Semester: Spring 2021
Course: MAE4120 - Item Response Theory
Participating students: 12
Answering frequency: 8/12 (67%)
Date: 2021-05-20

Summary of student viewpoints and suggestions

The evaluation was conducted anonymously via Nettskjema after the exam but before the exam results were given. The evaluation form consisted of the parts *General*, *Online instruction*, *Course topic emphasis*, *Work load*, *Assignments*, *Exam,* and *Overall*. In the following, the main viewpoints reflecting the free-response student comments are given.

General

- Lectures worked well and the instruction was appreciated
- Connection between lectures and students suffered, potentially due to the online format
- Teaching staff generally gave clear instruction

Online instruction

- Appreciate the ability to ask questions in writing via the chat
- Online format made it more difficult to ask questions
- Online labs generally worked well but some improvements can be made for specific labs

Course topic emphasis

- Computerized adaptive testing (CAT) and latent regression were difficult topics
- Request for a lab on CAT focusing on item selection methods
- The broader picture of item response theory (IRT) was not perfectly clear
- Suggestion to explain detection of differential item functioning in more detail
- Elaborate further on procedures for classification, with specific examples

Assignments

Strengths

- Related strongly to the labs and lectures
- The feedback was very helpful and effective
- Appropriate difficulty, length and frequency
- Encouraged a diverse view on IRT and increased familiarity with practices in IRT

Weaknesses

- Too much emphasis on binary IRT models – better to have more diverse data for the assignments
- The feedback for the second assignment could have been more detailed
- Feedback was not specific enough

Exam

- The exam covered everything in the course
- A tough challenge but highly rewarding
- Surprising format (mini-article home exam) and good learning experience

Overall

Strengths

- Lecturers were responsive, quick to answer questions
- Excellent course that facilitated learning
- The format of the exam
- Teaching staff did a good job providing support
- Well-structured course with elaborate content
- Encouraging teaching staff
- The material and the teaching methods were excellent

Suggestions for improvement

- Labs 4 and 5 can be combined to reduce the number of labs
- Include a task about polytomous IRT on the second assignment
- Provide more specific and detailed feedback for assignments and exam

Comments from course director on the implementation and outcome of the course

The course is an introduction to item response theory (IRT) with an emphasis on various applications of IRT in the social sciences. Students are introduced to IRT models for binary and ordinal data and how tools in IRT can be used to evaluate individuals in terms of a latent construct, infer group differences, construct scales and tests and to investigate hypotheses regarding item properties or the relationship between performance and covariates. The course mainly focuses on unidimensional IRT but gives a brief introduction to multidimensional models. The course involves teaching in the form of lectures which introduces the topics and areas of applications, computer labs which allow for using the methods in practical situations and seminars which allow the students to present IRT studies and results of IRT analyses.

Compared to previous years, the course was this time given entirely online because of the COVID-19 pandemic. The course content and structure were mostly preserved from previous years and the same format of lectures, labs and seminars was kept with the exception that these were given online via Zoom. An additional set of questions were added to the evaluation compared to previous years, to obtain feedback specific to the online setting.

Students generally evaluated the course positively and the course fulfilled the learning outcomes according to most students. Some students indicated that the pace was not entirely right, however. Everyone except one student would recommend the course, according to the evaluation. All

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respondents agreed or strongly agreed that the course improved their critical thinking skills. One remark indicated that the online format was detrimental to the interaction between students and teachers. Overall, in comparison to previous evaluations, the course was evaluated as favourably or more favourably this time which gives an indication that the online format did not severely impact the effectiveness of the course.

The online format of the course was generally regarded positively, but a few students indicated that the online lectures, seminars, and labs did not work well for them. No clear difference in how the lectures, labs and seminars were regarded existed in the provided answers. Some remarks were provided that the online format allowed for written questions during the lecture (via chat), which was appreciated. At the same time, another remark indicated that the online format meant it was more difficult to formulate questions. Hence, the evaluation of the online format was mixed among the respondents but with a slant towards a positive evaluation.

The exam format, like the previous course iteration, was a home exam in the form of an empirical analysis using IRT along with a report. The students had to define the topic for the exam themselves, with feedback given on the topic by the teaching staff prior to the exam. Students had access to a detailed grading guide ahead of the exam so they had prior information regarding how the exam would be graded. The exam was evaluated positively. It was indicated that there was sufficient time to prepare for and complete the exam. All but one student strongly agreed that the exam covered all the course contents. Subjectively, the exam results indicated that most students had grasped the central aspects of the course well.

