Report - SF2812 - 2016-06-21

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):

Anders Forsgren, andersf@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 covers linear and integer programming. The course is based on projects, where students get training in modeling and analysis of practical problems, in addition to lectures and tutorials, where students get understanding of theory and methods.

The project part of the course consisted of two project exercises in the form of modeling exercises, which were modeled in GAMS. Larger problems were successfully solved with the use of NEOS.The projects had parallel exercises, four each for exercises one and two. The group sizes were two or three persons and the groups were selected by me. The projects are presented at a particular lecture. Thi presentation lecture i
is devoted to discussion between students. First, students having worked on the same project sat together and discussed. For the first project, there was one group per project. For the second project, there were three persons in the groups. As a second part of the lecture, students having worked on different projects sat together and discussed, three persons in each group. In addition, we had the “follow-up” discussions with the groups after the presentation lectures.

As earlier years I used laptop and projector as support for the teaching. This gives a “skeleton” of the course material. The slides are written using LATEX. By the laptop I could also illustrate some example problem by using GAMS and Matlab.

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?

Counting for ten weeks and 7.5 credits would give 20 hours per week. The students report a workload which is less, 12-14 hours a week or slightly above would be the average. I think that the students think about the projects even when they do not work actively with them, so the workload is slightly higher.

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?

The result in this course is overall very good, I would say. The course has grown over the years, I think mostly with an increase of students from industrial engineering. In addition, there are many exchange students. We had 63 master students and five PhD students completing the projects this year. Last year was similar.

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?

I think the overall impression of the learning environment is good. This is what I would expect, based on previous years. There is a lower mark on exploration of subject on one's own. This may be how one finds the projects. In my opinion they are meant to give exploration.

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?

Collaboration and support get very high marks. I think this is due to the setup of the projects and the way we give feedback. This is in my opinion a strength of the course. A weakness is that the students do not get to choose groups and choose projects. This is a consequence of us making the division of groups, and I think there is an overall benefit of doing it this way.

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 students are in general happy with the course. In particular, the teaching assistant Axel Ringh gets very favorable comments. It is clear that the students understand the setup of the course and most of them also appreciate it. I think it would be very good for future students to read the advice given. This year, I browsed them at the first lecture.

PRIORITY COURSE DEVELOPMENT

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

New projects is always useful. The self-assessment form might be improved. This is the form where the student says what he/she did in the project. In the long run it would also be interesting to try different forms of teaching, for example to put the lectures on video, or make shorter introductory videos.

OTHER INFORMATION

Is there anything else you would like to add?

I enjoy very much giving this course. In general, I think it works very well. Axel Ringh was a very good teaching assistant.

Course data

SF2812 - Applied Linear Optimization, VT 2016

Course facts

Course start:	2016 w.3
Course end:	2016 w.12
Credits:	7,5
Examination:	PRO1 - Project, 1.5, Grading scale: A, B, C, D, E, FX, F PRO2 - Project, 1.5, Grading scale: A, B, C, D, E, FX, F TEN1 - Examination, 4.5, Grading scale: A, B, C, D, E, FX, F
Grading scale:	A, B, C, D, E, FX, F

Staff

Examiner:	
Course responsible teacher:	Anders Forsgren <andersf@kth.se>
Teachers:	Anders Forsgren <andersf@kth.se> Axel Ringh <aringh@kth.se>
Assistants:	

Number of students on the course offering

First-time registered:	60
Total number of registered:	76

Achievements (only first-time registered students)

Pass ratio[1] [%]	76.70%
Grade distribution[2] [%, number]	A 43% (20) B 35% (16) C 24% (11)
Achievement ratio[3] [%]	82.70%

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

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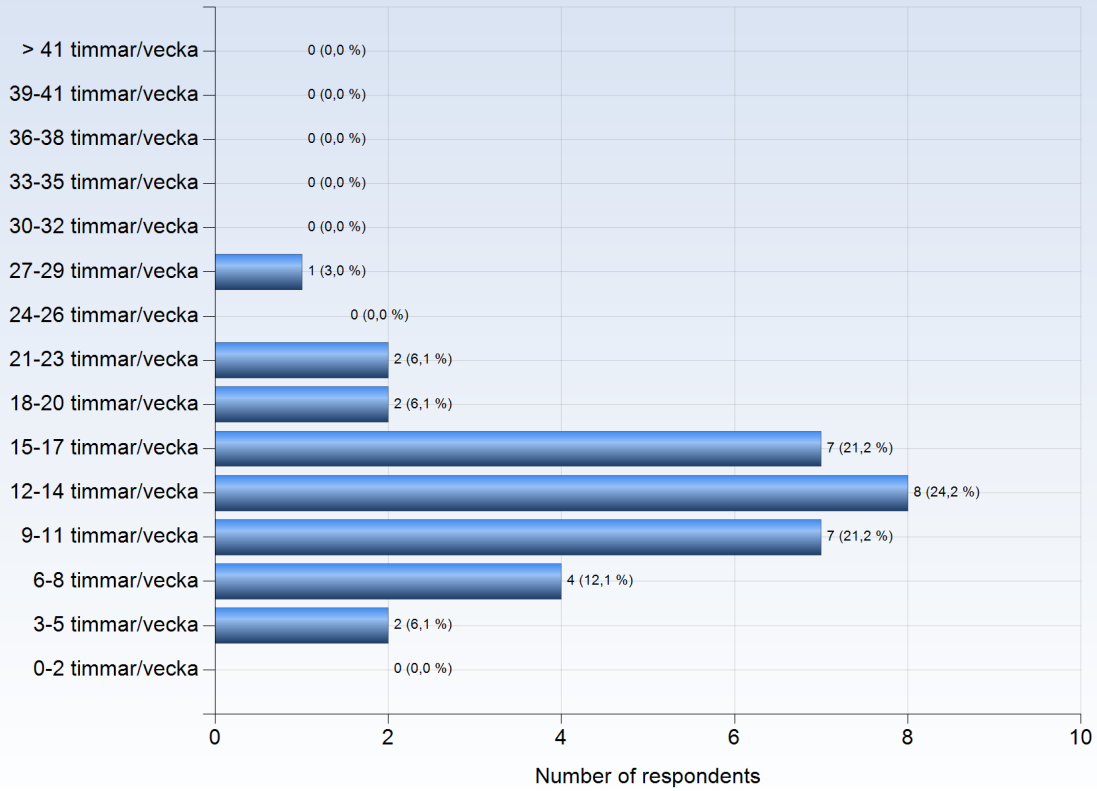
Antal respondenter: 66
Antal svar: 33
Svarsfrekvens: 50,00 %

ESTIMATED WORKLOAD

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



Comments

Comments (I worked: 9-11 timmar/vecka)
Evenly spread out during the whole course, I would say.
That's a great course and I also learnt a lot from the course assignments.
The workload varied quite a lot throughout the course because of the projects.

Comments (I worked: 12-14 timmar/vecka)
Projects took time
of course more before project deadlines and exam, but maybe on average...

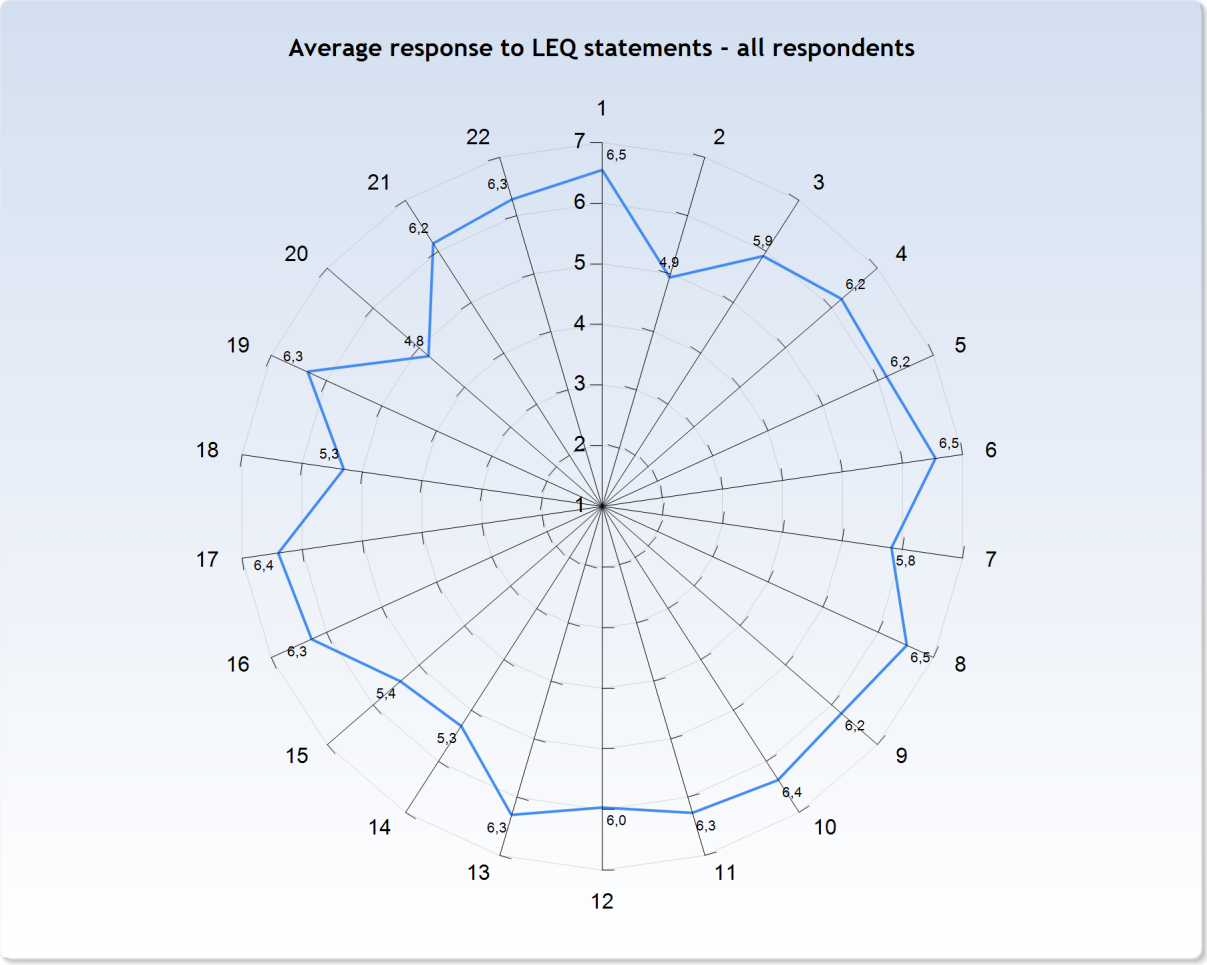
Comments (I worked: 15-17 timmar/vecka)
More during project weeks and before exam!

LEARNING EXPERIENCE

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

1 = No, I strongly disagree with the statement
4 = I am neutral to the statement
7 = Yes, I strongly agree with the statement

Note! A group has to include at least 3 respondents in order to appear in a diagram.



KTH Learning Experience Questionnaire v3.1.1

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 could 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 other course participants (d)
6. The atmosphere in the course was open and inclusive (d)

Comprehensibility - cognitive level

Clear goals and organization

7. The learning objectives helped me 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 could learn from concrete examples that I was able to relate to (g)
11. Understanding of key concepts was given high priority (h)

Constructive alignment

12. The course activities helped me to reach the learning objectives efficiently (i)
13. I understood what I was expected to learn in order to get a particular grade (i)

Feedback and security

14. I regularly received feedback that helped me see my progress (j)
15. I could practice and receive feedback without any grading being done (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 could learn in a way that suited me (m)
20. I had opportunities to choose what I was going to do (m)

Collaboration

21. I could learn by collaborating and discussing with others (n)

Support

22. I could 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, 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 learning objectives, 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 learning objectives

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.

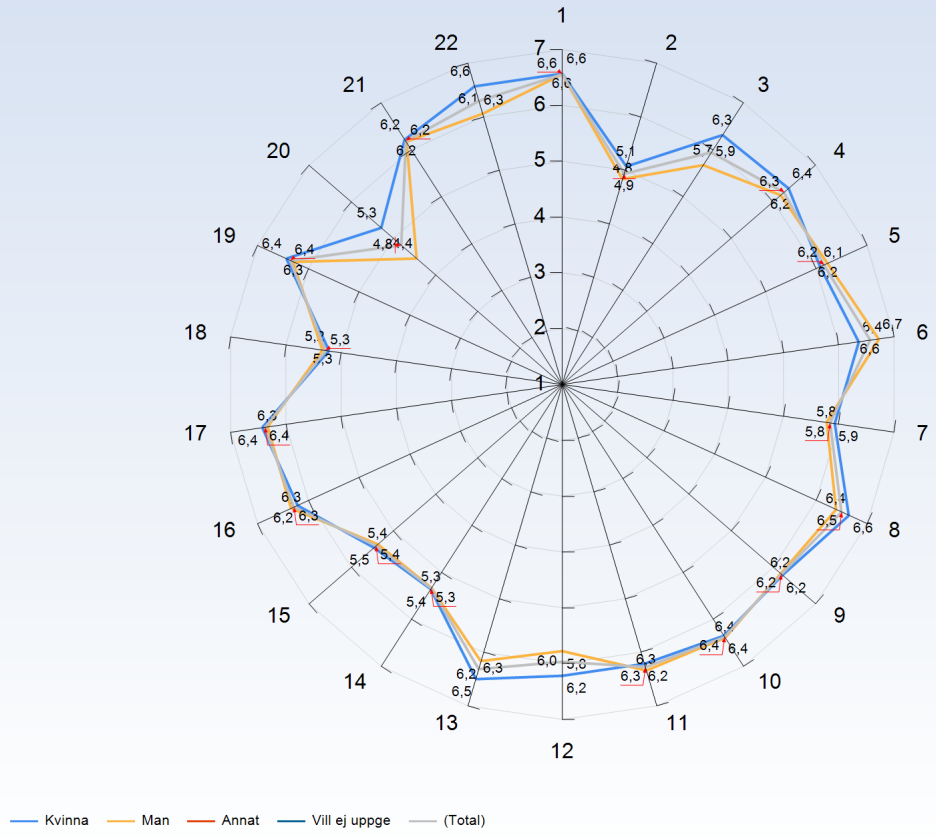
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

Elmgren, M. & Henriksson, A-S. (2014). *Academic Teaching*, Chapter 3, pp. 57-72. Lund: Studentlitteratur.

