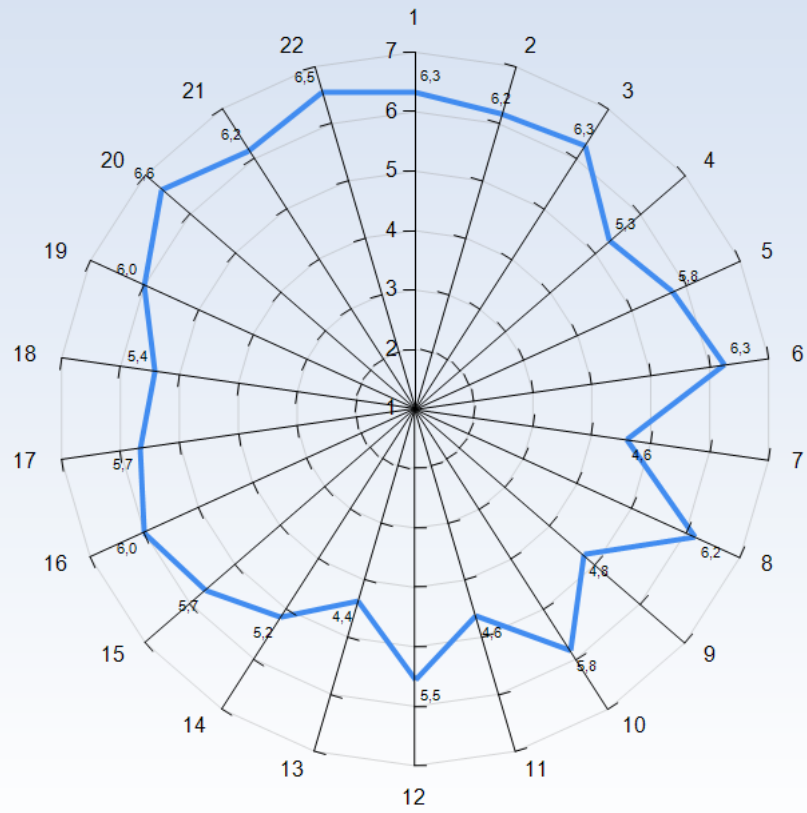
1 = No, I strongly disagree with the statement

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 v3.1.3

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. I understood how the course was organized and what I was expected to do (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 choices

19. I was able to learn in a way that suited me (m)

20. I had opportunities to choose what to do (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, intriguing or important
- b) We can speculate, try out 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 yet supportive environment
- d) We feel that we are part of a community and believe that other people have faith 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 sufficient background knowledge to manage the present learning situation
- g) We can learn inductively by moving from specific examples and experiences to general principles, rather than the other way around
- h) We are challenged to develop a proper understanding of key concepts and successively create a coherent whole of the content
- i) We believe that the work we are expected to do will help us to reach the intended learning outcomes
- j) We can try, fail, and receive feedback in advance of and separate from any summative judgment of our efforts
- k) We believe that our work will be considered fairly and honestly
- l) We have sufficient time to learn and devote the time necessary to do so



m) We believe that we are in control of our own learning, not manipulated

n) We can work collaboratively 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.

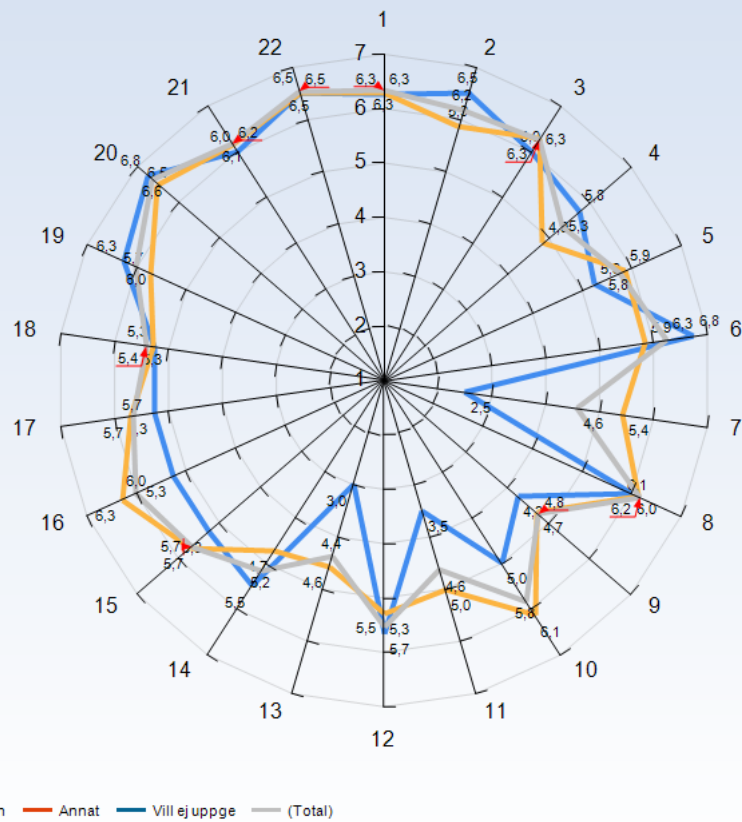
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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

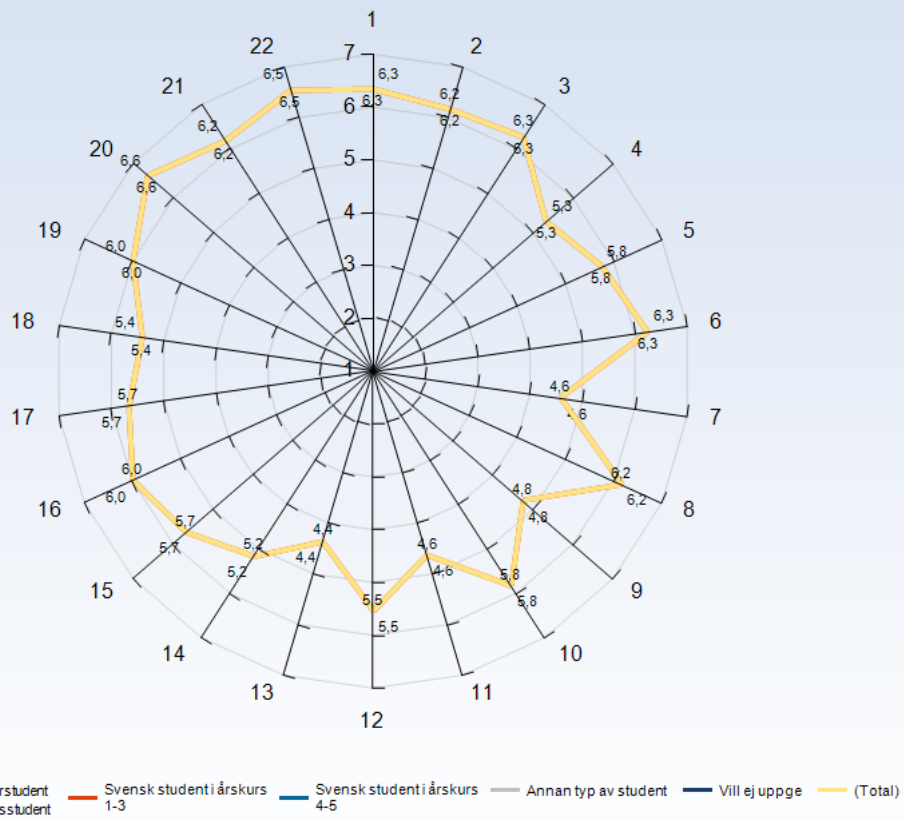


Comments

Comments (I am: Man)

I've really enjoyed the course! It is quite differently structured, a lot more "world like" where the teacher doesn't hold your hand and you have one correct answer but instead have to solve a problem and your effort and problem solving skills (including asking for help if needed) is what's important. Being so including when it comes to the Vic studio was really appreciated as well so thank you for a great course!
 The only complaint I have is that it could be a little more structured. The lectures aren't really connected to the examination and the labs vary too much in difficulty (one of lab 2's exercises was to exchange all instances of Vector2 with Vector3 while several questions of lab4 left me stumped).

Average response to LEQ statements - per type of student



Comments

Comments (I am: Svensk student i årskurs 1-3)

No real comment about the above question but about this questionnaire (don't know where else to put it): The word "tidsstegning" appears in the English version below "Intended learning outcomes"

Årskurs 3, dvs att jag skriver mitt kex nu och samtidigt som denna kurs pågick.



GENERAL QUESTIONS

What was the best aspect of the course?

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

Intressant kurs, med många roliga moment, samt föreläsningarna med Christopher var riktigt bra.
Project part of the course was the best part.

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

Man kunde välja eget projekt

The freedom we are given. Even though it was hard to understand in the beginning since we've never had this kind of freedom before. It really promotes creativity.

det är ett intressant ämne

Labb-genomgångarna i VIC-studion var väldigt bra

Väldigt roligt och Christopher Peters.

Att få konkreta exempel och kunna utveckla egna saker m.h.a. fysiska modeller och få feedback med visuella verktyg

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

Ämnet var roligt, och jag uppskattade att få testa på detta ämne.

Being able to create something visual and concrete in the Unity engine.

What was the best aspect of the course? (I worked: 12-14 timmar/vecka)

I really enjoyed the people running the course - The two lecturers and both TAs. I always felt very welcome to ask questions and it was just an all round friendly atmosphere. The Vic studio almost feels like a micro cosmos inside KTH but instead of being filled with holier than thou personalities it is the complete opposite - the TAs were always very clear about us being allowed to just knock on the door and come in. Bjön and everyone else in there were also very friendly and happy to answer questions :)

What would you suggest to improve?

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

Lab4 samt föreläsningarna med Johan var svåra att följa. De var inte dåliga, det var bara svårt att se relevansen och följa tråden. Kanske något som behövs tänkas över.

Finite element method part of the course was confusing and hard to relate to.

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

Labbarna var onödigt stora

The mathematical part of the course (ODEs etc)

1. Labbarna skulle kunna vara tydligare. Det var svårt att veta när man "var klar" med labben, dvs det var svårt att veta om man hade gjort tillräckligt/fattat vad som menades osv.