Proposed changes/comments/measures

- Keep the format of lectures, labs and seminars
- Keep the examination format of a self-defined empirical analysis and report
- Include further examples, such as how classification decisions can be done in practice
- Incorporate polytomous IRT models in the second assignment
- Improve the instruction regarding CAT and latent regression models

Björn Andersson,
Responsible teacher

Rapport fra «MAE4120 Item Response Theory: Course Evaluation V21»

Innhentede svar pr. 25. mai 2021 14:21

- Leverte svar: **8**

- Påbegynte svar: **0**

- Antall invitasjoner sendt: **24**

Uten fritekstsvar

Students are an important source of information about the effectiveness of the course and its instructors. Please, respond candidly to the following questions. You are particularly encouraged to offer constructive suggestions that may help to improve the quality both of the course and the instruction.

To what extent do you agree with the following statements?

Svar fordelt på antall

	Strongly agree	Agree	Disagree	Strongly disagree
The information provided on the UiO course page was sufficiently clear	5	2	0	0
The information provided on the CANVAS course page was sufficiently clear	6	2	0	0
The learning outcomes of the course were met	4	2	2	0
The instructor(s) explained the topics clearly	4	3	1	0
The instructor(s) demonstrated concern about whether I was learning	4	3	1	0
The instructor(s) inspired and motivated me and encouraged my interest in the course content	4	2	2	0
The speed at which the course proceeded was exactly right for me	4	1	3	0
The course improved my critical thinking skills	4	4	0	0
I would recommend this course	5	2	1	0

Svar fordelt på prosent

	Strongly agree	Agree	Disagree	Strongly disagree
The information provided on the UiO course page was sufficiently clear	71,4 %	28,6 %	0 %	0 %
The information provided on the CANVAS course page was sufficiently clear	75 %	25 %	0 %	0 %
The learning outcomes of the course were met	50 %	25 %	25 %	0 %
The instructor(s) explained the topics clearly	50 %	37,5 %	12,5 %	0 %
The instructor(s) demonstrated concern about whether I was learning	50 %	37,5 %	12,5 %	0 %
The instructor(s) inspired and motivated me and encouraged my interest in the course content	50 %	25 %	25 %	0 %
The speed at which the course proceeded was exactly right for me	50 %	12,5 %	37,5 %	0 %
The course improved my critical thinking skills	50 %	50 %	0 %	0 %
I would recommend this course	62,5 %	25 %	12,5 %	0 %

Online Instruction

To what extent do you agree with the following statements?

Svar fordelt på antall

	Strongly agree	Agree	Disagree	Strongly disagree
The online lectures worked well for me	3	2	3	0
The online seminars worked well for me	3	3	2	0
The online labs worked well for me	2	4	2	0
Overall, following the course digitally worked well for me	3	2	2	1

Svar fordelt på prosent

	Strongly agree	Agree	Disagree	Strongly disagree
The online lectures worked well for me	37,5 %	25 %	37,5 %	0 %

The online seminars worked well for me	37,5 %	37,5 %	25 %	0 %
The online labs worked well for me	25 %	50 %	25 %	0 %
Overall, following the course digitally worked well for me	37,5 %	25 %	25 %	12,5 %

Course Topics Emphasis

Work Load

Note that 1 ECTS stands for approximately 25-30 hours. This course is listed as 10ECTS worth.

Assignments

Please comment on strength and weaknesses of the assignments (e.g., difficulty, length, frequency, effectiveness)

EXAM

Svar fordelt på antall

	Strongly agree	Agree	Disagree	Strongly disagree
There was sufficient time to prepare before the scheduled exam	5	1	1	0
There was sufficient a priori information given on the nature of the exam	5	2	0	0
The time to complete the exam was sufficient	5	1	1	0
The exam questions did not come as a surprise to me	2	3	1	1
The exam adequately covered the whole span of the course contents	6	0	1	0
The exam questions were clearly formulated	6	1	0	0
I feel I have a pretty good idea about how I will score on the exam	0	5	2	0

Svar fordelt på prosent

	Strongly agree	Agree	Disagree	Strongly disagree
There was sufficient time to prepare before the scheduled exam	71,4 %	14,3 %	14,3 %	0 %
There was sufficient a priori information given on the nature of the exam	71,4 %	28,6 %	0 %	0 %
The time to complete the exam was sufficient	71,4 %	14,3 %	14,3 %	0 %
The exam questions did not come as a surprise to me	28,6 %	42,9 %	14,3 %	14,3 %
The exam adequately covered the whole span of the course contents	85,7 %	0 %	14,3 %	0 %
The exam questions were clearly formulated	85,7 %	14,3 %	0 %	0 %
I feel I have a pretty good idea about how I will score on the exam	0 %	71,4 %	28,6 %	0 %

OVERALL

Thank you for participating!