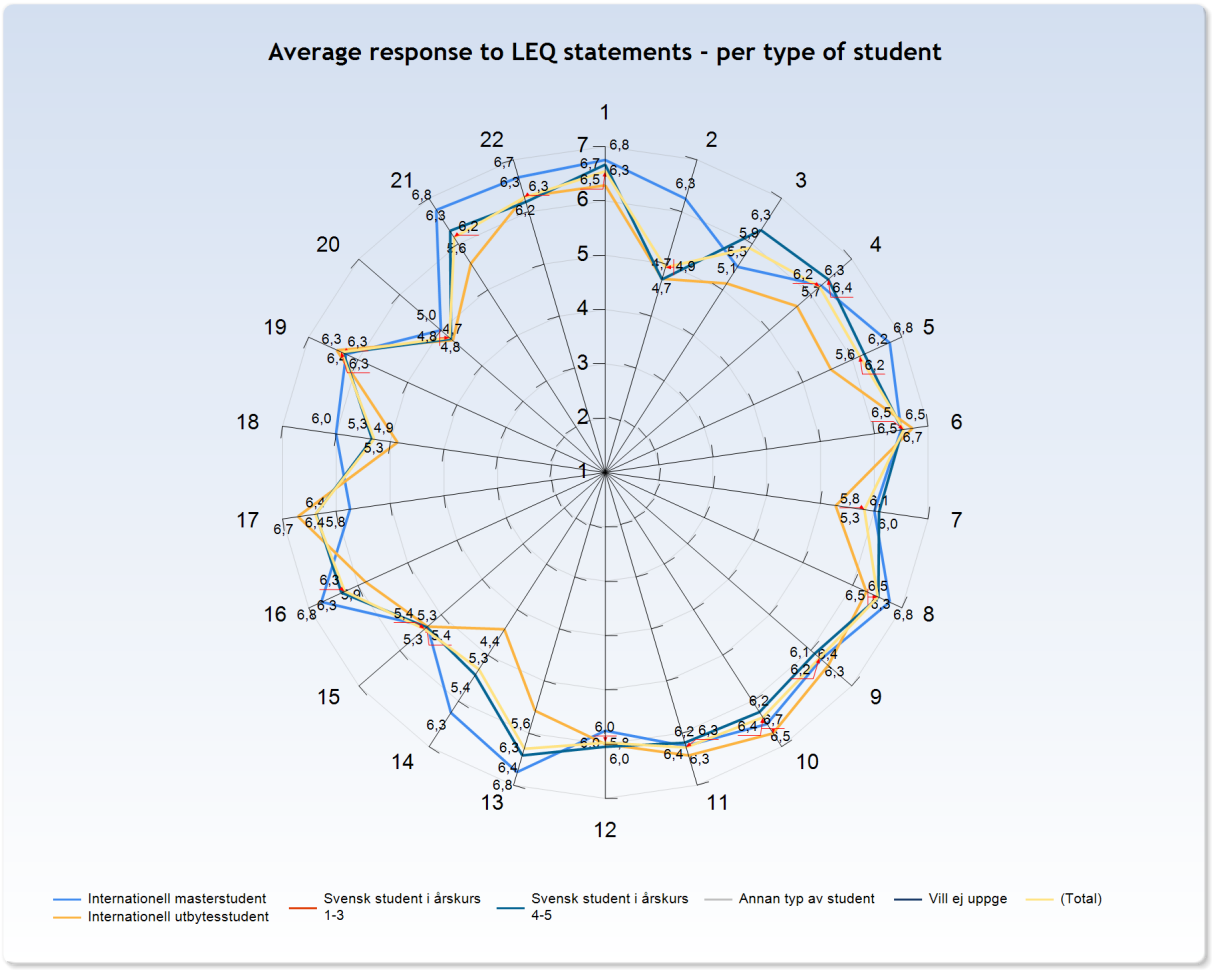
Kember, K. & McNaught, C. (2007). *Enhancing University Teaching: Lessons from Research into Award-Winning Teachers*, Chapter 5, pp. 31-40. Abingdon: Routledge.

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

Comments (I am: Svensk student i årskurs 4-5)

I appreciated that you made the groups for the two projects and that we were mixed Swedish students and international students! :)

GENERAL QUESTIONS

What was the best aspect of the course?

What was the best aspect of the course? (I worked: 6-8 timmar/vecka)
Liked the projects. Learned a lot.
Really thought the separation between what's in the project and what's in the exam works well, surprised not more courses do it.

What was the best aspect of the course? (I worked: 9-11 timmar/vecka)
Structured. It's content was clearly defined.
The projects
Projects
I really enjoy to have theoretical knowledge in the lectures, and practical modelling and optimization on the project. Really good that it is divided like that.
Really interesting projects, with "life" situations. The teacher and the TA are easy to listen to. I easily get distracted during a lecture but not here.
That would be the course assignments. During the two projects I learnt how to use GAMS as a new tool and cooperated with other classmates to finish the task. That's great to put the threotical things in class into real practice.
The modelling in the integer programming part, as it was challenging in a stimulating way.

What was the best aspect of the course? (I worked: 12-14 timmar/vecka)
That it is applied with realistic and concrete examples
The projects are very interesting !
Very interesting course, good combination of practice (projects) and theory (lectures). Well organized.
Roligt med relativt ospecifikt formulerade projekt, så att man fick tänka och modellera själv
The Projects, where you could use the knowledge on more realistic examples
It is easy to imagine that the content of the course is useful in the outside world.
content at the end: Danzig Wolfe / column generation good teacher and assistant teacher
The whole package: really good lectures, best tutorials I have ever had at university, nice project ideas, clear structure...

What was the best aspect of the course? (I worked: 15-17 timmar/vecka)
The project work, helped me understand the subject very well.
Discussion session was good so you had the chance to see what other had Done and be able to discuss the projects.
The projects! And the way they were presented (report, seminar, discussion session) – it really encouraged putting down effort and working for a true understanding!

What was the best aspect of the course? (I worked: 18-20 timmar/vecka)
The structure: modeling in the projects and theory on the exam. The lecturer and assistant were very inspiring!
The professor and TA are really good.

What was the best aspect of the course? (I worked: 21-23 timmar/vecka)
The projects were fun
Very well organized course. Very good lectures and great exercise sessions. Interesting projects and detailed feedback on the them.

What was the best aspect of the course? (I worked: 27-29 timmar/vecka)
Overall, I found the course very well structured. The theory part (lectures and exercises) and the applied part (group assignments) was a rewarding combination. The group assignments actually gave a sense of how optimization can be applied into real-world problems.

What would you suggest to improve?

What would you suggest to improve? (I worked: 6-8 timmar/vecka)
Keep it the way it is.
Don't have every class at 8am?

What would you suggest to improve? (I worked: 9-11 timmar/vecka)
How the projects were made. I think one should NOT write who did what, but only how many hours one spent, because it is impossible to say who did what. Especially since you are divided into groups with people you do not know, and some may do a great part alone without even telling the other group members.
-
Maybe to go a little further into the algorithms that are used nowadays. It is done a bit with branch-and-bound but it could be more detailed. All the parts upon heuristics and meta-heuristics would have been really nice to study.
Lecture on friday at 8pm is bad timing ;)
The projects could contain some method implementation as well, since that would provide another way of learning the methods.

What would you suggest to improve? (I worked: 12-14 timmar/vecka)
The parts in the lectures about interior methods and Danzig-Wolfe decomposition are not totally clear. We do not really know why we use these new "tools".
Upload the comprehensive solutions of the exercise sessions, quite hard to follow the exercise session and taking notes.
inget, tycker att kursen är utmärkt
It's not really worth 7.5credits, considering I worked around 120 to 140 hours n total
Possibly define the project expectations clearer. Also possibly make them smaller to allow for more work on theory questions.
more (advanced) theory include all proofs in the lecture less project work, more theory - one does not learn optimization by writing a report...
To be honest the time slots of the lecture (not three different days a week always at 8, but maybe one lecture in the morning and a tutorial in the afternoon of the same day could be possible), the theoretical GAMS lecture was not that helpful since one cannot follow written and presented computer code for 2 hours or it is very exhausting at least, maybe real life projects could be treated (e.g. optimize the exam schedule of KTH...)

What would you suggest to improve? (I worked: 15-17 timmar/vecka)
nothing really
Nothing
The focus on the theory questions throughout the course.. Maybe a longer pause in the beginning of each lecture where we would discuss the theory question? Or some more focus on them during the exercise lectures? I felt a bit "left on my own" when it came to solving all the theory questions, compared to everything else in the course.

What would you suggest to improve? (I worked: 18-20 timmar/vecka)
Maybe try to make sure that if someone in the group project did not contribute anything they should not get an A like the rest of the group. But I understand that it's very hard to judge what everyone has done.
Im not entirely happy with the mix btw slides/whiteboard. Hard to follow and make nice notes on your own when the prof. is jumping back and forth btw the slides and the whiteboard. Your handwriting is not bad at all, I would prefer more on the whiteboard and maybe just some key points on the slides. At least a little bit more clear division between what is presented on the whiteboard and what is presented on the slides.

What would you suggest to improve? (I worked: 21-23 timmar/vecka)
Sorry, hard to say. The course seems to be pretty mature and properly thought out and organized already.

What advice would you like to give to future course participants?

What advice would you like to give to future course participants? (I worked: 6-8 timmar/vecka)
Not really.
Don't skip lectures. They are good.

What advice would you like to give to future course participants? (I worked: 9-11 timmar/vecka)
Understand the algorithms. Write them down. Everything in the course is based on a few algorithms, if you know them, you'll know almost everything you need.
Work with previous exams.
Take the course
Get really focus at the beginning of the course, especially if you are not familiar with simplex method
Study past exams
Make a list of all the methods taught in the course, check it regularly and repeat the methods you have learned as you do so. This will be of help at the exam as you are not allowed to bring a formula sheet.

What advice would you like to give to future course participants? (I worked: 12-14 timmar/vecka)
The exercise sessions are really useful and interesting !
Visit the lectures, nearly impossible to understand the topics by just reading the slides and even with the recommended book not so easy. The explanations in the lectures and exercises are very helpful.
studera teorifrågorna i tid
Learn for the exam by using the older exams, you can even make a step by step plan for each of the following questions: Use Cutting Stock, use Dantzig-Wolfe, use Lagrange Relaxation. Using the older exams
Work with the content of the course from the beginning, it will help tremendously before the exam.
do what you are told to do in the first lecture
Visit lectures and tutorials if you have time since both are very good. If not, tutorials are more important to visit in my opinion since the Power Point presentation of the lectures is also pretty good, so you can rely on the slides without problems. Furthermore, work on the theory questions in time and last but not least, enjoy it! You will not find many better courses at university than this one!

What advice would you like to give to future course participants? (I worked: 15-17 timmar/vecka)
learn along with the course.
Do exercises during the period.
Start early on theory questions. Don't save them for last minute because then that is the only thing you will have time to do.
Start studying theory questions early :)

What advice would you like to give to future course participants? (I worked: 18-20 timmar/vecka)
Listen to Anders and Axel! Discuss the projects with other groups (in a way that's allowed) it is very helpful with different views even if you're not allowed to use each other's solutions.
Ask questions.

What advice would you like to give to future course participants? (I worked: 21-23 timmar/vecka)
Go to lectures
Have a look at the slides before the lectures. Make sure you have the slides printed out with enough space to take notes. Many things will be explained on the wide board in much more detail than in the slides.

What advice would you like to give to future course participants? (I worked: 27-29 timmar/vecka)
Recommendation: Take an introductory course in Optimization in advance. Otherwise, it will be much harder to keep up with this course. Do not get misled by "Applied" in the course name. Applied refers to the project assignments, the rest of the course is mathematical theory of linear optimization.

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 6-8 timmar/vecka)
Hello students of 2017!

Is there anything else you would like to add? (I worked: 9-11 timmar/vecka)
The exam had nothing to do with the projects! I spent a lot of time doing the projects and I thought... Just kidding. You were pretty clear on that point.
Axel is an amazing teacher
This course was really teaching in a nice and funny way. Really good !

Is there anything else you would like to add? (I worked: 12-14 timmar/vecka)
Really good, but challenging course
tack för kursen!
I believe the teaching assistant was skilled and entertaining. He did a great job with the exercise sessions.
Project groups formed by the teacher are horrible: one person does nearly all the work and the rest enjoys good grades for free. It is really naive to believe in self-assessments. There were people in my group who contributed nothing but 5 or 6 lines to the introduction of the report and in the end stated a higher number of hours on the self-assessment than me who did the major part of the programming and wrote ~70% of the report. If the students had been allowed to form groups themself, I really would have enjoyed the course.
No!

Is there anything else you would like to add? (I worked: 15-17 timmar/vecka)
-no-
Both Anders and Axel did a GREAT JOB with the course! Thank you!!

Is there anything else you would like to add? (I worked: 18-20 timmar/vecka)
I enjoyed the course greatly and learned a lot. Very good structure with the projects and exam.
GAMS is nice.

