

Course Analysis

MF2086 Research Methodology in Management and Organization, 6 cr

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1 Course information

The course in research methodology is a practical course in learning to use the most prevalent approaches techniques and methods that are applied in qualitative and quantitative research. Students will become skilled in utilizing these methods appropriately in practical research situations of different nature. Learning will be based on their own research activities where students will formulate their own research questions and proposition, search and evaluate past research, design interview questions, find interviewees, conduct interviews, transcribe, code and analyze text, document results and make conclusions for quantitative research. In continuation, students will make hypotheses, design survey items to test hypotheses, distribute surveys to respondents, post-process response data, form variables, visually analyse survey data, statistically analyse and interpret survey data, make conclusions based on analyses for further research, and to compare the utility of different research methods for different research situations and objectives.

In the course, seminars are also carried out, where the research activities and outcomes are discussed and critically reviewed. Comparisons and evaluation reports are also written for the enhancement of research activities.

Course responsible teacher:

Jens Hemphälä

Other teachers in the course:

Examiner:

Jennie Björk

Learning activities:

The course is carried out in smaller groups and individually where all the students work on a general research topic and where each group focus on a separate sub-topic.

The students lead and execute the research project while learning about and practicing the use of the applied research methods and discussing their respective strengths and weaknesses.

2 Students' view of the course

Summary of students' view of the course based on for example LEQ survey and/or interviews or other activities.

Brief summary of students' responses from the feedback session in the end of the course:

From a course feedback meeting, the strengths and weaknesses of the course were addressed.

The strengths of the course included appreciating the content and feeling like it was applicable in other courses and project work, to the extent that the students wished they had taken the course earlier in their program to be able to use the topics.

The online aspect of the course was appreciated by some students, and most expressed that a hybrid version would be useful, where lectures could be online with more practical, exercise sessions in-person. Being able to choose their own research topics made the class more enthusiastic about the class since they wanted to see the results of their work.

The challenges with the course relate mostly to the statistics and R programming, especially since many students have little prior knowledge of this. There was some confusion about the different methods of coding, for example. Peer feedback was not appreciated as much as the teacher's feedback, and groups felt that they could do better if they could get more regular feedback from the teacher on the group assignments. Many aspects of the course were mentioned to be hard to learn due to the lack of examples to understand the application of the topic.

Students experienced that the lack of individual assignments lead to uneven learning of concepts between members of the groups, leading to some members having to carry the group while the rest caught up. In addition, few individual assignments give fewer opportunities to showcase the student's knowledge on the topic and much of the grade relies on the group assignment.

3 Teacher analysis of the course

The analysis should present the development of the quality of the course as well as measures that have been taken after previous course analysis. The course's strengths and weaknesses based on the course evaluation and the teacher's reflection.

Course context

In comparison to a number of other research-oriented courses at KTH, the present course has a higher degree of skill-based learning objectives. At the same time, the number of students is the largest or one of the largest in the master's programme Integrated Product Development. Size alone is factor that should be considered for the particular set-up of practical activity-based learning that the course is designed for. While size is less of an issue for more traditional courses, the more activity-based learning the course contains the more size becomes an issue.

Adding to the challenge of size, the students in the course are also the most heterogenous of the courses in the master's programme Integrated Product Development. Students come from two different programmes at KTH – the CDEPR programme and the CMAST programme and they attend the second term of two different master's programme tracks – the Industrial Design Engineering Track and the Innovation Management and Product Development Track. In addition, there are several students from other universities, both foreign and domestic. This heterogeneity makes the students have very different prior skills. For instance, one programme totally lacks knowledge of statistics and has a lesser focus on coding in their Bachelors.

Changes of the course before this course offering

The statistical part of the course is challenging, especially for the students that have no prior knowledge in this. Efforts have been made to strengthen the pedagogy on this topic.

The most recent changes in the course has been focused on making the different parts of the course part of a general research journey. The first versions of the course treated different research areas in the qualitative and quantitative parts pending on the research maturity in each respective area. While making the research contributions more valuable within each research field, it made the research parts less connected to each other and more difficult for novice students to connect. Hence, the qualitative and quantitative activities was later made to build on each other within the same topic.

Several courses that the students attend (different ones for different students) contain the application of data collection methods. The students confuse these with proper research methods. Continuous work is made to delineate different methods and uses of methods from each other.

The course's strengths (based on the students' experiences and the teacher analysis):

Students appreciated being able to choose their own research topic, as well as choosing their group members. Students experienced that the workload in the course was balanced in respect to the credits. Hybrid education was also appreciated, with the lectures taking place online.

Areas for improvement of the course (based on student experiences and teacher analysis):

There was some confusion among students about coding, since one part concerns the coding of interviews while the other coding in the R software. Other concepts were described to be hard to learn and more examples were possible solutions. A suggestion for this was to have more in-class examples where students can work through and try things out with teacher supervision.

The course had several group assignments for students to showcase their knowledge. In addition, some students tended to not be up to speed with the course content because of this, which caused group members having to explain or carry out most of that specific group project task.

There was a period of break in the course which led to a drop in momentum since the students did not know how to proceed with coursework until they got further instructions. Using this break to clarify next steps and assigning some milestones can help keep the teams on track.

Proposed changes to the next course round:

- Stress individual course activities with the purpose of ensuring that every student stay on top of coursework while providing essential practice opportunities.
- Suggested individual assignments:
 - Coding of the interviews. Afterwards, group members compare their coding structure with each other and create an improved version together.
 - Introductory lab to the R software with a hand-in, to make sure everyone has tried it out before the R programming in the group project.
- Introduce the next part of the course before the break in the middle of the semester for students who want to get a head start.
- More supervision during assignments.

Additional Comments

NA