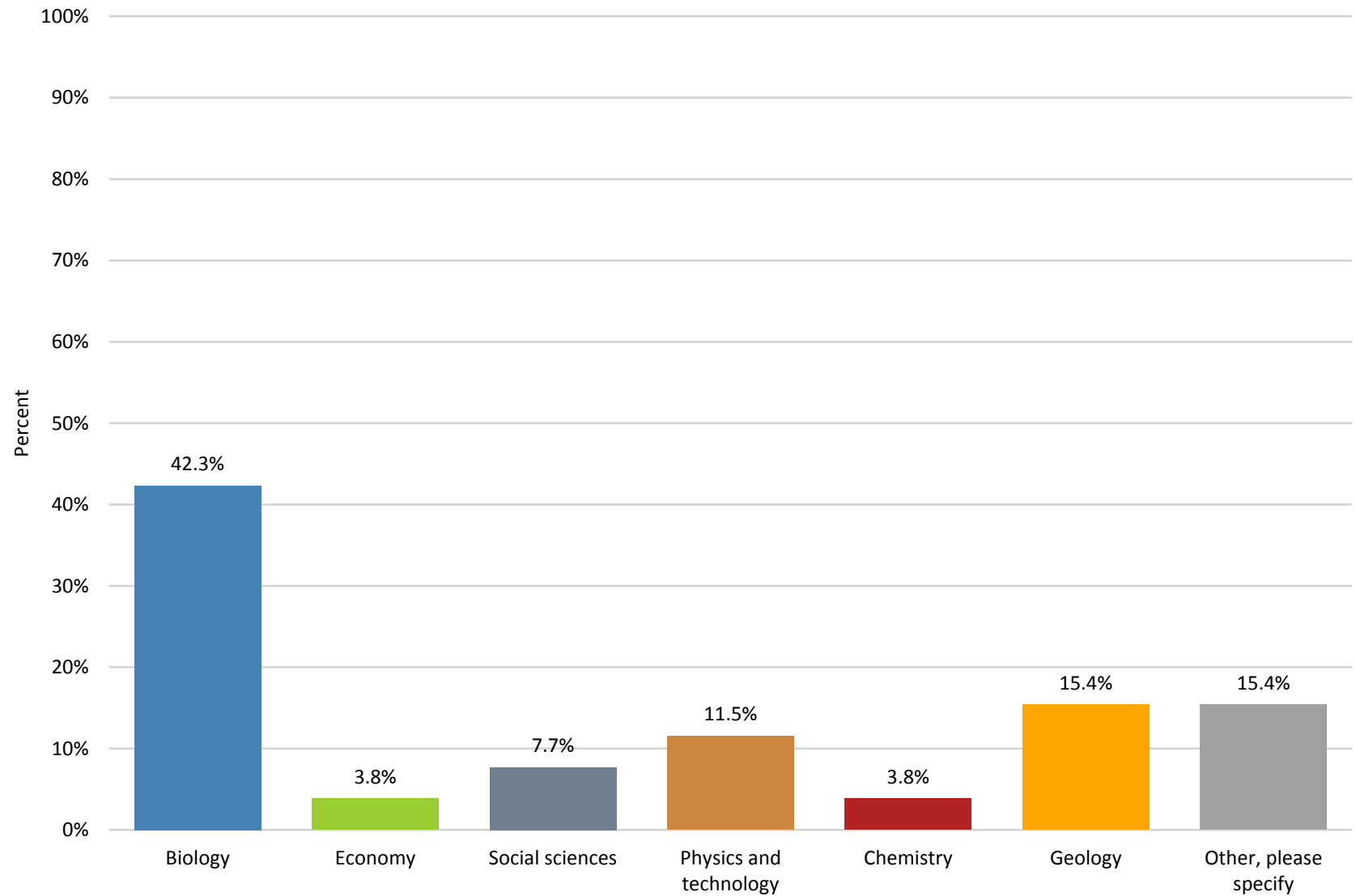
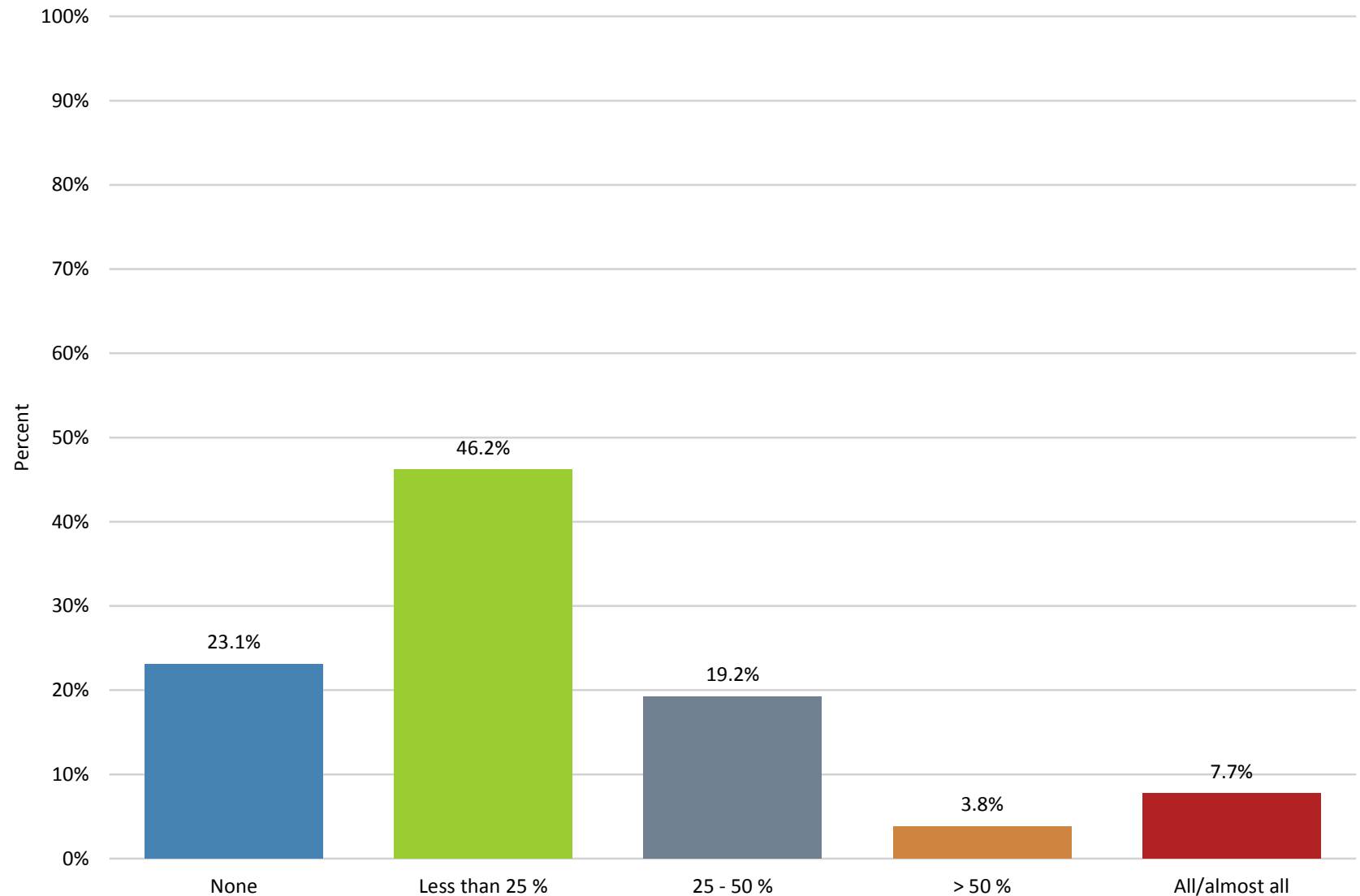


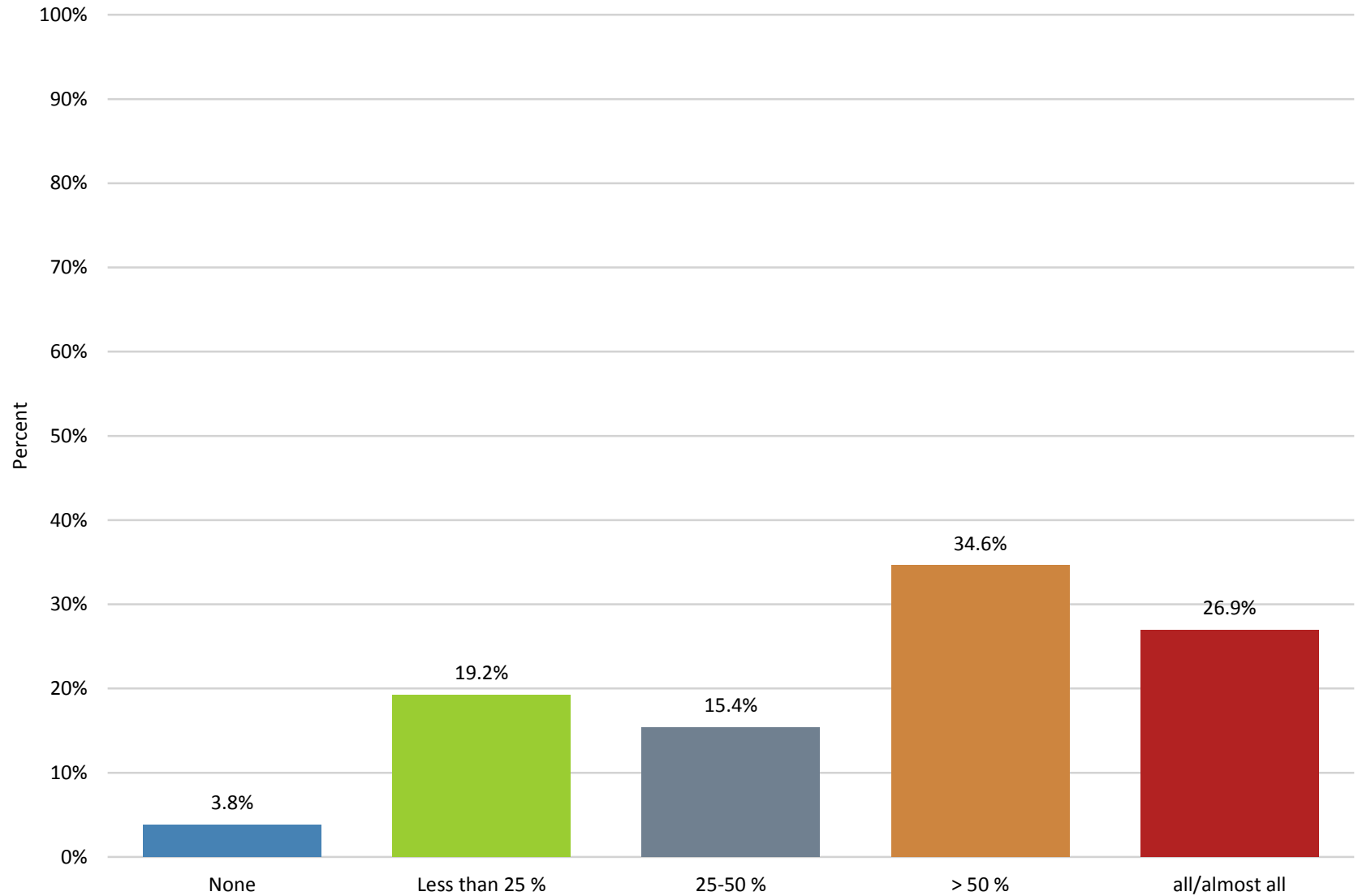
1. What is your scientific background?