Is there anything else you would like to add? (I worked: 21-23 timmar/vecka)
Good course
Thank you for the great course. :)

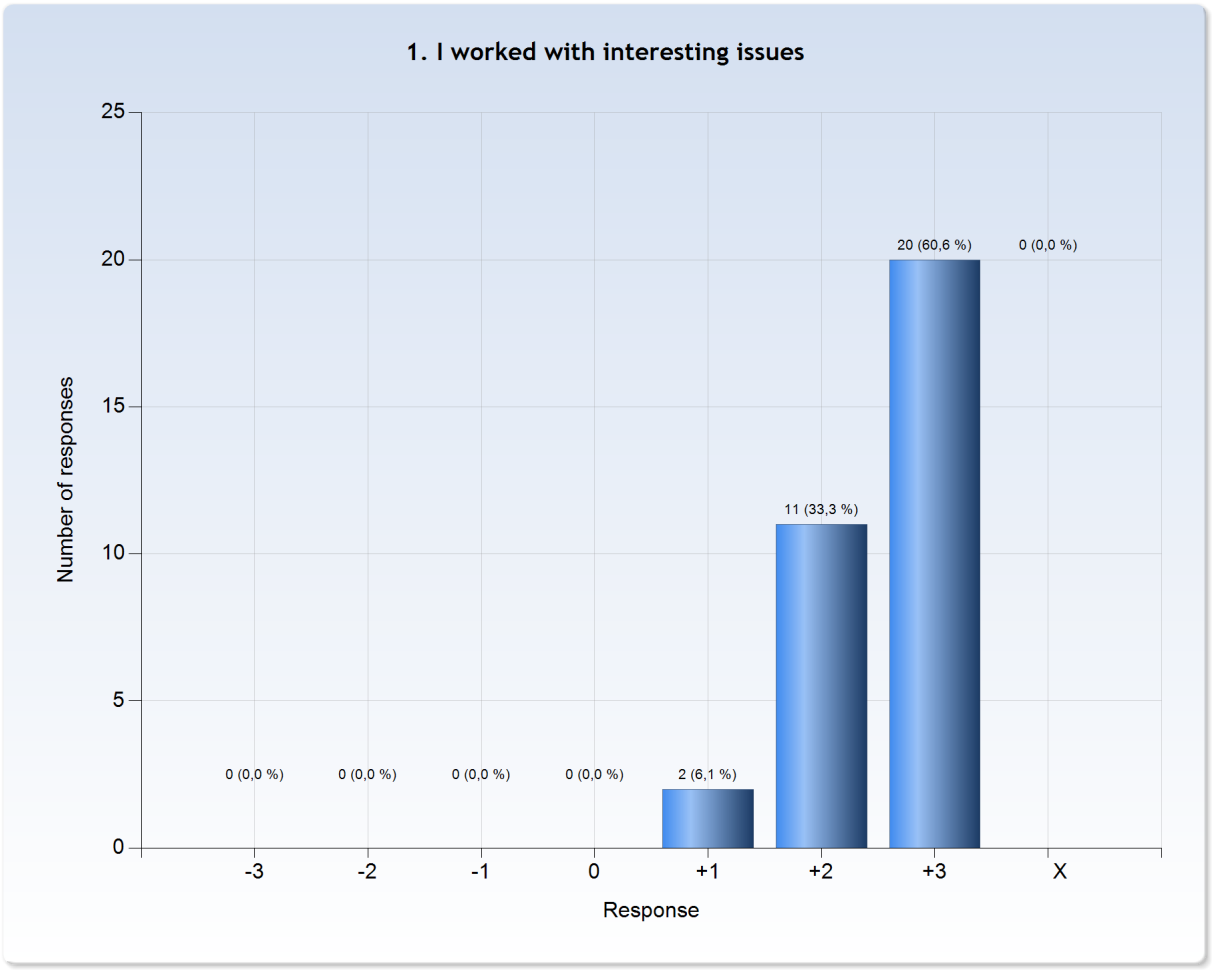
SPECIFIC QUESTIONS

RESPONSE DATA

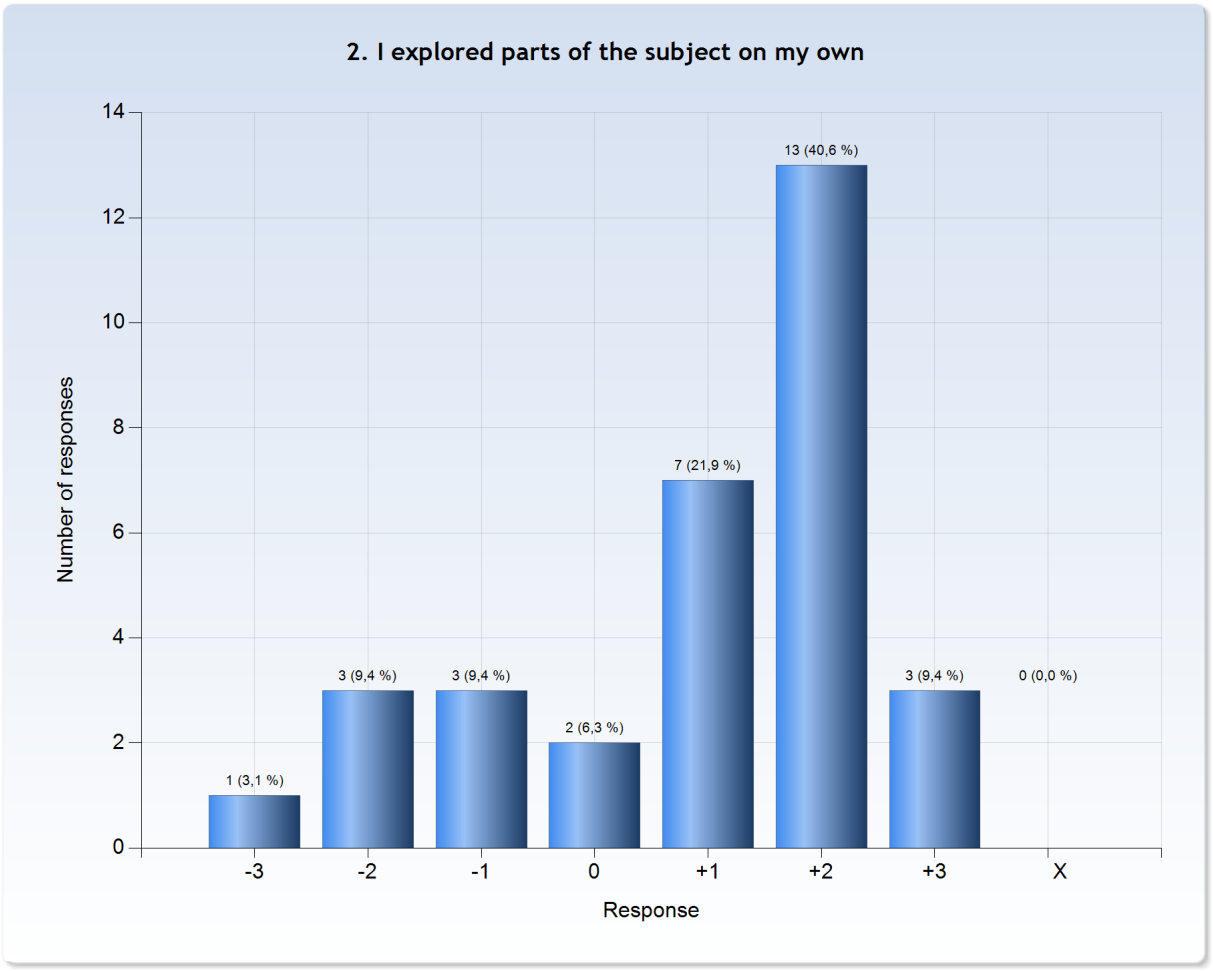
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-3 = No, I strongly disagree with the statement
0 = I am neutral to the statement
+3 = Yes, I strongly agree with the statement

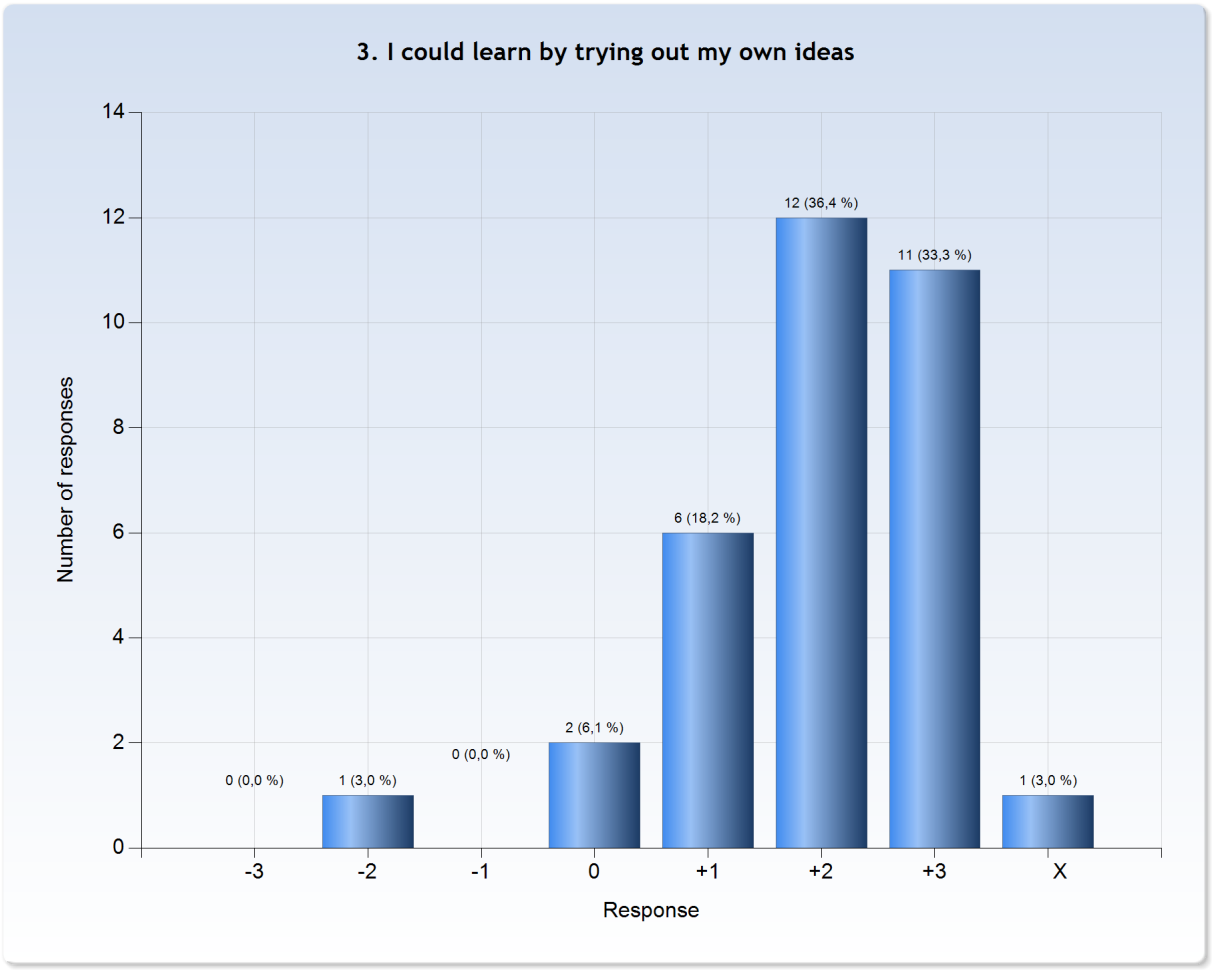
X = I decline to take a position on the statement


1. I worked with interesting issues
Number of responses
25
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
2 (6,1 %)
11 (33,3 %)
20 (60,6 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

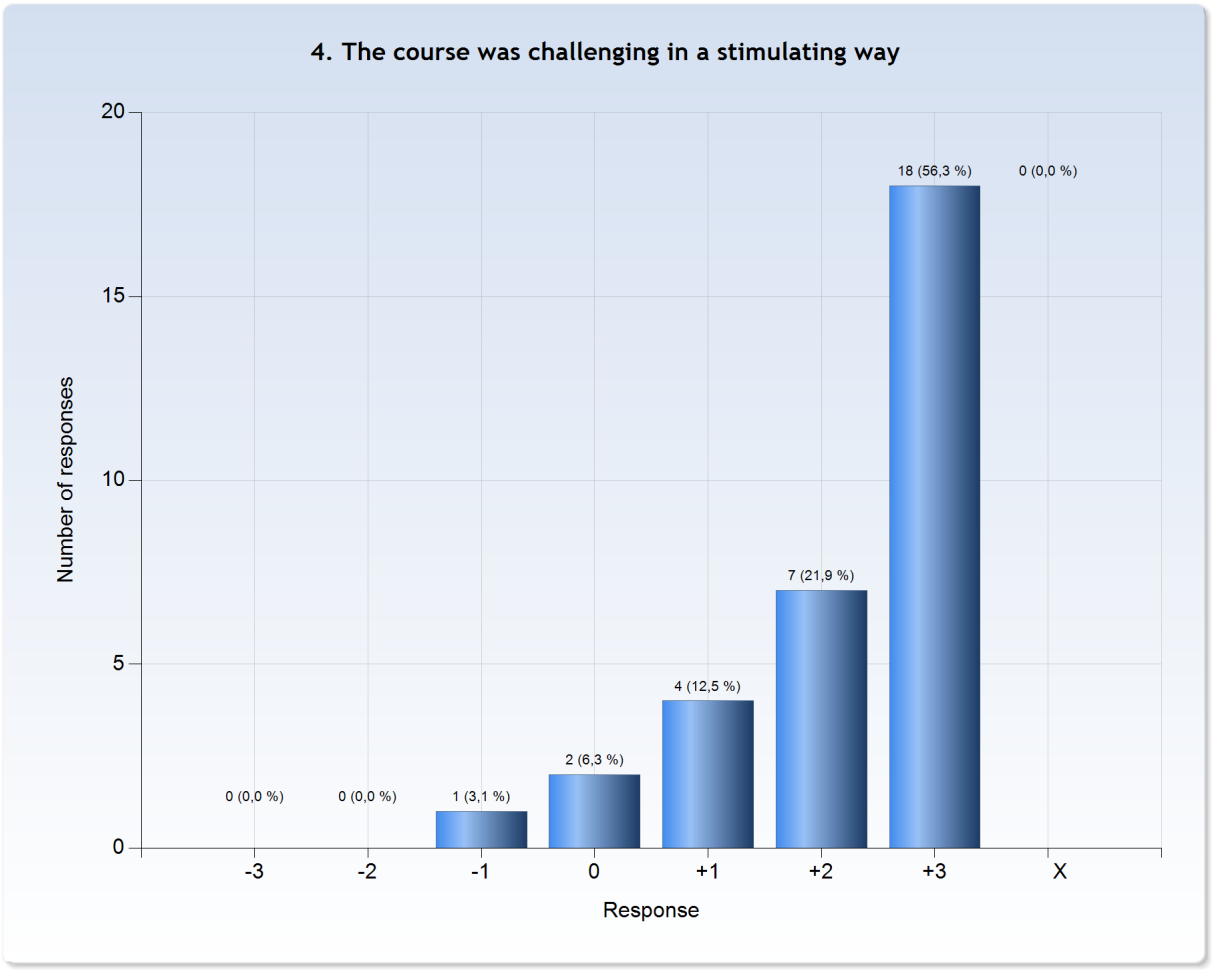
Comments


2. I explored parts of the subject on my own
Number of responses
14
12
10
8
6
4
2
0
1 (3,1 %)
3 (9,4 %)
3 (9,4 %)
2 (6,3 %)
7 (21,9 %)
13 (40,6 %)
3 (9,4 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

