Report - DD2425 - 2018-03-24

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):

Patric Jensfelt, patrik@kth.se

COURSE DESIGN

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

The course runs over two periods with the first period providing an overview of the field of robotics and the second being entirely focus on a project. The project starts about halfway into the first period. The students are divided into groups of 4 and all groups are given the same project. The projects are modified slightly from year to year but the overall theme is kept relatively similar. As this has been the only course at KTH in robotics until now it has been important to ensure that the projects exposes the students to a broad range of problems within the field. In the beginning of the course the students work on an individual lab which is designed to make them learn the Robot Operating Systems (ROS) which is the middle ware used in almost all robotics research today. The students also complete a set of quizzes to the assess the prior knowledge in areas such as control and computer vision. The project groups are then formed by the teacher to ensure that all groups have knowledge in all areas, practical systems and programming skills and as far as possible that they do not know each other from before. The task is made so difficult that it cannot be solved to perfection and thus an important part of the work in the project is to decide where to invest time and where not. The project ends with a contest between the groups. The contest serves many purposes. First, it shows how difficult it is to get a system as complex as the robots that they built to work at a given date and time. Second, it allows the team to compare the different solutions, usually with the take home message that well tested and robust does better than further developed but not tested. Finally, it gives a nice finish to the work that the groups have put in with lunch and coffee together for the better part of a day.

The main difference from last year was
* The most positive change from last year was that there was now more than 25% women in the course. Fantastic!
* Instead of schedule (almost) weekly meetings between teacher, TA and project group we met only twice in this formal setting. Instead TA met with groups when needed. The rationale behind having the frequent meetings last year was to be able to get a good insight into the work in the groups long the way to be able to give a fair assessment. At the end of the course last year we still did not feel that we were able to to that. This year we therefore let each group submit a progress report where each student had to report on the contribution. This worked very well.
* We down played the importance of the arm compared to last year
* We gave the rules for the contest from the start this time, only leaving out the exact values in the metrics used to score a run. The idea was to better align the work in the project with the contest. There had been cases previous years when some work was not rewarded so much in the contest as expected. Although this does not affect the grades in the course it led to some frustration. The exact rules was only reveled a day or so before so that the work would not be about optimising the score but to solve the task. We have been able to align these two better now.

THE STUDENT'S 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?

Many students work as much as expected or more. Exactly how much is very hard to tell. Some of the students I and fellow students perceive as the hardest working in the course reported that they spent less than this at the end while others claimed to have spent much more. There are several reasons for spending much time in the course. Many students find the course to be very interesting. Some say that they have waited for years to take it and want to spend as much time as possible on this when given a chance. The problem given to them is open ended. Independently of how much they spend, they would never be able to solve the task perfectly, this is something they only rarely or never encountered before in a course but it will be the case in any project after KTH.

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?

Overall I am quite impressed with what the students are able to achieve. It gives me hope in a way. They are able to solve problems, some much better than others but given a group of 4 they all solve a very challenging problem.

OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT
What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?

What I have seen from other courses the LEQ statements suggest that the course works well.

There are differences between what men and women report
* 5: Women 4.9 vs Men 6.2 Sad and probably a reason why less women are at KTH, they feel less togetherness with the others in the course, most groups had 1 women and 3 men
* 13: Women 6.9 vs Men 5.9 Women perceives the grading criteria as super clear
* 17: Women 4.9 vs Men 5.9 Women perceived their background as less sufficient to follow the course. This was not true so this is something to work on

ANALYSIS OF THE LEARNING ENVIRONMENT
Can you identify some stronger or weaker areas of the learning environment in the polar diagram - or in the response to each statement - respectively? Do they have an explanation?

The lowest LEQ statement 5.4/7 is the one about being able to choose what to do. I do not believe that this reflects that they could not chose what project to do, but rather that the complexity of the problem required most students to do what they already knew rather than to explore all the parts that they had not worked with before. In the best working groups this was possible but it requires very good communication to get this to work. The second lowest LEQ statement was 5.5/7 which is the question about having enough background. This is not surprising. More or less every student realises that there is a significant difference between knowing (or thinking that you know) the theory and then being able to implement something. Even seemingly simple things become hard when the real world shows its ugly face.

15 / 22 of the statements got 6.0 or higher which I perceive as very good. I am particularly happy they got explore the subject on their own (6.5 on 2) and to try out their own ideas (6.6 on 3) and that the course was challenging in a stimulating way (6.5 on 4). Although being a tough project, the atmosphere of the course was open and inclusive (6.4 on 6). An although there are some complaints about the grading the assessment on the course was perceived as fair and honest (6.4 on 16) and finally help (6.3 on 22) and collaboration and discussions (6.3 on 21) was assessed as working well.

ANSWERS TO OPEN QUESTIONS
What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?

The course is demanding. I spend the better part of the first lecture to push this very hard and as many students say, it is only when you have taken the course that you fully understand what that means. It will be in your head al the time and until the end there will be many unsolved problems that will circulate in your mind.

The lab space deserves is small and not so nice. I can see why people think that it should be possible to find something better. I wish I could provide something better.

PRIORITY COURSE DEVELOPMENT

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

The course will be given one last time in this form next year.

We will work for even more transparent grading. We are aware of the dilemma of working for the group and also being able show your own skills. In the new course we will use P/F instead. This will mean having to use other ways to encourage people to also show their own method skills.

We will try to use flipped classroom teaching next year. I say try because it is a lot of effort for a course that will be killed immediately after. What has stopped me before is mostly that it will require more time from the students and they already spend very much time in the project so I have always wanted to keep the work load low around the lectures.

Course data 2018-03-26

DD2425 - Robotics and Autonomous Systems, HT 2017 Robots 17

Course facts

Course start:	2017 w.35
Course end:	2018 w.3
Credits:	9,0
Examination:	LAB1 - Laboratory Works, 0.5, Grading scale: P, F PRO1 - Project, 5.5, Grading scale: P, F TEN1 - Exam, 3.0, Grading scale: P, F
Grading scale:	A, B, C, D, E, FX, F

Staff

Examiner:	Patric Jensfelt <patric@kth.se>
Course responsible teacher:	Patric Jensfelt <patric@kth.se>
Teachers:	Patric Jensfelt <patric@kth.se>
Assistants:	Isac Arnekvist <isacar@kth.se> Diogo Rodrigues Marcal De Almeida <diogoa@kth.se>

Number of students on the course offering

First-time registered:	37
Total number of registered:	39

Achievements (only first-time registered students)

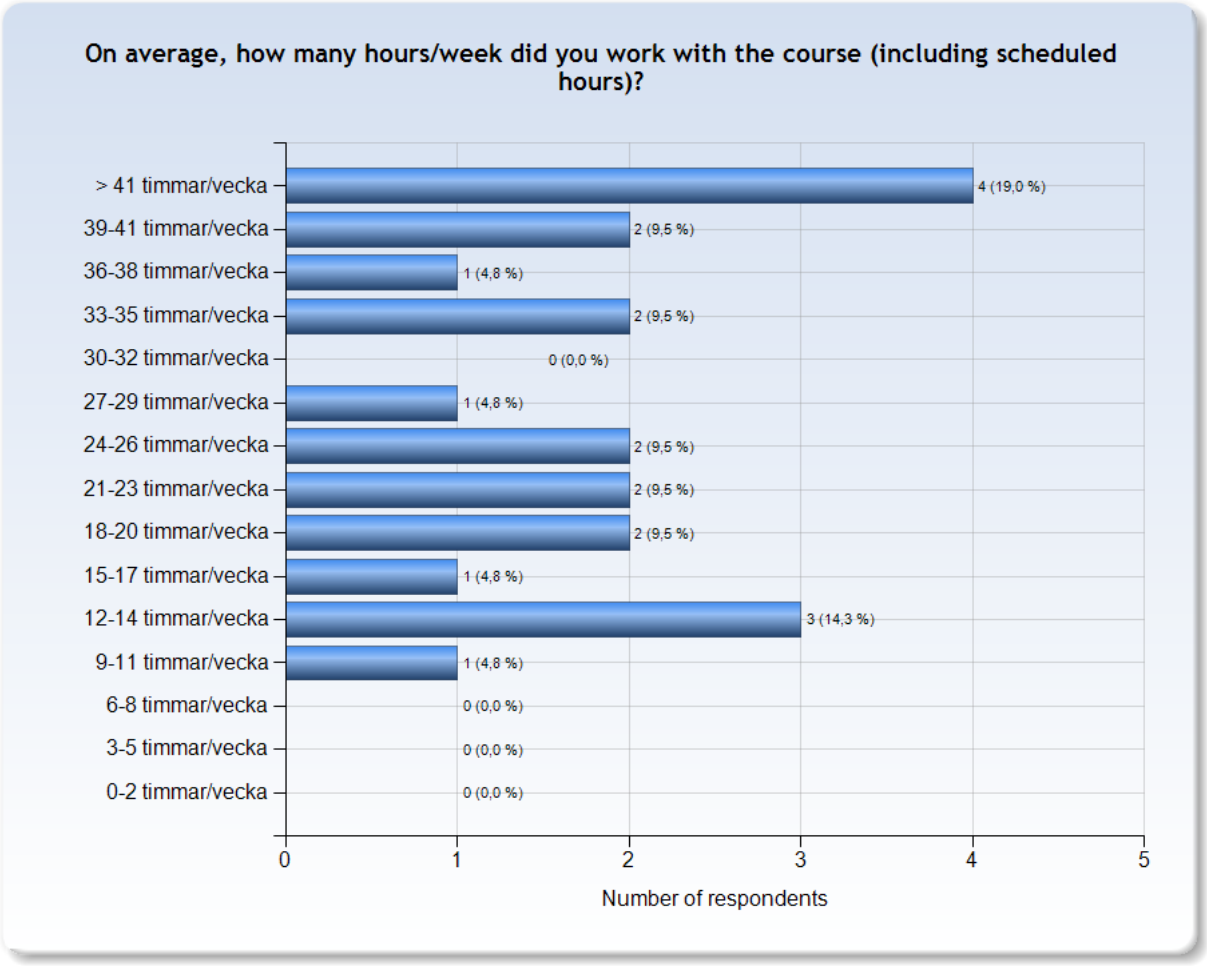
Pass rate[1] [%]	91.90%
Performance rate[2] [%]	100.30%
Grade distribution[3] [%, number]	A 32% (11) B 44% (15) C 21% (7) D 6% (2) E 3% (1)

1 Percentage approved students
2 Percentage achieved credits
3 Distribution of grades among the approved students

DD2425 - 2017-12-19

Antal respondenter: 39
Antal svar: 21
Svarsfrekvens: 53,85 %

ESTIMATED WORKLOAD



Comments

Comments (I worked: 15-17 timmar/vecka)
A bit less in period one, a lot more in the end of period 2.

Comments (I worked: 24-26 timmar/vecka)
Especially in the end, before the competition a lot more hours are needed! But in general this course takes so many hours no other course takes. The milestones are pretty close to each other so the whole group has to work a lot constantly.

Comments (I worked: 33-35 timmar/vecka)
The lectures did not take much of the total time. Time is mainly used on coding, debugging and practical test. If one can schedule their time very well and start early then the work load is fine. But the usual case is people leave the work to pile up too much so before deadline it would be unbearable.
Significantly more than 40 hours in the last weeks

Comments (I worked: 39-41 timmar/vecka)
The number of hours required to complete this course is way too much for the number of credits awarded

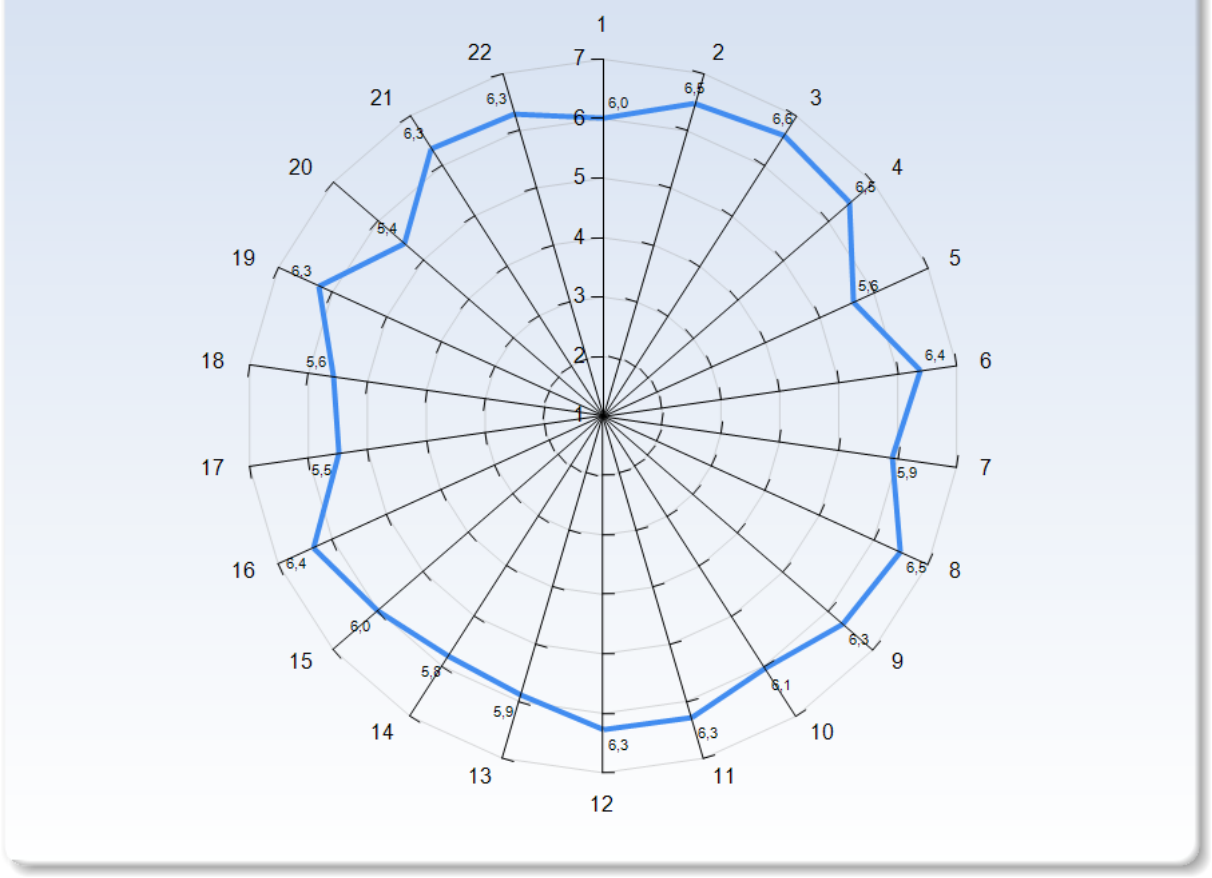
Comments (I worked: > 41 timmar/vecka)
it required for a 9 point course.
a big variance, though

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
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5,4
6,3