3. How much of the required reading had you read before the course started?



4. How much of the required reading had you read by the time the lectures and seminars ended?



5. In case your answer was not “all/almost all”, please explain why this was the case

My answer was all/almost all

Tried but couldn't manage time to read all...

I did not want to spend my time on articles that they are not in my field.

I did not have time to read all the required reading. Some of the articles was very long, and i simply did not have time to finish them.

.

Too busy with other stuff

Did not have time between full days of the course and a busy lab-schedule. For some days there were many long papers, which is difficult to get through in an afternoon (since one did not have much of a chance to read beforehand).

Readings were only available a week before course-start. The week before the course was also very busy for me. If the reading list had been available somewhat earlier I would have been able to read more beforehand. Early January would be ideal for us so that we can read a paper now and then between other work in prep. for the course.

Time, some other obligations before, did some selective reading for the essay.

Short time from admission to course started.

Most of the required reading papers are not easy to read. 1. Due to the language, I'm not native English speaker, had no philosophy background at all, some of the words and logic is quite difficult to follow. 2. An experimental try of not reading the papers once turned out not affecting the understanding of the lecture, so I started not stressed about the reading.

I did read all of the required literature during the course.

Not relevant.

Limited time between lectures to keep up with the reading; I'd like to read in advance of a lecture to keep it relevant..

There were many articles to read before lectures, so because of lack of enough time.

The articles were difficult to understand or to get their point, I had to read more than twice to have a slight understanding. But it did get better after the lectures.

Agenda extremely busy, so no time to start reading before the course started.

There was too much to read. So i read what I could.

5. In case your answer was not “all/almost all”, please explain why this was the case

Read the required reading ahead for each day. Therefore I had only read the reading for monday before the course started.

Because I was so busy with different courses so I preferred to stick to most important ones.

Overall i think it was to much material that is difficult to read and comprehend for natural scientists. Combined with daily workload I saw little use of reading the articles or in case I actually did, I got little out of it.

some parts of the reading did not fit into my area of research or the essay i was planning to work on.

Philosophical papers are extremely long-winded. I would have read more of them if they got to the point quicker.

X

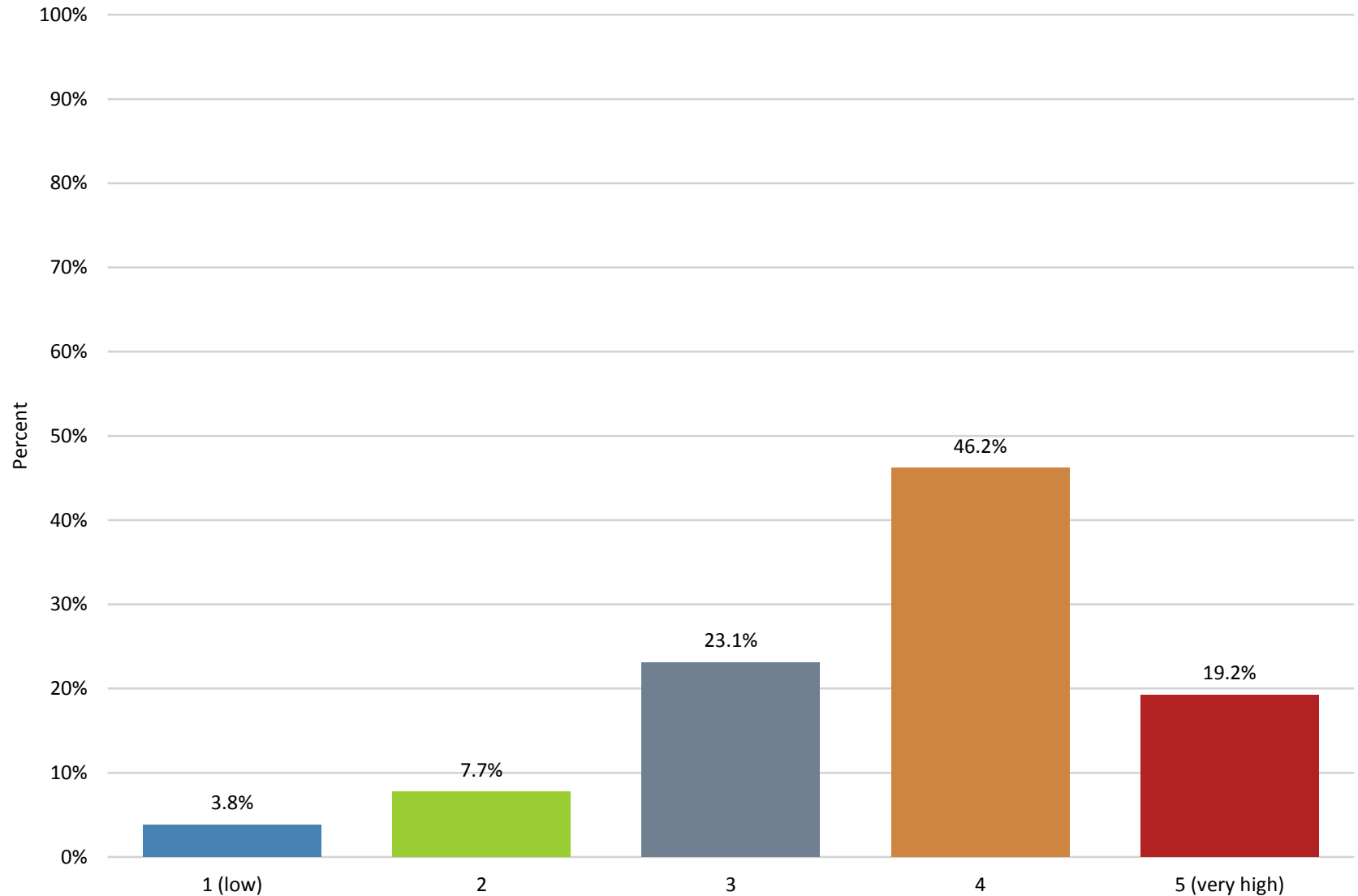
N/A

Too much required reading. Course overlap with another course. Information could have been better, then I would have read more before the course started.

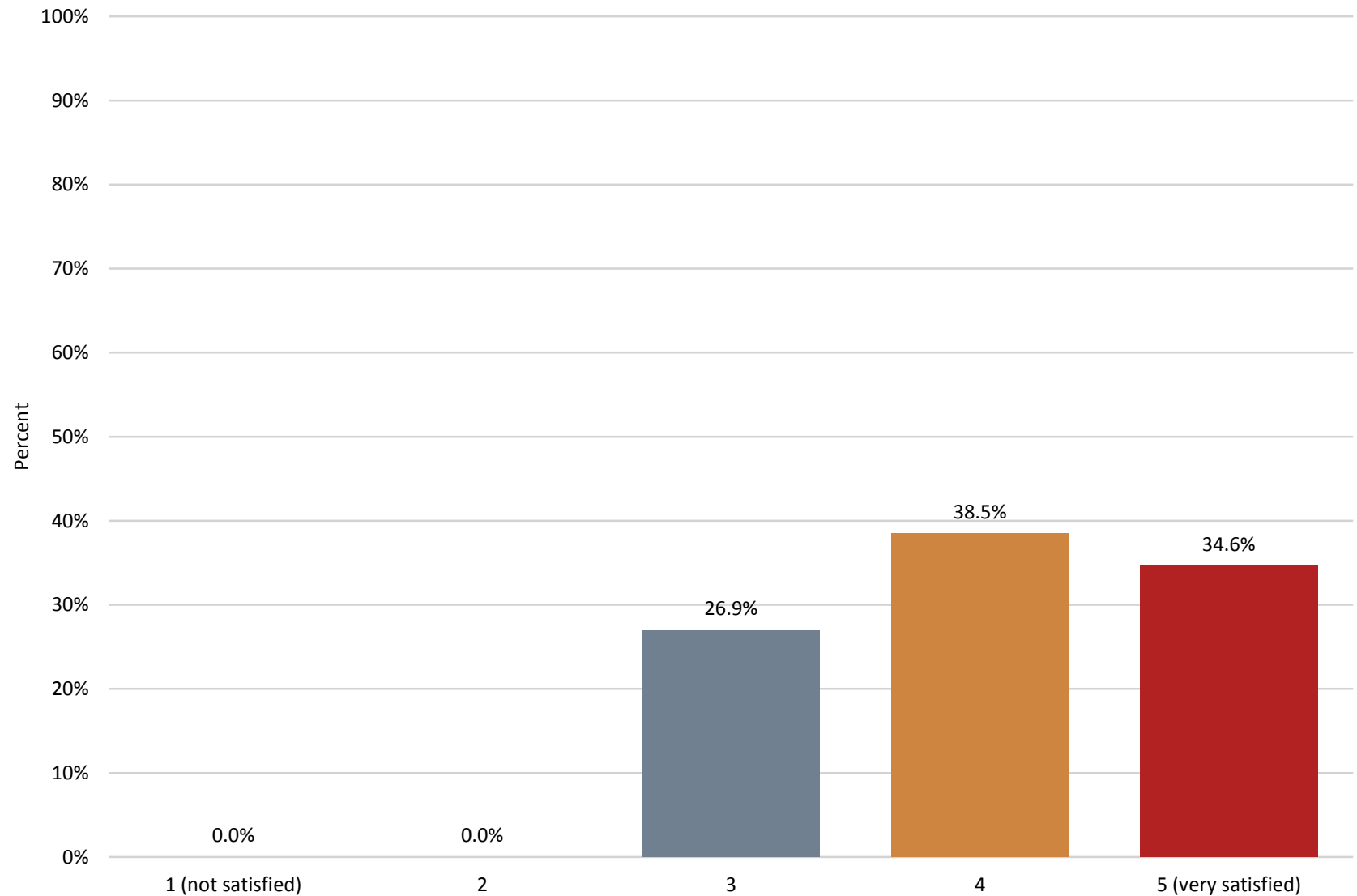
The required reading was made available one week before the course startet. This is far to late. Both before and during the course other tasks that are required needed to be fulfilled. Therefore little time was available for reading.

Too much reading before the course, conflict with holidays / field work, short deadline

6. How will you evaluate your own contribution (i.e. course attendance, reading literature, preparing for lectures, active participation during seminars) in order to gain new knowledge during the course?



7. How satisfied are you with the course in general? (1: not satisfied, 5: very satisfied)



8. Please state the three most important things that you have learned as a result of participating in this course:

learning that ethics applies to a much broader range of questions than I realized
 thinking about issues from a different perspective
 considering in more detail research ethics (specifically relating to publication)

Team-work
 Evaluating own work in terms of ethical perspective
 Ethical perspectives in different area

Group work

Ethical research guidelines, student supervisor relationship and how to deal with issues, scientific theory and methods.

Increased general knowledge on ethics and philosophy
 Training on scientific writing in English while doing the essay
 Achieving a good understanding about the chosen topic in the essay

- 1) Importance of "taking a step back" and thinking "What is science? What am I doing?"
 - 2) To have a critical attitude towards my project in terms of "what hypotheses am I testing"?
 - 3) To embrace and evaluate uncertainty
-

-learned a little about ethics and responsibility in science (f.ex. CUDOS) in a more structured form.
 -learned about ways of interacting with other disciplines and thinking about how to involve lay-people.
 -learned about modelling

-More about social constructivism vs naturalistic approaches
 -The history of science since the enlightenment
 -The whole ethical complex around doing science

1. Some philosophy knowledge, which I had zero before.
 2. New way of thinking about my research contribution.
 3. Some overview in what others are doing in the university!
-

Defining my study project and explaining it in the context of different view points.
 Research can be done in different ways depending on the field of study and questions of interest.
 The role of scientists in knowledge production and society.

- Ethical theory
 - Interdisciplinary opportunities
 - The properties of natural vs social science

8. Please state the three most important things that you have learned as a result of participating in this course:

-
- PhD regulations, data- and research guidelines, relevant regulatory bodies and agreements, etc
 - The fact that many departments and supervisors are not aware of the items mentioned above, and that it doesn't seem a priority for the university to inform students about these in a structured manner before the PhD begins (except through this course, which I'm taking in my 3rd year).
-

About ethical issues

About the ethical guidelines

Different philosophy to be considered for ethical issues

- I did not have the big picture about science and it is the best part and I have enjoyed it.
 - communication within the group was fantastic.
 - The ethical part of the course was very interesting for me.
-

-The concept of good scientific hypotheses of Kuhn (1977)

-Ensure the reproducibility aspect of my own studies

-Be humble and remain humble

questioning my science

questioning other's science when reading articles

put my science into a bigger perspective

Got refreshed some important concepts like: epistemology, ontology, correlation and causality, model and theory

Got to read original texts from Popper and Kuhn, very helpful

Nice lecture on value of choice and rationality in science

1. Group work

2. Ethical aspects of science

3. Social gathering with other PhDs

This is difficult to answer. I have a hard time defining things I have learned.

reproducibility.

value of research.

improving conscience towards science.

The role of science in society, how science has changed in the last 50 years, different ethical models

Broadening knowledge, philosophical principles, science ethics

8. Please state the three most important things that you have learned as a result of participating in this course:

learned more about groupthink and current ethical issues. I appreciated the different backgrounds in the seminar groups, I think it allowed for more discussion of opposing issues.

What is science

Importance of trust to science

Communicating your science to the public

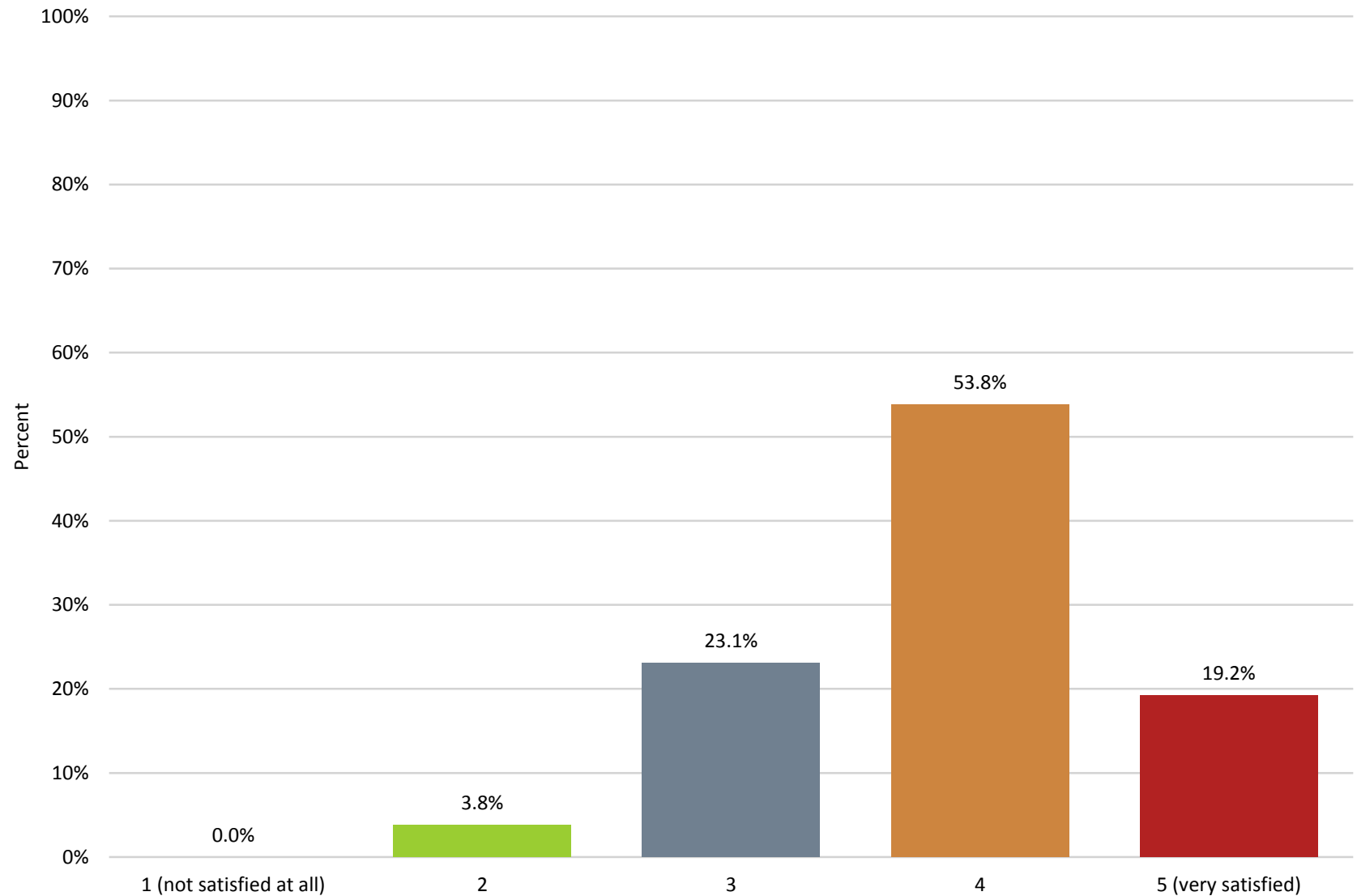
The course was very interesting, but little of what the course covered was new to me.

What makes a good model

Critical scientific thinking

conservationist science

9. How satisfied are you with the lectures in general? (1: not satisfied at all, 5: very satisfied)



10. Please explain why you were satisfied/not satisfied.

The content of the lectures was nice, liked the movie and question answer session with other students

I think that some of the first lectures in philosophy of science could be a bit more basic. I understand that it is an intensive course and that it might not be time, but I think that some of the first lectures could be a bit more basic, or at least include some definitions of the words used. Some of the students has little or no experience in philosophy of science, and it would be nice to have some definitions as good explanations in the beginning of the course. Other than that I'm quite satisfied with the lectures!

Interesting enough, not too long

Some lectures were badly structured, and assumed everyone was familiar with the use of words like f.ex. epistemic. It was difficult to get a clear view of Popper and Kuhns ideas about science. Perhaps adding a summary towards the end of lectures would be a good idea?.

Many good lecturers in the second week.

Many different and interesting topics, good variation.

Many of the lecturers participated and contributed to the lectures they didn't hold themselves

Some of the lectures are very easily followed and understood. Some are a bit difficult, due to too much text or technical terms.

The lectures were very well constructed. Different topics were nicely explained and introduced. All lectures were easy to follow and understandable. Moreover the atmosphere was very open, discussions and asking questions were encouraged.

The info and lectures were good and high quality. However, 6 ECTS is too little for a course with such a wide scope. I think the course should be split in three parts:

6 ECTS Philosophy of science / Theory of knowledge

4-5 ECTS research and discipline-related ethics / science and society

1-2 ECTS Research guidelines, regulations, etc (to be independent of this course; this is a prerequisite for doing research, like being informed of HSE regs before entering a factory, so should come earlier in the program).

Discussion in seminar groups.

Good lectures.

Every single day was full of valuable knowledge, each and every one of them who has given the lectures were putting every thing together in a very nice way.

Great course content except the one-hour "economic" class which I still do not understand the link with the rest of the course. Interactivity of the class. Keep the same pace of lectures every second day, and the same balance of group seminars versus lectures! Great course organization. Learnt a lot about how to solve problems that kept me awake at night! :)

10. Please explain why you were satisfied/not satisfied.

A very comprehensive overview of all the fields comprised in this course.
Lecture varied and thought-provoking.

For me the readings gave more in regards to new knowledge than the lectures.

I think the quality of the lectures varied a lot. I liked the lectures by Michael best, Peter's were good and Sigurd's lectures were the worst.

I am satisfied because the lectures were incredible and nicely organized. The overall structure of the course was very good. This course should be organized more times in a year. The same organizers could arrange different courses for different faculties. May be the 6 lectures can be divided into general and specialized, in which the just the specialized lectures can be made different for different faculties. Some examples or concepts do not make sense for engineering and physical sciences. reproducibility also is not a very sensitive topic in these areas.

A few of them were not that useful in my opinion

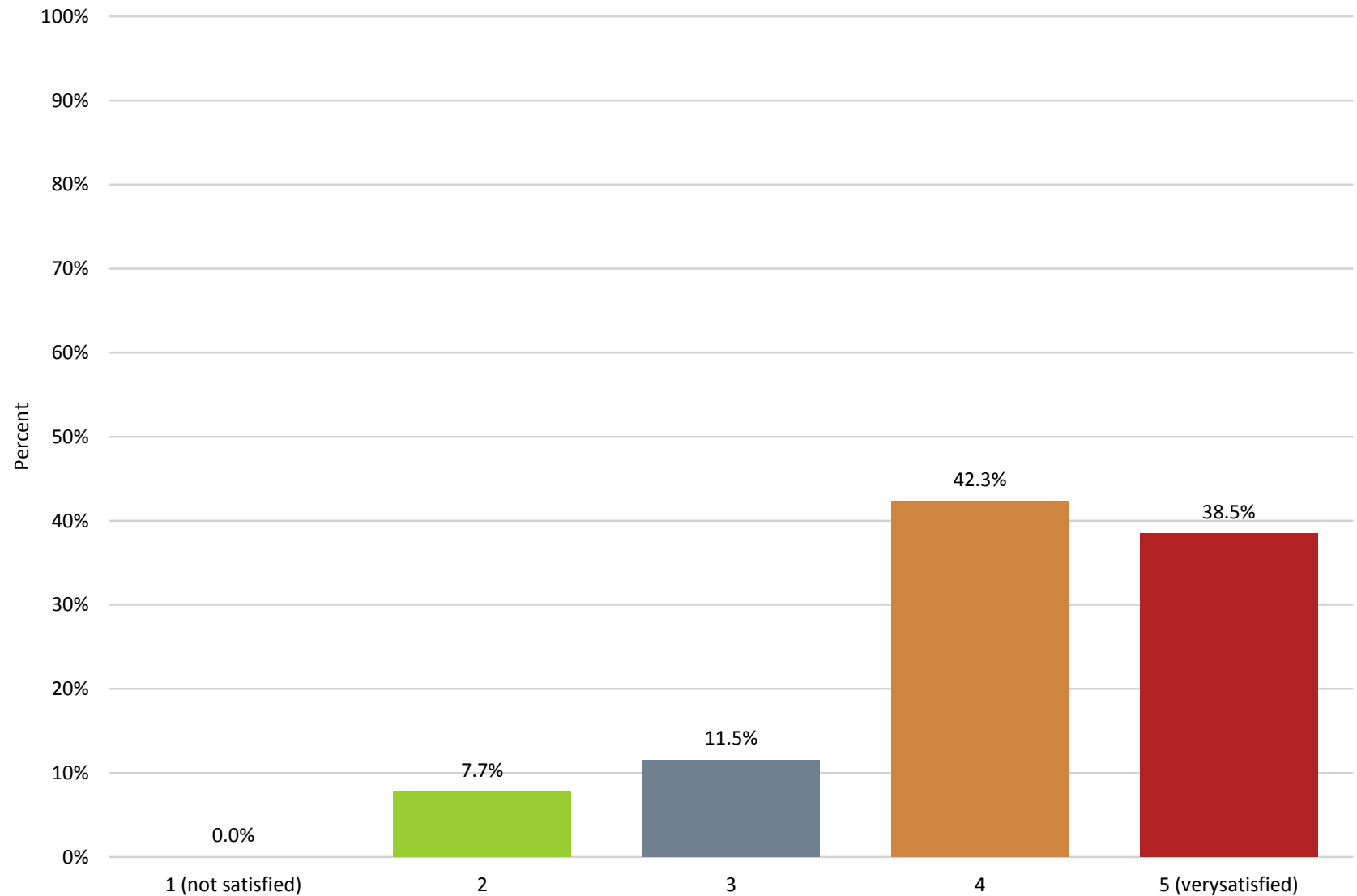
I thought the theories of science lectures were dry and could be improved. I thoroughly enjoyed the lectures by Morreau; I think more about group think and how that influences group dynamics and behavior is quite interesting and relevant to science. I enjoyed the film and the statistical presentations. I think we should have more of these because it is such a big part of how we interpret data and present findings to public audiences. The Borit presentation didn't seem relevant to me.

Engaged speakers, interesting and varying themes

The lectures were very interesting and covered important topics. However, many/most of topics and problems presented inside these topics were familiar to me. Instead of only presenting different topics (e.g. ethical dilemmas, scientific practices etc.) and problems within these topics it would be very interesting if any solutions were presented.

Very good lectures mostly model section didnt seem to fit
more ethics would be good (only last day)

11. How satisfied are you with the seminars in general? (1: not satisfied, 5: very satisfied)



12. Please explain why you were satisfied/not satisfied with the seminars.

Seminar were informative

It was interesting to have a discussion with people that they come from different background.

I really liked that we were people from different backgrounds and disciplines in the groups, making the discussions quite interesting.

Seminars had relevant problems to discuss and my group worked quite well

Productive and stimulating

The group discussions did not really work. There was only very few talking actively, and there was little debate. Discussion did not really use what was discussed in assigned reading or lectures. Language might be one issue, perhaps it is a good idea to give the questions in advance so that people can try to prepare a little on what they wish to say?

Would have been better if everyone were more prepared. Some talk more than others, but that is just the way it is.

Quite good discussions, everyone prepared their papers well. Due to the nature of people, there are ones like to talk and ones like to listen. I think the ones like to listen should be given more chances to speak out.

The seminars were very interesting, the questions appropriate and relevant in the progress of becoming a scientist. The seminar groups were diverse and there was a lot of freedom for discussion. Moreover the lecturers visited all the groups and were very eager to help when some topics were confusing. All in all, it was good to practice thinking out of your own field and hear different perspectives of relevant topics from a diverse group of people.

Not relevant.

Good setup, some more social scientists (or more vocal ones?) would've led to more interesting discussion.

Maybe push people more to relate the topics discussed in the lecture to their own fields, in short 3-5 min presentations? That way everyone quickly learns about each others field, as well as the breadth and different interpretations of the concepts discussed.

Good discussion

got to know different phd students from different background.

I was satisfied because we had interesting discussions, every body was nice and they were easy to talk to.

Good opportunity to clarify certain points of the lectures and make sure you understood it all!

12. Please explain why you were satisfied/not satisfied with the seminars.

good to talk with peers, but a little unorganized at times.

the same people always took action (but I know it is not your fault, but some people don't try, which is frustrating when in a group of 7-8, 2 of them are inactive).

great way to meet people outside your field a learn about other things

good questions for discussion. Great group dynamic. Always important to have different types of scientific background when discussing philosophy of science, my group was perfect.

Because the group backgrounds were the same but different from me. They were all natural scientist, so much in come, but when it comes to common understanding I could not come up with them.

The group was nice and we worked quite well together

organization and the presenter were very good

I liked that we got sheets with questions to give the seminars more structure, and that the lecturers would sit in on them and prompt us.

Great to discuss across disciplines. Needs more social scientists.

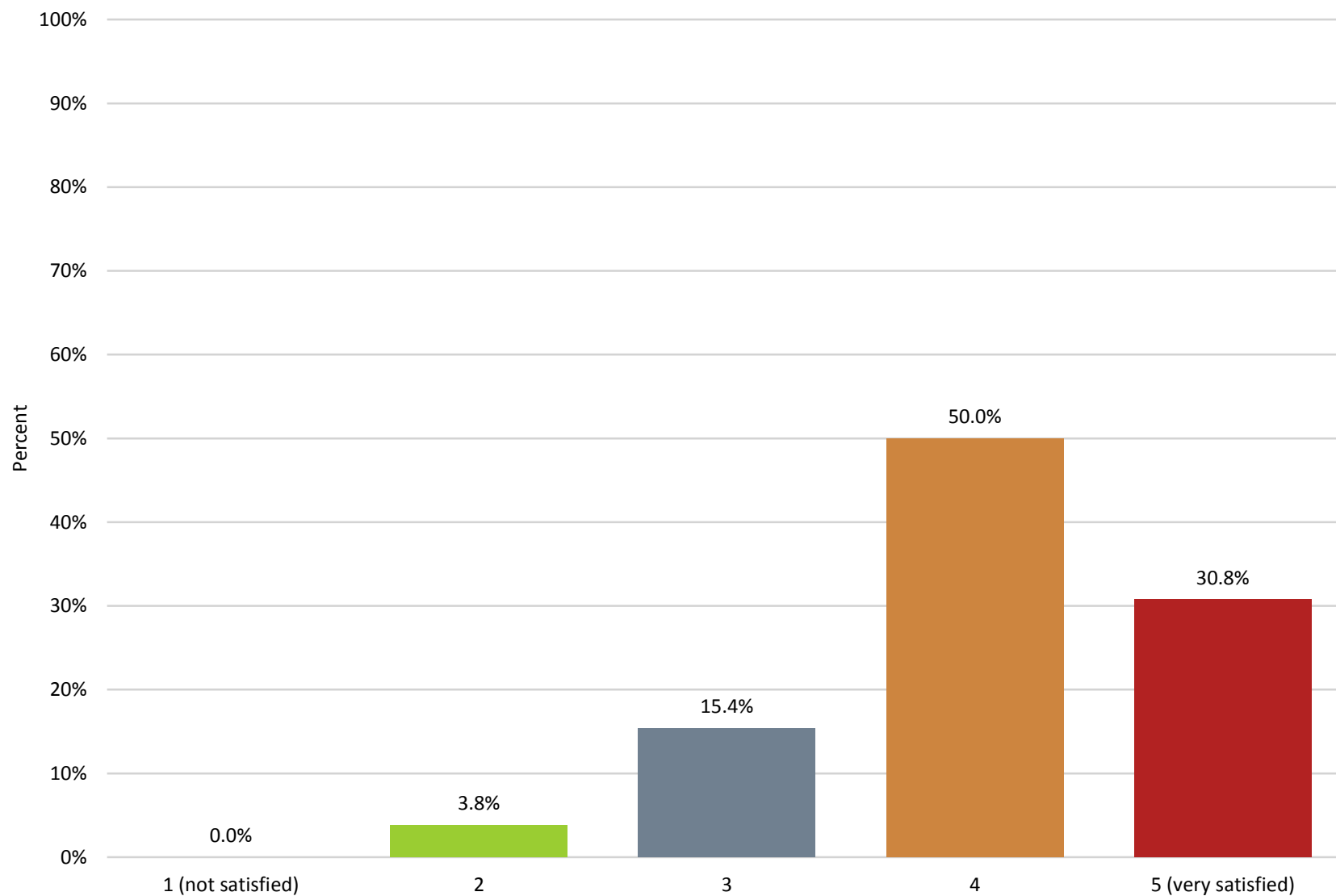
I thought they were structured well. Many questions to spark conversations and I also appreciated that the lecturers would rotate through the different groups.

Could have been more interesting topics to discuss (some topics were too connected to the literature)

Interesting discussions, however, the topics during the seminars changed fast, and often it results in a few people talking, while the rest remains quite.

Very effective at class participation

13. How satisfied are you with the information provided before and during the course? (1: not satisfied, 5: very satisfied)



14. What could have been done differently?

no comments

I would like to have the required reading earlier so it could have been possible to start reading a bit earlier!

Feedback on wheather I was given a seat at the course should have been given earlier

The organization for the seminars can be improved, there was no time to discuss both the required readings and the questions

The reading list needs to come out much further in advance, especially since some of the assigned readings are quite long.

Longer time from admission to start of course, but it was said at the beginning that it was later than usual this year.

Some of the articles in the archive was very low resolution, better scans would be good.

In my opinion the whole course was very well constructed. Only the required reading list was a bit too long, since getting accustomed to reading essays and articles on topics you aren't familiar with took a long time.

Application / enrollment process, etc. Generally, this course is so good it should be ran twice a year for all PhD's (at the same level of quality :)).

University (or at least the technical faculties?) should start to acknowledge the relevance of this course for PhD students (NB the 'Ph' in PhD...) and accommodate more room in their course components for those that wish to. A proper academic should never be made unable to study fundamentals like these, as is currently the case.

I am incredibly impressed and i can not think any thing could have been done better.

Perhaps have the pizza evening in the classroom. Although not very natural, the closed space would have isolated the class and forced people to step up and approach other students they had not yet talked to. Moreover, this alternative would have given us the opportunity to rearrange the tables and chairs to make it more cosy and easy to talk to small groups of people instead of having a loooooooooong table at the cantina at which you cannot really talk to anyone.

reading list could be sent earlier, so that we could tackle some of it before.

The information was good, but came a bit late

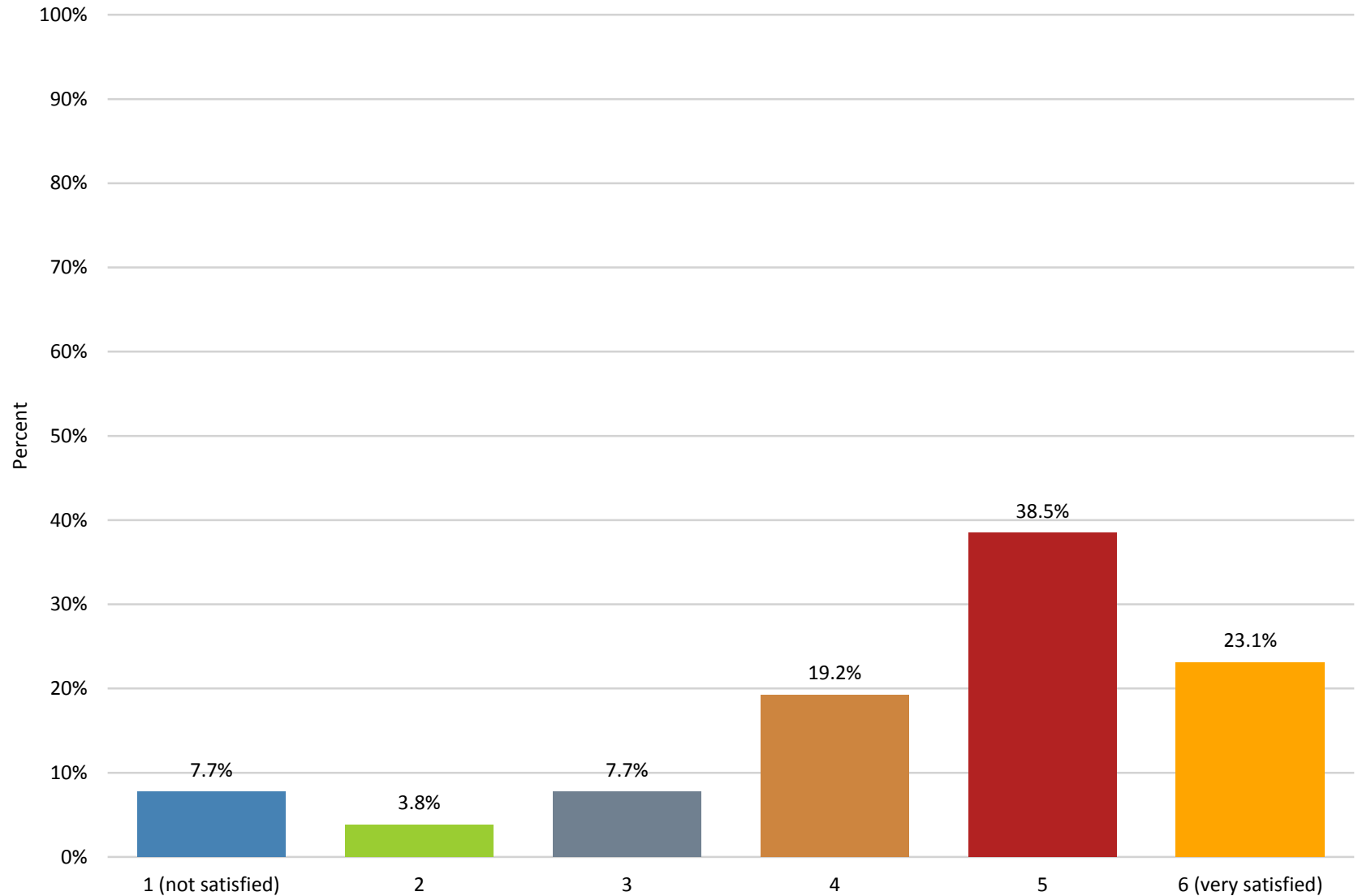
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More information about the set-up of the course (with required readings etc.)

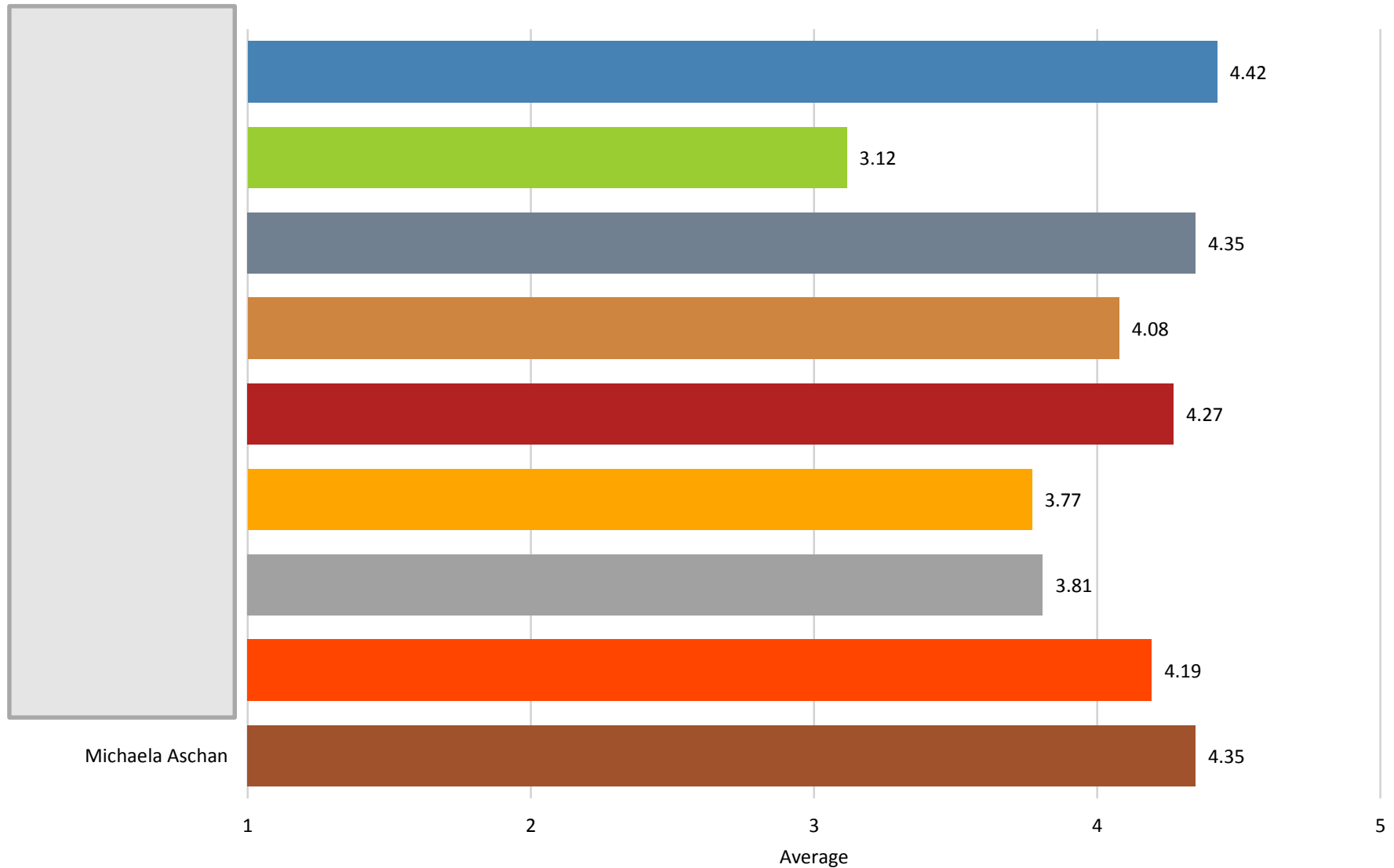
14. What could have been done differently?

The participation list should be available much earlier so everybody knows if they got access or not. Also, the required reading list should be made available much earlier. As a Phd- student one often has many other tasks as well that can not wait. Therefore, the deadline for the exam should be more flexible.

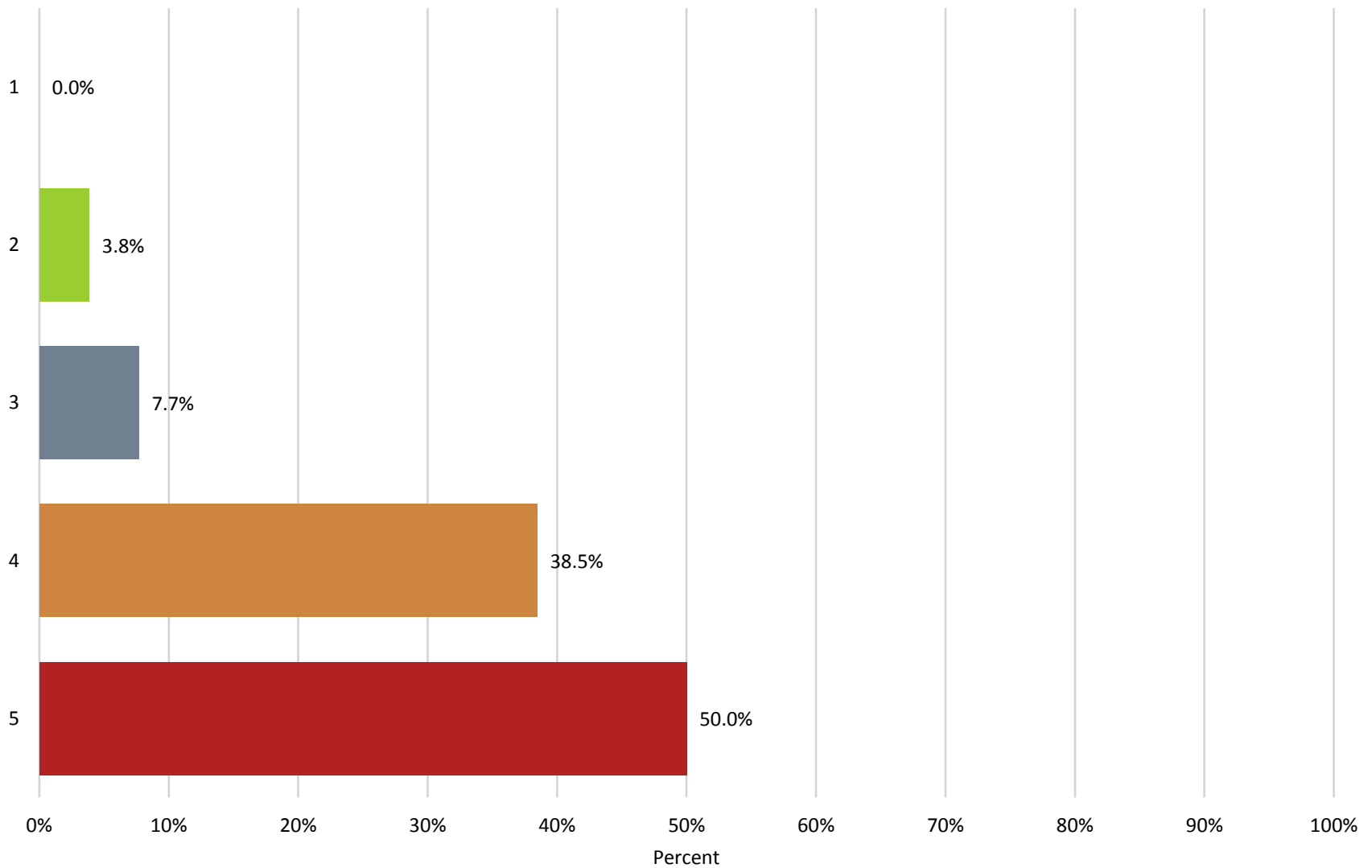
15. How satisfied are you with the supervision given in connection with the essay? (1: not satisfied, 5: very satisfied)



16. How satisfied are you with the teachers at the course (1: not satisfied at all - 5: very satisfied)? (1 = not satisfied at all, 5 = very satisfied)



25. Michaela Aschan



26. In case you were not satisfied with some of the lecturers, please explain why

Melania - was too dismissive when asked questions. seminars should be timed to allow for answering questions and discussion (within reason) so the lecturer doesn't have to be dismissive of relevant questions simply to get through the lecture on time.

As a person who is not very familiar with philosophy of science, it thought it was difficult to follow the two teachers Sigurd and Michael. I sometimes had problems with understanding what they were talking about.

In general lecturers were ok to good. But some felt a bit unstructured and were a bit confusing in terms of what were the important points to take notice of.

I was satisfied with them and really liked the lectures, but the ones on modelling took a bit too much time I think.

Not very good presentation skill. Tend to fall asleep if trying hard to follow.

The modulation of the intonation of the voice of the lecturers I did not list as "4" or "5" could be much better. Intonation of the voice is one key to keep your audience awake and interested.

I felt that Sigurd Tønnessen's lecture was high-jacked by students.

It is good to allow people to think and judge and give their meaning, but it could have been cut shorter so that we could have come further...

The lectures were good, but for me I have had most of the subjects covered in other courses, and the lectures were a little too much targeting the natural sciences.

The quality of lectures varied very. Sigurd's lecture was confusing, unstructured and he was not very good in transferring information. I got lost here.

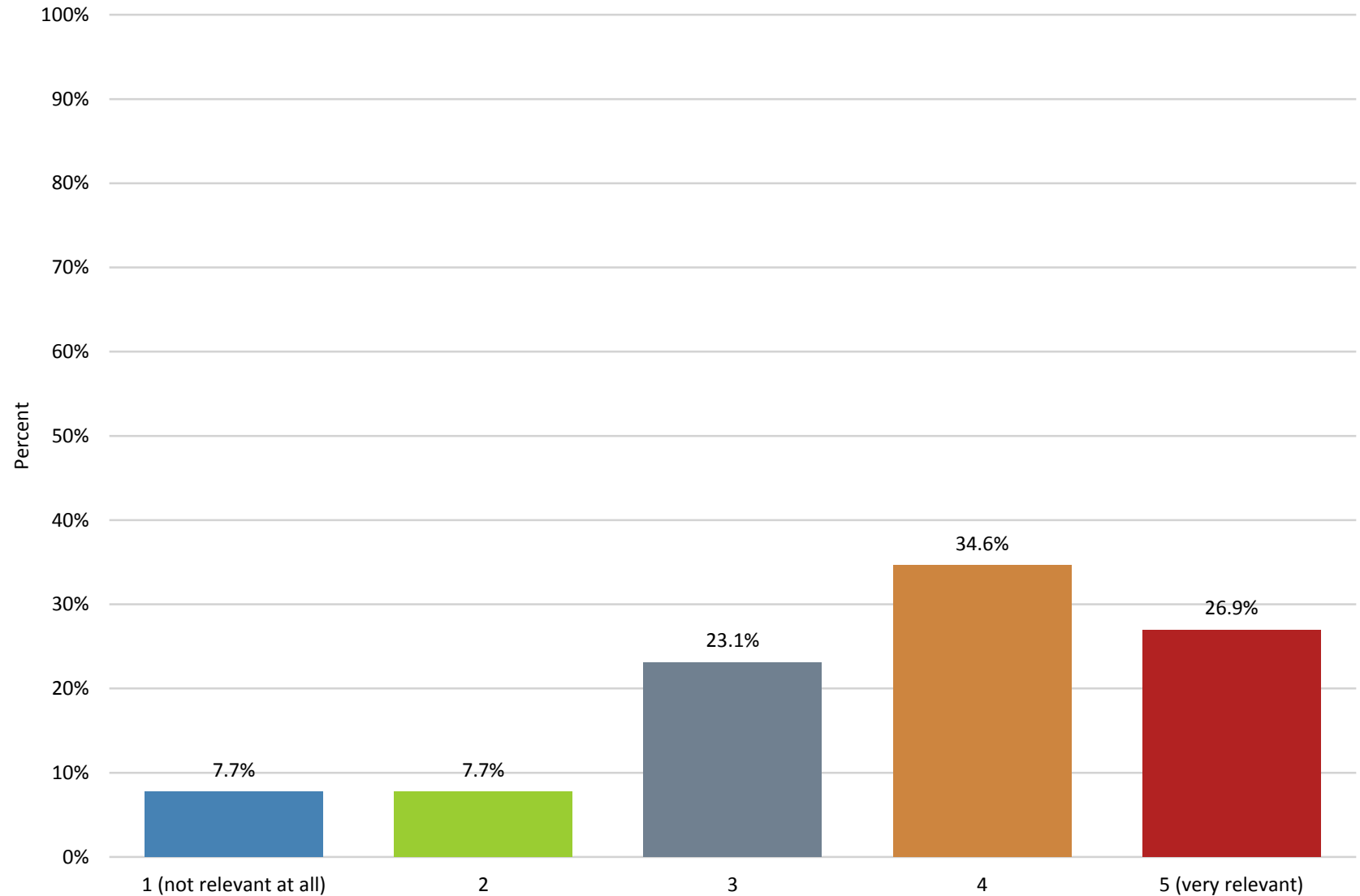
I think Sigurd could not conclude his presentation.

Sigurd did not seem prepared

Please see my previous answer.

All, were interesting, but some not relevant as part of a Philosophy of Science course.

27. Was the course content relevant to your work? (1: not relevant at all, 5: very relevant)



28. How can relevance and applicability be improved?

Maybe by providing more concrete discussion topics? On specific cases of fraud, or specific examples where one can discuss about values etc.?

Having teachers from not just philosophy or biology background. Some chemistry or physics teachers will help to relate other subjects rather than biology with our own research.

I'm not sure if the course needs to be much improved, since the idea of the course was to introduce philosophy of science and ethics to a very diverse group of PhD students. Therefore it can't cover all topics connected to various scientific fields. As a geologists, it would have been more relevant for me if ethical questions concerning also geological practices would have been discussed. Maybe this is an aspect that could be brought in to the seminar groups where the students could discuss ethical questions which they face in their specific scientific practices.

See my comment in the seminars: forcing people to relate every subject discussed to their own field.

More examples relative to my own field if possible, but of course already very relevant and certainly not a bad thing to see other fields, which gives a little perspective with your own studies.

Just to make me think of what I am doing and how.
Put my study and science into bigger context and perspective

More diverse in regards to social vs natural science. More in depth on each subject.

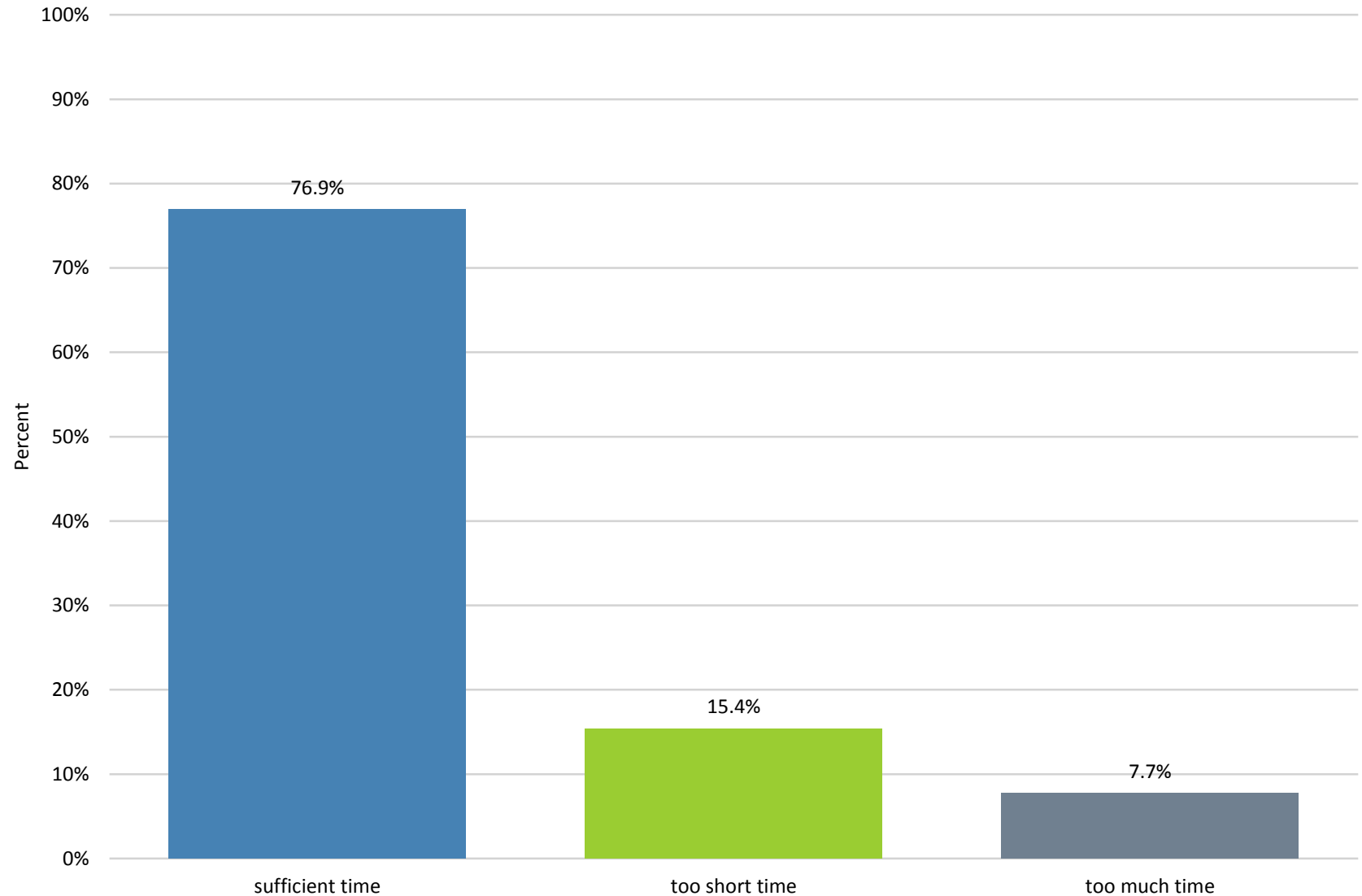
I see some value in this course for some scientists. Personally I think I could have used my time in a better way and I challenge the necessity of this course as a mandatory part of the PhD education. I think it should rather be a voluntary course.

I am satisfied because the lectures were incredible and nicely organized. The overall structure of the course was very good. This course should be organized more times in a year. The same organizers could arrange different courses for different faculties. Maybe the 6 lectures can be divided into general and specialized, in which the just the specialized lectures can be made different for different faculties. Some examples or concepts do not make sense for engineering and physical sciences. reproducibility also is not a very sensitive topic in these areas. (Sorry this is pasted at more than one places, my browser did not allowed me to go back and fix this)

Providing more examples of issues from real-life

I don't think it is relevance per se, as I appreciated the overall knowledge of scientific ethics and how it applies to science as a whole and not just to specific disciplines.

29. In your opinion, is approximately four weeks for writing the essay...



30. Do you have other suggestions for improving the course?

Perhaps a clearer presentation of the history of science philosophy?

Aristoteles-Popper-Kuhn-Merton-Lamarck, including some of the more modern ideas?

Could be beneficial to have more participants with background in social sciences.

It could have been an obligation to take the course at the first year of the phd study. Because it is valuable.

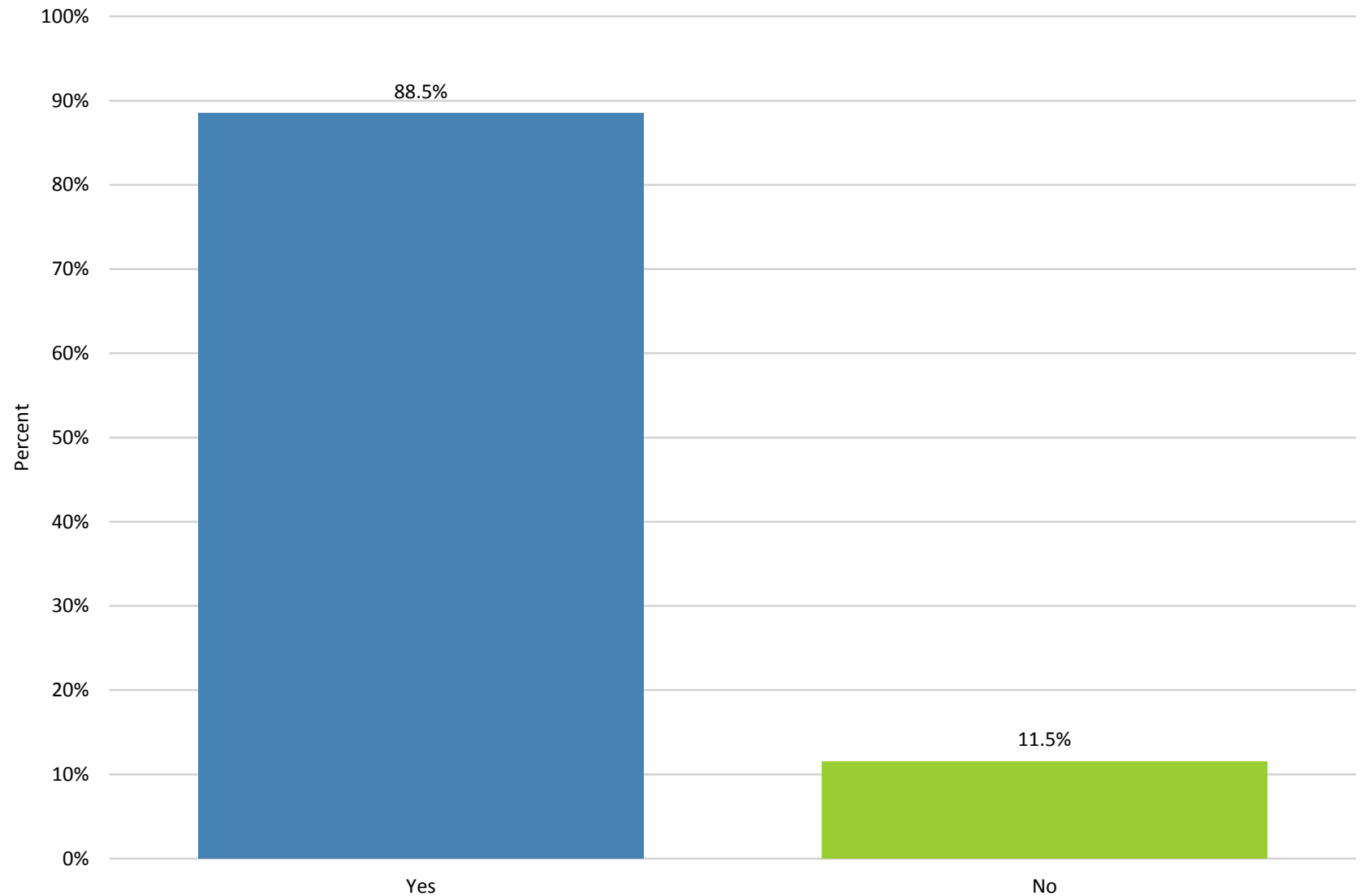
divide the course in two, so that students who have had expil and those who dont , have different cources. The lectures were mostly repetition for me.

I have a suggestion to improve the questback. Add the possibility to click I don't know. Not all questions can be answered with yes or no.

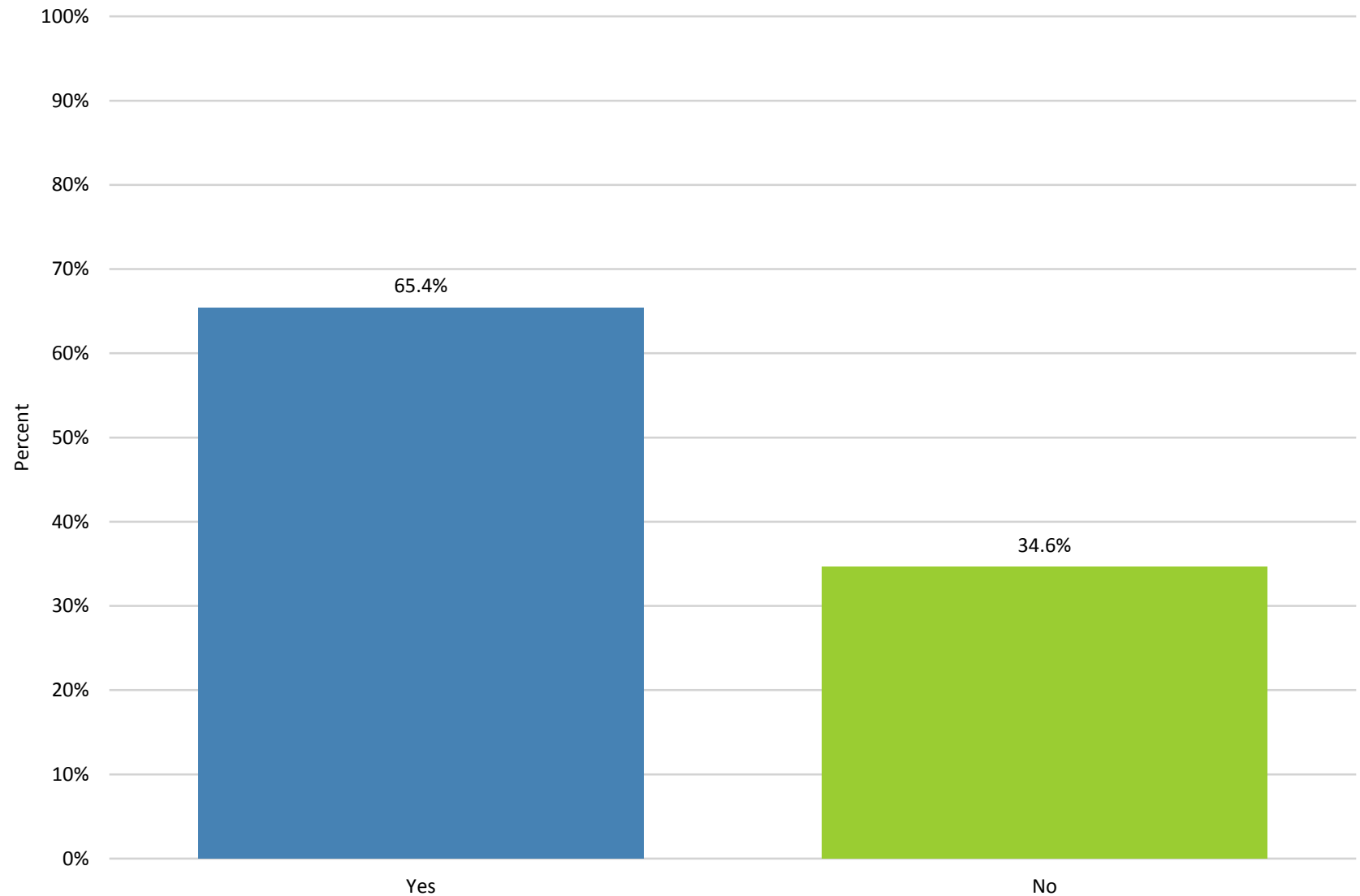
It could be some required readings before the course starts with more basic introduction to philosophy, and skip this in the lectures. Go deeper into some themes that are useful to phd students - ex the use of references - old vs. latest research (how old research articles have had to survive years of criticism, whereas the latest research is usually considered the "best" to use),

Difficult to answer, but in general it would imprvove the course if it was more focusing on one discipline (e.g. biology). On the other hand, making the course even more general would also improve the course.

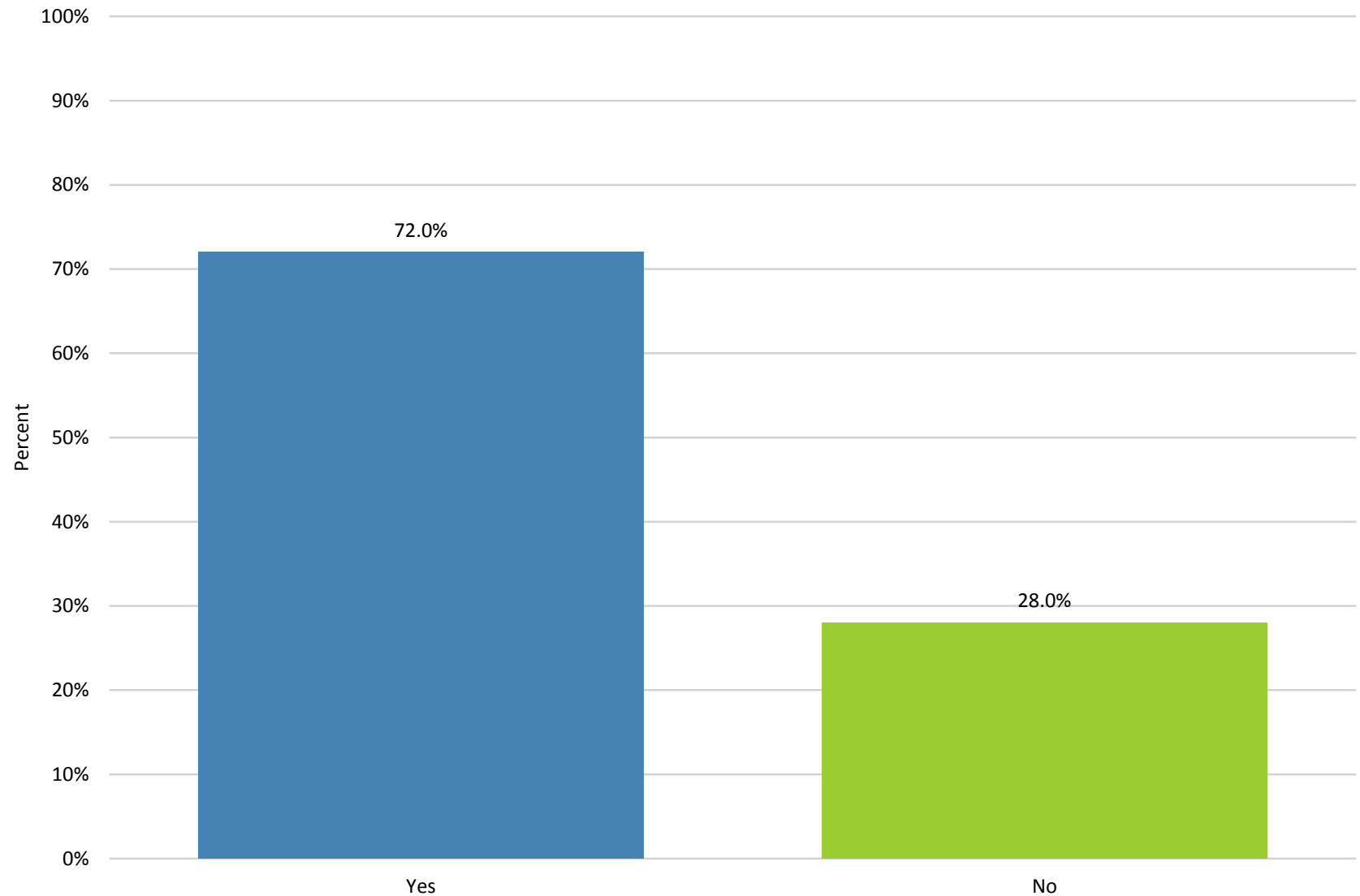
31. Do you consider this course useful for you as a PhD student?



32. Do you consider this course useful for your own PhD project?



33. Does your supervisor consider this course useful for your PhD?



34. Would you recommend this course to others?