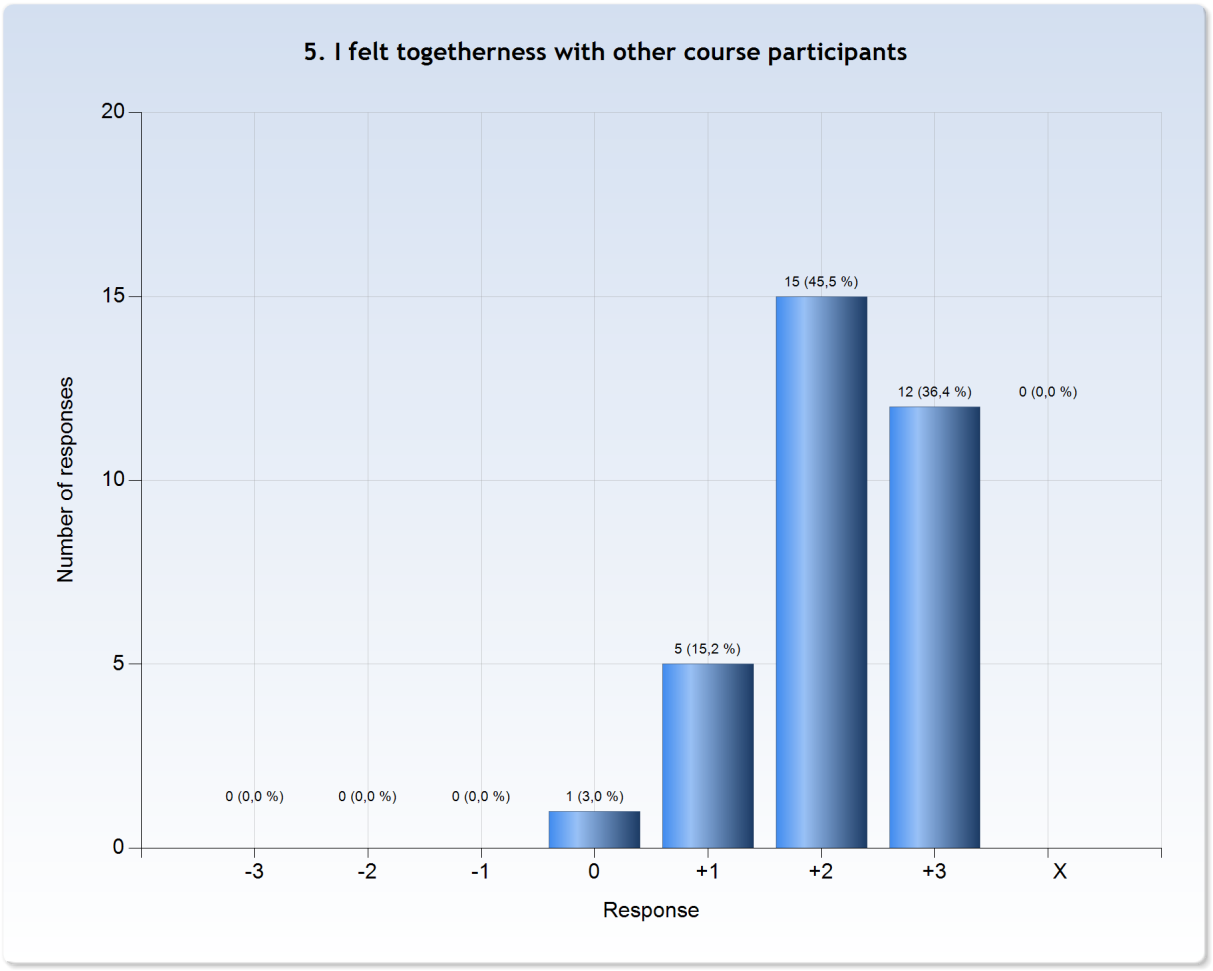
Comments


3. I could learn by trying out my own ideas
Number of responses
Response
0
2
4
6
8
10
12
14
-3
-2
-1
0
+1
+2
+3
X
0 (0,0 %)
1 (3,0 %)
0 (0,0 %)
2 (6,1 %)
6 (18,2 %)
12 (36,4 %)
11 (33,3 %)
1 (3,0 %)

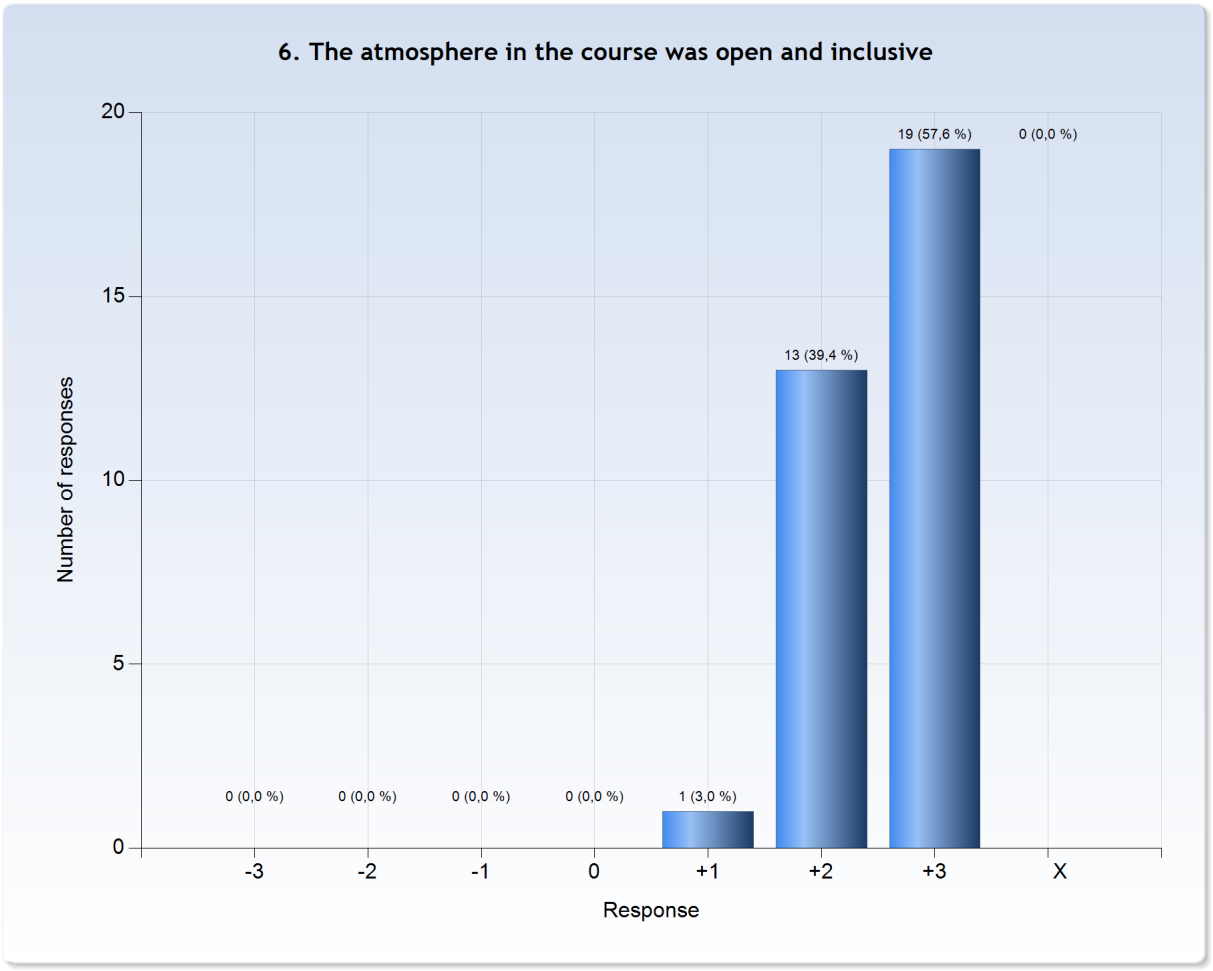
Comments


4. The course was challenging in a stimulating way
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
1 (3,1 %)
2 (6,3 %)
4 (12,5 %)
7 (21,9 %)
18 (56,3 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

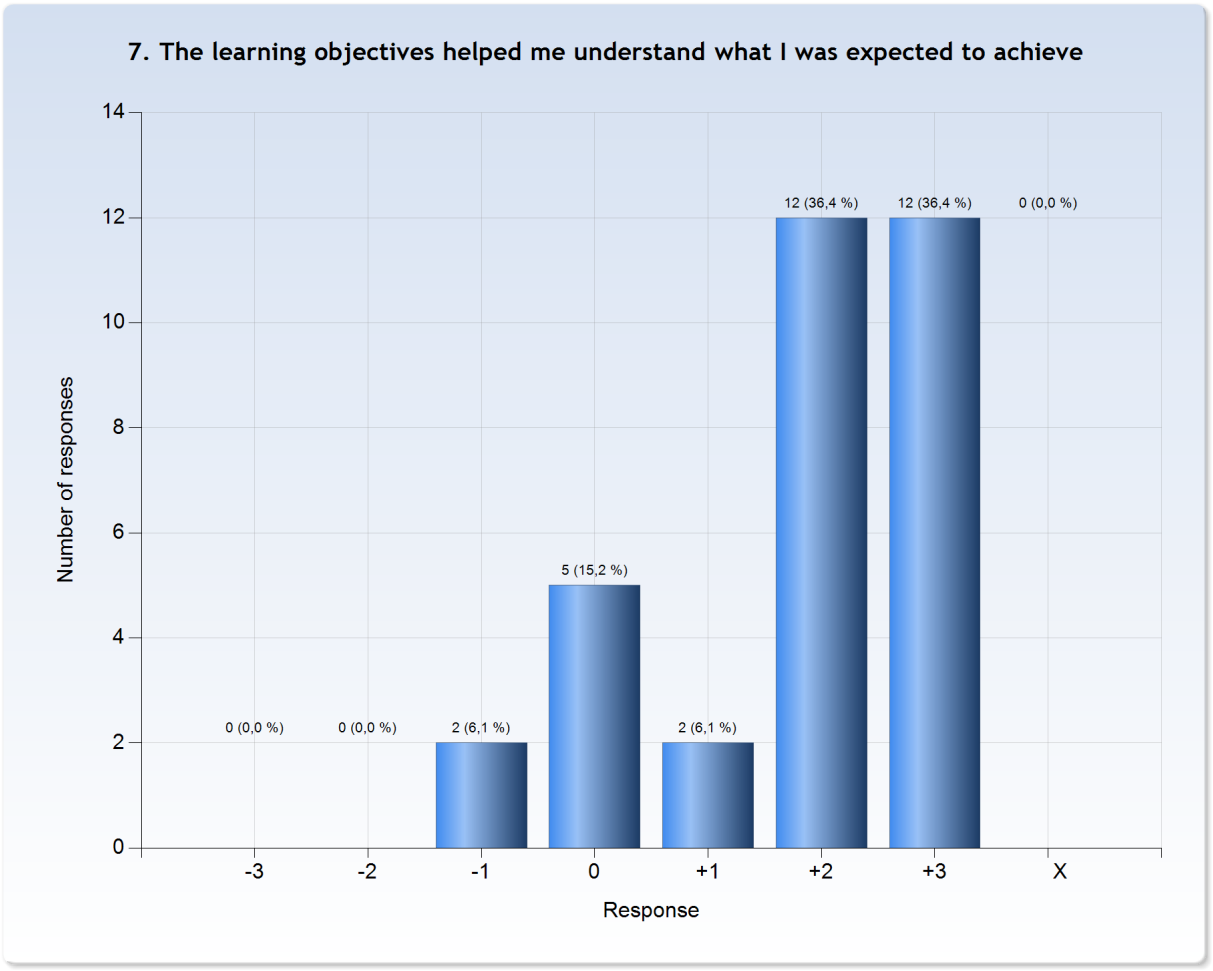
Comments


5. I felt togetherness with other course participants
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (3,0 %)
5 (15,2 %)
15 (45,5 %)
12 (36,4 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