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

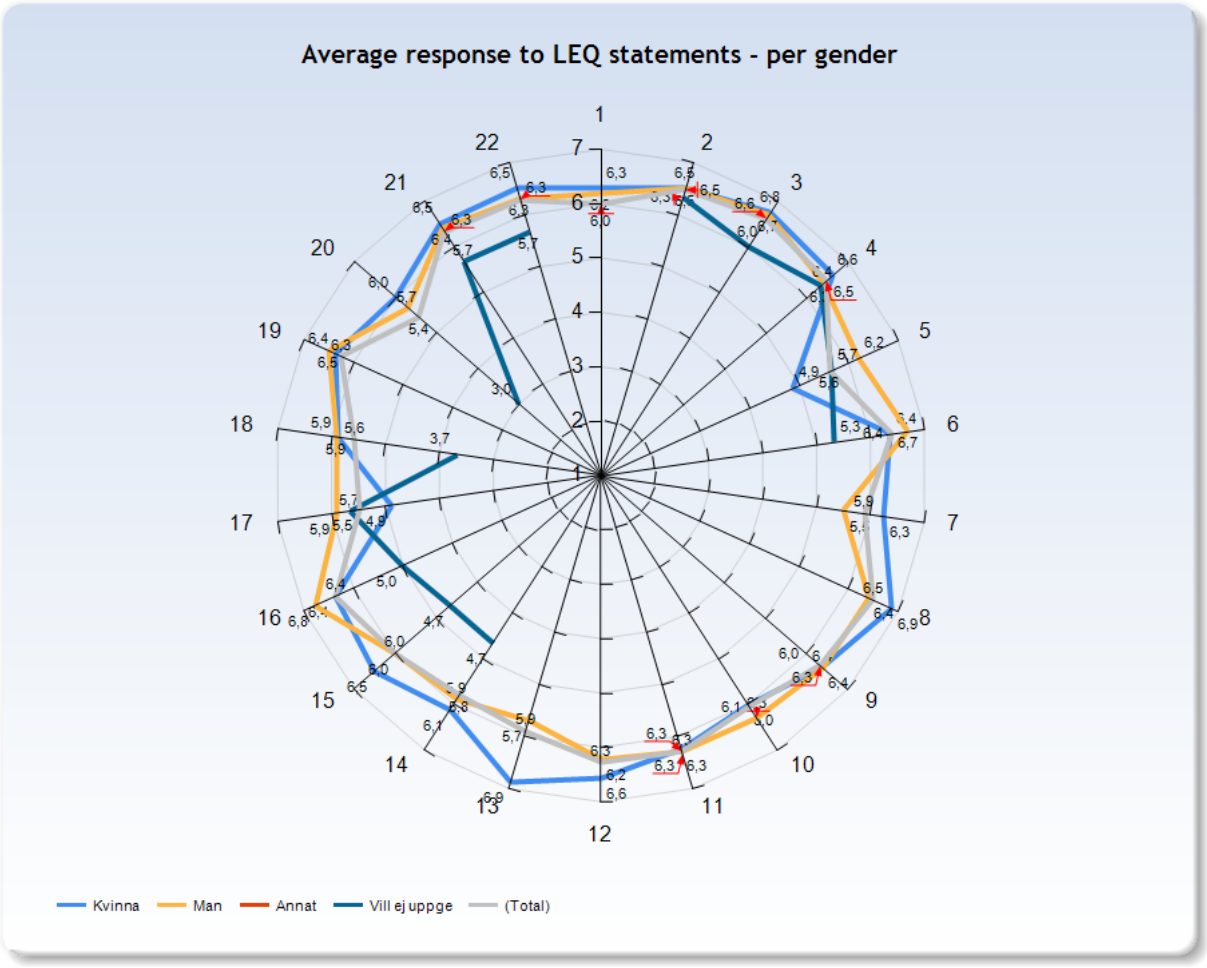
Bain, K. (2004). *What the Best College Teachers Do*, Chapter 5, pp. 98-134. Cambridge: Harvard University Press.

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.

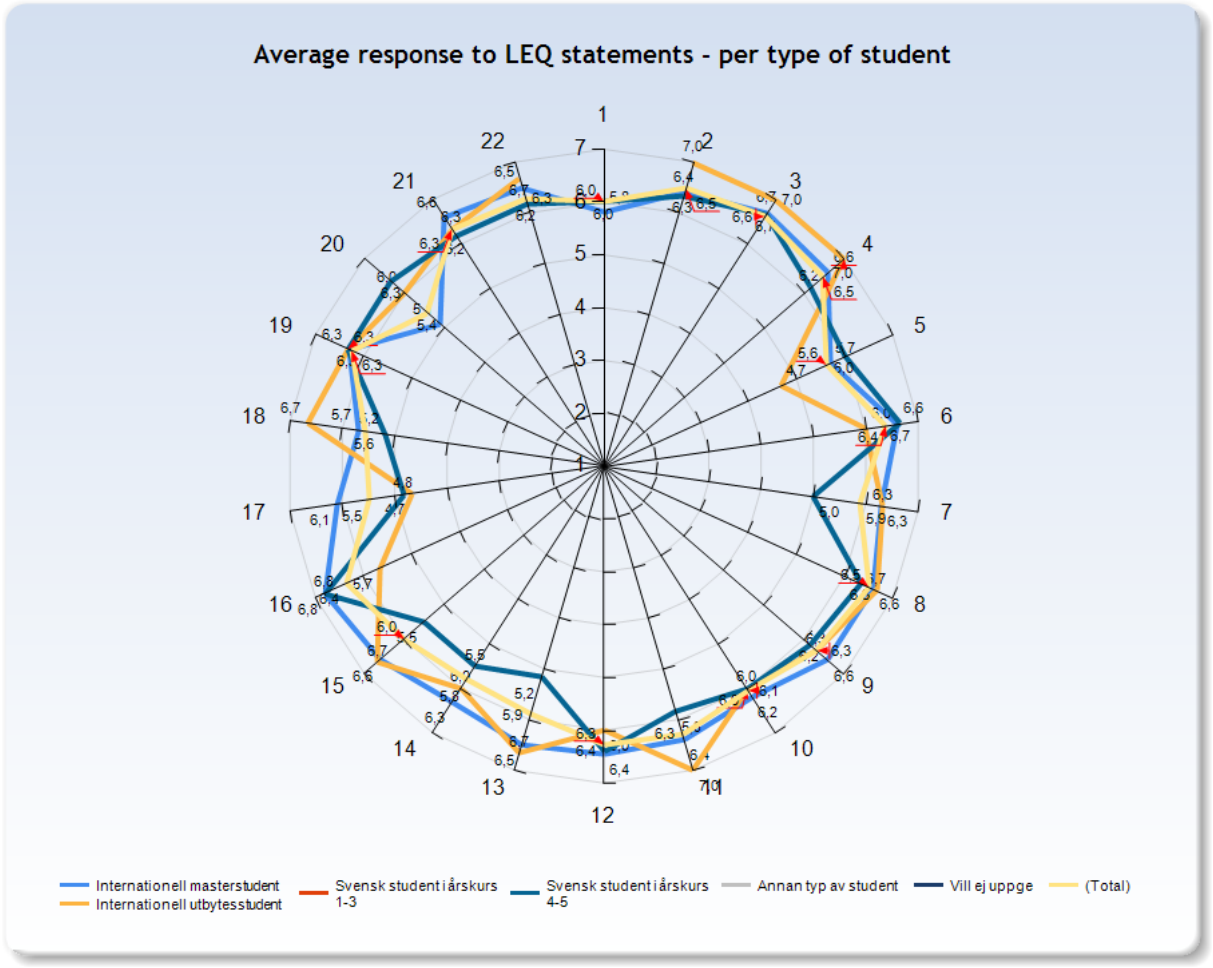
Kember, K. & McNaught, C. (2007). *Enhancing University Teaching: Lessons from Research into Award-Winning Teachers*, Chapter 5, pp. 31-40. Abingdon: Routledge.

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



Comments

Comments (I am: Man)
student from SCR



Comments

Comments (I am: Svensk student i årskurs 4-5)
From the computer science master and the datateknik civing.

GENERAL QUESTIONS

What was the best aspect of the course?

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

What was the best aspect of the course? (I worked: 12-14 timmar/vecka)
independent work and possibility to choose methods.
Getting some insight into an area which I was unfamiliar with earlier but still borders to computer science which is an area that I know a lot about.

What was the best aspect of the course? (I worked: 15-17 timmar/vecka)
The project was of course the best part, but the lectures were very interesting as well.

What was the best aspect of the course? (I worked: 18-20 timmar/vecka)
Building a robot. Testing the robot in the maze which was super fun and motivating.

What was the best aspect of the course? (I worked: 24-26 timmar/vecka)
A task is given and the group can decide completely on its own how to solve it. That teaches not just technical components but also project planning and time management. The atmosphere was very nice and open. Everyone helped each other when needed. The support from the TAs was quick and helpful. This was the first time I had to solve such a complicated task from scratch. In theory everything sounds so simple, but if it comes to implementation and integration I saw that it is for sure not simple!!
I liked the project and how we could learn by doing. I also liked that it was impossible to complete the project without collaboration, which was also very educational.

What was the best aspect of the course? (I worked: 27-29 timmar/vecka)
When the course ended and also having built an autonomous system.

What was the best aspect of the course? (I worked: 33-35 timmar/vecka)
1. It requires us to do a lot of practical work and thinking so we implemented things we learnt in lectures. 2. The task is well designed so different students used various approaches but achieved similarly effective results. 3. The hardware resources are ample so that we can explore for more possible approaches, especially for detection part. 4. TAs were always encouraging and helping students so most of us still held on to the course despite difficulties.
That we got the knowledge about how to tackle many different robotics problems in different ways

What was the best aspect of the course? (I worked: 36-38 timmar/vecka)
Building a robot is really interesting.

What was the best aspect of the course? (I worked: 39-41 timmar/vecka)
It aimed at learning the concepts taught by working on the project. A lot of care was taken to design the course and guide the students through. It was an excellent effort by the teacher and the teaching assistants.
The project itself is very interesting and stimulating

What was the best aspect of the course? (I worked: > 41 timmar/vecka)
before the course, I have knowledge from "paper", now a lot of knowledge has been applied in practice. It is like my first biggest project ever for me to learn a lot of building an autonomous robot. very thank you for providing this course, so i get oppotunities to experience in my life.
You have to actually test and Implement your work in a system. The process of: Theory -> Implement -> Test -> Debug in a not too "pre-defined task and known issues" setup were a valuable lesson for a Engineer.
Working on interesting questions
Content Team work Challenge Dedicated teachers

What would you suggest to improve?

What would you suggest to improve? (I worked: 9-11 timmar/vecka)
Emphasize the importance to finish milestones on time

What would you suggest to improve? (I worked: 12-14 timmar/vecka)
The course should have more credits
More time for the project. Maybe more support.
I would love to be able to further work with the robot after the competition. I don't know how this could be achieved but maybe by some sort of midterm competition as well. I think people get motivated a lot by what they see on the day of the competition and it would be great to have that kind of motivation prior to the final competition. I also want to SERIOUSLY address the issue with the robotics lab. I say SHAME on KTH for not being able to come up with a better room than that. I would actually say that it was a bottleneck in learning since there were times when it was just awful to sit in that smelly, warm environment which offered no concentration whatsoever. It MUST be possible for KTH to come up with a larger room OR at least improve air cirkulation in the current room. I also want to address that I think that we should have better equipment. I understand that it costs a lot of money and it's good to learn how to deal with shitty sensors but onöy to a limited extent. I think some cool things would have been easier to try out and actually learn if sensors were better; for example, I tried the 3D camera on an iPhone 8+ the other day and it was AMAZING. Working with such a sensor would have allowed us to focus more on constructing robust computer vision as opposed to spending more than half of the time trying to get something useful out of a sensor that is both unrealiable and imprecise.

What would you suggest to improve? (I worked: 15-17 timmar/vecka)
I think that it would have been good to have more scheduled meetings with the TA's during the project. Even if we could book meetings it was a bit difficult to initiate it since we were 5 people and it was hard finding a time where everyone could attend. If we had had slots choosen for us then at least the one who could would have attended and we could have worked out some issues.

What would you suggest to improve? (I worked: 18-20 timmar/vecka)
Suggest groups discuss the last few weeks of the project at the start so that there are no surprises. If group members agree to prioritize the course the last few days or weeks before the competition, more people might feel obligated to show up at the end, or maybe not.

What would you suggest to improve? (I worked: 24-26 timmar/vecka)
Since a lot of groups couldn't solve given tasks, I would make the tasks a little bit easier. For example get rid of the boobytraps. Maybe all the groups can then focus on every task and don't leave some behind. Renew the hardware, especially the motor controller and the arm. And also get some better tools for building the robot.
Perhaps using newer hardware for the course (camera, arm) would be good, because these were not very efficient and it would be good to update the hardware anyway, so students have new challenges even if they read the previous years' reports.

What would you suggest to improve? (I worked: 27-29 timmar/vecka)
- Consider changing the course to pass/fail. I think that way group members will be more willing to help each other. - Make clear when the ILOs are met as the course progresses instead of waiting till the end of the course to let the students know. I think this is part of the TAs.

What would you suggest to improve? (I worked: 33-35 timmar/vecka)
1. The way students are distributed in groups. Many groups met issues that some member would do something they had no idea of. 2. A summary of annoying hardware or basic software bugs is needed for starting phase. Some groups still had very trivial but basic bug unsolved after milestone 3, like encoder problem or robot designing issues. 3. Investigation on milestone work could be more strict since during this time many students were not aware that their part hardly worked. 4. Milestone 3 and 4 is a too big jump from milestone 2. M1 and M2 should be more demanding, there can be one more milestone between M2 and M3.
To put more emphasis on programming skills when admitting students

What would you suggest to improve? (I worked: > 41 timmar/vecka)
i join the course with not much previous knowledge for this course. It is a bit unfair when those who get other course can do good grade. but I don't. So why do you judge individual without normalize with their previous knowledge. I know teacher should have the right to check what courses students have been taken. So why don't you check that when you put people so randomly into group. How lonely I feel when I have no one to ask when I face a problem. Not even TAs knows.
Increase the Points of the course, Decrease the size of the group. We had 5 people, making about 2,3 people having to tackle very fuzzy problems because other group members took the well defined problems (first come first served).
Pass/fail grading More time for project More relaxed milestone objectives

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)
Integrate early by finishing milestones on time

What advice would you like to give to future participants? (I worked: 12-14 timmar/vecka)
Always keep in mind the big picture of the task.
People said it before me and people will say it after me but spend time on system integration. Try to make a habit out of testing simple features across the entire system instead of perfecting individual systems before integration. Also, a lot of the things are easier than they seem but the documentation on the webpages are a bit messy but a lot of information can be found there. Also, if you haven't taken mechanics courses, you may have a hard time understanding some of the kinematics stuff...

What advice would you like to give to future participants? (I worked: 15-17 timmar/vecka)
Be prepared to spend a lot of time in period 2.

What advice would you like to give to future participants? (I worked: 18-20 timmar/vecka)
Early on, decide on group rules (even things which may seem obvious) and discuss how you can make sure people show up and finish the robot the last few weeks. Agree to prioritize the course, at least during the last few weeks.

What advice would you like to give to future participants? (I worked: 24-26 timmar/vecka)
Take this course only if you are VERY sure that you have enough time for it! On the slide it says you have to spend 100+ hours but its more like 200+ hours. So to be fair to the group make sure you have enough time for this course. If not it is very hard for the group to solve the tasks in the given time.
Don't expect perfect functionality, learn to deal with the imperfections instead and start integration early. Have at least two weeks for putting the different software components together and testing them.

