Report on the perceived quality of the some study programs connected to MatRIC according to respondents in Studiebarometeret

Introduction

The Norwegian Agency for Quality Assurance in Education (NOKUT) conducts an annual student survey about the perceived quality of education in Norwegian bachelor and master programs. The survey takes place in October and NOKUT publishes the results in February the next year on the web portal studiebarometeret.no.

The population of the survey includes all second-year bachelor and master degree students, as well as fifth-year students in integrated master degree programmes. In 2016, the survey comprised more than 60 000 students in approximately 1800 study programs at 46 higher education institutions. Students receive email and SMS invitations to participate in the survey. The response rate was 45 %.

The questionnaire includes 103 questions or statements, covering a range of topics. Almost all questions use a Likert-scale for the answering categories – ranging from 1 (lowest score) to 5 (highest score).

In this fact sheet, we briefly describe some results from the survey for a selection of study programs (table 1) connected to The Centre for Research, Innovation and Coordination of Mathematics Teaching (MatRIC), that maybe are influenced from the centre. We compare the results with similar programmes in other institutions.

Participants in the survey

MatRIC focuses on mathematics teaching and learning within the study programs of other subjects such as engineering, natural sciences, economics and teacher education. Thus, MatRIC itself has no study programs, but serves more like a competence center for teaching of mathematics. MatRIC also provide a drop-in service for students, where the students can get help with mathematics.

Although MatRIC has no study programs on its own, we have chosen to look into some of the study programs connected to MatRIC that are likely "exposed" to MatRIC. A focus of MatRIC is to ensure effective use of video, digital, web-based and emergent technologies in teaching, learning and assessing mathematics. Thus, we have looked at some of the parameters from Studiebarometeret that can shed light on this.

Table 1. Study programs and the yearly numbers of responders and response rate (%).

	2013	2014	2015	2016
Bachelor's programme in business administration	21 (23%)	30 (30%)	73 (58%)	35 (29%)
Advanced teacher Education level 8-13, 5 year master programme			24 (41%)	16 (25%)
Primary and lower secondary teacher education programme for years 1-7	18 (31%)	19 (32%)	37 (58%)	30 (52%)
Master's 5-year programme in teacher education, level 5-10	5 (17%)	18 (55%)	18 (44%)	11 (27%)
Electronics and electrical engineering, bachelor's programme	7 (21%)	13 (38%)	22 (54%)	17 (71%)

In Studiebarometeret, the students answer to what extent they, overall, are satisfied with the programme they are currently attending. The results for this question is given in table 2, and the average for other subject in the field are given for comparison.

Table 2. Overall satisfaction in the study program and average of all study programs in the field.

	2013	2014	2015	2016
Bachelor's programme in business administration	3,9 (4,1)	3,9 (4,0)	4,2 (4,1)	4,2 (4,1)
Advanced teacher Education level 8-13, 5 year master programme			4,4 (3,8)	4,2 (3,8)
Primary and lower secondary teacher education programme for years 1-7	3,9 (3,8)	3,9 (3,6)	4,2 (3,9)	4,1 (4,0)
Master's 5-year programme in teacher education, level 5-10		4,0 (3,6)	4,3 (3,9)	4,3 (4,0)
Electronics and electrical engineering, bachelor's programme		3,8 (3,9)	3,6 (3,8)	4,4 (3,9)

There has clearly been a positive development in these study programmes over time, and in 2016 all these programmes score above the average of study programs in their field. Worth to mention specifically is the bachelor's programme in electronics and electrical engineering that increased overall satisfaction score from 3,6 to 4,4 from 2015 to 2016.

Since MatRIC has a specific focus on the effective use of video, digital, web-based and emergent technologies in teaching, learning and assessing mathematics, we have chosen to look at the student's answers on the use of digital teaching and learning methods as well as these methods contribution to learning in the study program (table 3).

Table 3. Use of digital teaching and learning methods and to what extent the digital teaching and learning methods contribute to learning in the study program. Compared to the average of all study programs in the field.

	Digital use	Digital contribution
Bachelor's program in business administration	2,2 (2,3)	3,6 (3,5)
Advanced teacher Education level 8-13, 5 year master program	2,5 (2,4)	3,3 (3,1)
Primary and lower secondary teacher education program for years 1-7	2,8 (2,8)	3,5 (3,3)
Master's 5-year program in teacher education, level 5-10	2,9 (2,5)	3,4 (3,4)
Electronics and electrical engineering, bachelor's program	3,8 (2,8)	4,0 (3,5)

These results from Studiebarometeret show that most of the study programs we look at do not differ significantly from the average of study programs in their field when it comes to the use of digital teaching and learning methods as well as these methods contribution to learning in the study programs. One important exception is the bachelors program in electronics and electrical engineering, which score well above the average both for the use of, and for contribution to learning from, digital teaching and learning methods (3,8 vs 2,8 and 4,0 vs 3,5, respectively).

Finally, it is important to point out that we do not know to what extent MatRIC is directly involved or possibly influence the study programs described in this report. Neither do we know to what extent the students in these study programs that have answered the questions have courses in mathematics

in the same semester they answer the survey. Thus, the results in this report are only indicators of the students perceptions on a selection of study programs connected to MatRIC.

Table 4. Overview of MatRIC programmes ant links to the programmes' sites on Studiebarometeret.no

Study programme	**Link**
Bachelor's program in business administration	http://www.studiebarometeret.no/en/Sammenligne/1171_BAC%C3%98KAD
Advanced teacher Education level 8-13, 5 year master program	http://www.studiebarometeret.no/en/Sammenligne/1171_M-LEK8-13
Primary and lower secondary teacher education program for years 1-7	http://www.studiebarometeret.no/en/Sammenligne/1171_GLU1-7
Master's 5-year program in teacher education, level 5-10	http://www.studiebarometeret.no/en/Sammenligne/1171_MASGLU5-10
Electronics and electrical engineering, bachelor's program	http://www.studiebarometeret.no/en/Sammenligne/1171_INGELEKTRO