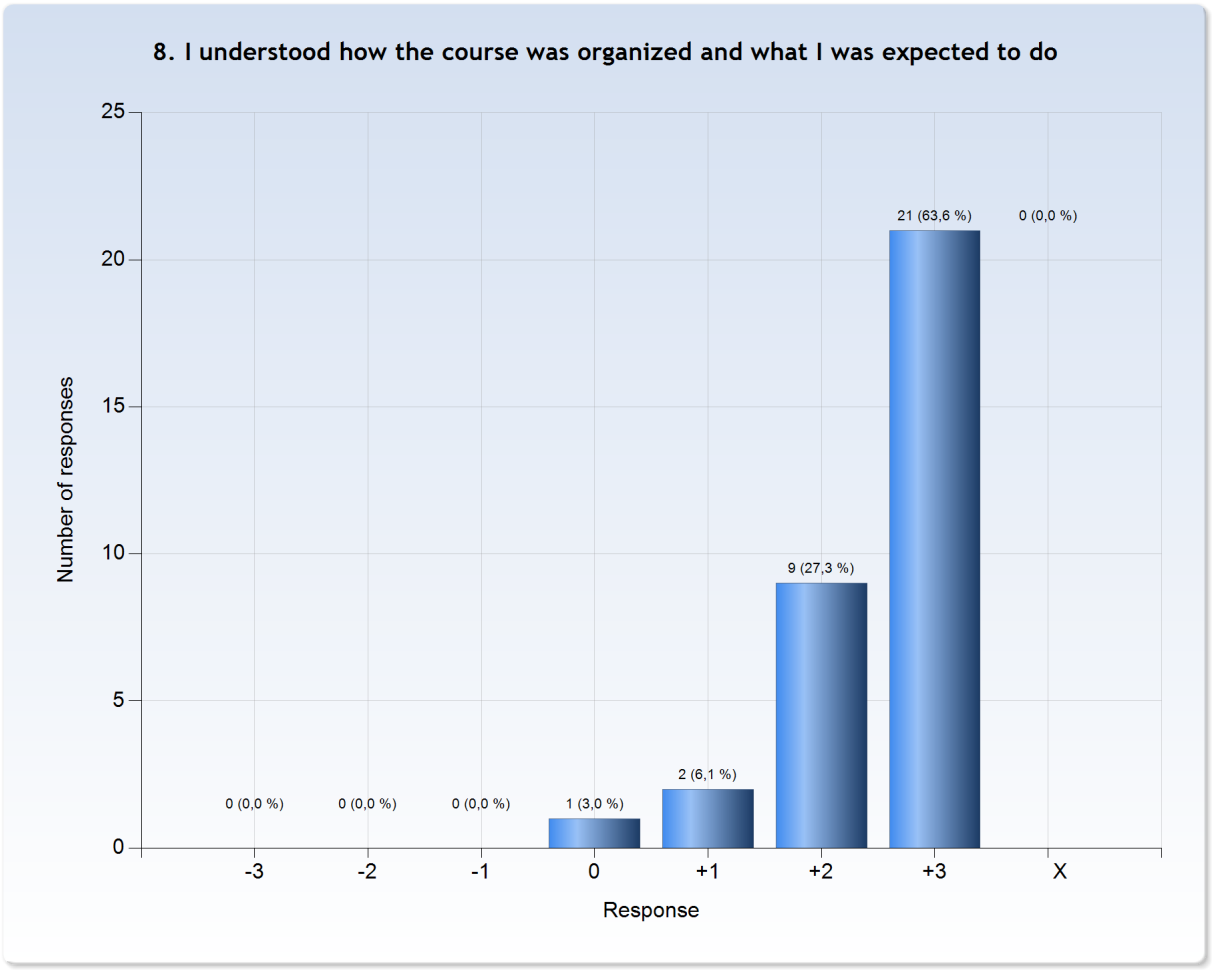

6. The atmosphere in the course was open and inclusive
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (3,0 %)
13 (39,4 %)
19 (57,6 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments



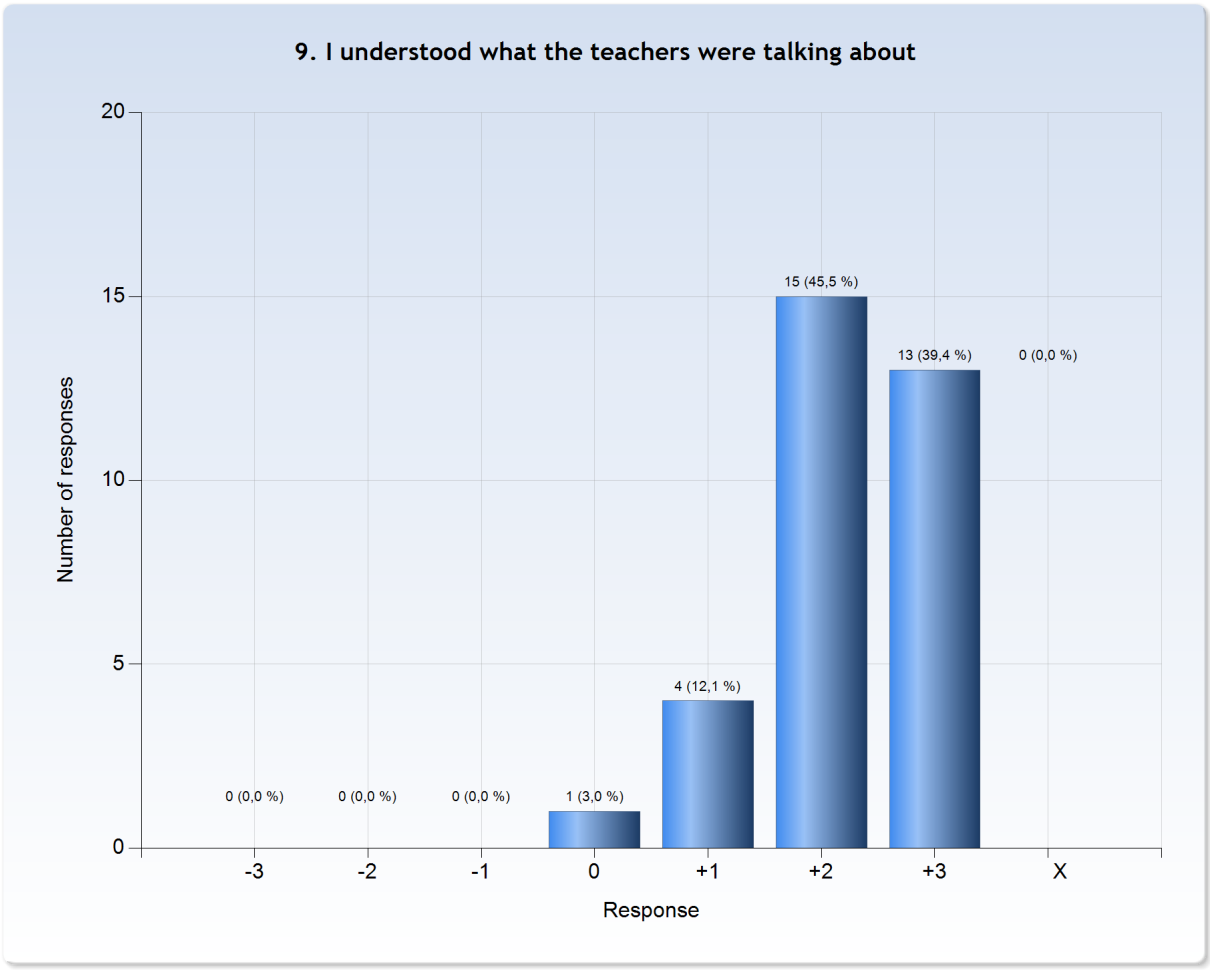
Comments

Comments (My response was: -1)
They weren't clear?



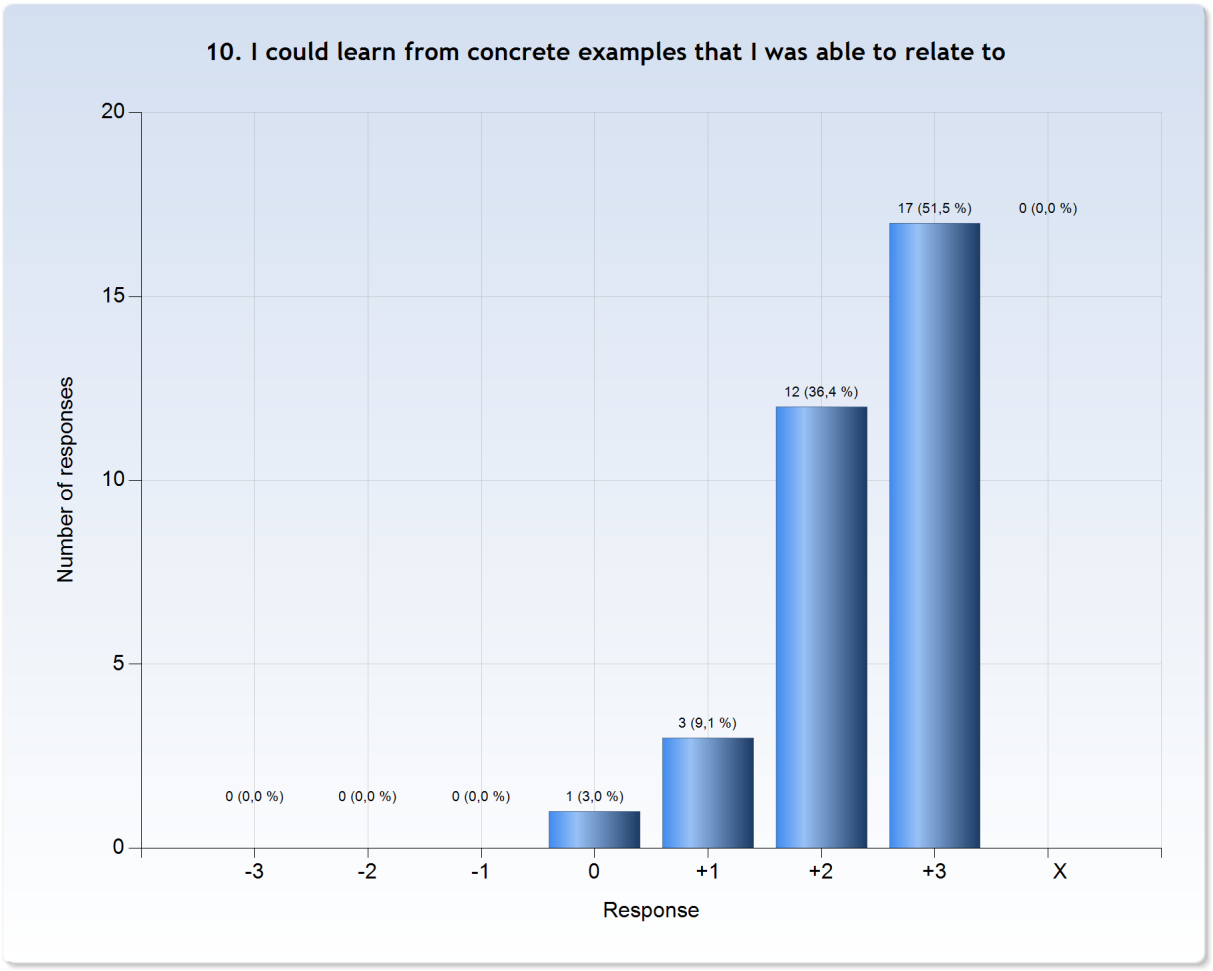
Comments

Comments (My response was: +3)
Very good structure of the course!

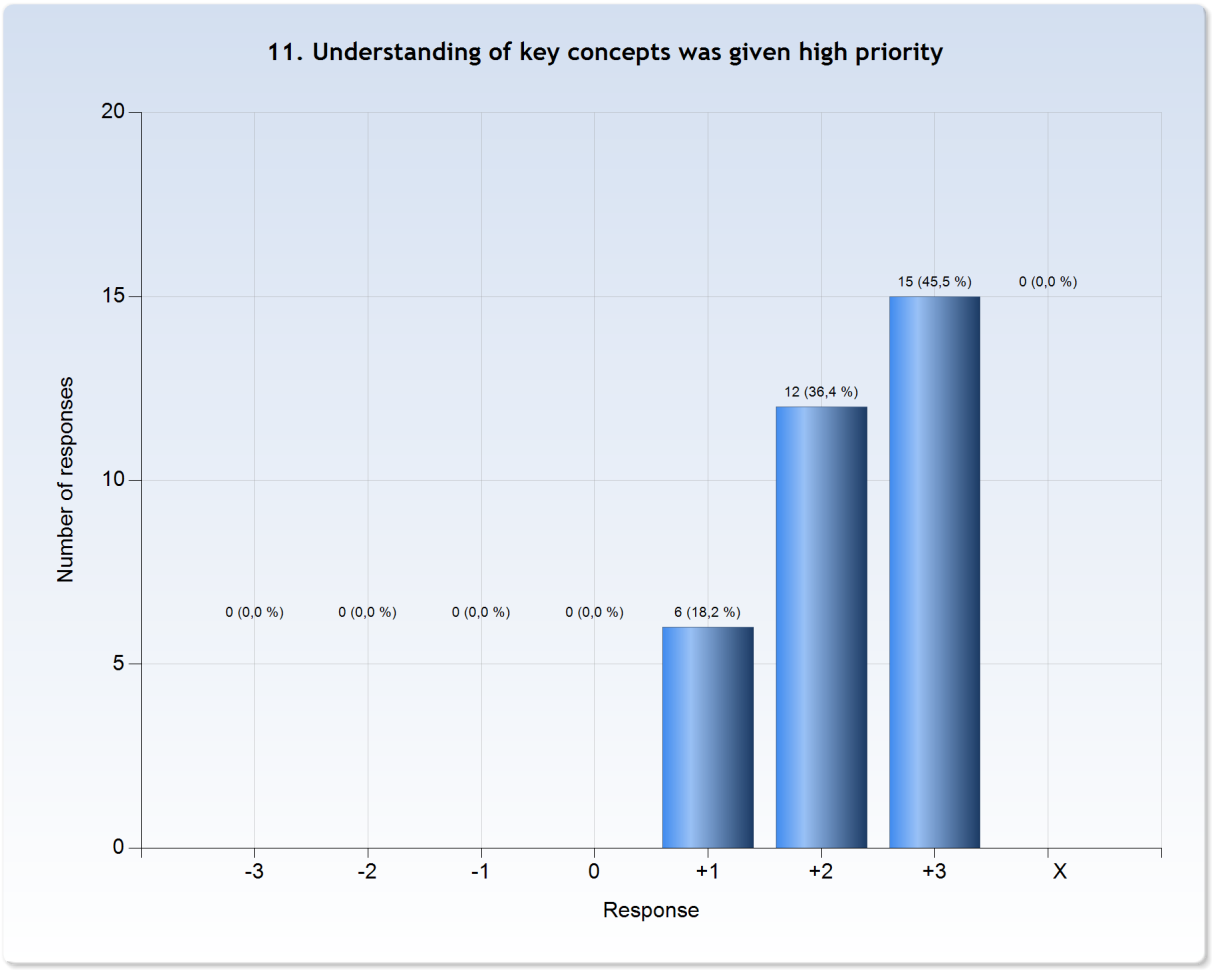


Comments

Comments (My response was: +3)
Amazing lectures and tutorials!