What advice would you like to give to future participants? (I worked: 27-29 timmar/vecka)
- Focus on only one part of the system and the integration of that part in the final system. Before the grade talks understand what your group members did. - The course affects your other courses too much since it takes a lot of time and you will probably not get along with your group members somewhere in the middle or towards the end of the project. - Make sure the weekly and summary reports reflect well on what and how much each person has contributed. Some people are just too good at overselling their contribution.

What advice would you like to give to future participants? (I worked: 33-35 timmar/vecka)
1. If some problem can be solved by hardware improvement, just do it. Like making robot smaller or move the lidar to the center of robot. 2. Solve arm issues before Milestone 2 since you will not probably have time to deal with it later with harder stuff to solve. 3. Think bigger and differently, though we have very certain requirements but you can still have fun by trying some fun ideas.
Work hard from the beginning. It is possible to meet all milestones.

What advice would you like to give to future participants? (I worked: 36-38 timmar/vecka)
The student really should not take another course during RAS course.

What advice would you like to give to future participants? (I worked: 39-41 timmar/vecka)
The project is challenging and full of opportunities to learn. So, make sure the team enables you through this process. If not, do something immediately about it - either fix the team or talk to the teacher. Important thing that I learnt was, if there is a competition within the team, it does not create a healthy atmosphere to learn together or even work for the project.
Make sure you have the required prior knowledge to follow and contribute to the project

What advice would you like to give to future participants? (I worked: > 41 timmar/vecka)
Don't take the course just because people say so. Take it if you think that you have a good grade on what you are going to do. Of course it is hard to know from the beginning. So if not sure, please don't take it! It will not be a fair course, if you know very little of robotics.
Be assertive (ref: Stereotypical American), don't aim too much on the group performance but rather compete against your group members for important implementation tasks. Our group did good, but the mentality of "Since I've already done the (major) components in other courses, other members can take those parts if they haven't done it before and want to increase the learning outcome from the course (increasing the overall learning outcome for the group)" Backfired in the grading for few group members. Even with good documentation of each members integration/component contribution, The size of the group (5 people) inevitably made the scope of some component responsibility "too minor part for the entire system", and even with extensive implementation, contribution, and testing of other components, this resulted in a lowering of grade. Tip: FIGHT for the important parts, if you want a good grade. Don't be a pushover when it come to dividing the tasks. In the end, the course is not a competition with other groups but with your group members. That's the message the grading will reflect. If you end up in a small group, this will of course not be a problem, and then the problem is that you won't be able to test your implementation in time.
Start early and organize the team
- do not take another project course at the same time - lots to do in p1 and p2

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 15-17 timmar/vecka)
This course was very interesting, but a lot of work, it really should be atleast 12 hp.

Is there anything else you would like to add? (I worked: 18-20 timmar/vecka)
No.

Is there anything else you would like to add? (I worked: 24-26 timmar/vecka)
This course was the most interesting course during my whole studies! I learned about robotics and its problems, about group work and time management. Even if this course takes a lot of time I would always retake it. I think the possibility to learn about robotics in such a playful way is awesome!
The weekly reports and occasional meetings were good, they pressed us to work harder.

Is there anything else you would like to add? (I worked: 27-29 timmar/vecka)
When making groups take into account the number of credits each member is taking in p2. Those taking 2 extra courses shouldn't be in the same group as those taking only 1 course.

Is there anything else you would like to add? (I worked: 33-35 timmar/vecka)
Very good course

Is there anything else you would like to add? (I worked: 39-41 timmar/vecka)
The team that I was in, was not conducive to my learning process but rather added a lot of stress. Wish there was some way of ensuring that team members worked together. I wish I had been in a better team.

Is there anything else you would like to add? (I worked: > 41 timmar/vecka)
I don't know why there is grade on people, instead of pass or fail. If it will not be fair for a people who has little or even no previous knowledge.
In the current format I can't recommend the course to future students, since it takes A LOT of time (granted, they mentioned it on the first lecture, and all previous years students too) with relatively small amount of points, small amount of satisfaction in the end, and learning outcome for the size of the course might vary too much (depending on the group size and group chemistry). Unless of course, you're 100% certain that THIS will be EXACTLY what you want to do in the future, and what you want to spend your time for an Entire semester.

SPECIFIC QUESTIONS

Ge Isac feedback som assistenter i kursen

Ge Isac feedback som assistenter i kursen
Isac is very helpful.
Isac was the TA for my group and I appreciate that a lot. The feedback he gave us was honest and helpful every time. The response to questions was as quick and precise as possible. When we needed help or hardware for the robot we got it mostly the next day. He also motivated us when we were stuck and gave us hints in what direction we could look when we were stuck. In total Isac did an awesome job for our group!
Helpful and good feedback
Great.
Haven't work with him.
Helpful, motivating, interested.
Very good experience both in terms of QUALITY on the guidance as well as the AVAILABILITY since TA's were often present in lab and answered mails / posts swiftly.
When we had questions, Isac always helped. He was also very helpful during the milestone evaluations.
Isac was great, always helpful.
1. Maybe check more on the work of each part during milestone, every one needs to know how far they are from the requirements.
Isac was helpful and supportive
+ dedicated + motivated

Ge Diogo feedback som assistenter i kursen

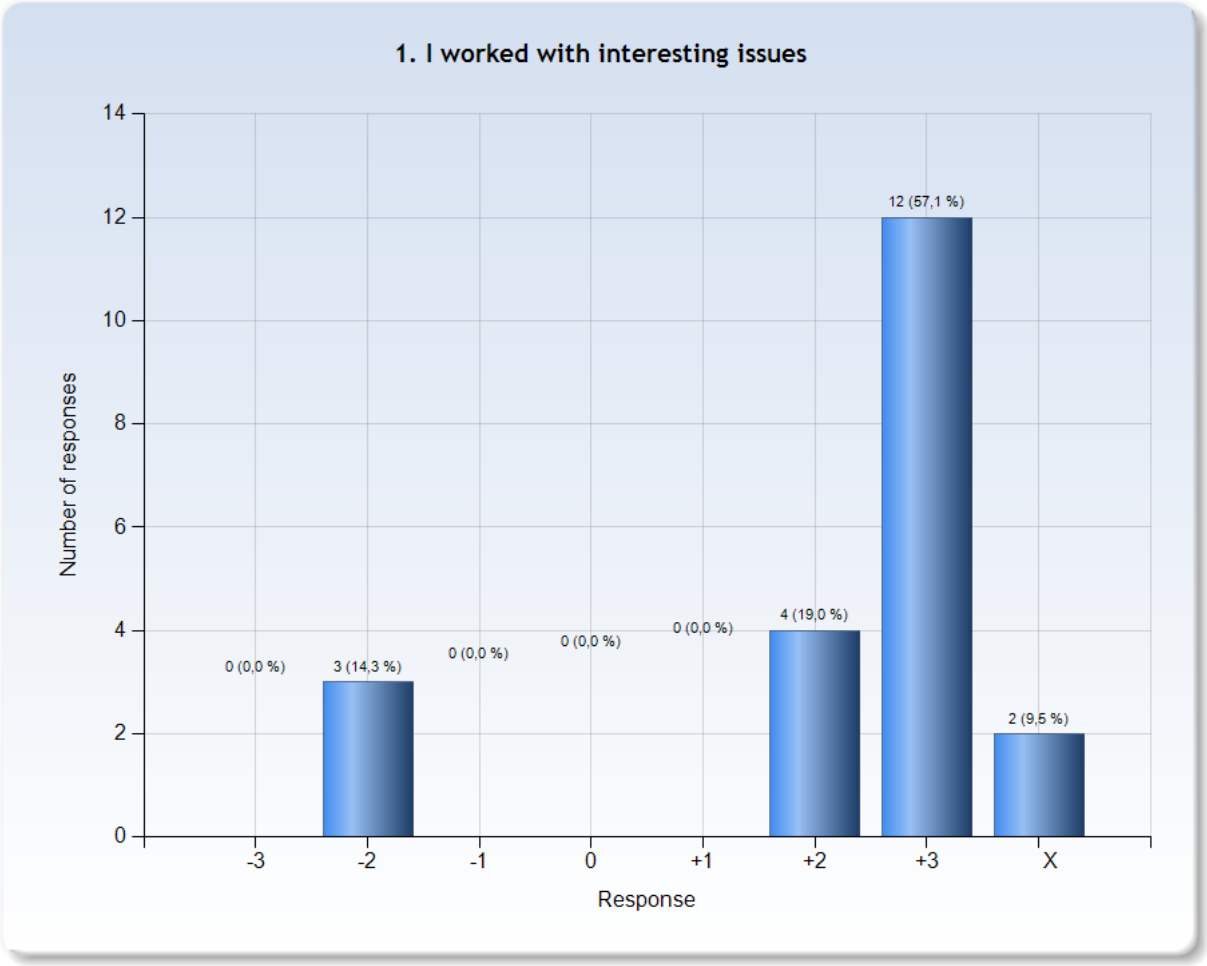
Ge Diogo feedback som assistenter i kursen
It was a great effort from your side.
Diogo is very careful person.
Diogo was not the TA for our group, but he was open and welcoming for everyone. Even if it seemed he had no time he sat down with the groups and helped them. In the discussion forum he answered quickly and the answers were helpful and precise. He did an very good job for the whole course!
Same
Great. Maybe use more "vague" words when answering some implementation questions by students. There seems to have been a lot of misunderstandings by student. "Diogo told us this is how one implement component X, therefore, we should focus ALL our attention to THIS particular method, and IGNORE all other available methods" (that he actually just mentioned as a suggestion!).
I think he was very friendly and helpful
Helpful and interested.
Very good experience both in terms of QUALITY on the guidance as well as the AVAILABILITY since TA's were often present in lab and answered mails / posts swiftly.
Diogo answered our questions quickly, for example we got fast feedback when we posted a question to KTH Canvas. I am personally very thankful for him, he was already very helpful during the first assignment (Lab 1, that was individual).
Initially I though Diogo looked a bit irritated all the time but as the curse went on I realized that we was very kind and helpful.
Diogo helped us a lot even though we were Isac's group
Great TA; lots of help
+ dedicated + motivated

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



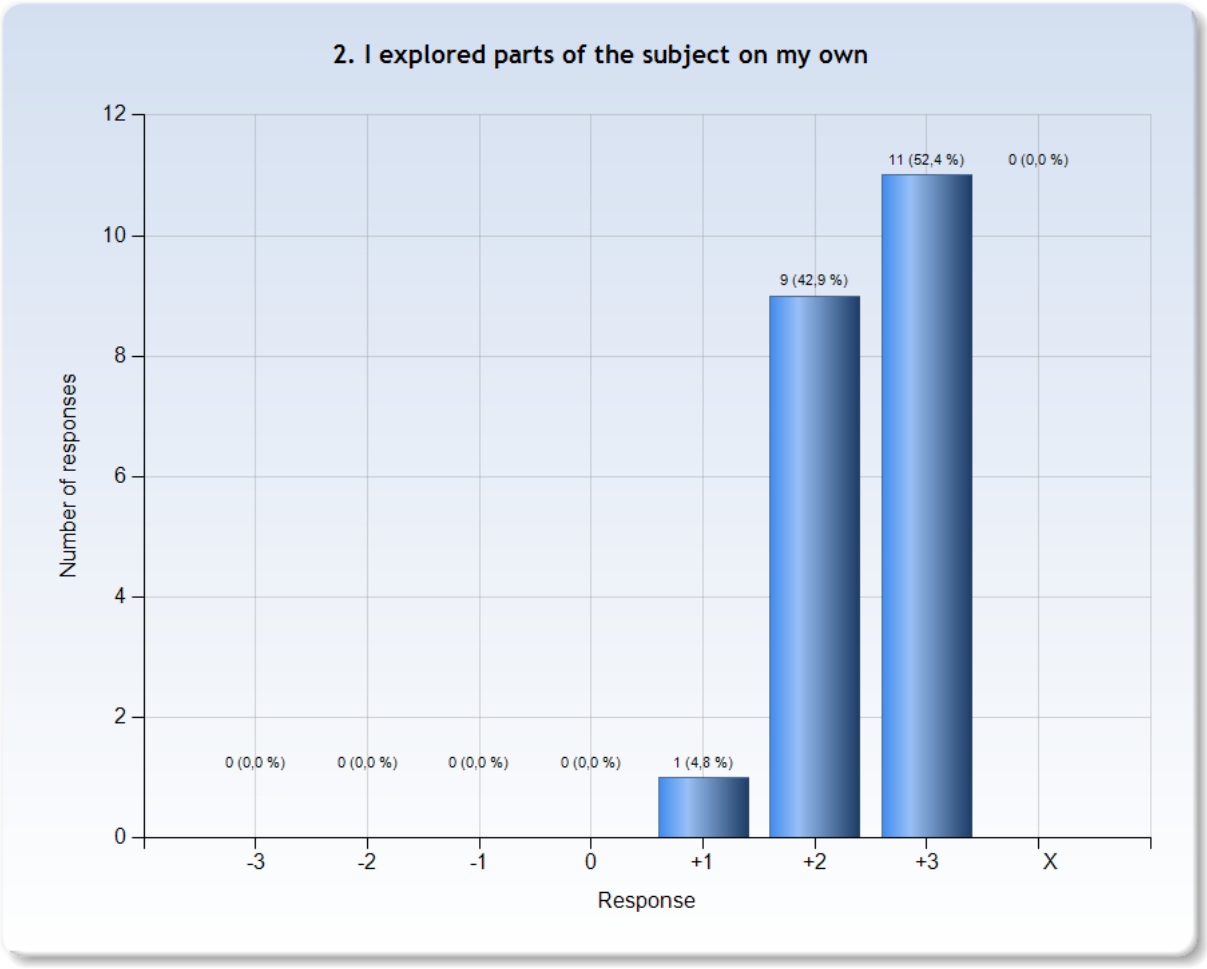
Comments

Comments (My response was: +2)

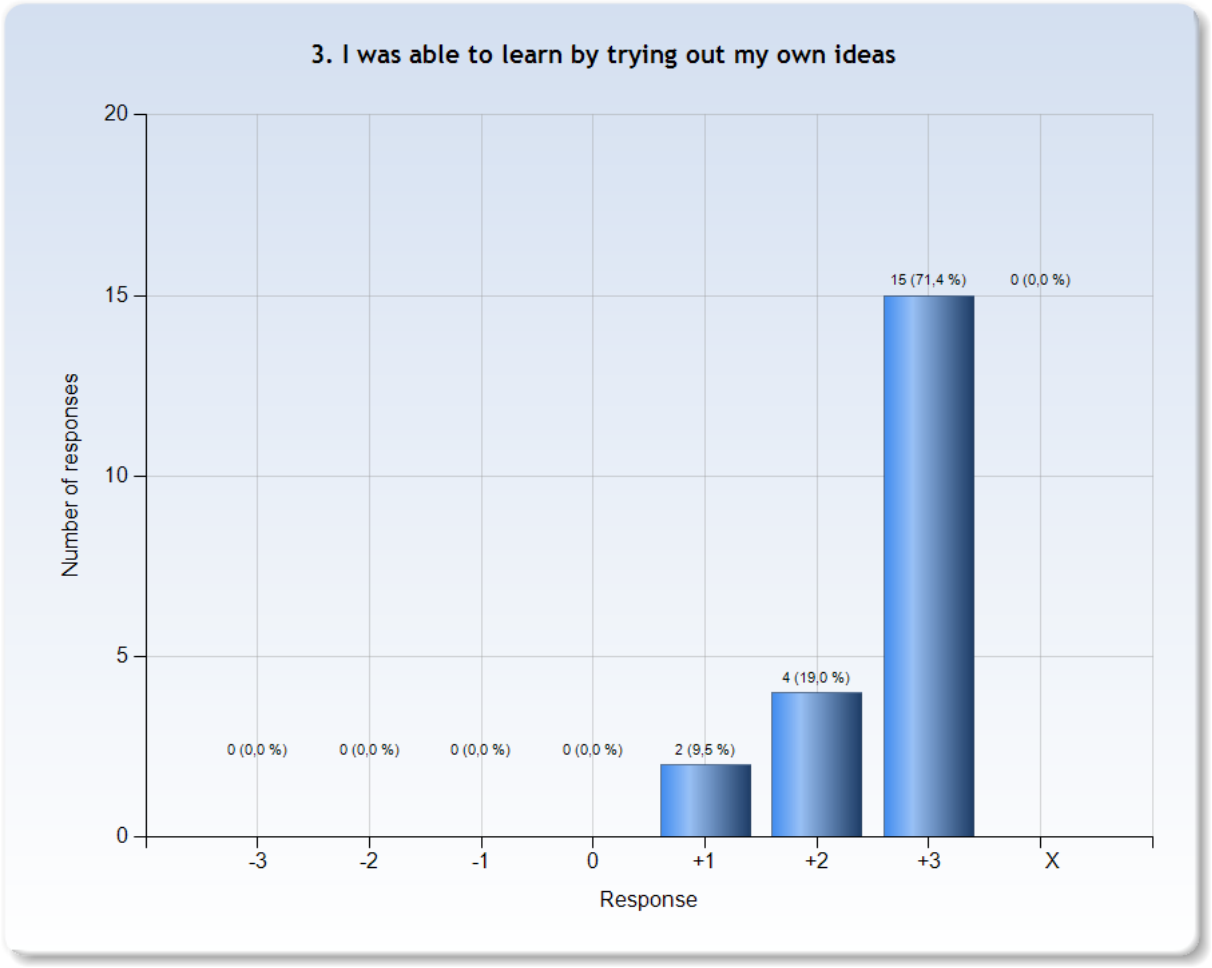
But in the team there is overlapping among members' interest so inevitably someone will do something he or she likes less.

Comments (My response was: X)

I thought the issues were intresting, but i am not sure about it after this work lord

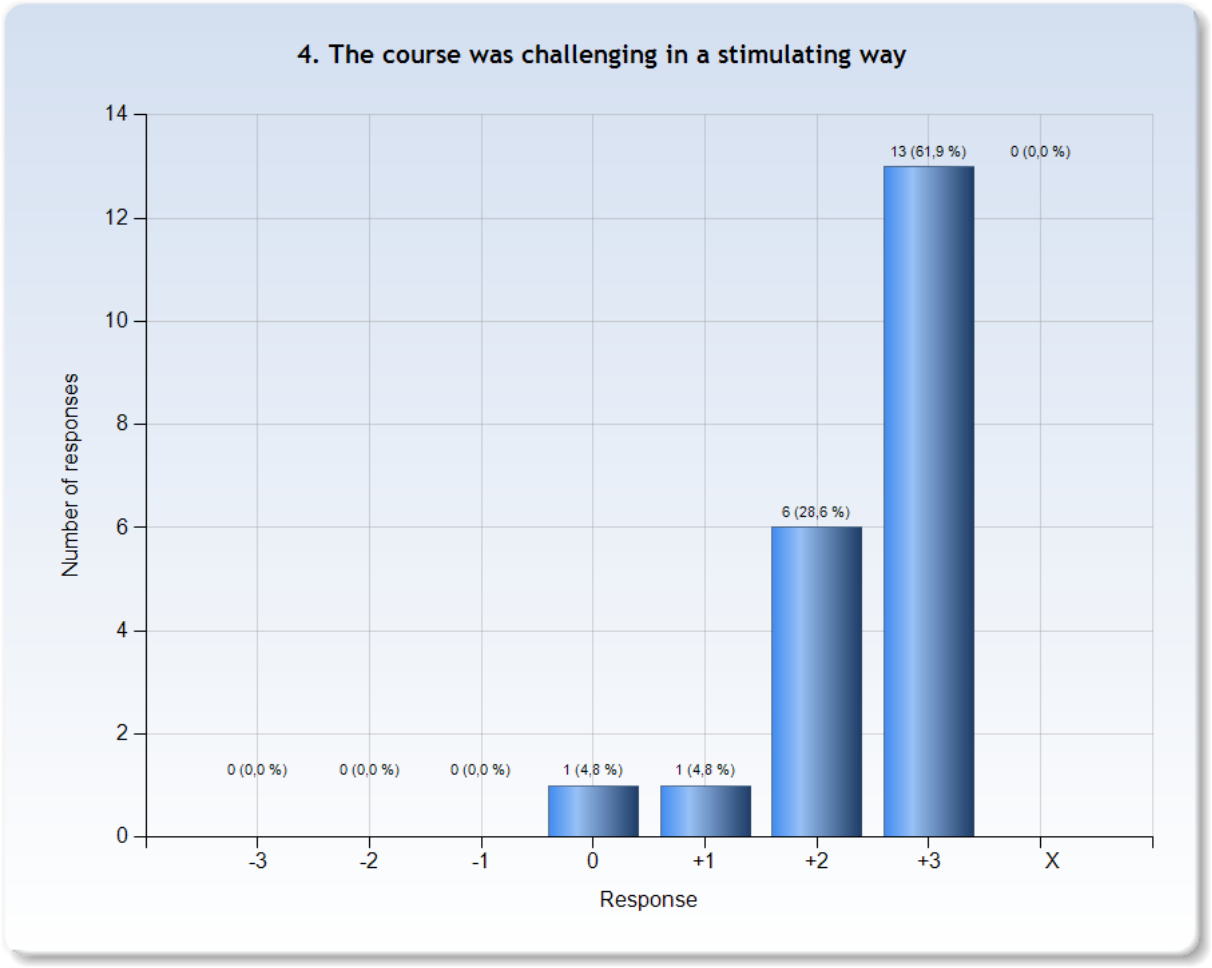


Comments

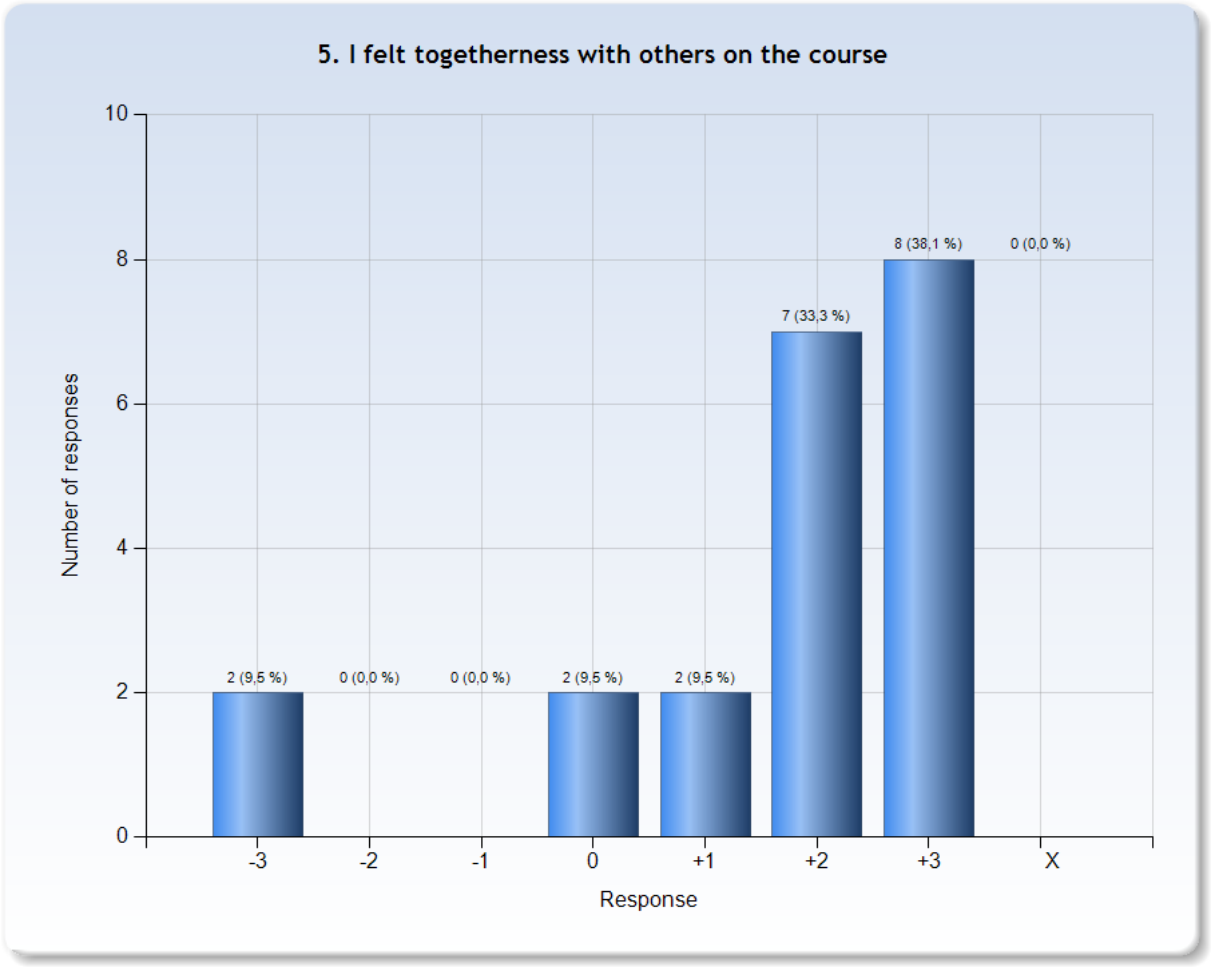


Comments

Comments (My response was: +1)
i try a bit. nothing works. then i get punishment for not working.

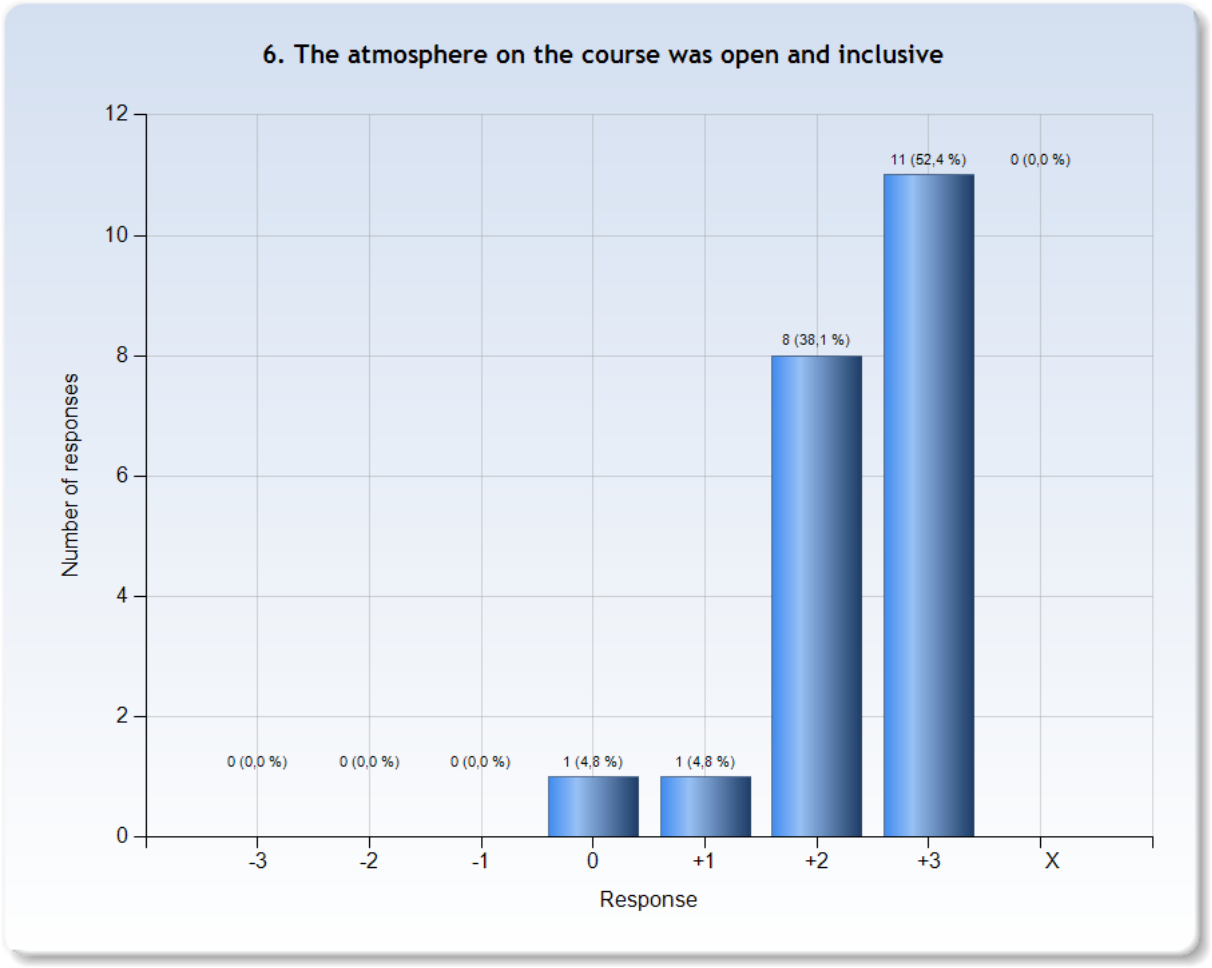

4. The course was challenging in a stimulating way
Number of responses
Response
0
2
4
6
8
10
12
14
-3
-2
-1
0
+1
+2
+3
X
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (4,8 %)
1 (4,8 %)
6 (28,6 %)
13 (61,9 %)
0 (0,0 %)

Comments



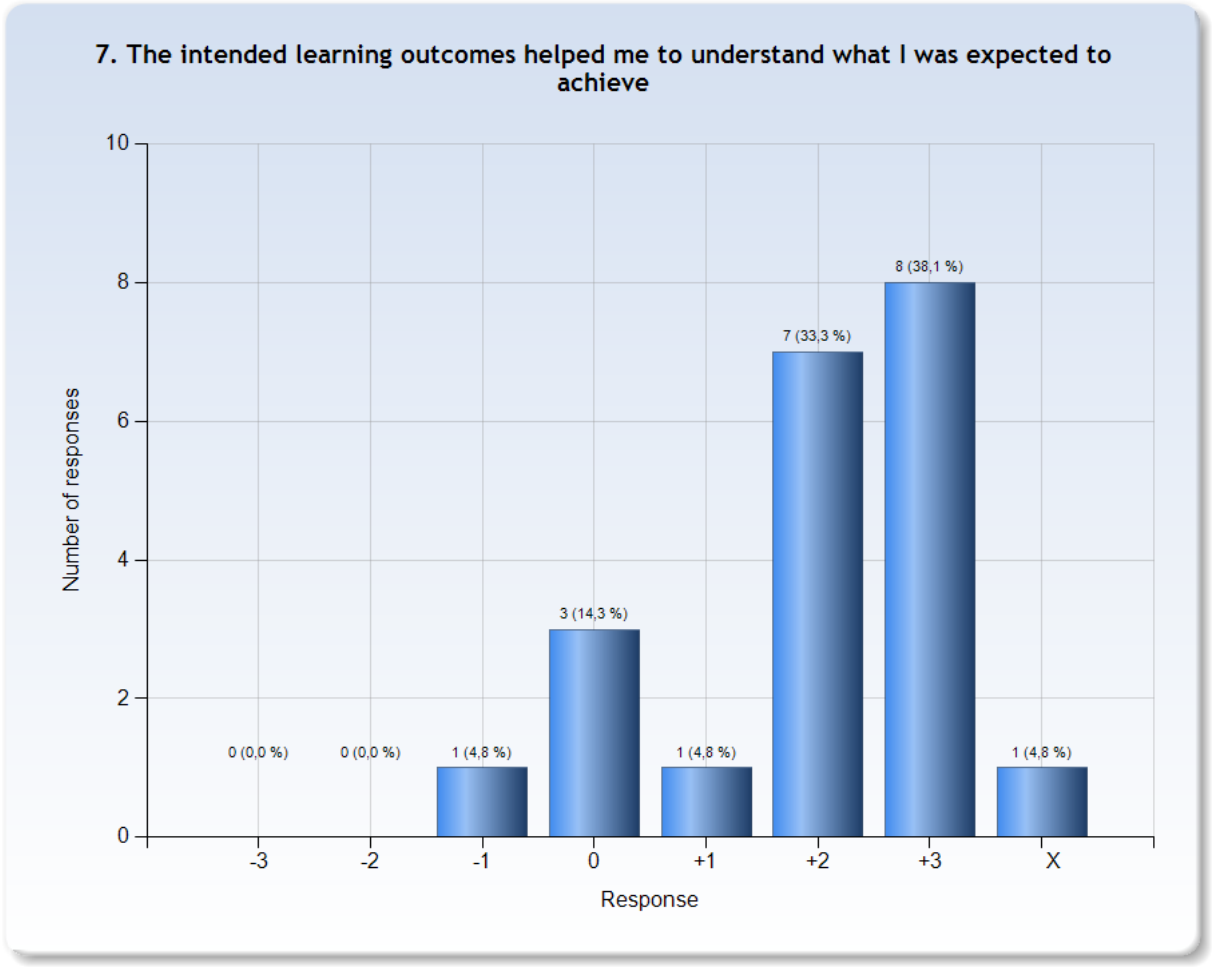
Comments

Comments (My response was: +3)
that is true. have to work with others.



Comments

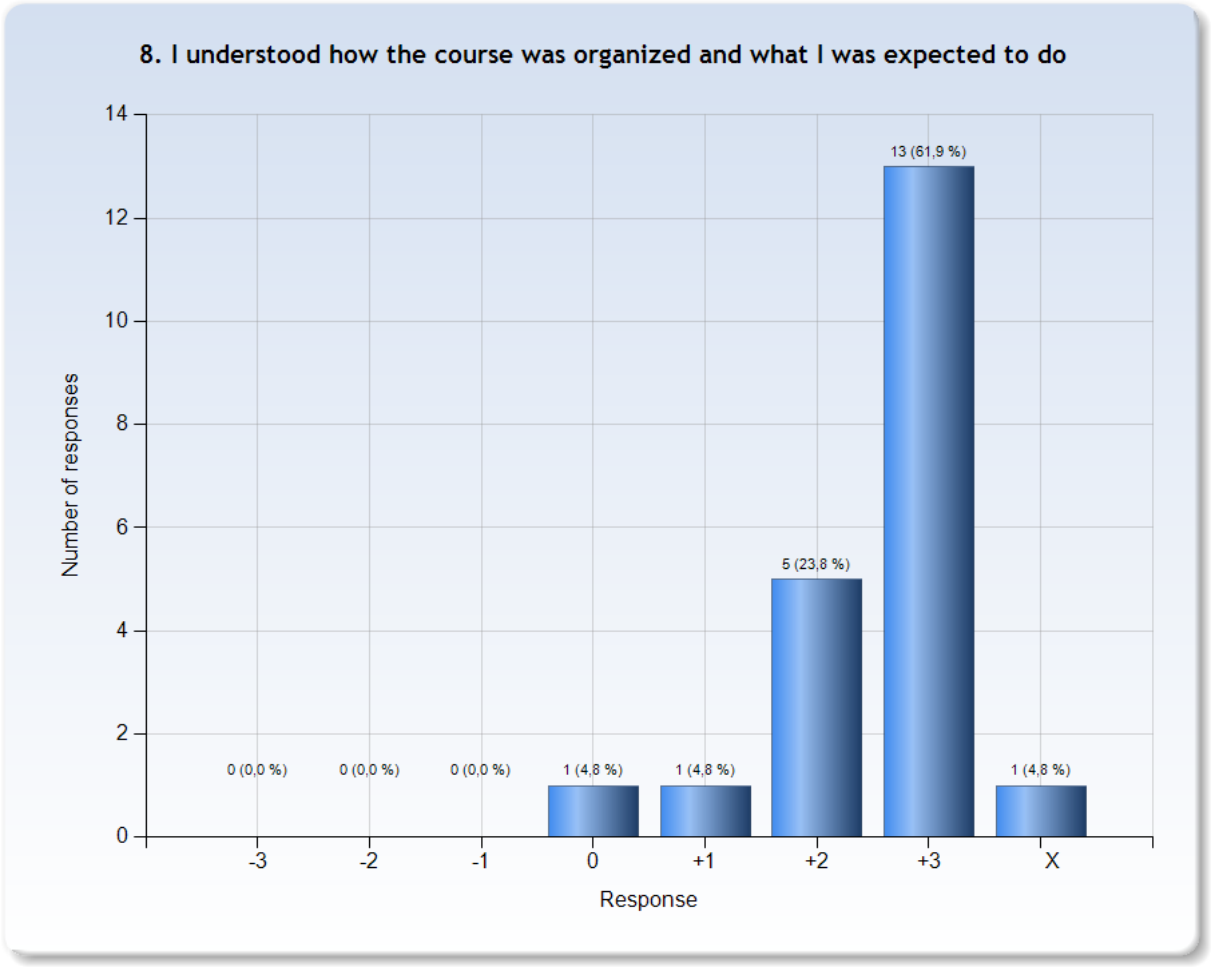
Comments (My response was: +2)
some group seems not wanting to tell how they solved the problems



Comments

Comments (My response was: X)

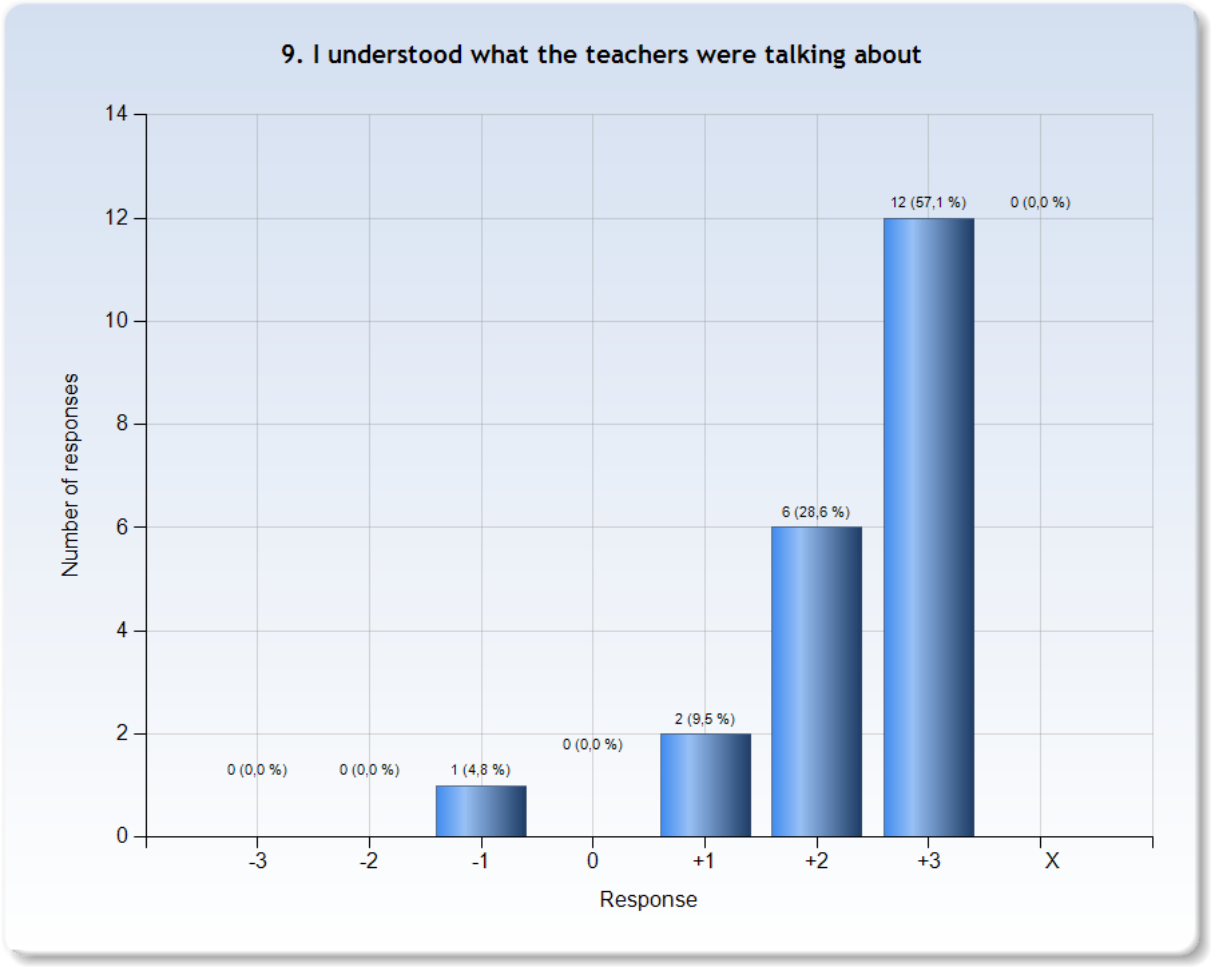
I am not sure if i want to learn any thing from this course any more



Comments

Comments (My response was: X)

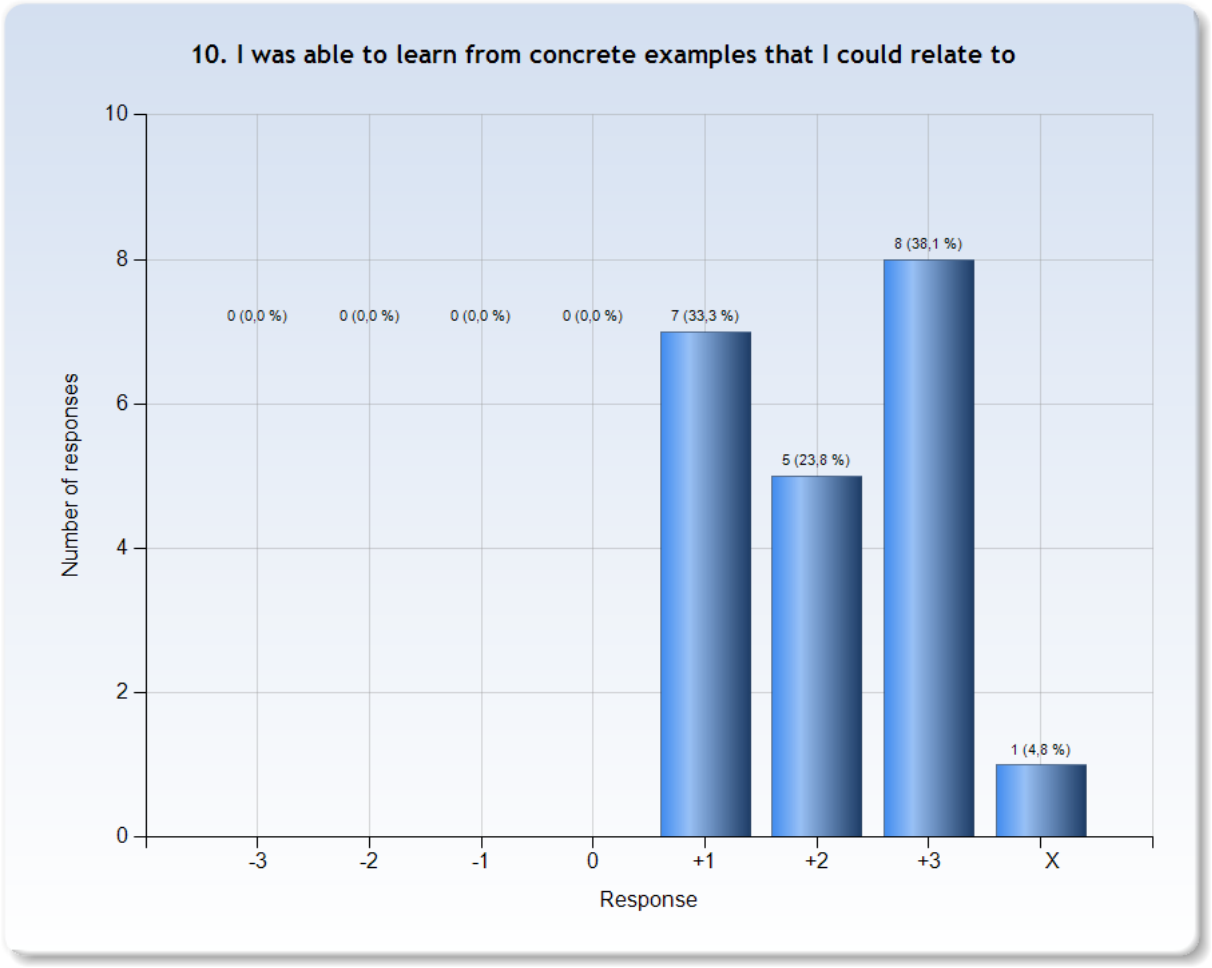
i thought i know. Now i am not sure any more.