2. Föreläsningarna skulle kunna ha en mer röd tråd. Det var lite hoppigt och många trådar som öppnades, det hade varit bra med en 5 min intro så man förstod vad syftet med en viss föreläsning var, dvs om det var en förberedande föreläsning inför en specifik labb, eller inför ett visst projekt-ämne osv.

Sluta pusha Unity.

Rätta snabbare.

Mer tid åt den numeriska biten.

Lectures were absurdly much harder to understand than the labs.

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

Kanske betygsnivåerna i projekten. Det var bra att det var mycket upp till en själv, och mer likt arbetsuppgifter i verkliga livet, men vi går fortfarande på kth, där betygen spelar roll.

Clearer information on what is needed for a specific grade.

What would you suggest to improve? (I worked: 12-14 timmar/vecka)

I feel like the lectures regarding math are pretty "wasted" or disconnected from the course. It is quite advanced math (for me at least) but I didn't feel the need to learn it since the labs and project didn't really require them.

My suggestion would be to at least start of the math on a lower level at the start of a course (honestly start at the very bottom - remind us of what a differential equation is) before moving forward. Then let us apply the math in for example the first lab (instead of giving it to us).



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)

Jobba med ett projekt som man verkligen är intresserad av. Slutresultatet blir bättre och det är lättare väg dit även om det kan verka svårare först.

Pick a fun project.

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

Understand that the course is not like any other you've had before. There's no true or false questions, use your creativity and interpret the questions your way.

Gå på labb-genomgångarna! Och kom igång snabbt med projektet.

Använd inte Unity

Börja tänka direkt på projektet från början. Ägna de första veckorna till att prata med läraren över ideer för projektet för att inte få för mycket på tallriken, men inte heller för lite så att man får det betyg man vill ha.

Don't attend the lectures, focus on the labs.

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

Sitt i grupp och gör labbarna om ni stöter på svårigheter. Det var väldigt givande att kunna diskutera med andra!

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

Write lab reports while doing the lab exercises - doing them after the fact is much harder as you have a completed product which is built up of the different lab questions

Is there anything else you would like to add?

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

Bästa kursen på KTH jag läst hittills. Bra tempo, intressant innehåll, trevliga assistenter och lärare.

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

This course have a great potential. It connects maths with the real world and gives us practical and theoretical knowledge of something very interesting and valuable. I'm pretty sure students will use this knowledge gained for future side projects. The course does however give off a feeling of not being completely finished.

Rättningen går väldigt långsamt.

Nej.

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

Överlag uppskattade jag verkligen kursen och all den hjälp man fick från föreläsarna och kursassistenterna.

SPECIFIC QUESTIONS



RESPONSE DATA

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

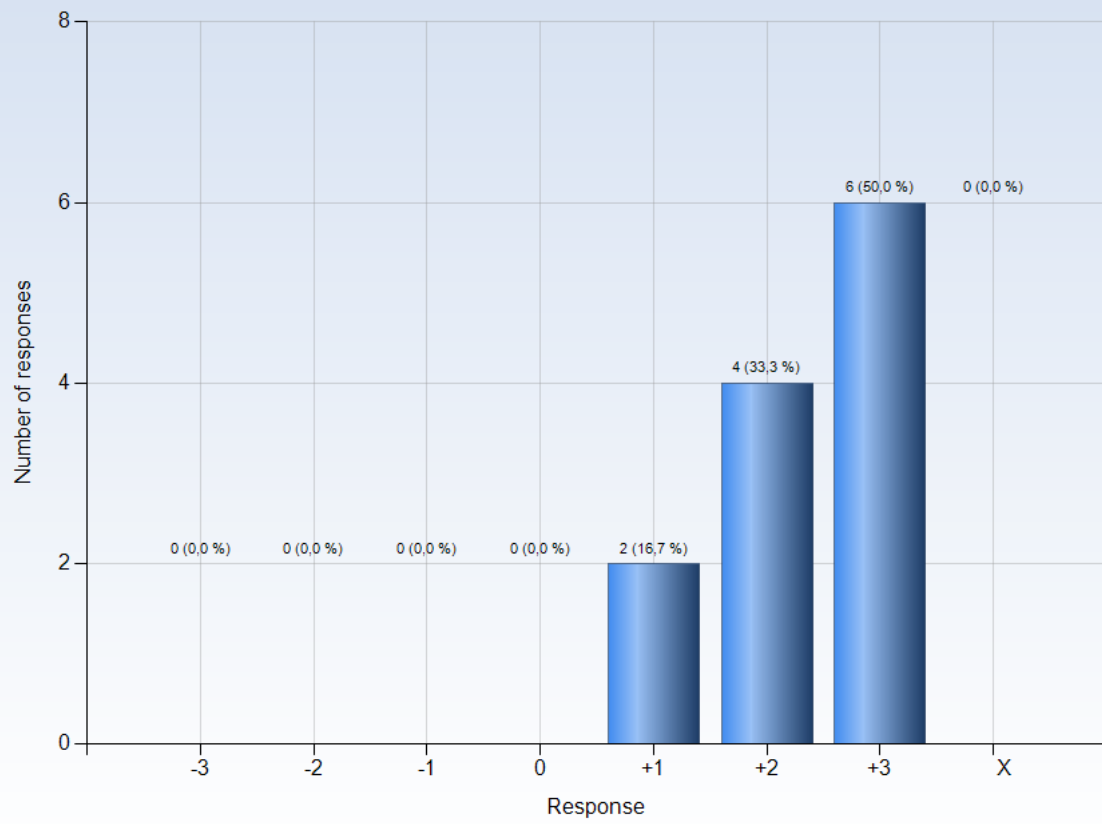
-3 = No, I strongly disagree with the statement

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

1. I worked with interesting issues

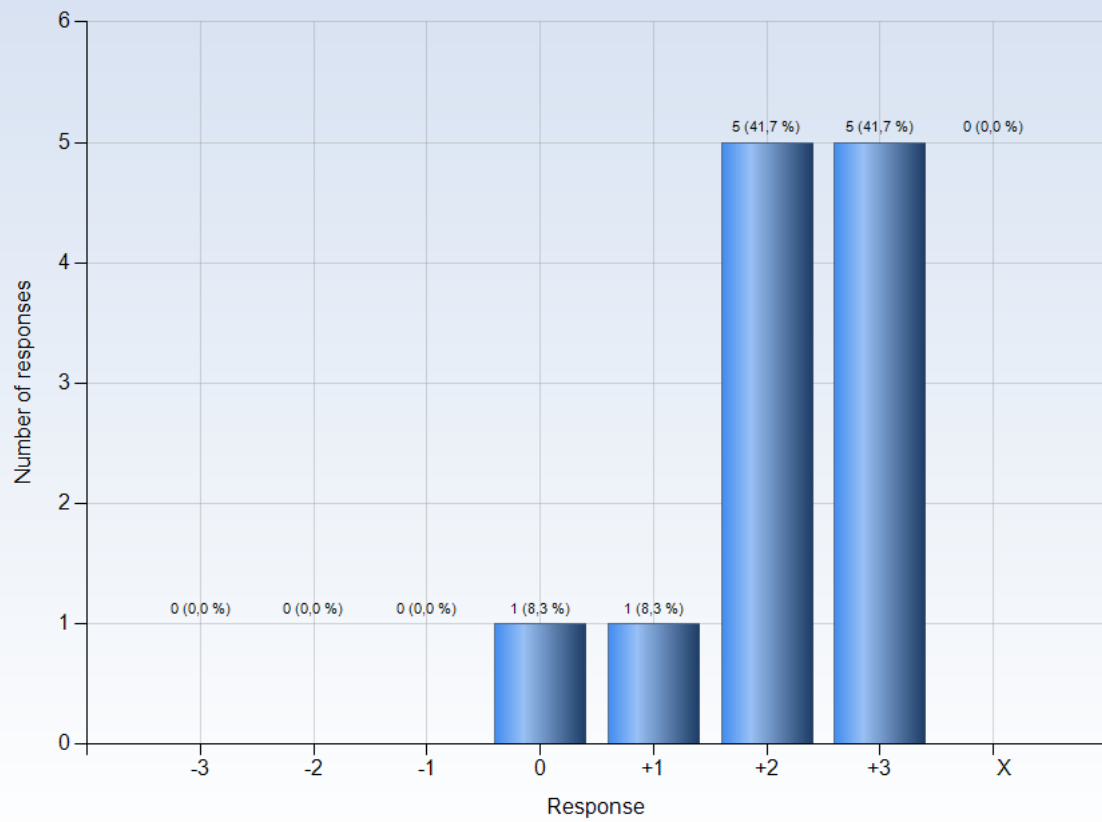


Comments

Comments (My response was: +3)

I enjoyed that the labs were so visual

2. I explored parts of the subject on my own

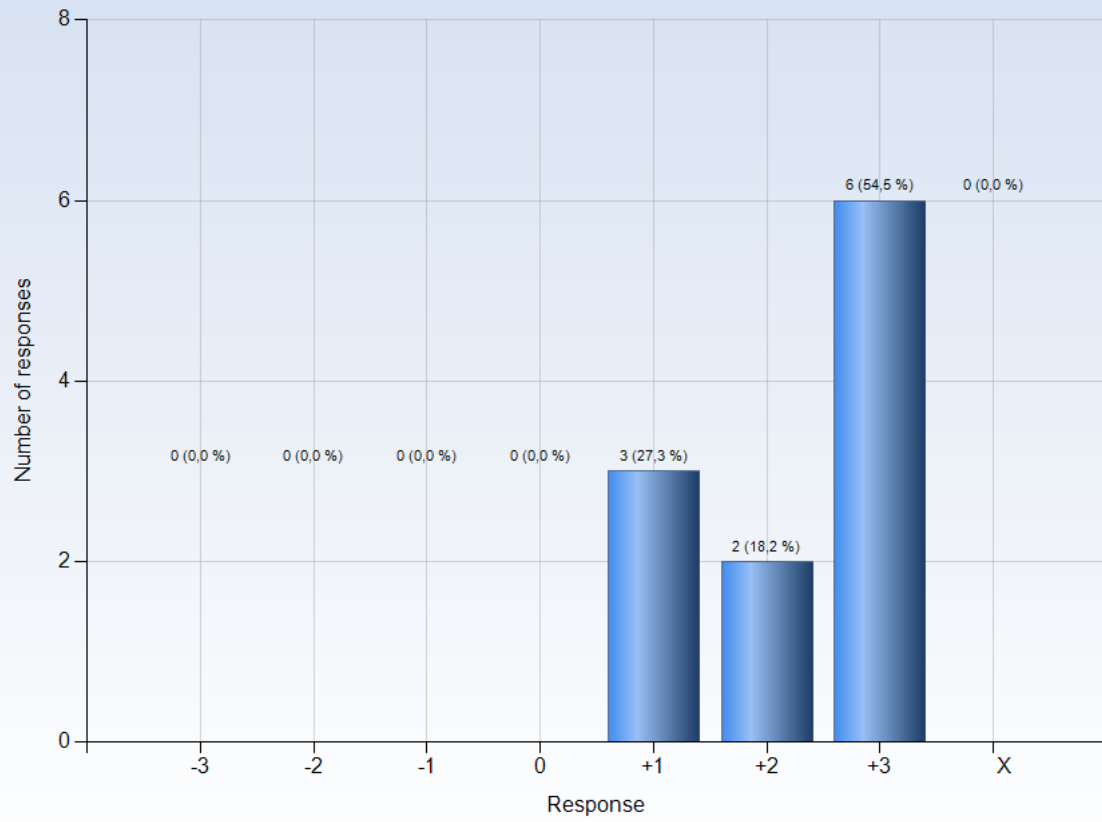


Comments

Comments (My response was: +2)

Mostly looked up other Unity projects and how they were made

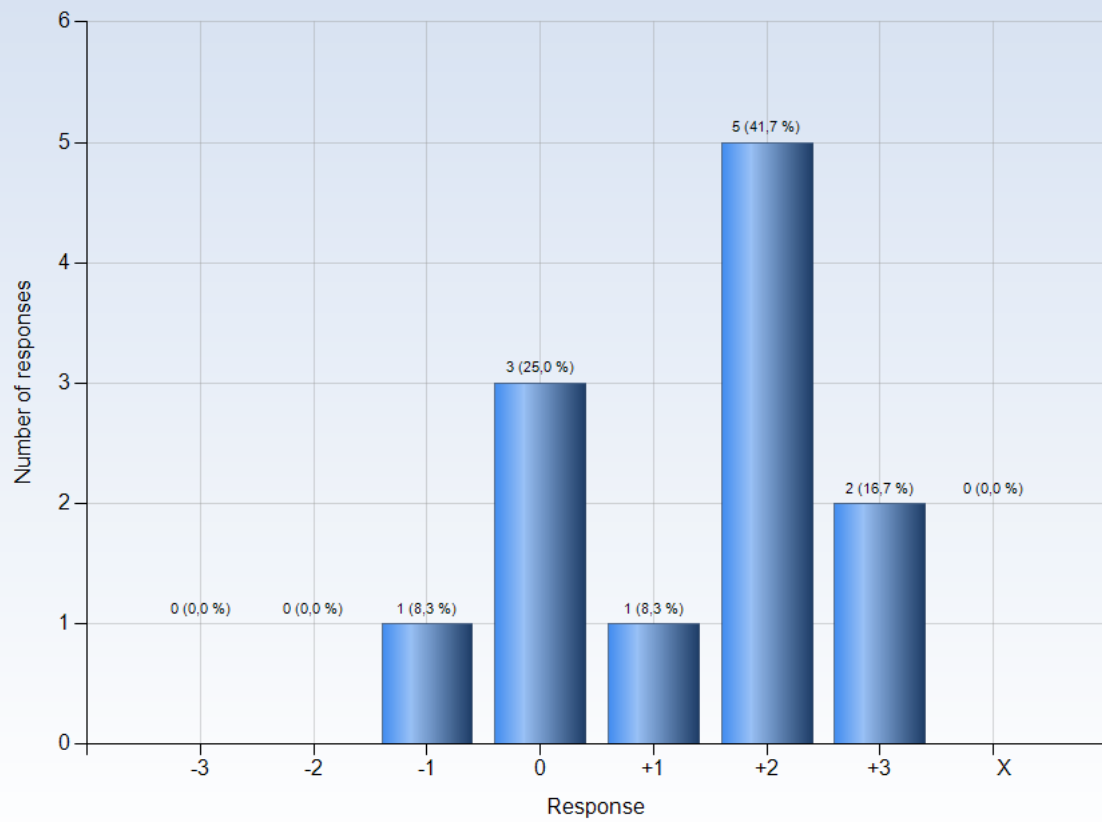
3. I was able to learn by trying out my own ideas



Comments

Comments (My response was: +3)
The software allowed this

4. The course was challenging in a stimulating way

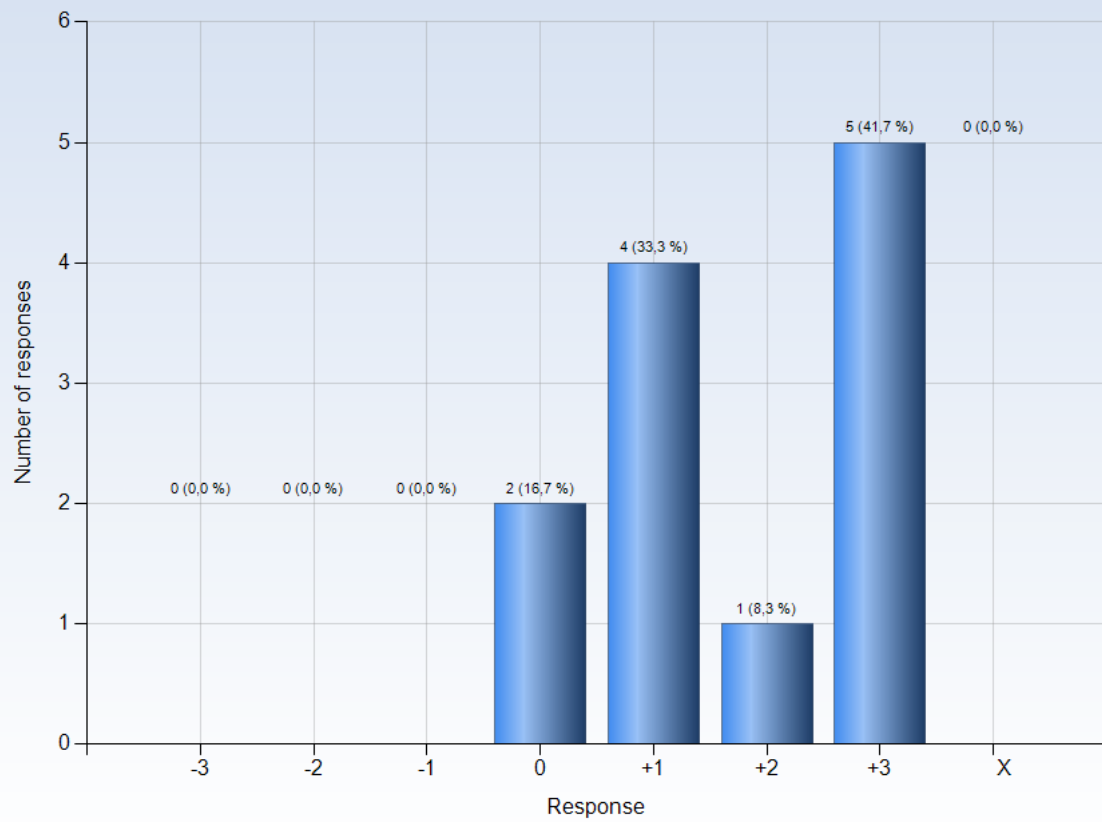


Comments

Comments (My response was: -1)

Many challenges were frustrating such as how to use Blender and do basic things in Unity

5. I felt togetherness with others on the course

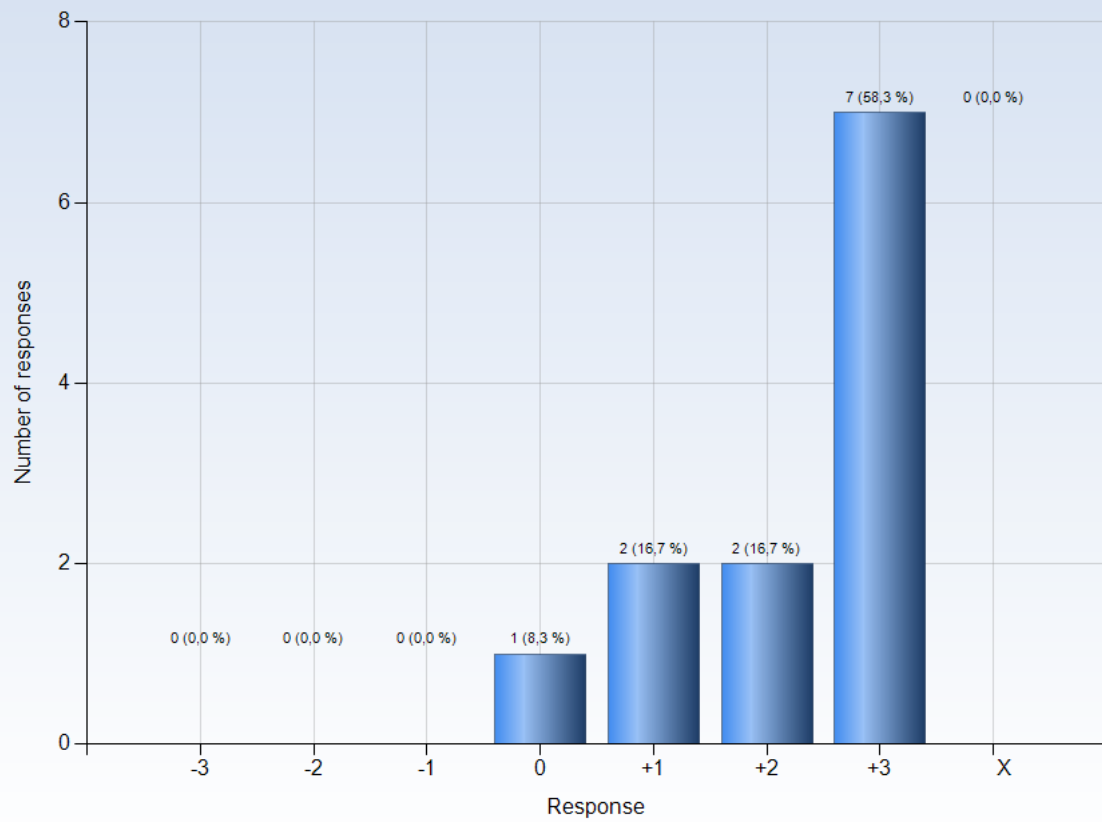


Comments

Comments (My response was: +2)

Really liked the TAs and the teachers of the course. Good togetherness with my lab/project buddy

6. The atmosphere on the course was open and inclusive

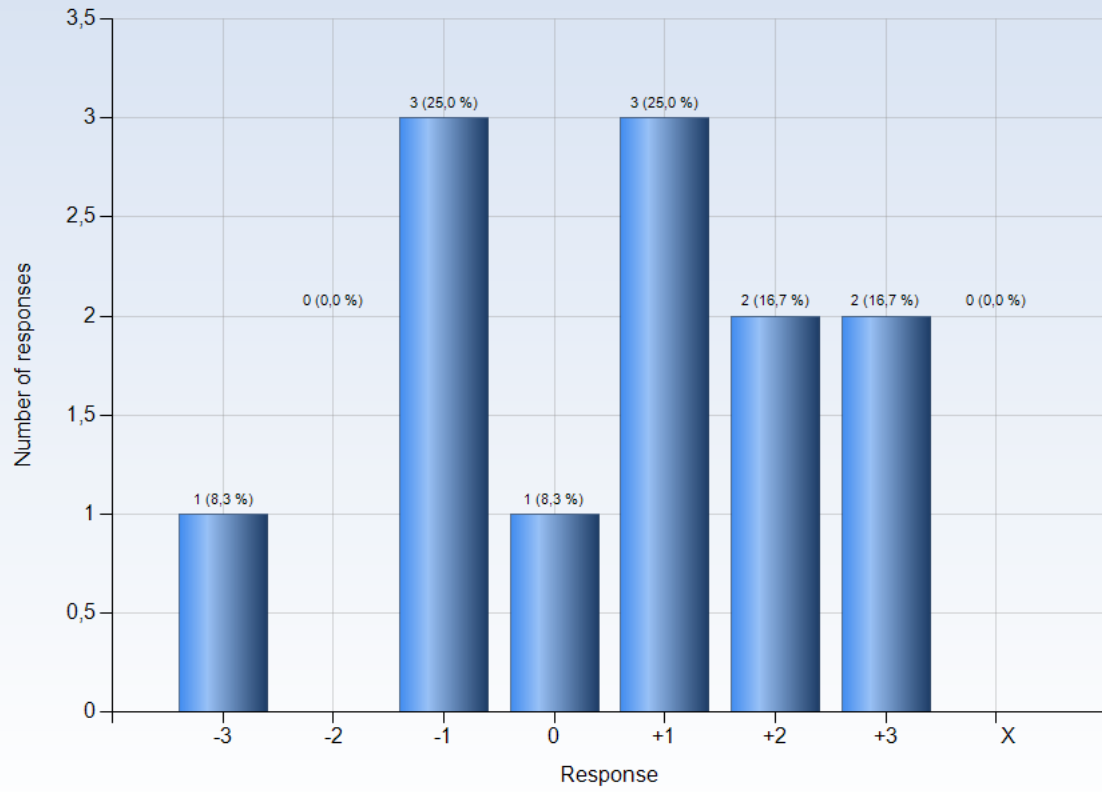


Comments

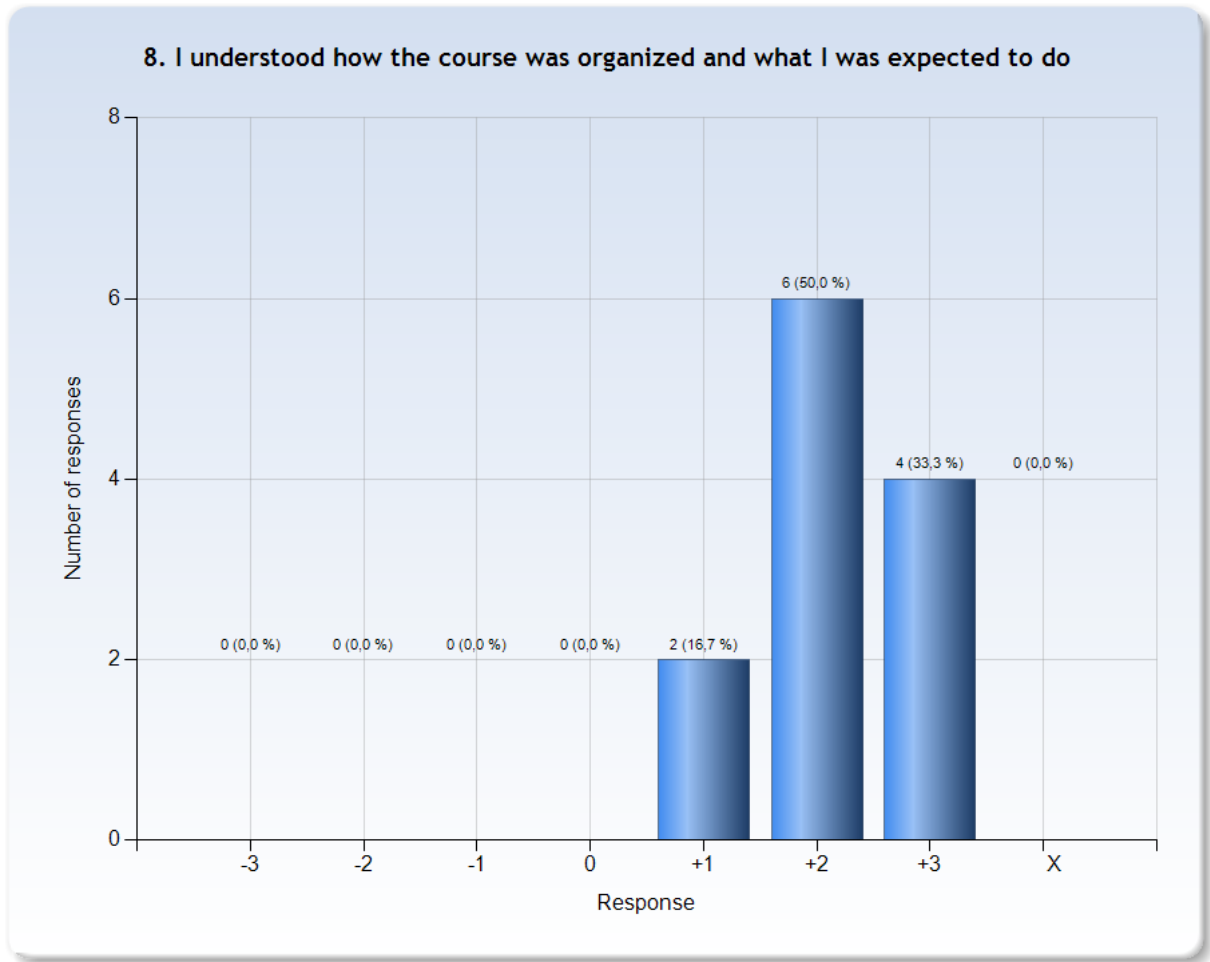
Comments (My response was: +3)

Loved it, always felt welcome in the Vic studio and welcome to email anyone

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



Comments

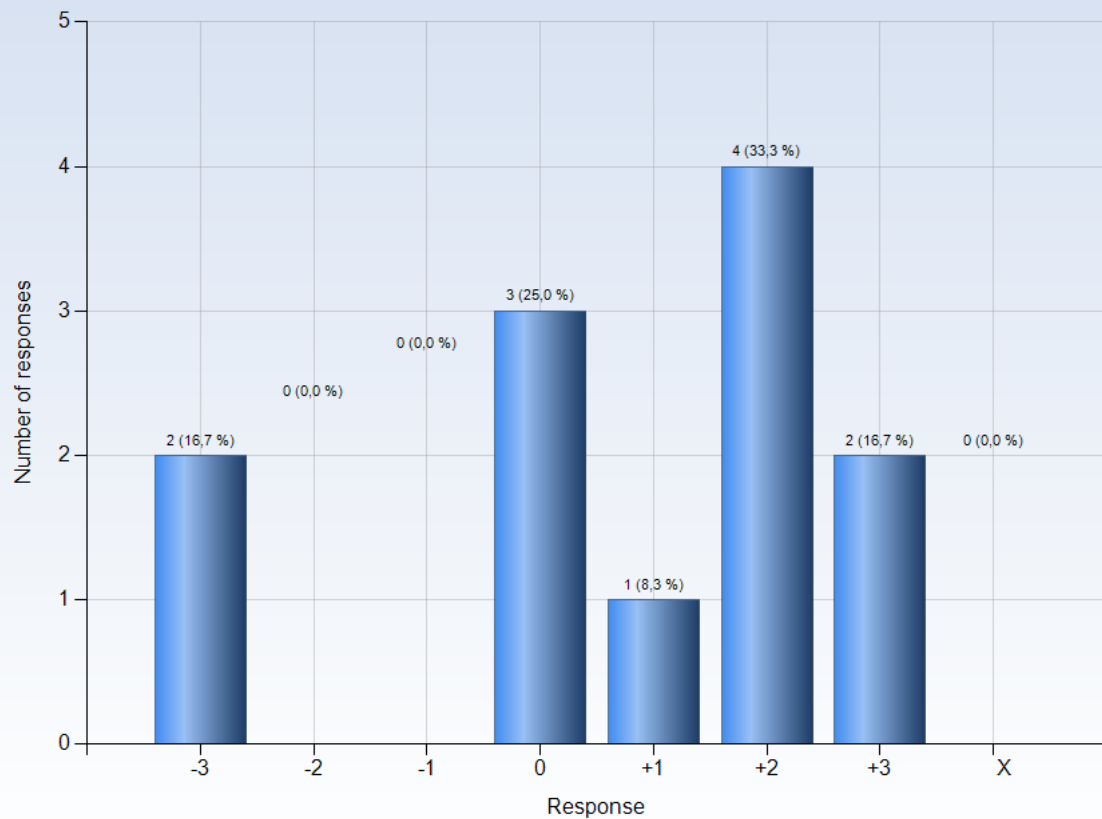


Comments

Comments (My response was: +2)

It was a little unclear how the bonus system worked and what extra assignments had to be completed for a higher grade (especially on lab 4)

9. I understood what the teachers were talking about



Comments

Comments (My response was: 0)

Föreläsningarna med Johan kändes nästan irrelevanta till labbarna och resterande av kursen, och det var svårt att följa med i alla matematiska resonemang, då jag inte läst Flervariabelanalys.

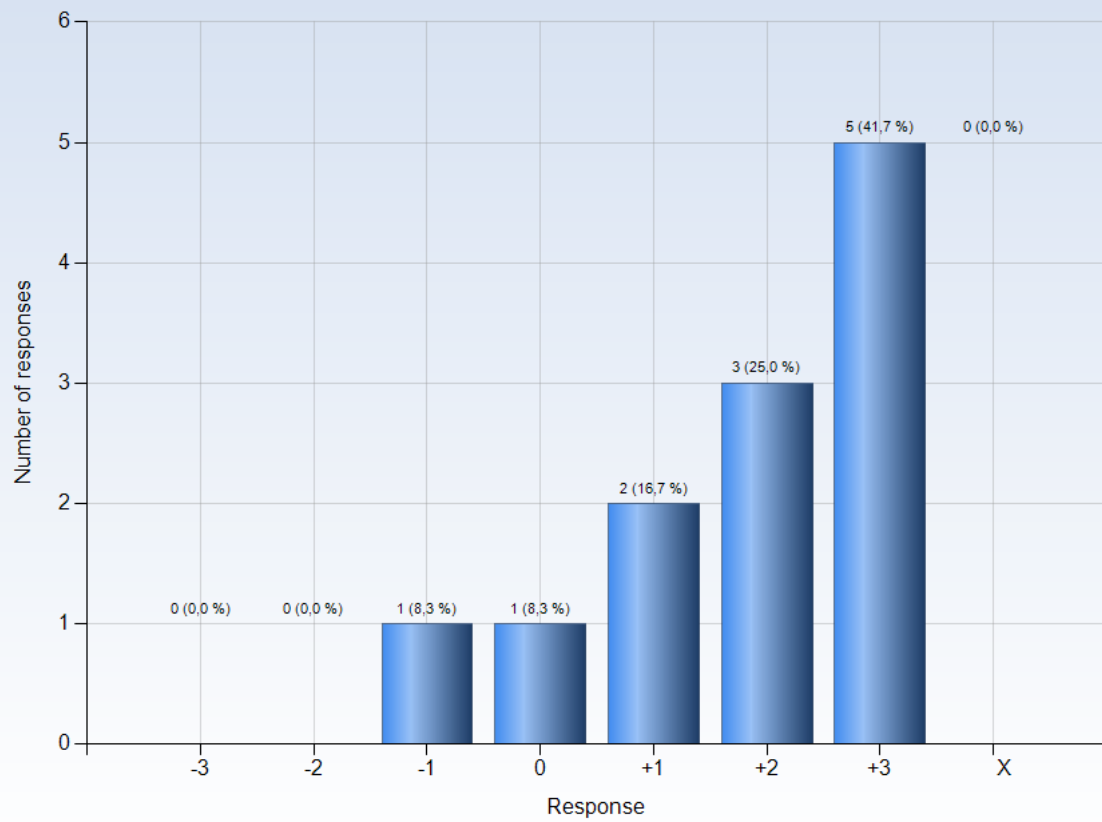
Had a really hard time for the math of one of the lectures. He was very friendly though and explained concepts thoroughly once I asked.

The mathematical part (-3) the other parts (+3)

Comments (My response was: +2)

Exept for lab 4

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

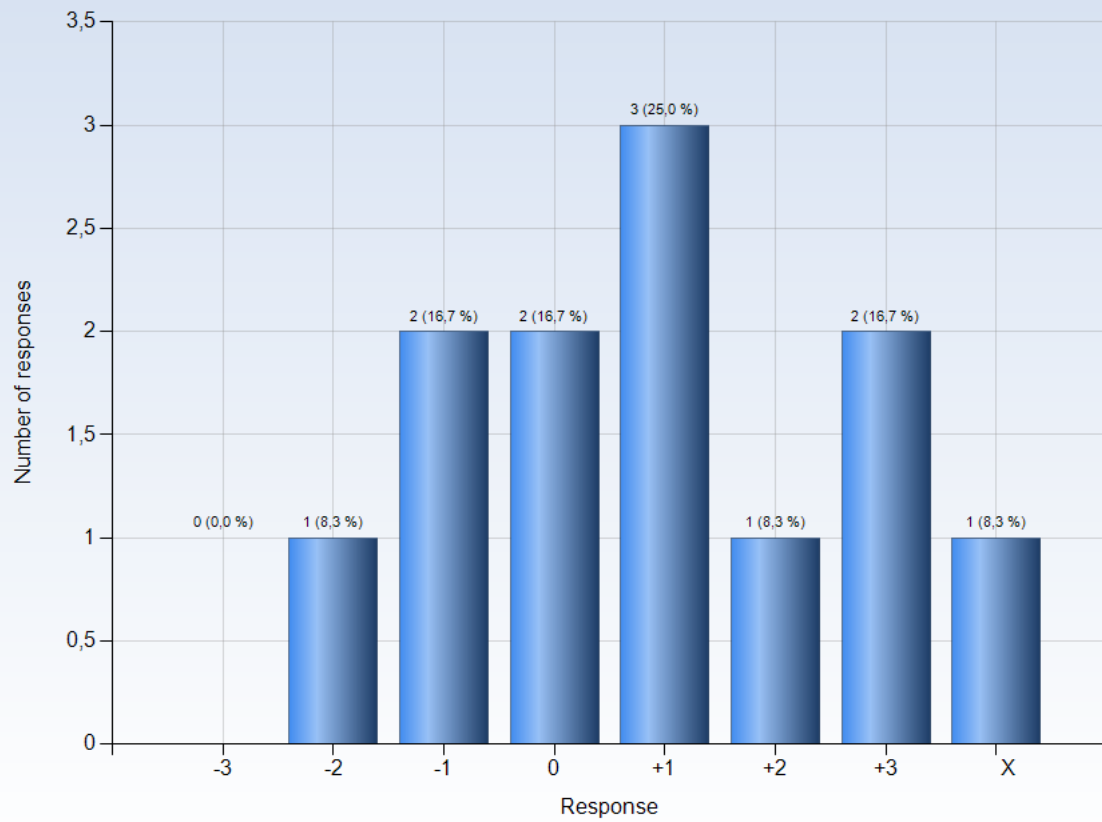


Comments

Comments (My response was: +3)

All labs gave a state to start working from

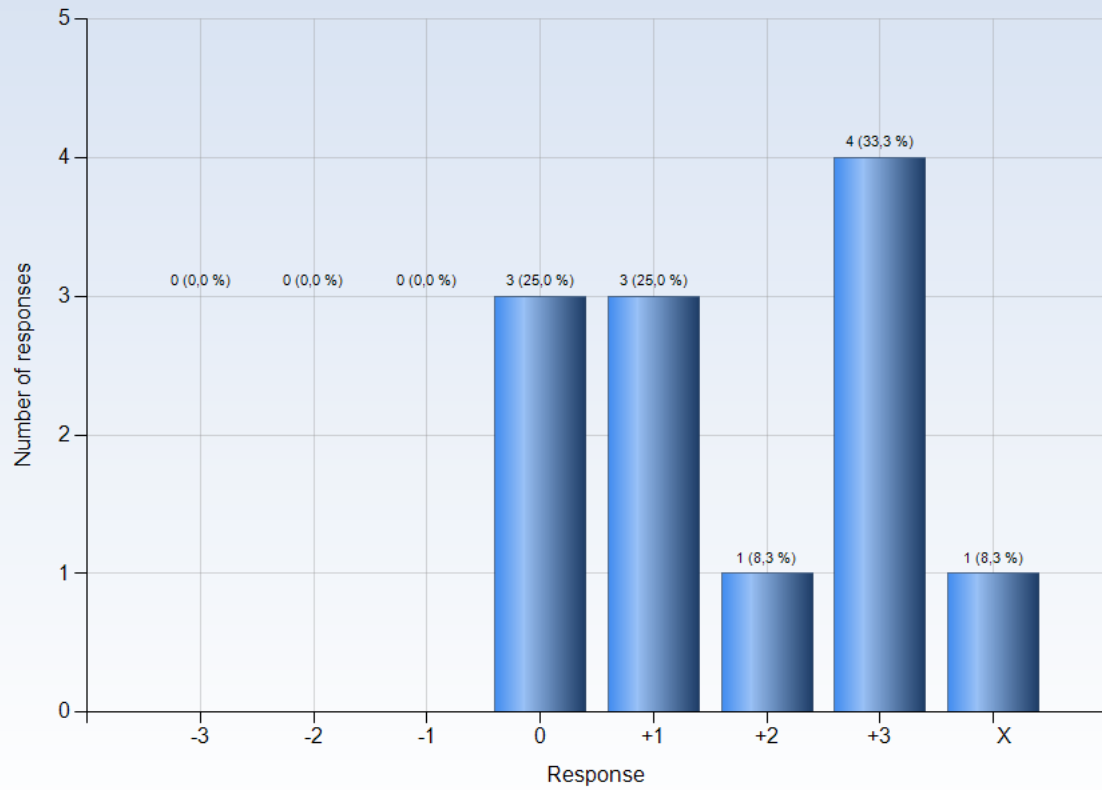
11. Understanding of key concepts had high priority



Comments

Comments (My response was: 0)
Don't have an opinion

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

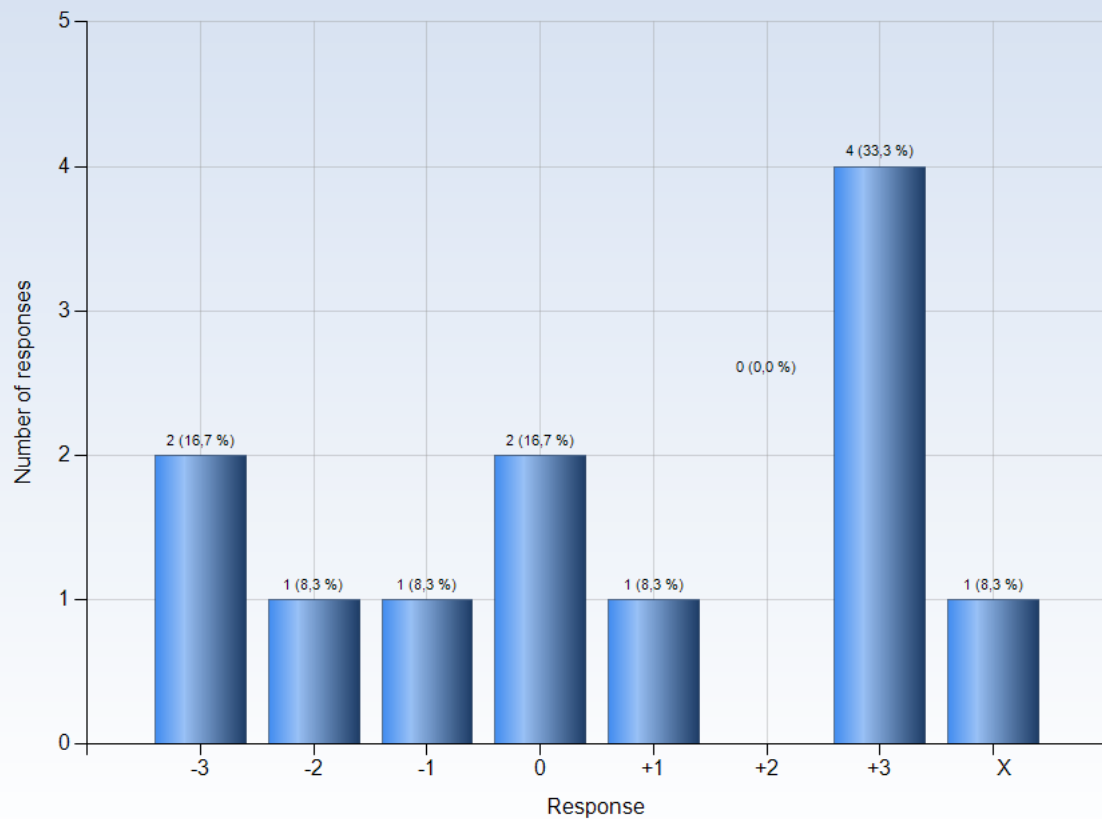


Comments

(My response was: +3)

Doing practical work like labs suit me

13. I understood what I was expected to learn in order to obtain a certain grade



Comments

Comments (My response was: -3)

oklart vad som krävdes för projekt-betyg och dessutom ändrades en uppgift i labb 4 till bonusuppgift några dagar innan inlämnings-deadline

Comments (My response was: -2)

What grade you could expect from the project differed between the assistens and teachers

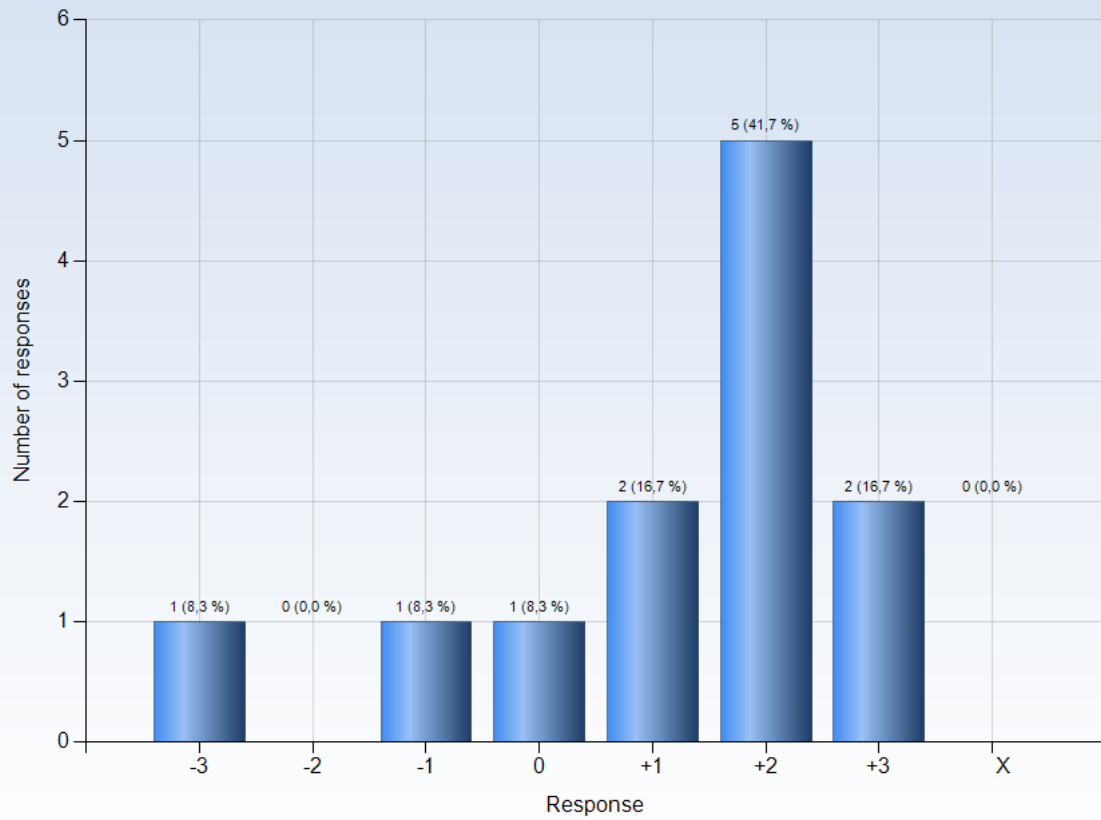
Comments (My response was: 0)

Like I said before, the bonus system was not completely clear and the feedback from TAs could vary about what grade the project was on

Comments (My response was: X)

Tydligt i labbarna, inte i projektet

14. I received regular feedback that helped me to see my progress

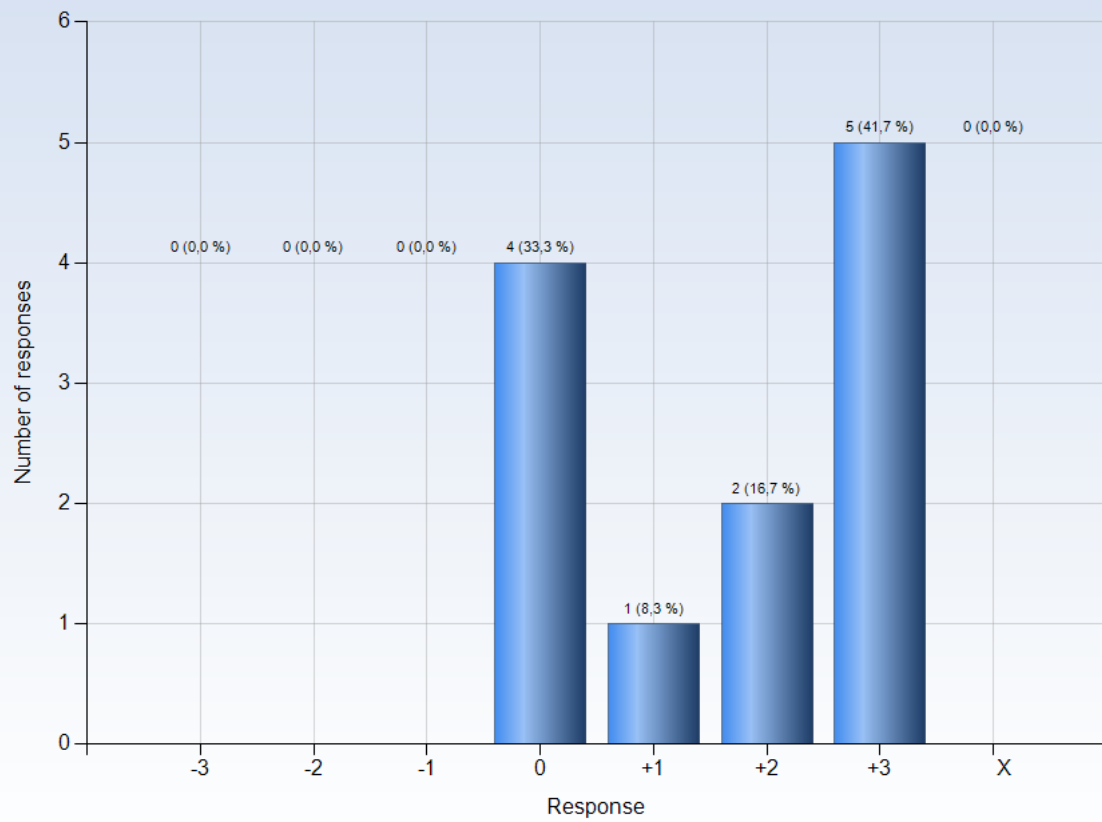


Comments

Comments (My response was: +1)

There were many opportunities for feedback which is really positive but I felt that the feedback itself was often lacking as the TAs could have different oppinions especially when it came to what level the project was on (grading - wise)

15. I could practice and receive feedback without being graded

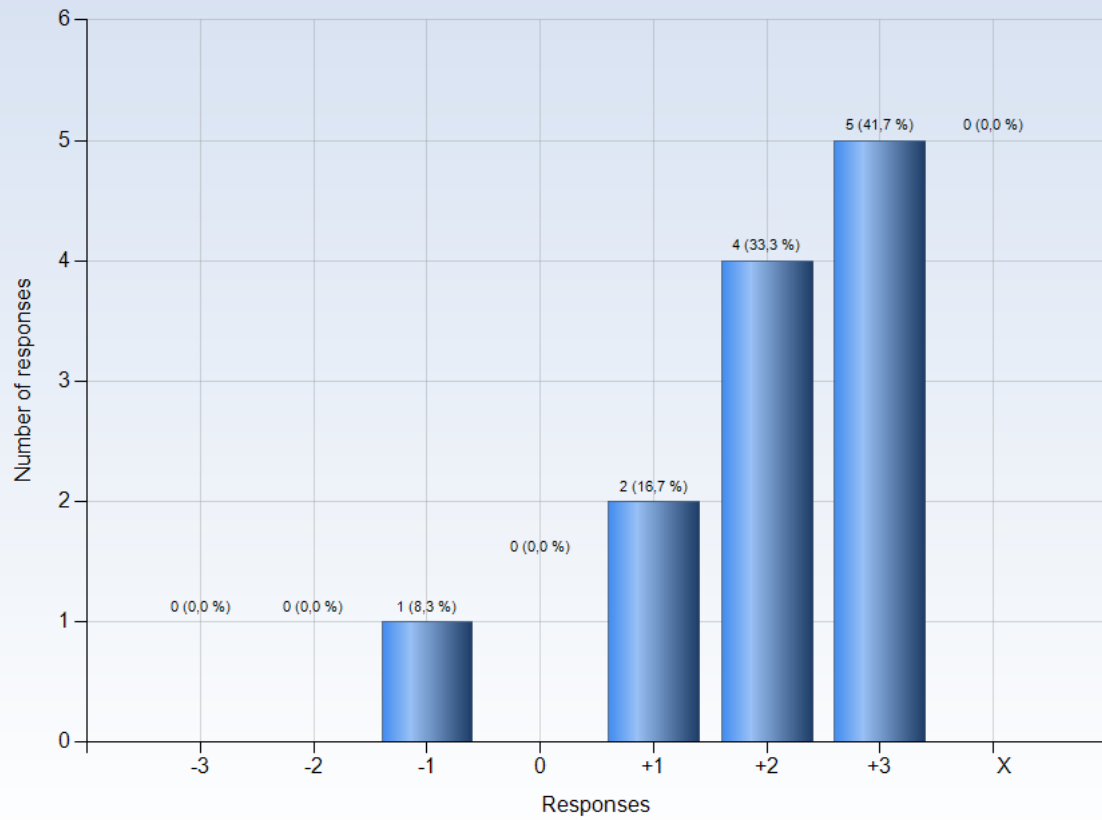


Comments

Comments (My response was: +3)

Many opportunities to receive help both in the Vic studio or through e-mail

16. The assessment on the course was fair and honest



Comments

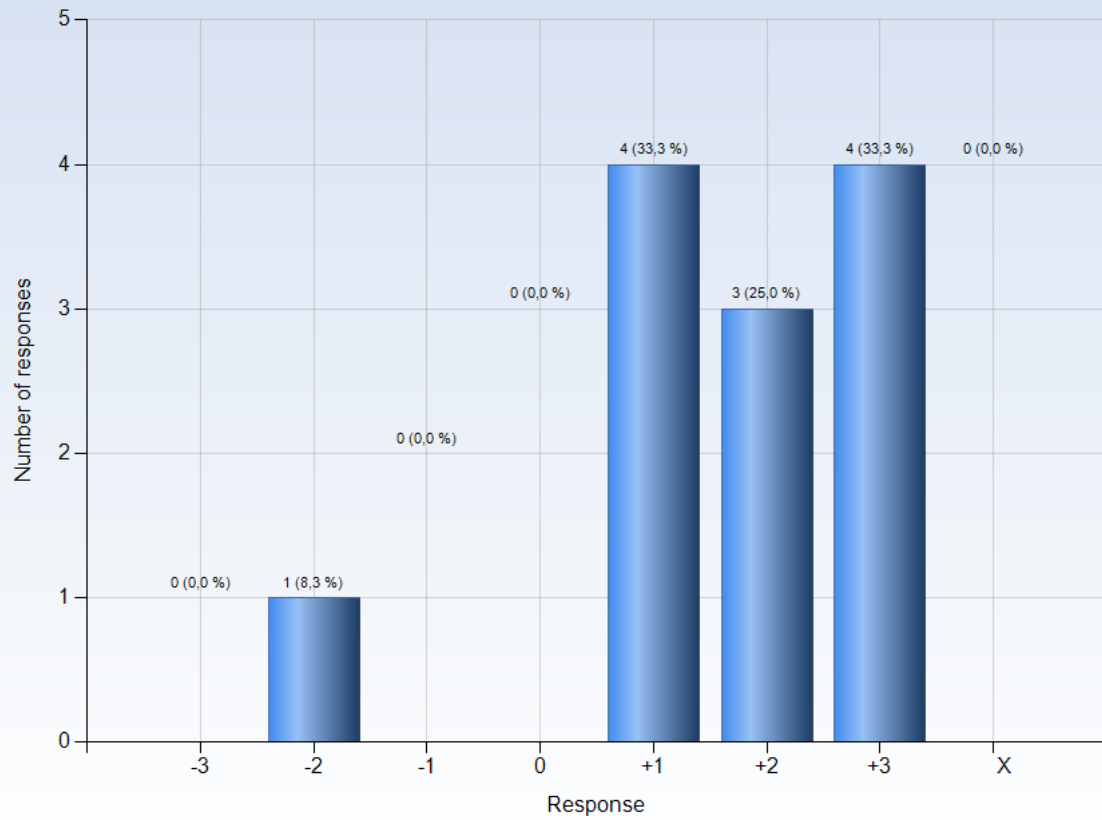
Comments (My response was: +2)

Could examine everyone in the lab group

Comments (My response was: +3)

Having outsiders grade the projects is an uncommon but fair and more "real world like"

17. My background knowledge was sufficient to follow the course



Comments

Comments (My response was: -2)

Not the mathematical part of the course but the otherwise, +3

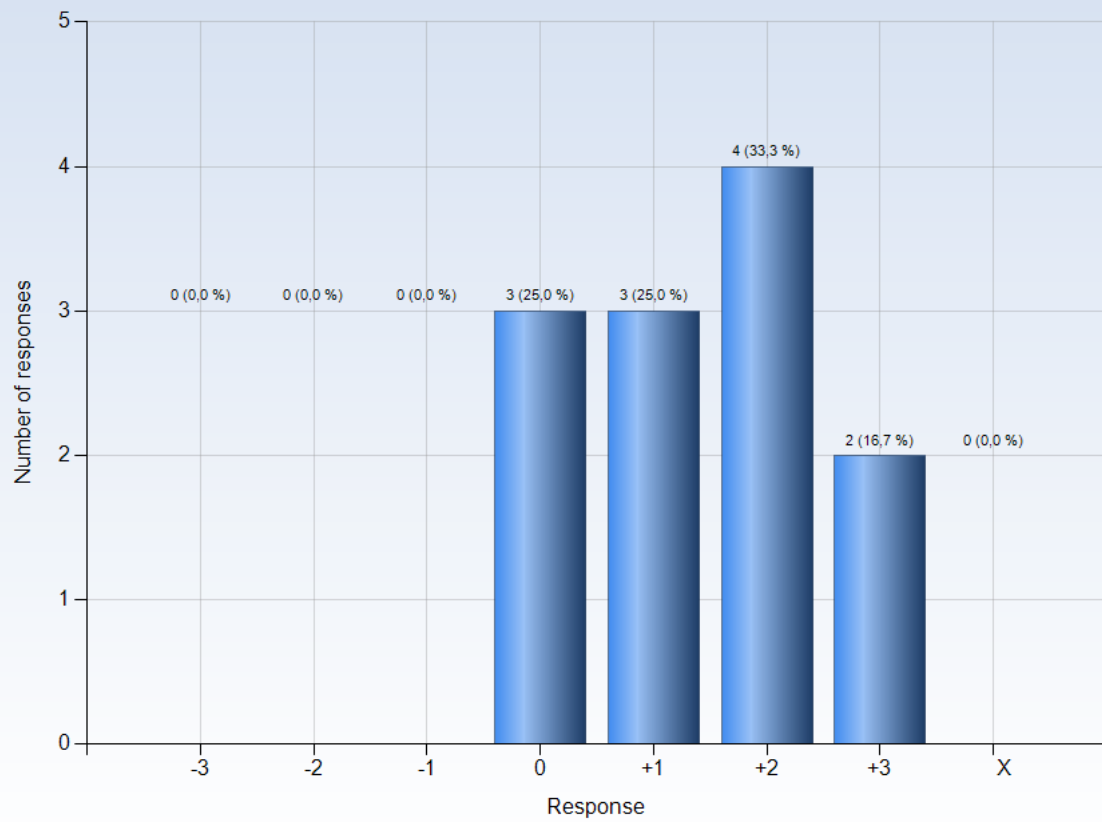
Comments (My response was: +1)

My math skills were lacking but programming was at an acceptable level
 mostly yes, but the last lab (lab 4) did not build on my previous knowledge

Comments (My response was: +3)

Lab4 var lite märklig att arbeta med, men med lite guidance från

18. I regularly spent time to reflect on what I learned

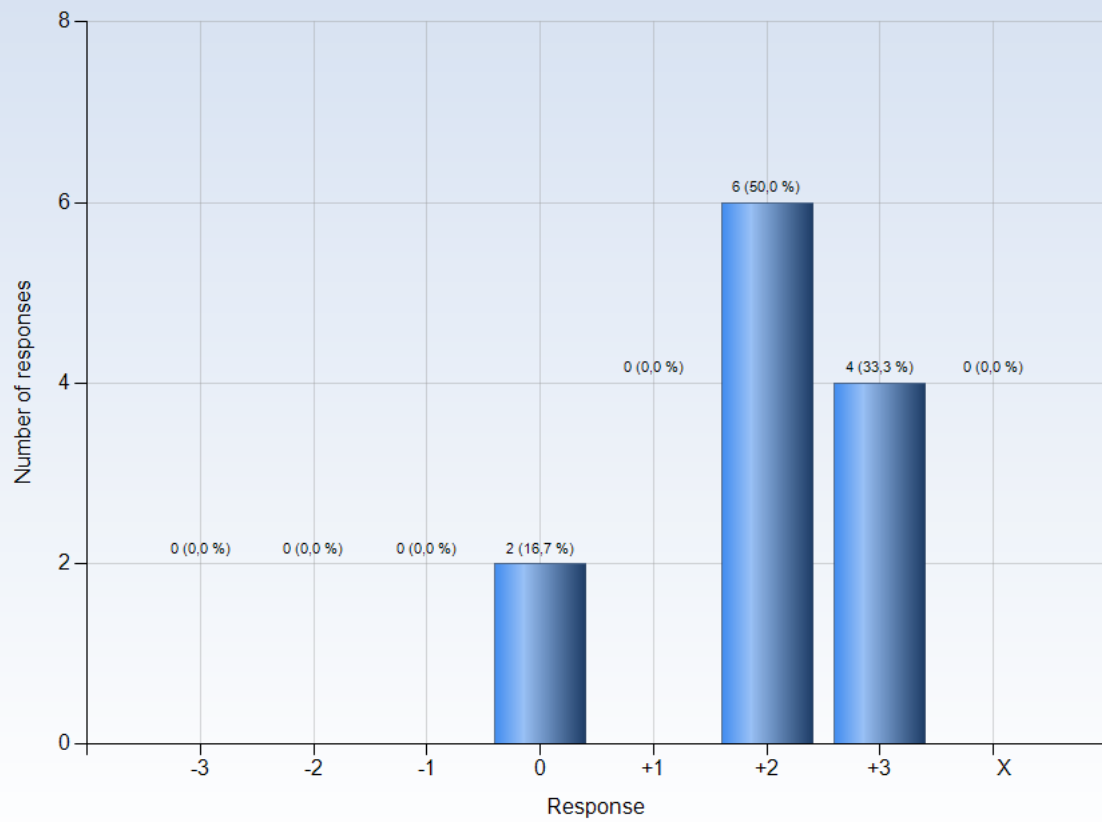


Comments

Comments (My response was: 0)

I don't often do this in any course

19. I was able to learn in a way that suited me

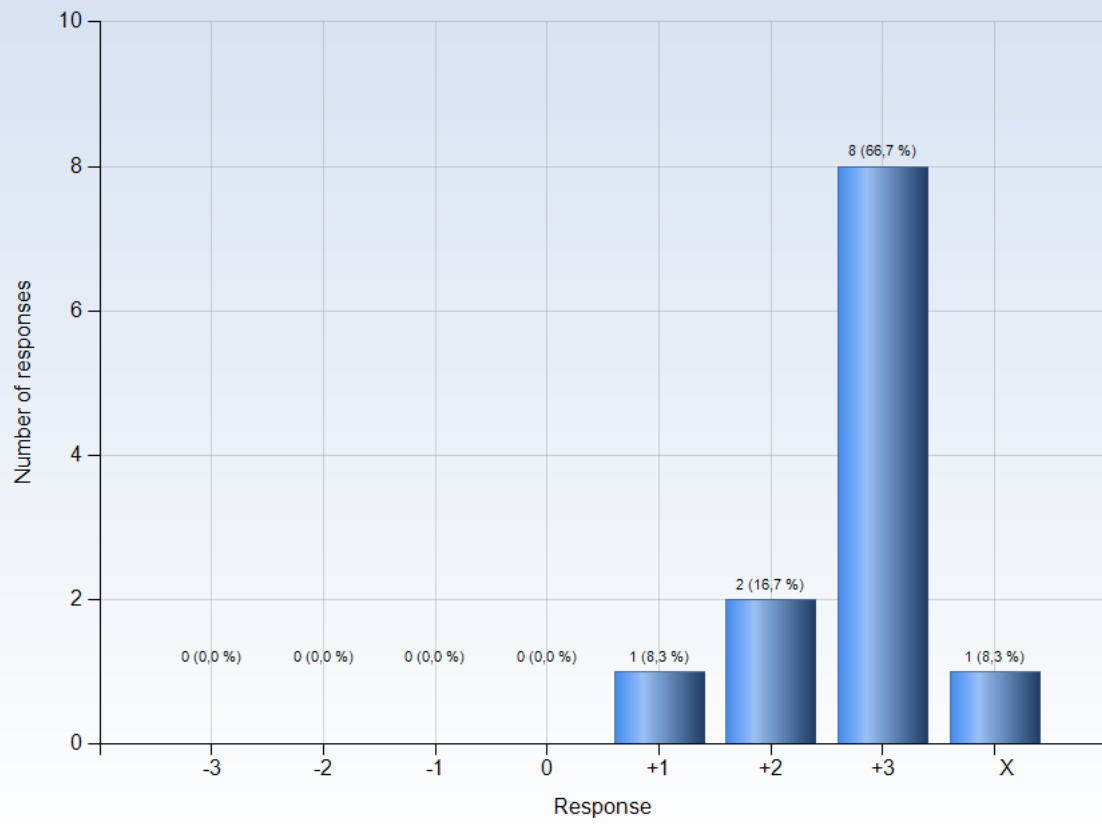


Comments

Comments (My response was: +3)

Receive help if you need it but won't forcefully drag you by the hand - suits me perfectly

20. I had opportunities to choose what to do

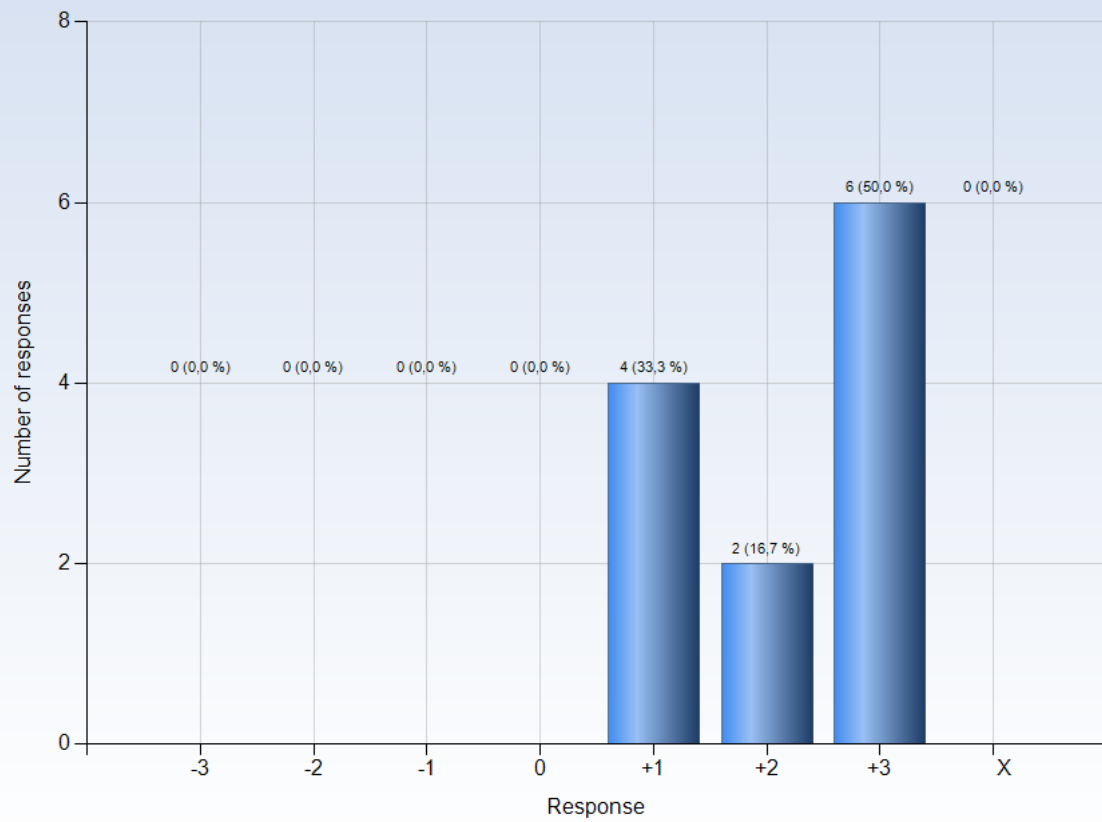


Comments

Comments (My response was: +3)

The project was very open and labs had voluntary extra exercises

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

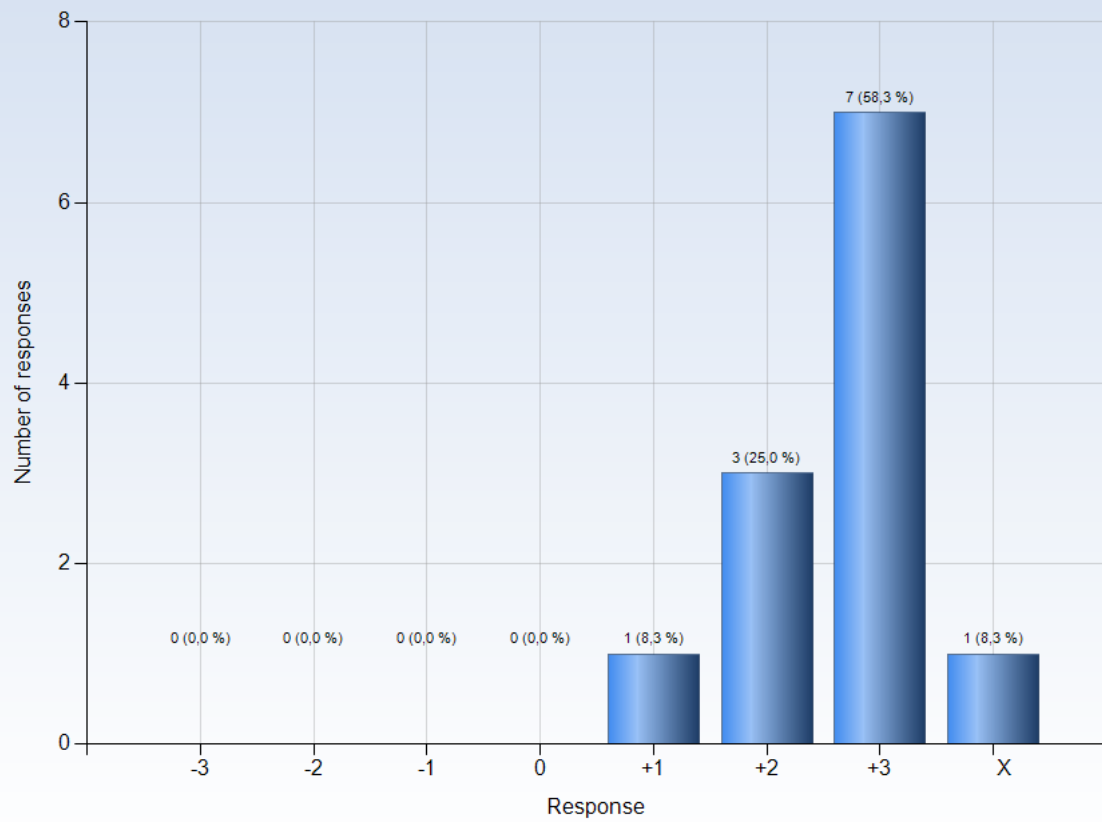


Comments

Comments (My response was: +3)

I discussed assignments mostly with my partner but also other groups and TAs

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



Comments

Comments (My response was: +3)

Really good on this point