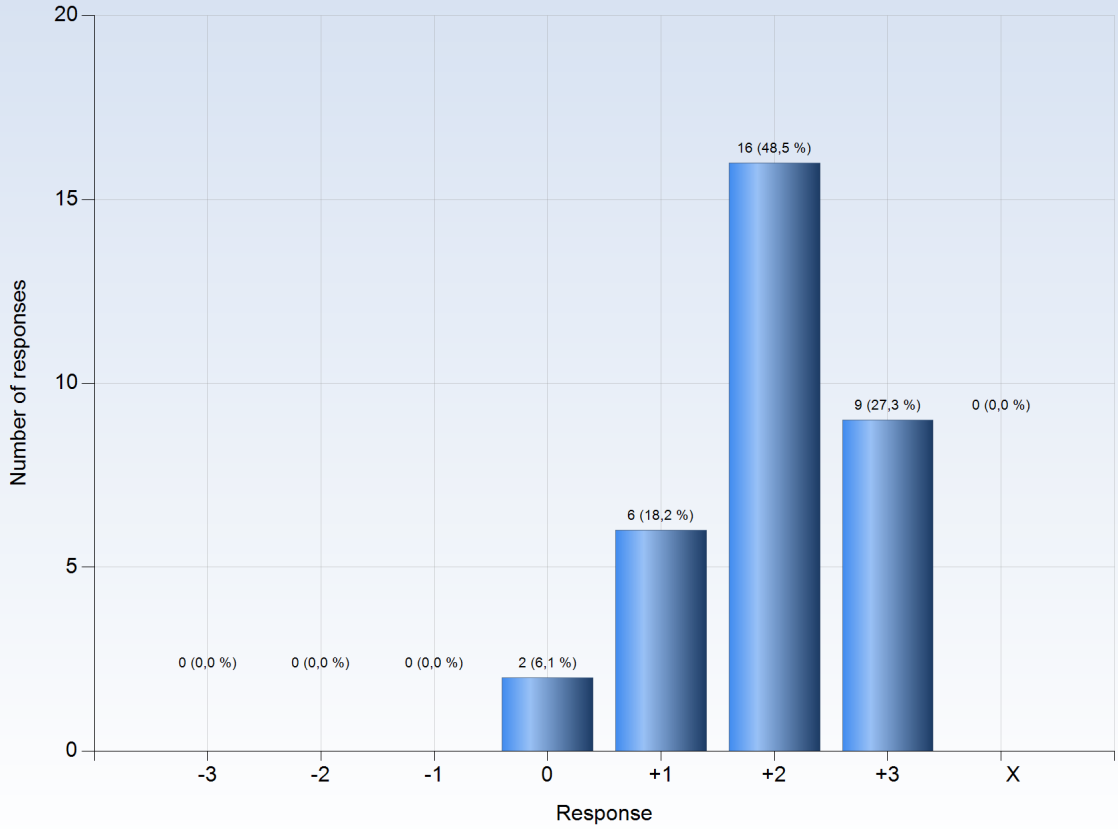

10. I could learn from concrete examples that I was able to relate to
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (3,0 %)
3 (9,1 %)
12 (36,4 %)
17 (51,5 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

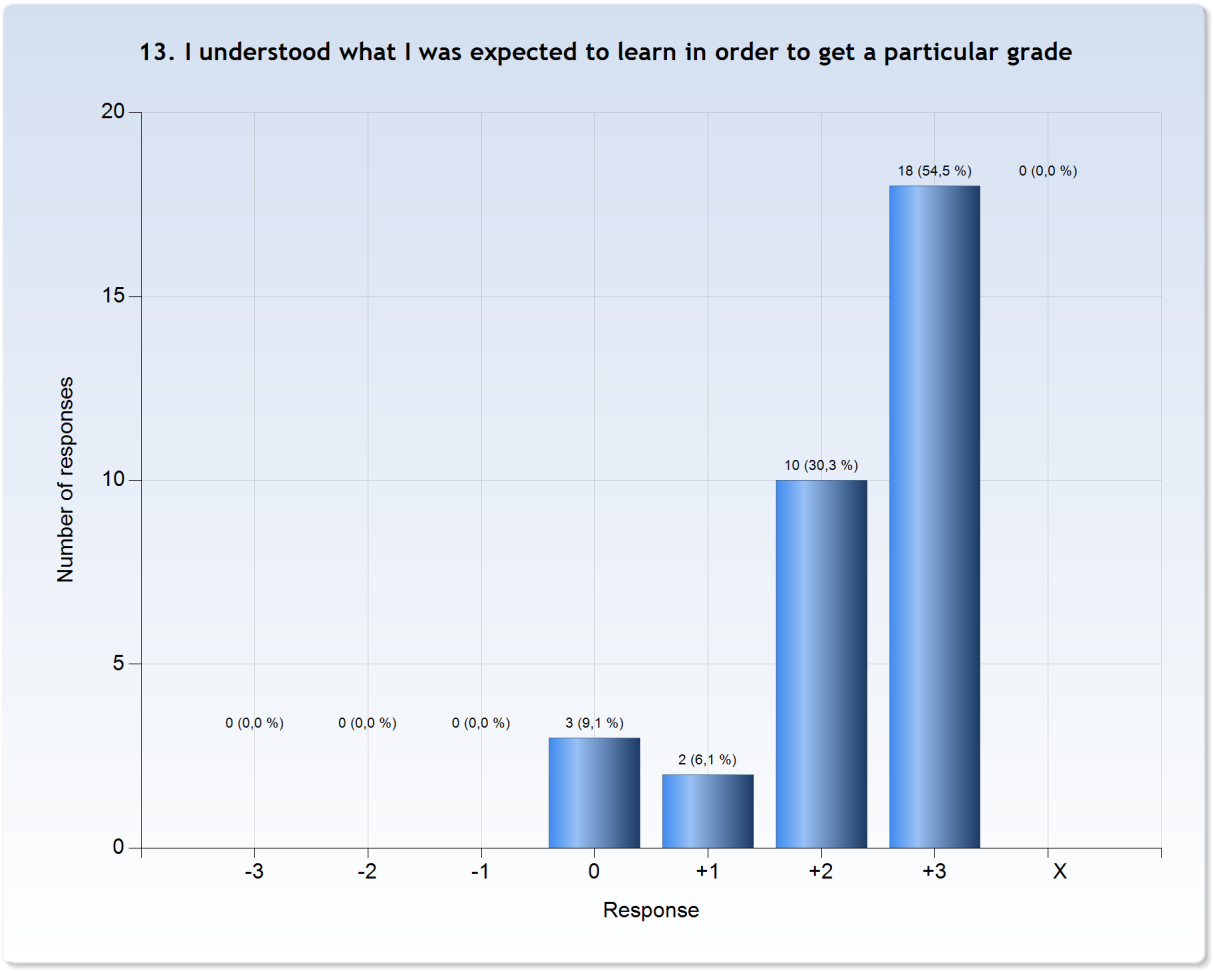

11. Understanding of key concepts was given high priority
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
6 (18,2 %)
12 (36,4 %)
15 (45,5 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

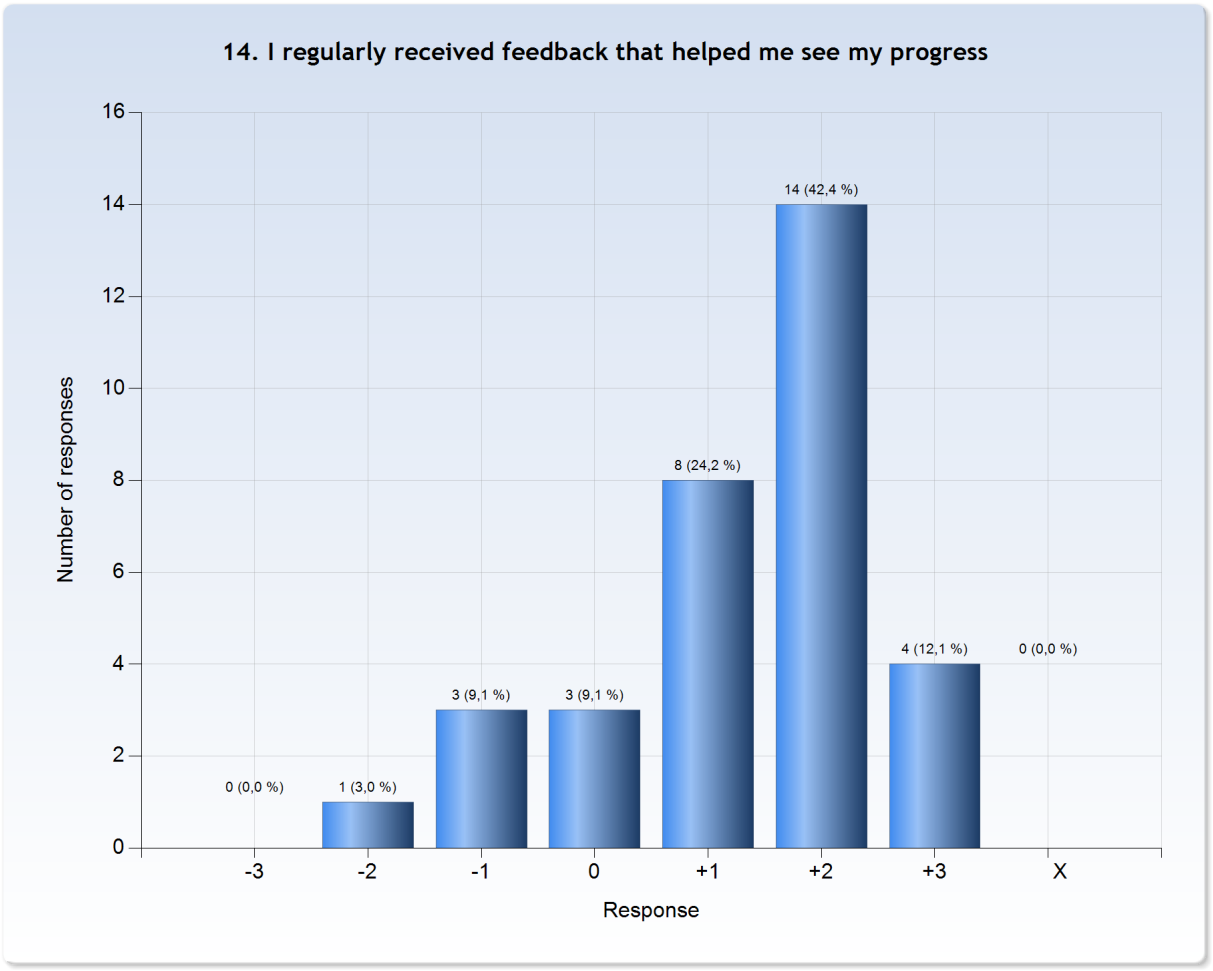
12. The course activities helped me to reach the learning objectives efficiently



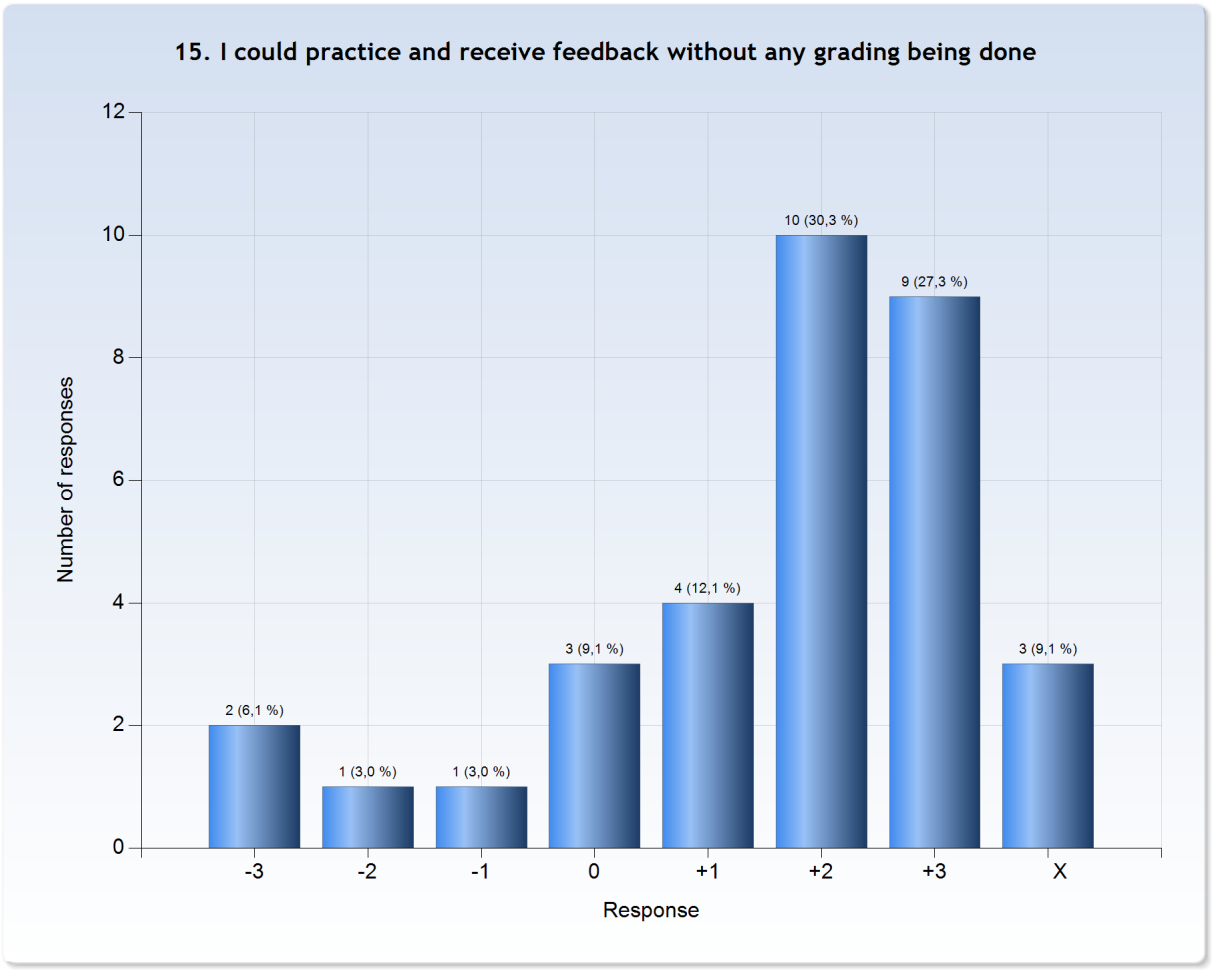
Comments


13. I understood what I was expected to learn in order to get a particular grade
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
3 (9,1 %)
2 (6,1 %)
10 (30,3 %)
18 (54,5 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