Comments

Comments (My response was: -1)
As stated earlier, kinematics and stuff was a bit hard for me

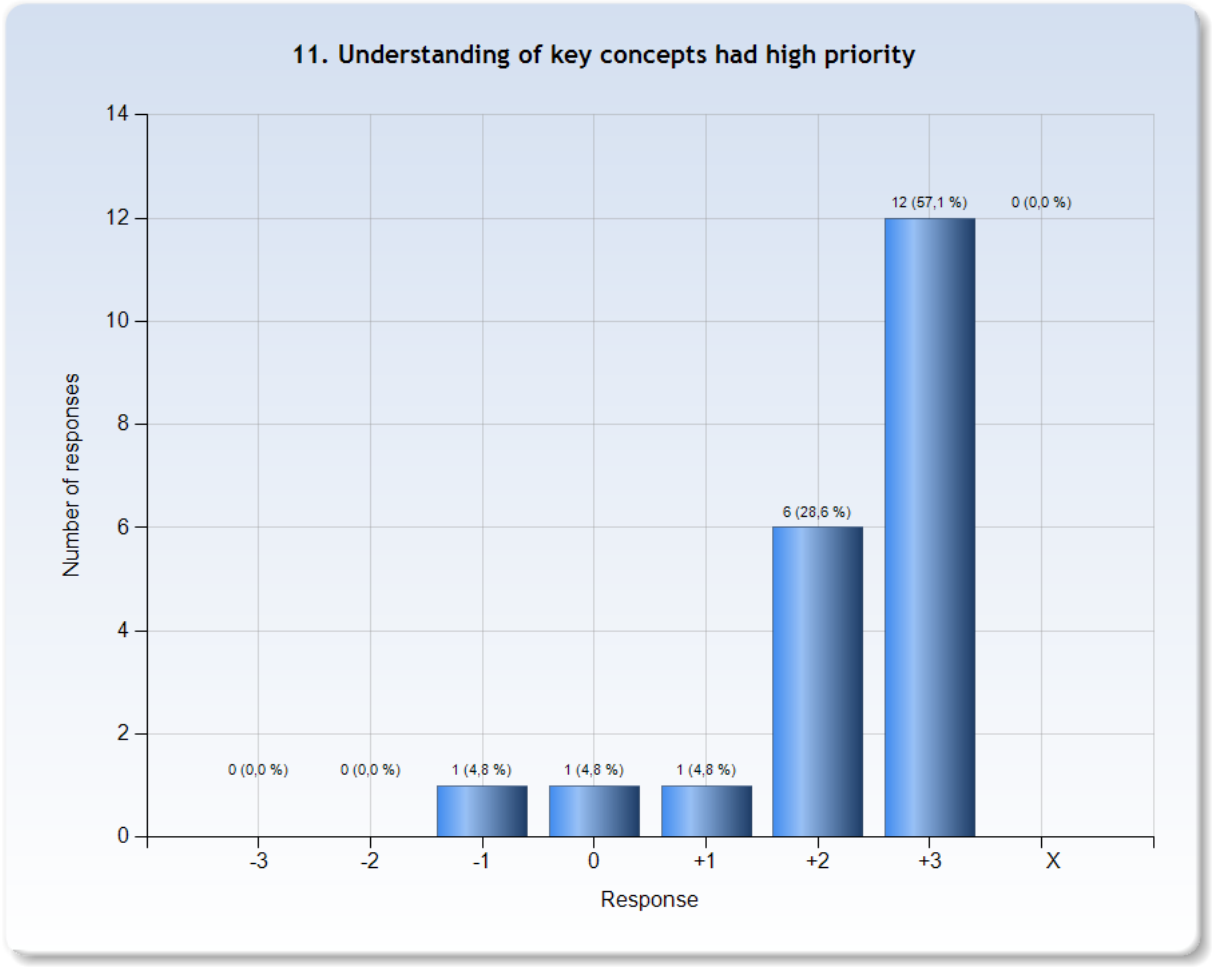
Comments (My response was: +1)
it depends. i didnt understand some questions in exam.



Comments

Comments (My response was: +1)
We have a lot of practice to do but examples are only those not well written reports.

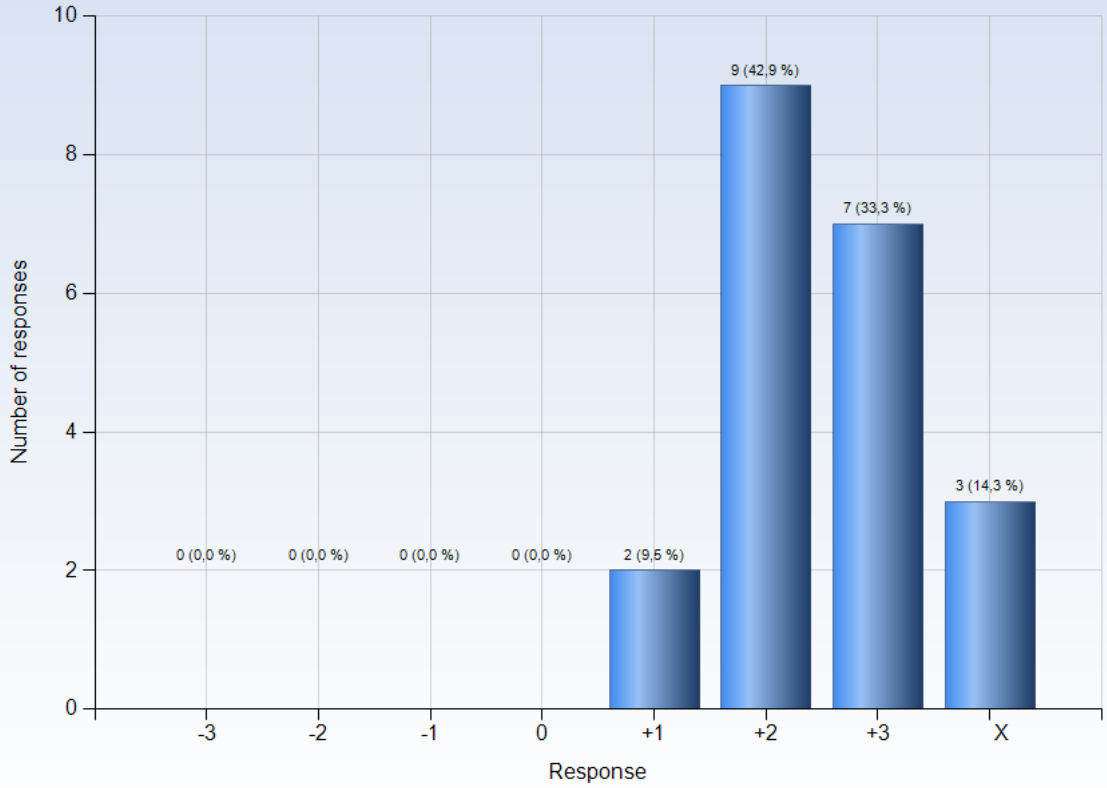
Comments (My response was: X)
i dont understand the statement



Comments

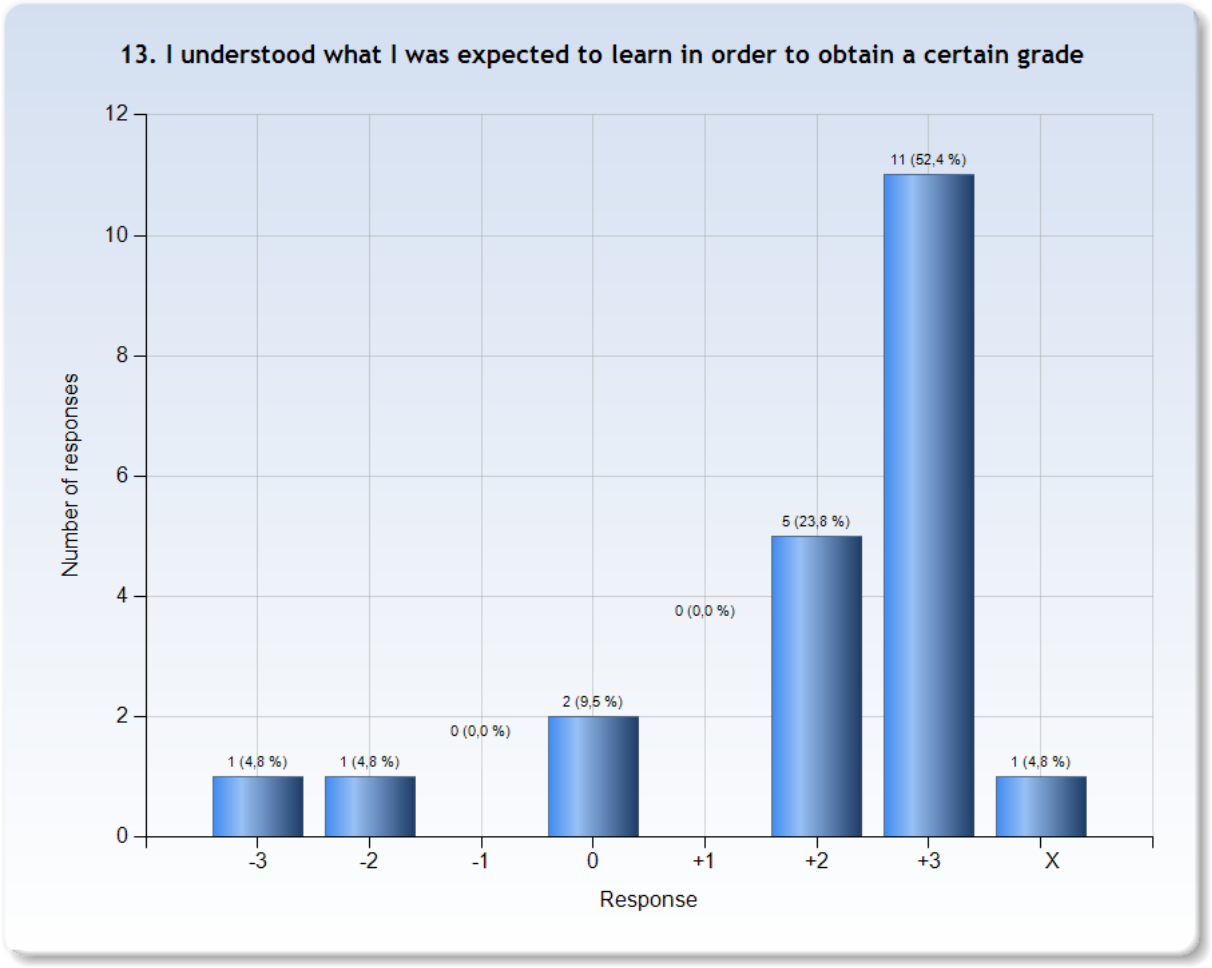
Comments (My response was: +2)
well i think i understand. but TAs think i dont. so either TAs doesnt get my understanding. or I am just stupid on knowing i didnt undertood.

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



Comments

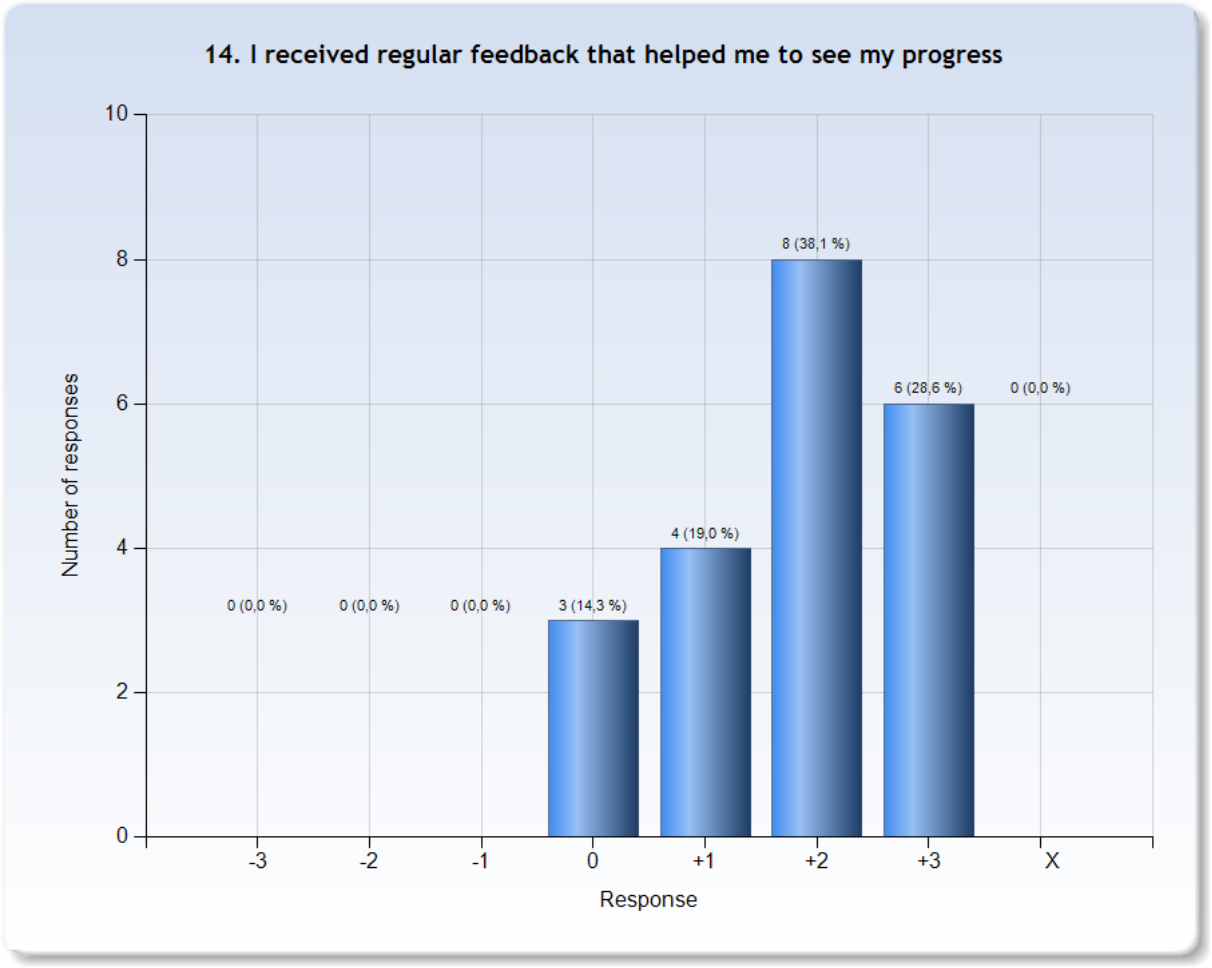
(My response was: X)
You need to get the right team for this.
well it depends on what do you mean by efficiently
Individual Learning outcome sadly collided with the group work



Comments

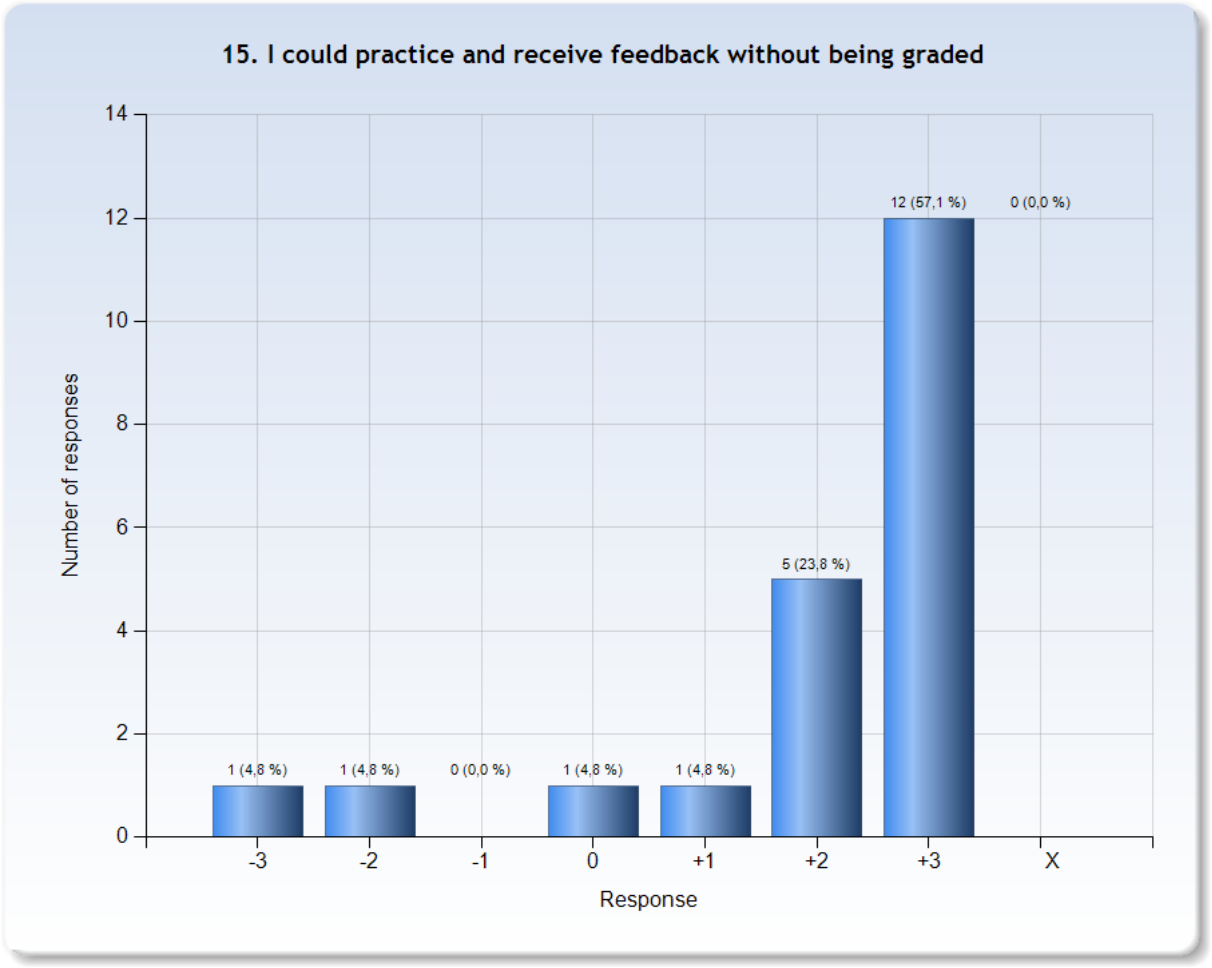
Comments (My response was: 0)
I just worked on as much as I could really, there was no time to consider ILOs

Comments (My response was: X)
after feedback, i am not sure any more



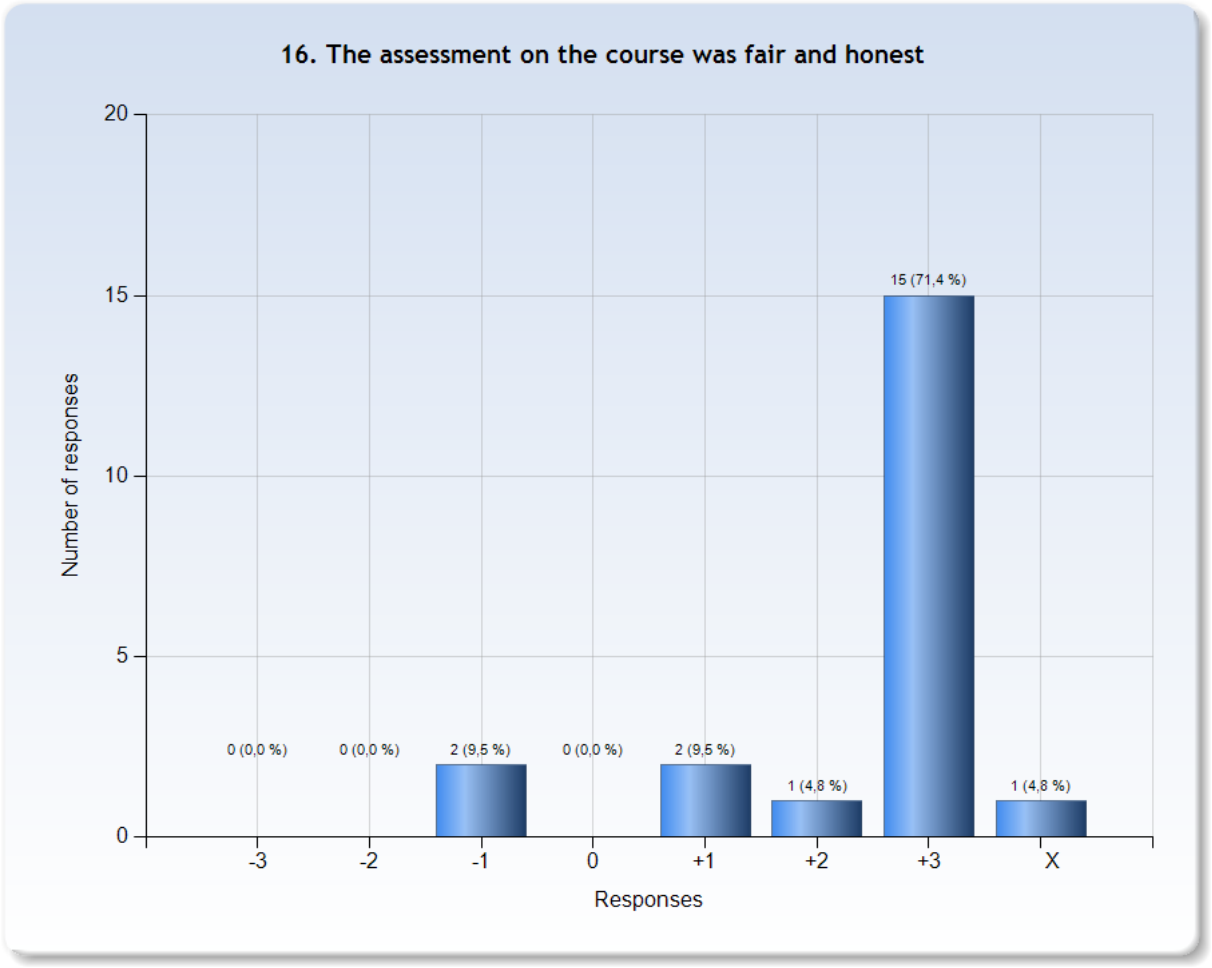
Comments

Comments (My response was: 0)
my team never has time to give me feedback. and I am not totally agree with TAs feedback



Comments

Comments (My response was: +1)
i don't agree with feedback



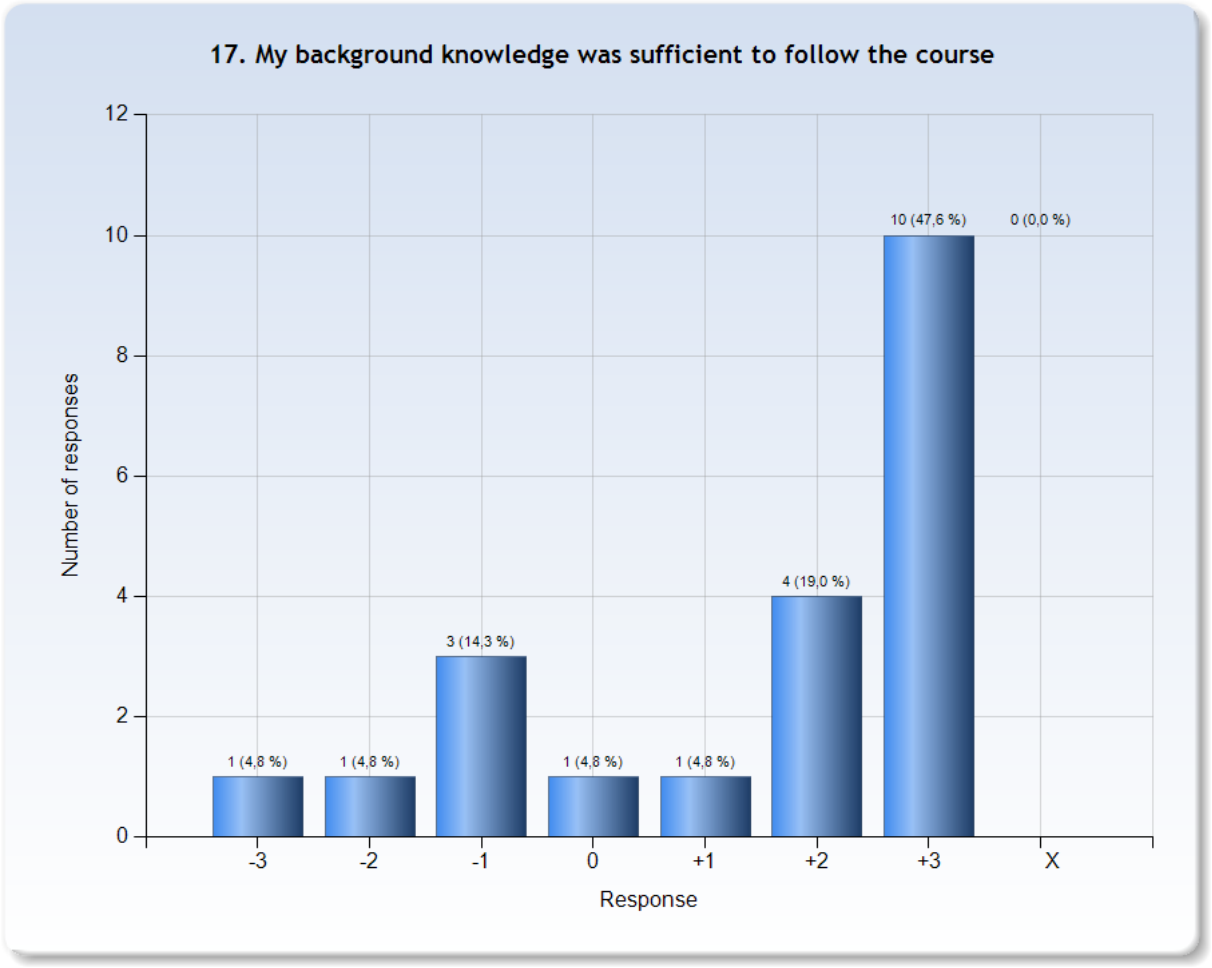
Comments

Comments (My response was: -1)

not it is not.

Comments (My response was: X)

I'll bite my ego and say the assesment were honest. It wasn't clear for me though that the assessment criterion would've penalize a "maximize group outcome" mindset....

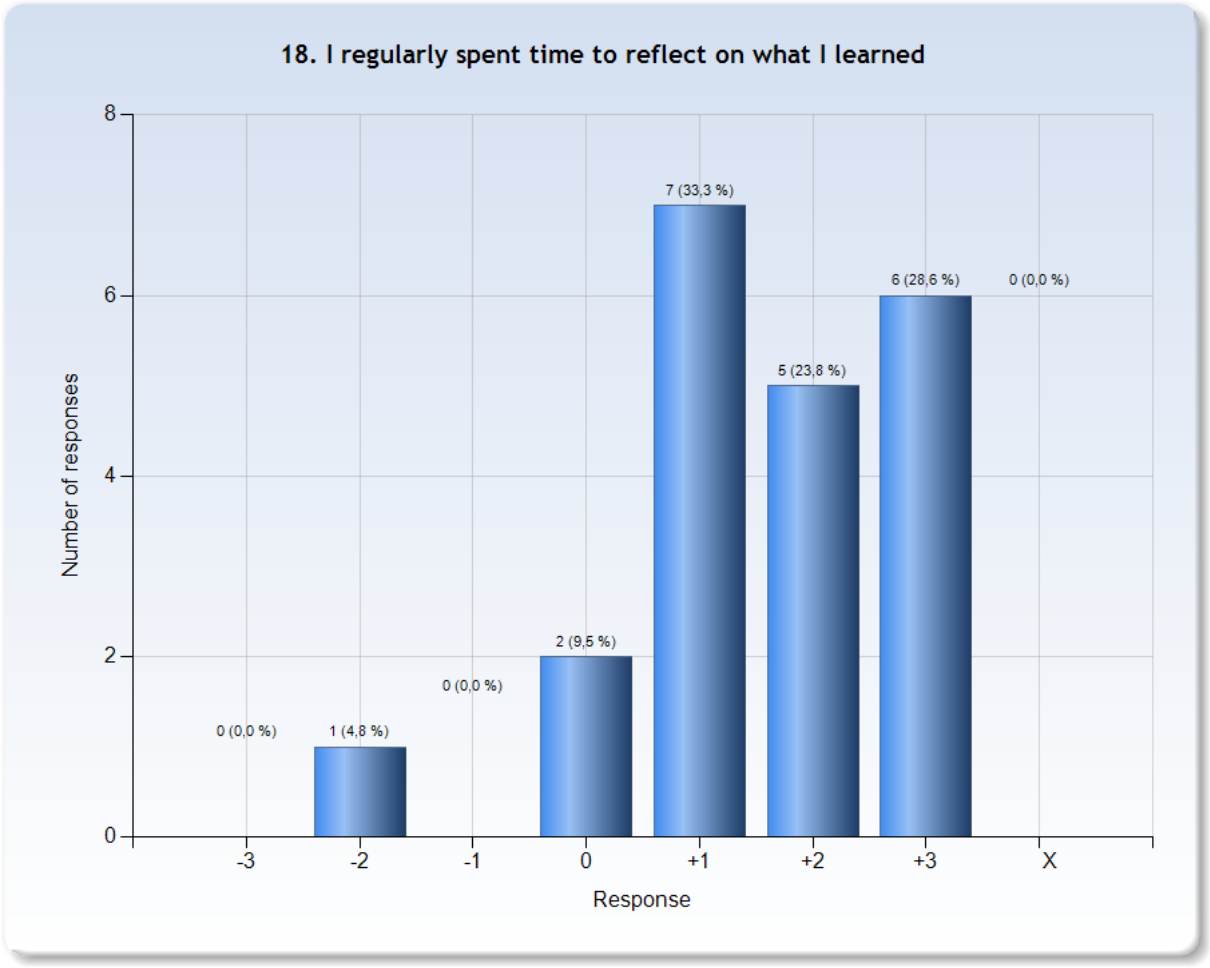


Comments

Comments (My response was: -1)
I lacked background in mechanics which made some of the topics difficult to follow

Comments (My response was: 0)
my background knowledge provides method that is not working in this project

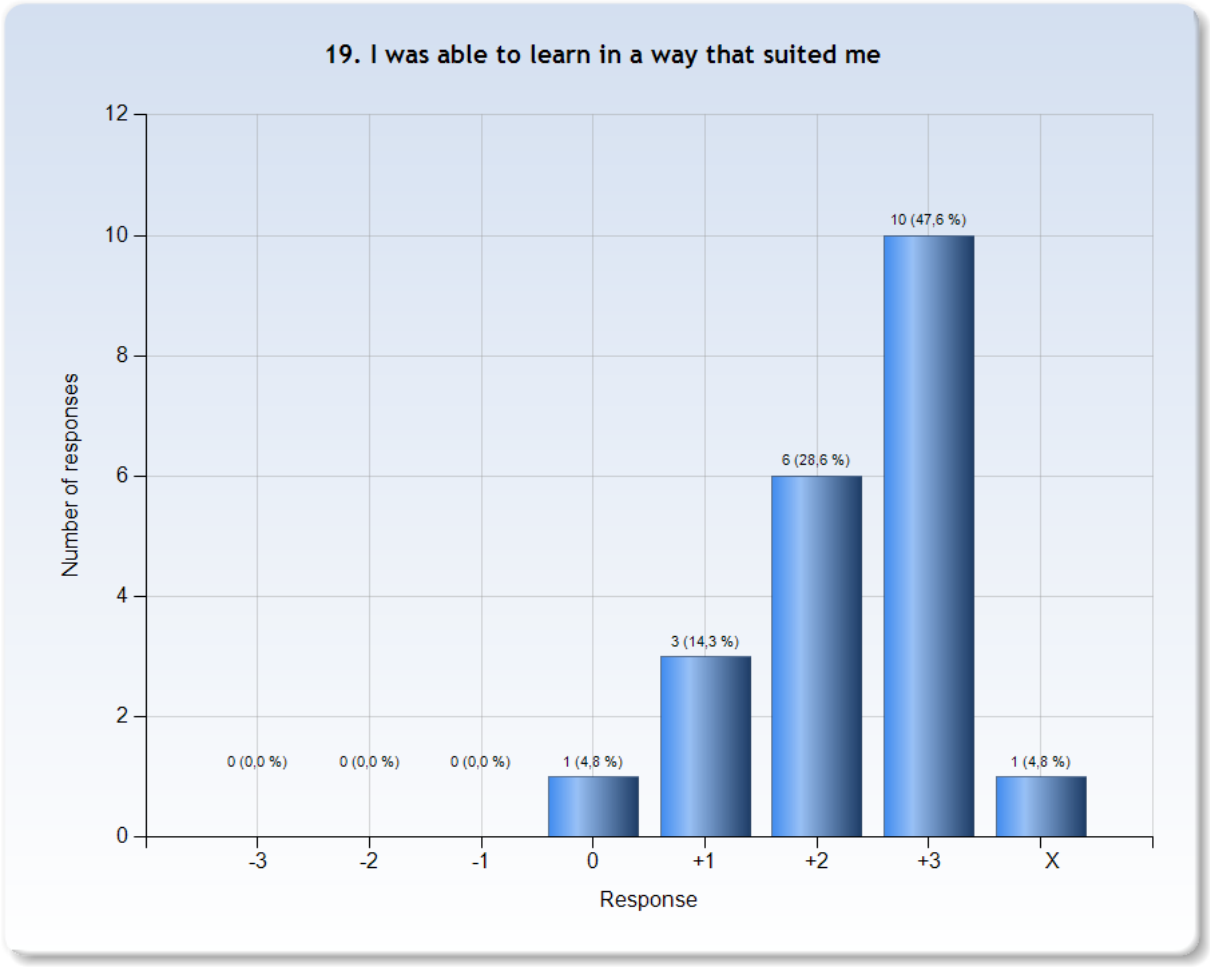
Comments (My response was: +3)
But i have seen many other students in the course had hardness understanding what to do.



Comments

Comments (My response was: 0)
spent time on debugging

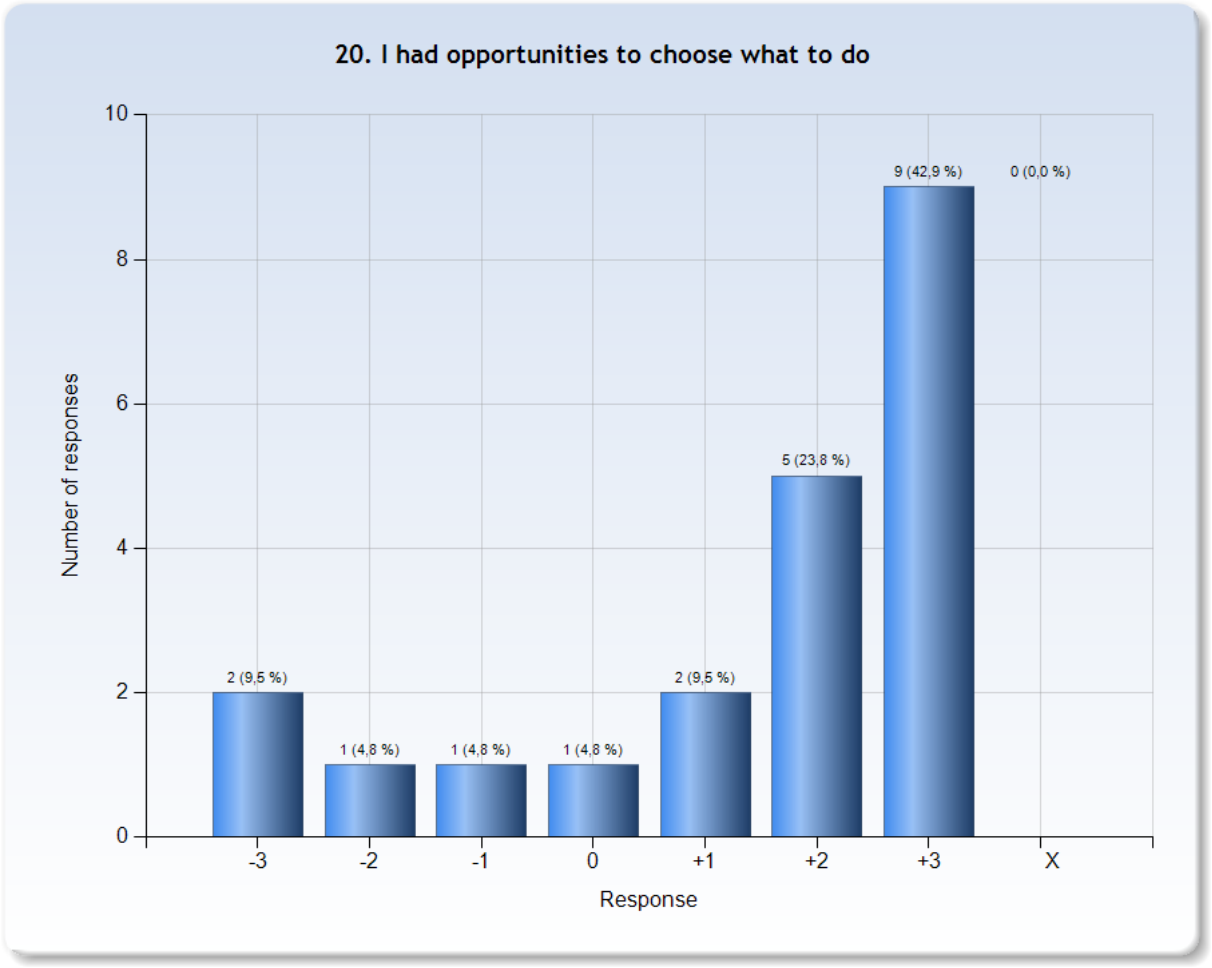
Comments (My response was: +1)
I dont have time to reflect



Comments

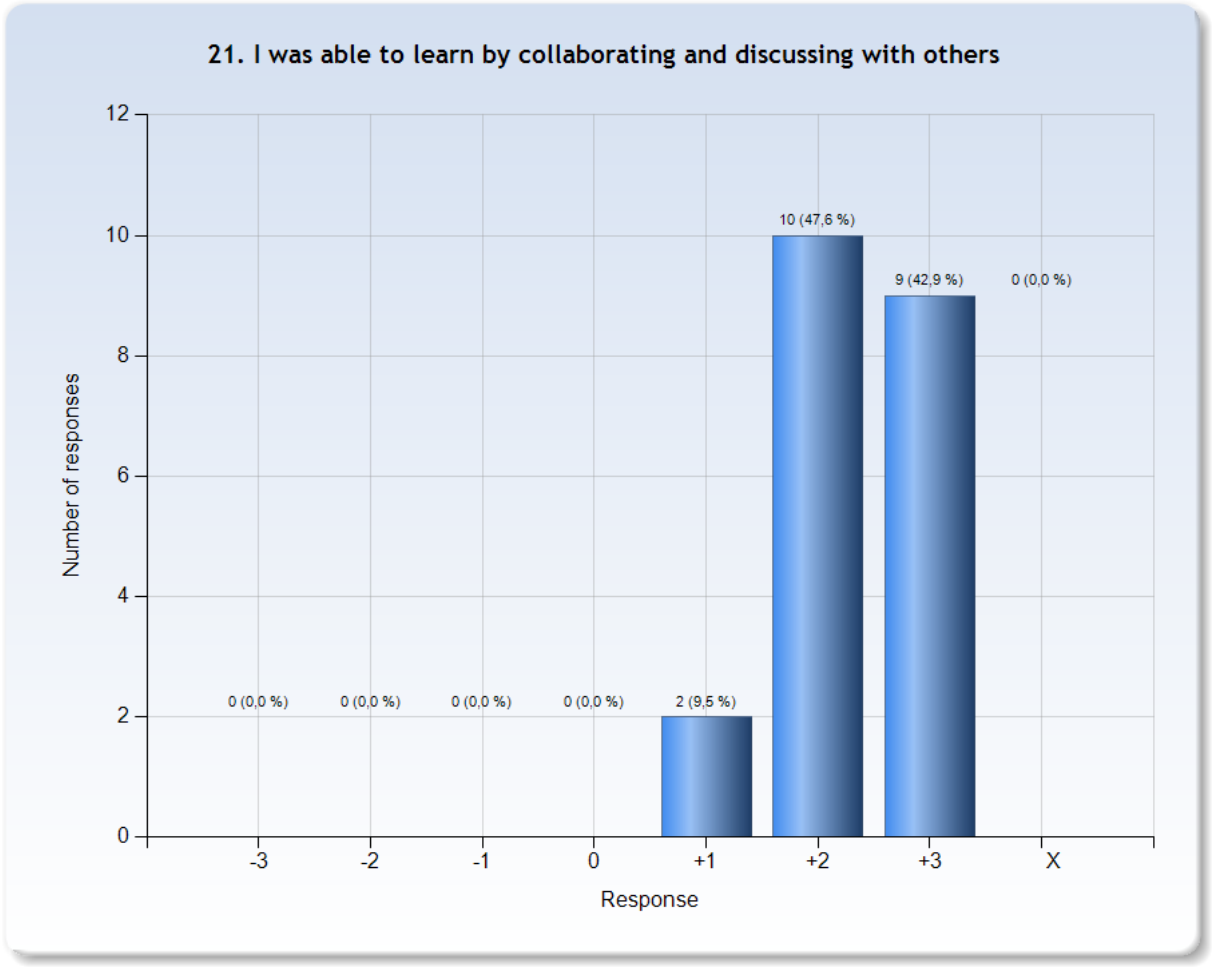
Comments (My response was: X)

after this project, i doubt my life and what is suiting me



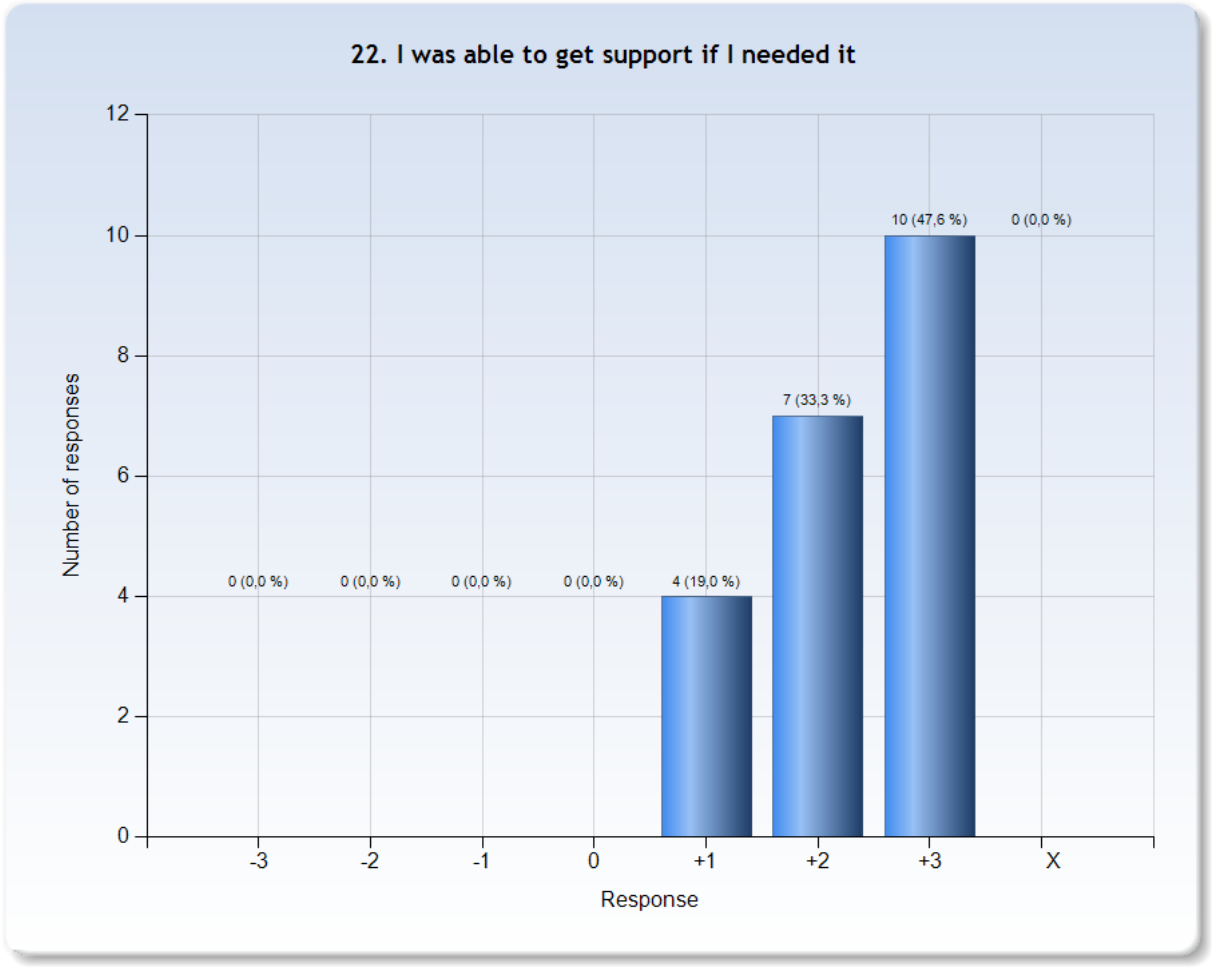
Comments

Comments (My response was: -3)
It depends on the team members.
completely disagree.when it comes to team decision, no one can do what ever they want to do



Comments

Comments (My response was: +2)
yeah i get help from other group. since no one in my group knows what i was doing



Comments

Comments (My response was: +1)
when I need help. TAs do not know. Mentally support, maybe