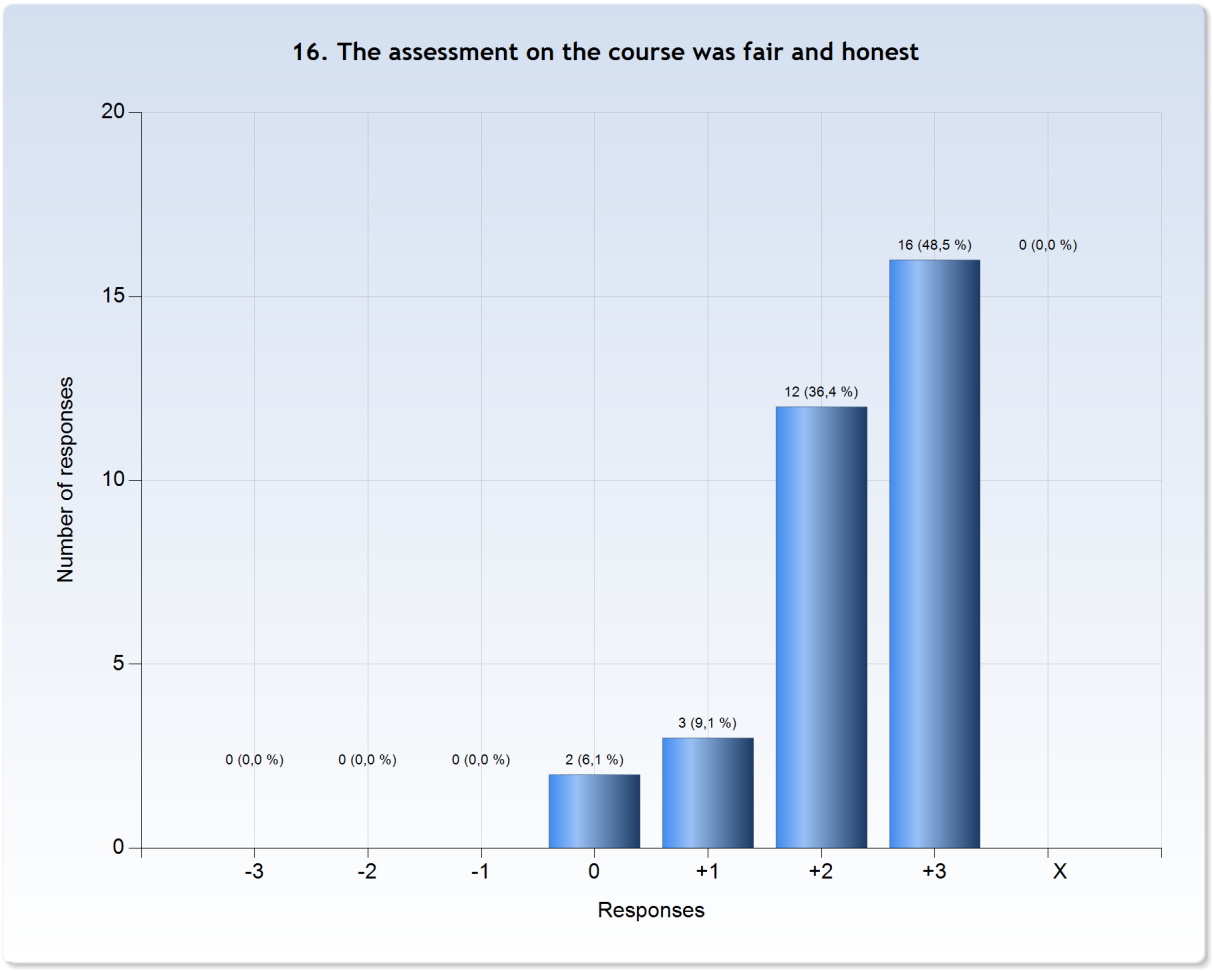
Comments


14. I regularly received feedback that helped me see my progress
Number of responses
16
14
12
10
8
6
4
2
0
0 (0,0 %)
1 (3,0 %)
3 (9,1 %)
3 (9,1 %)
8 (24,2 %)
14 (42,4 %)
4 (12,1 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

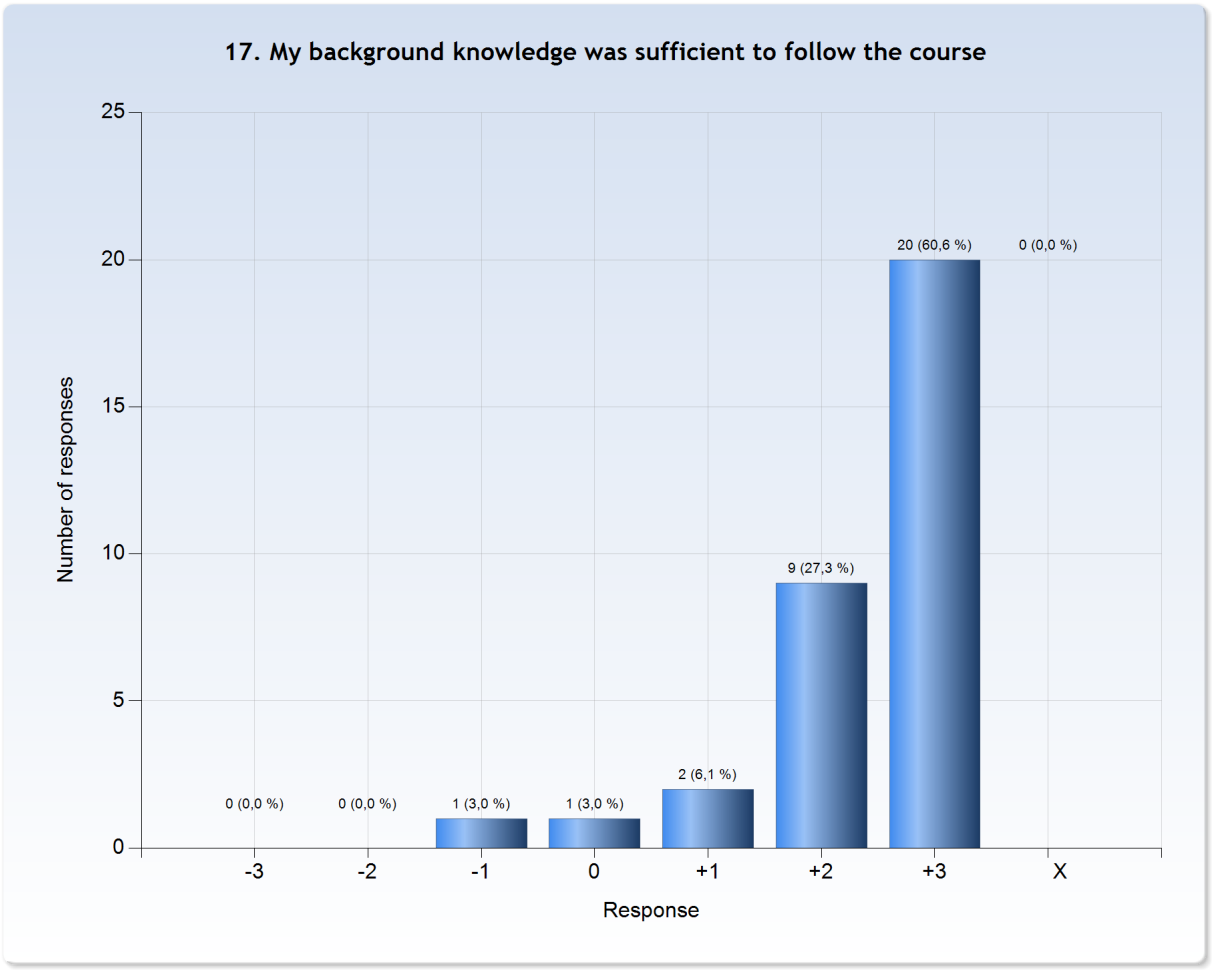
Comments


15. I could practice and receive feedback without any grading being done
Number of responses
Response
0
2
4
6
8
10
12
-3
-2
-1
0
+1
+2
+3
X
2 (6,1 %)
1 (3,0 %)
1 (3,0 %)
3 (9,1 %)
4 (12,1 %)
10 (30,3 %)
9 (27,3 %)
3 (9,1 %)

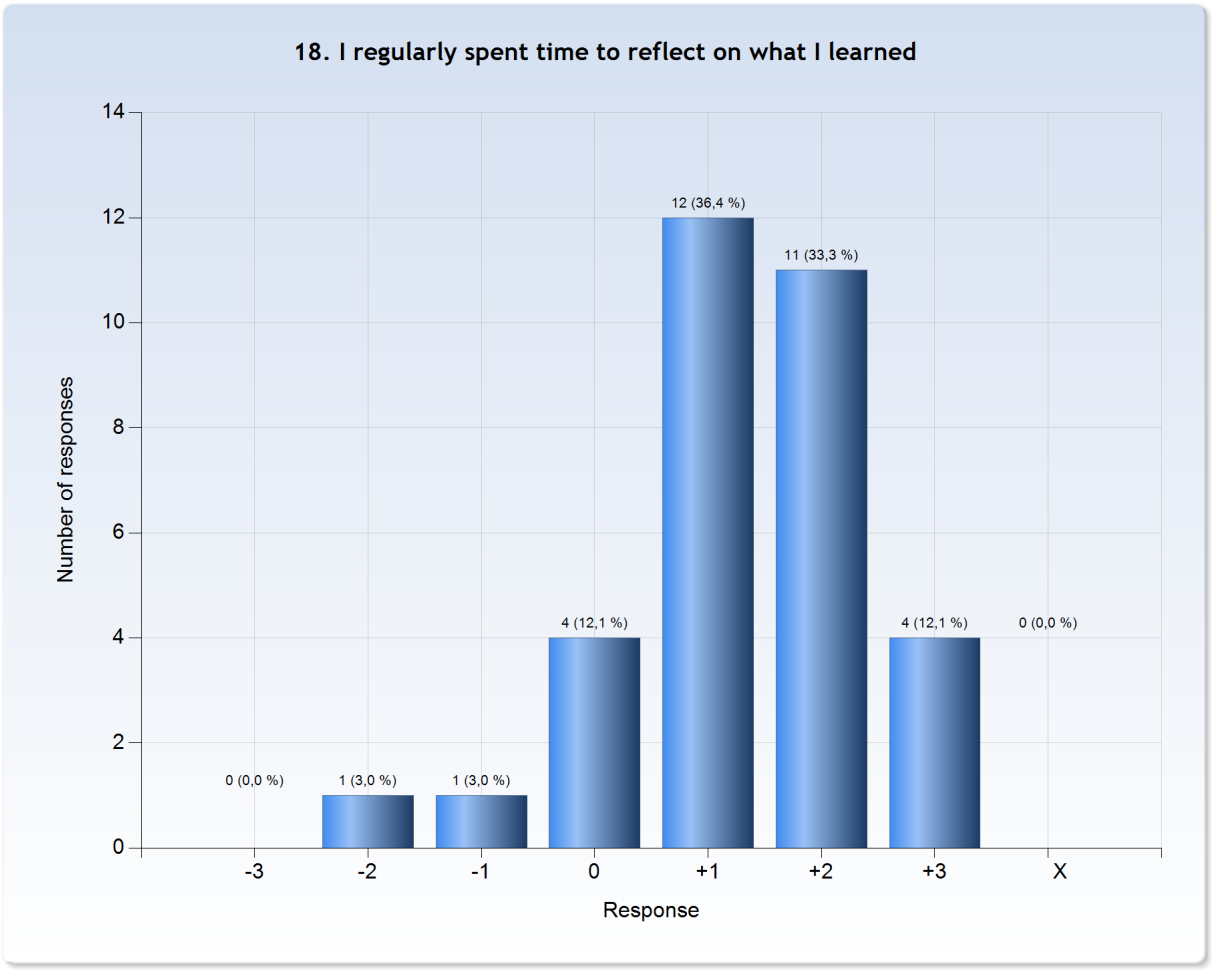
Comments


16. The assessment on the course was fair and honest
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
2 (6,1 %)
3 (9,1 %)
12 (36,4 %)
16 (48,5 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Responses

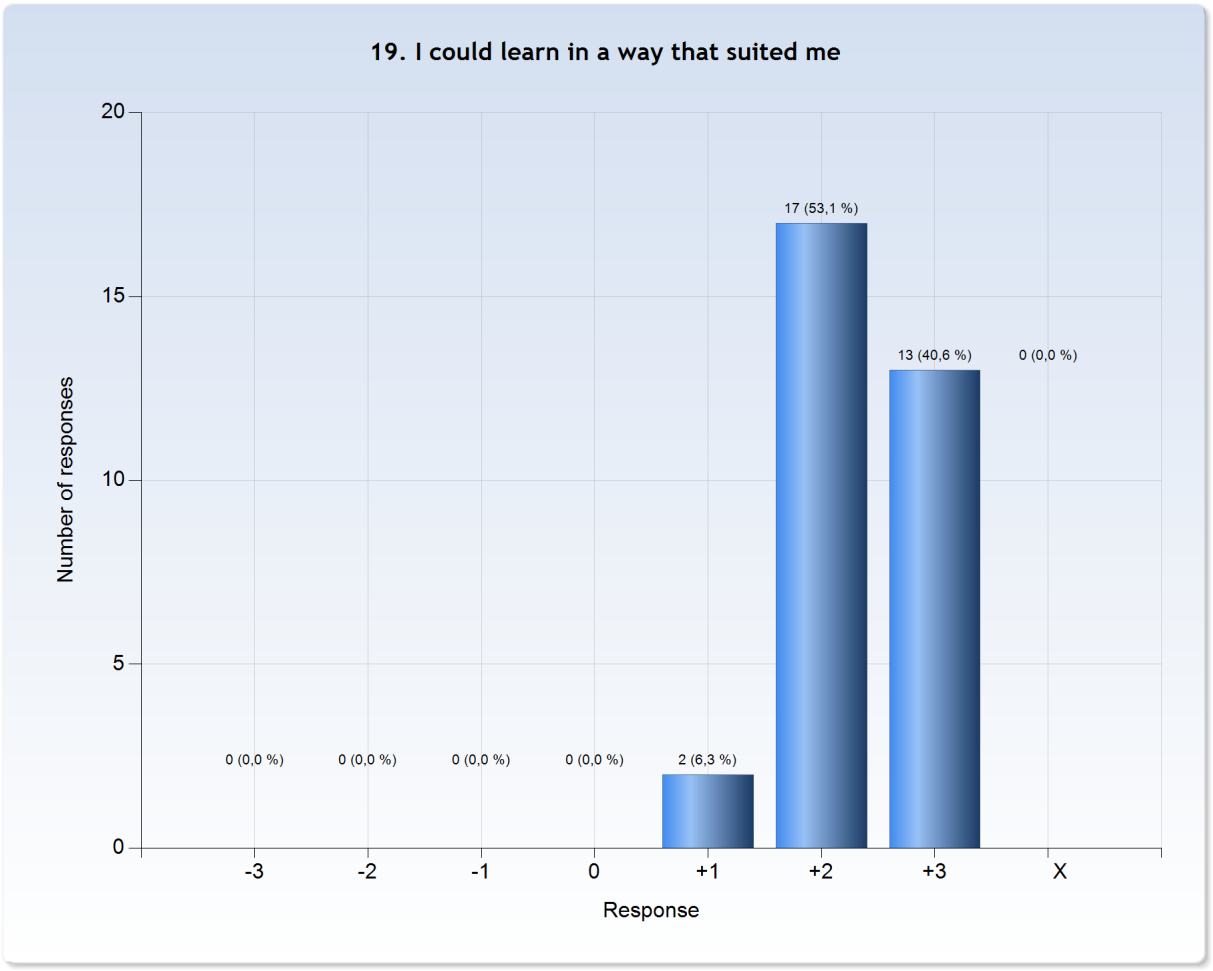
Comments


17. My background knowledge was sufficient to follow the course
Number of responses
25
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
1 (3,0 %)
1 (3,0 %)
2 (6,1 %)
9 (27,3 %)
20 (60,6 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

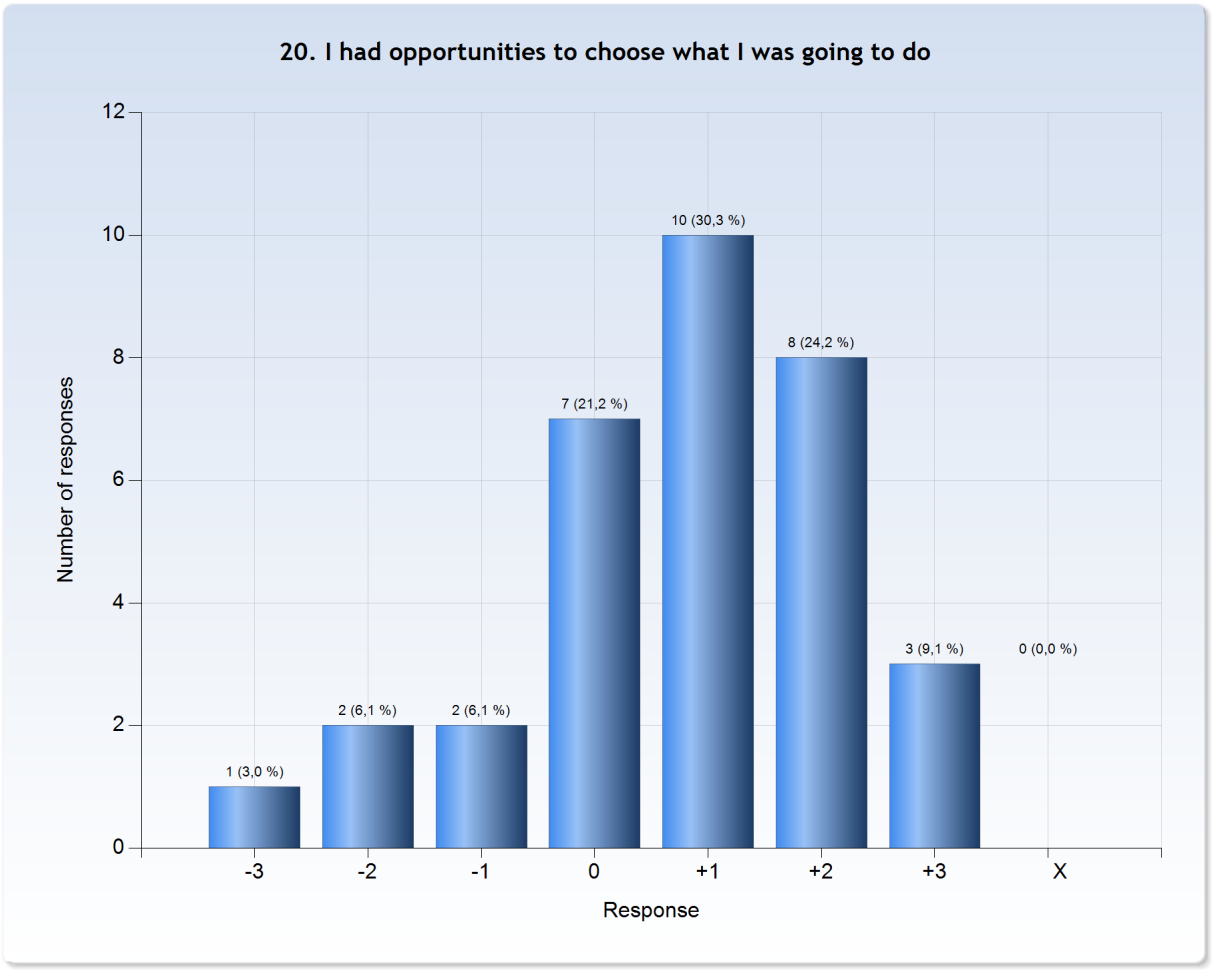
Comments


18. I regularly spent time to reflect on what I learned
Number of responses
14
12
10
8
6
4
2
0
0 (0,0 %)
1 (3,0 %)
1 (3,0 %)
4 (12,1 %)
12 (36,4 %)
11 (33,3 %)
4 (12,1 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

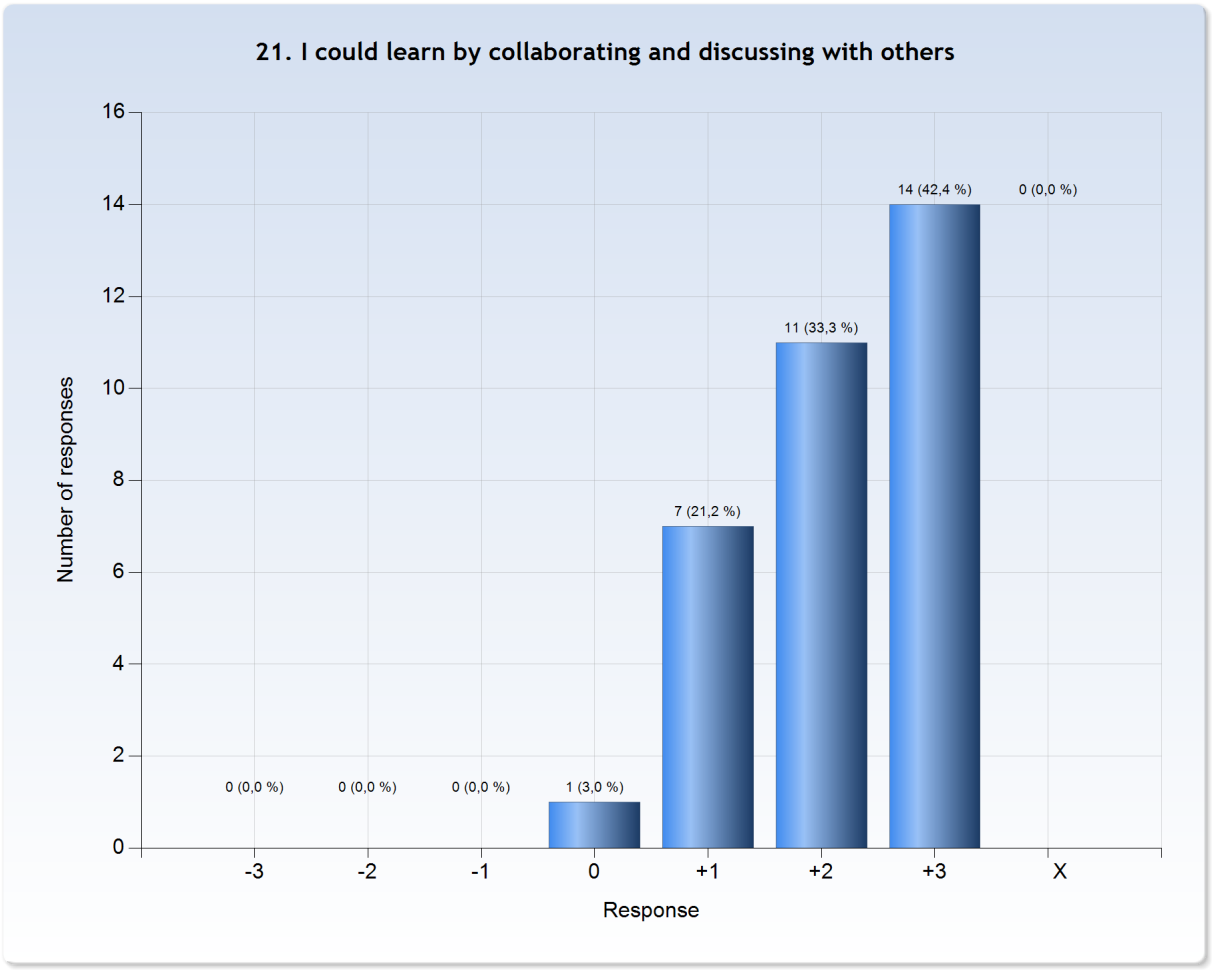

19. I could learn in a way that suited me
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
2 (6,3 %)
17 (53,1 %)
13 (40,6 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

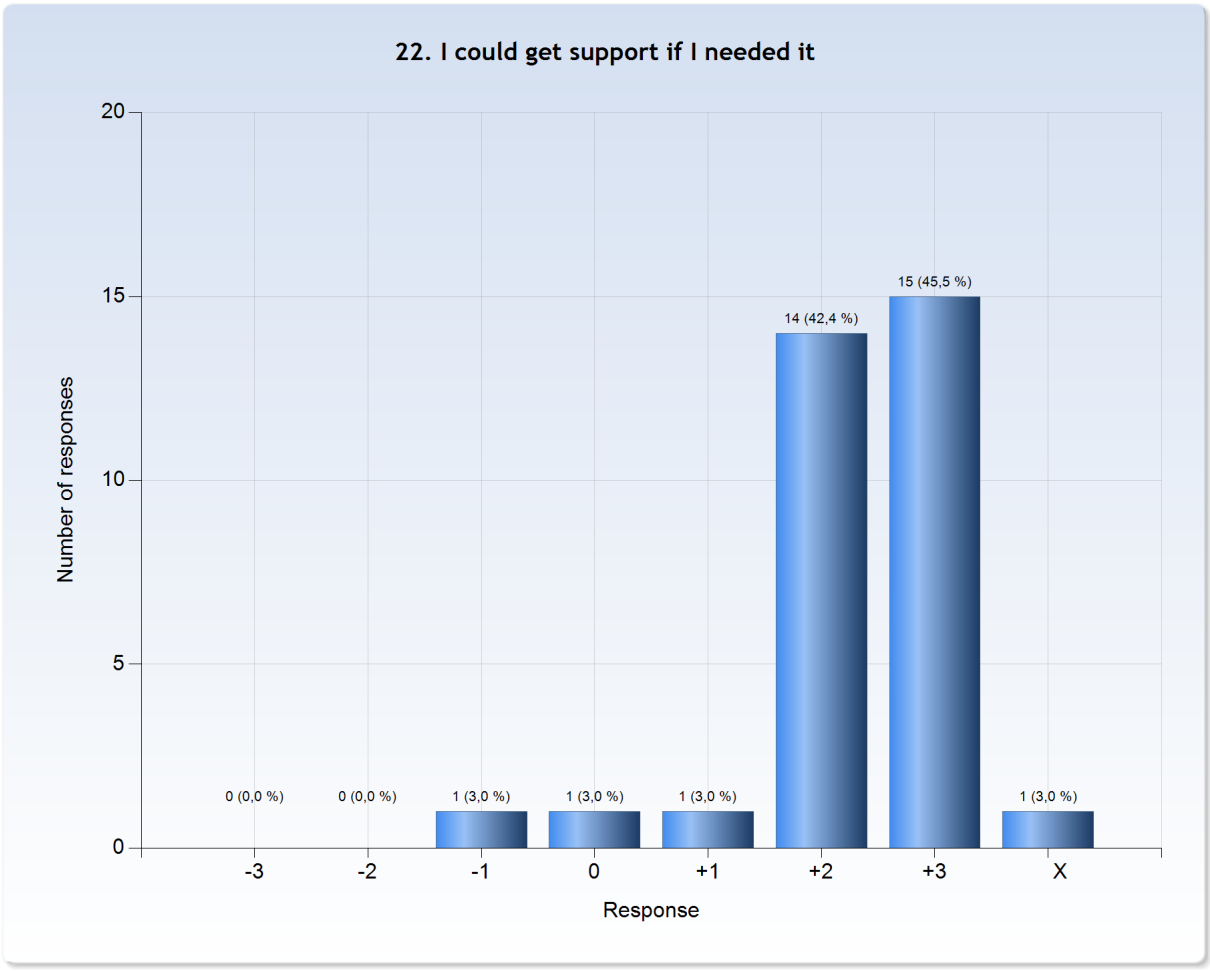


Comments

Comments (My response was: 0)
It would be nice to be able to choose projects (perhaps with limitiations on how many people that can choose the same project)


21. I could learn by collaborating and discussing with others
Number of responses
16
14
12
10
8
6
4
2
0
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (3,0 %)
7 (21,2 %)
11 (33,3 %)
14 (42,4 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments


22. I could get support if I needed it
Number of responses
20
15
10
5
0
0 (0,0 %)
0 (0,0 %)
1 (3,0 %)
1 (3,0 %)
1 (3,0 %)
14 (42,4 %)
15 (45,5 %)
1 (3,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments