

Academic and Social Integration of International Students in Norway

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Abstract

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In the last decade, there has been an emphasis on the importance of internationalisation in improving the quality of higher education in Norway. Among the aims put forward is an increase in both outward and inward student mobility. Although inward mobility have increased significantly in the last decade, the integration of international students is weak. In this paper, we use data from the Norwegian National Student Survey to study academic and social integration at Norwegian HEIs. A large majority of students at Norwegian HEIs report that they never/almost never participate in activities with international students. We argue that an increased focus on sending Norwegian students abroad has a positive effect also on the integration of international students at home.

Presentation

Academic and Social Integration of International Students in Norway

Introduction and background

In 2009 the Norwegian government issued a white paper called *Internasjonalisering av utdanning* (“Internationalisation of education”) (St.meld. nr 14. 2008-2009). The aim of the white paper was to put forward a range of initiatives intended to increase and strengthen the quality and relevance of the internationalisation of the Norwegian education (ibid., p. 5). Among the many initiatives listed in the paper, are initiatives aimed at increasing both outward and inward student mobility and improving the facilitation of services directed toward international students (ibid., p. 64).

In the 2014 white paper called *Langtidsplan for forskning og høyere utdanning* (“Long-term plan for research and higher education”) (Meld. St. 7 2014-2015), the new conservative government put forward ambitious goals for the Norwegian higher education sector. One of them is to develop several academic communities of excellent quality (ibid., p. 8-9). To do this, the government aims to attract the most talented students and researchers in the world and send more students and researchers to high quality HEIs or research organisations outside Norway (ibid., p. 41-42). In the 2017 white paper *Kultur for kvalitet i høyere utdanning* (“Culture for quality in HE”), internationalisation is emphasized as a prerequisite for quality (Meld. St. 16 2016-2017).

In order to attract the most talented students, integration of international students is important. This is important, not only for improving the chance that a talented student stays, but also to increase the likelihood that Norwegian students could be influenced by their international peers. However, in all three white papers, the government lists the low level of integration between international and Norwegian students as a concern (e.g. p. 51-52 in St.meld. nr 14. 2008-2009; p. 65 in Meld. St. 16 2016-2017). In the 2017 Norwegian National Student Survey, several questions about internationalisation were included. In this paper, we aim to answer the following research questions by using the data collected in the survey:

1. How well integrated are the international students in Norwegian higher education today?
2. What factors influence the academic and social integration of international students?

The first research question has been studied before in section Norway. The Norwegian Centre for International Cooperation Education (SIU) has conducted a biennial survey on international students in Norway since 2008 where integration has been a topic. Other studies have been conducted on the topic as well (see the literature below). Our primary goal with analysing this question will be to see if our results are in line with previous studies. An advantage with the 2017 Norwegian National Student Survey is that question on academic and social integration with international students are asked to a large number of Norwegian students as well. By using regression analysis, we can use the data to study factors that influence the Norwegian students to engage in activities with international students (research question 2).

Literature

Wiers-Jenssen (2014) summarizes relevant international literature and finds that many studies show that interaction between international and national students and are limited (Williams and Johnson 2010; Arkoudis et.al 2013), but important for the integration of international students and their general satisfaction (Klinenberg and Hull 1979; Opper et.al 1990; Perucci and Hu 1995). Some studies of English-speaking institutions point to the importance of the host institutions adapting their support services to cope with the challenges that international students usually struggle with (Andrade 2006, Wu et. al 2015). Norwegian research show that there is little interaction between international and Norwegian students at Norwegian higher education institutions (HEIs) (SIU 2014; Wiers-Jenssen 2014; SIU 2016, p. 5). Frølich et. al. (2014) have studied internationalisation strategies at Norwegian HEIs, and find that there has been a development in these and an added focus on internationalisation. They find that one of the HEIs look upon international students as an important resource, and securing academic and social integration of international students is considered important (ibid.: p. 29). There is however, much variation in strategies

and goals between both institutions and subject fields.

The Norwegian National Student Survey

We use data from *Studiebarometeret* (the Norwegian national student survey¹). *Studiebarometeret* is a cross-sectional survey that is conducted annually by the Norwegian Agency for Quality Assurance in Education (NOKUT). The survey mainly includes questions about various aspects of educational quality. In 2017 the survey also included a wide range of questions about internationalisation, covering topics such as student exchange and academic and social integration of international students. All second-year bachelor and master students at all the higher education institutions (HEIs) in Norway are invited to participate. The 2017 survey contains nearly 31 000 respondents (48 percent response rate) representing 43 HEIs and approximately 1800 study programmes.

Who are the international students?

To identify the international students in the questionnaire, the following question was asked to all students: "Are you a foreign student? – By "foreign student" we refer to students who have come to Norway to take part of, or the entirety of, their degree in Norway." When Norwegian students were asked about activities with international students they were given the following information: "By international students we refer to exchange and full degree students from abroad."

Table 1: Background statistics on the international students respondents in *Studiebarometeret* 2017

International students	N = 1183	% with n.a	% without n.a.
Gender			
<i>Female</i>	611	51,7	54,3
<i>Male</i>	515	43,5	45,7
<i>n.a.</i>	57	4,8	-
Age (avg.) N = 920	27.8 years		
Type of students			
<i>Degree students</i>	1059	89,5	91,1
<i>Exchange students</i>	103	8,7	8,9
<i>n.a.</i>	21	1,8	-
Regions			
<i>Europe</i>	489	41,3	51,6
<i>Asia</i>	250	21,1	26,4
<i>Africa</i>	87	7,4	9,2
<i>USA/Canada</i>	66	5,6	7,0
<i>Latin America</i>	48	4,1	5,1
<i>Oceania</i>	8	0,7	0,8
<i>n.a.</i>	235	19,9	-

Before describing the methods used in this paper in detail, background data on the international students who answered the questionnaire are provided in table 1. Almost all (around 90 %) of the international students who responded to the survey were full-degree students. However, among all international students in Norway, only about 65 % are full-degree students (p. 64-65 in Kunnskapsdepartementet 2018). The difference in population are likely to come from the fact that only 2nd and 5th year students registered on full-degree programmes were surveyed. It is likely that a large group of exchange students are registered in other categories (e.g not on degree programmes or on a different semester) in the administrative systems. While our analysis of the answers from the international students mostly will be valid for full-degree students, the large number of Norwegian students answering the questionnaire, makes the analysis of the Norwegian students' answers about academic and social activities with international students more likely to be representative for the entire international student population in Norway.

The gender distribution is close to even and the average age is almost 28 years. Most of the students are from a European country, but there is also a large group of students from Asia.

Research methods

The first research question will be explored by using descriptive statistics by looking at the international and the Norwegian students' answers respectively. The second research question requires a more detailed analysis and will be explored by using logistic regression models on the answers given by the Norwegian students. The variables used in the regression models are described below.

The dependent variable, *academic/social activities with international students*, is a dichotomous measure of whether or not a respondent has participated in academic and/or social activities with international students. It is constructed from two separate questions; the first question is "how often do you participate in *academic* activities with international students?", and the second question is "how often do you participate in *social* activities with international students?". The response options are "never/ almost never", "monthly", "weekly" and "daily/almost daily". The first option, "never/ almost never", is coded as 0 and the rest of the options are coded as 1. The respondents also had the option of answering "do not know/not relevant". This option is included with most of the questions in the survey. All of these responses are coded as missing.

The independent variable, *studied outside of Norway*, measures whether the respondents have previous experience from studying abroad. It is based on the question "are you currently studying, or have you ever studied, outside of Norway?". The response alternatives were "no", "yes, on student exchange", "yes, in relation to field work, short courses, or study trips", "yes, on work placement" and "yes, other". The respondents who selected the last alternative ("other") were then asked to specify their answer in a comment field. A large share of the respondents who chose "other" seem to have studied outside of Norway for a semester or more before continuing their education in Norway, but not as part of an exchange programme. The survey also contained a follow-up question asking if the respondent is currently studying abroad. We removed the respondents who were studying abroad at the time of the survey. This is because we want the independent variable to only measure students with previous experience from studying outside of Norway.

We include several control variables in the regression analysis in addition to the independent variable. The first control variable is an estimation of the share of international students enrolled in the respondent's study programme. This question had six response options, ranging from "none" to "51-100 percent". All the response options are presented in the regression analysis. This is possibly the most important control variable. The presence of international students is obviously important for Norwegian student's participation in academic and social activities with international students, and a higher presence should increase participation. Another control variable is satisfaction with the social environment among the students in the study programme. The assumption is that the social environment can either facilitate or hinder academic and social participation between all students, including between Norwegian students and international students. The respondents were asked "How satisfied are you with the social environment among the students in the programme", and could give answers along a five point scale ranging from 1 (not satisfied) to 5 (very satisfied). We also control for age, gender, field of education and level of study (bachelor/master). These variables are all based on register data, except for gender, which is based on survey data. Field of education is coded according to the Norwegian Standard Classification of Education, which follows the ISCED standard, and consists of eight different fields (social sciences and law, natural sciences, humanities and arts, etc.). Each field is divided into bachelor and master levels, which means the variable contains a total of 16 categories and controls for both field of education and level of study.

Results

1. How well integrated are the international students in Norwegian higher education today?

The survey contained a set of questions that were asked to international students only. The results presented in table 2 show that a large share of international students answer never/almost never on these

four questions. However, only about 11 percent of the respondents answered never/almost never on all four questions which indicate that almost all international students are engaged in activities with other students (international and/or Norwegian) on at least a weekly basis. Many of the international students who never/almost never participate in academic and social activities with Norwegian students, do participate in such activities with other international students, and vice versa. There is therefore a substantial number of international students who only engage in activities with other international students. Considering that almost all the respondents are full-degree students, the results are a bit disappointing. It is however an indication that there is at least a potential for better integration between international and Norwegian students.

Table 2: Academic and social activities with Norwegian and international students. Answered by international students.

	N	%
Academic activities with Norwegian students		
<i>Never/almost never</i>	390	33,6
<i>Weekly</i>	460	39,7
<i>Daily/almost daily</i>	309	26,7
Social activities with Norwegian students		
<i>Never/almost never</i>	485	42,3
<i>Weekly</i>	440	38,4
<i>Daily/almost daily</i>	221	19,3
Academic activities with other int. students		
<i>Never/almost never</i>	413	36,6
<i>Weekly</i>	397	35,2
<i>Daily/almost daily</i>	317	28,1
Social activities with other int. students		
<i>Never/almost never</i>	472	42,1
<i>Weekly</i>	417	37,2
<i>Daily/almost daily</i>	232	20,7

Norwegian students were asked the same set of questions regarding academic and social activities with international students. The results are presented in table 3, and show that a large majority of the respondents never, or almost never, participate in activities with international students. Note that the categories are slightly different. In this case, there was also a «monthly» option.

Table 3: Academic and social activities with international students. Answered by Norwegian students

	All respondents		Exchange / studies abroad	
	n	%	n	%
Academic activities with int. students				
<i>Never/almost never</i>	19 594	86,8	2 355	74,5
<i>Monthly</i>	1 430	6,3	371	11,7
<i>Weekly</i>	1 121	5,0	296	9,4
<i>Daily/almost daily</i>	424	1,9	137	4,3
Social activities with int. students				
<i>Never/almost never</i>	19 037	83,9	2 366	74,2
<i>Monthly</i>	2 319	10,2	542	17,0
<i>Weekly</i>	1 028	4,5	218	6,8
<i>Daily/almost daily</i>	299	1,3	62	1,9

Overall, the findings suggest that level of integration of international students is quite low, and that there is much room for improvement. It is especially striking that less than 20 percent of the Norwegian students engage in activities with international students. International students seem to be an underused resource in the effort to increase internationalisation at Norwegian HEIs. As stated above, there is certainly a potential for a better integration between Norwegian and international students because of the large number of international students who mainly engage in activities with other international students. In table B the responses from the Norwegian students who has been studying abroad prior to answering the survey are shown as well. Although most of these students also answer never/almost never on the questions regarding engaging in academic and/or social with international students, they at least seem to engage in activities with international students to a larger degree than other Norwegian students do. To study this relationship more closely, we conduct a series of regression models in an attempt to answer research question 2.

2. What factors influence the academic and social integration of international students?

The second research question will be explored by using a logistic regression model. We start by presenting descriptive statistics (table 4) for the respondents who are included in the sample used in the regression analysis. The sample is based on the final regression model with all the independent variables included. Due to listwise deletion of missing data, the number of observations is 15 750.

Table 4: Descriptive statistics for the variables used in the regression analysis (n=15750).

	n	%	Mean (std. dev.)
<i>Dependent variable</i>			
Academic/social activities with int. students			
Never/almost never (0)	12 183	77,4	
Monthly, weekly or daily/almost daily (1)	3 567	22,6	
<i>Independent variables</i>			
Studied outside of Norway			
No	13 269	84,2	
Student exchange	1 113	7,1	
Field work/short courses	721	4,6	
Work placement	149	0,9	
Other	498	3,2	
Estimated share of int. students			
None	7 022	44,6	
1-5 %	4 671	29,7	
6-10 %	2 063	13,1	
11-25 %	1 166	7,4	
26-50 %	593	3,8	
51-100 %	235	1,5	
Social environment			
1 Not satisfied	507	3,2	
2	1 190	7,6	
3	2 846	18,1	
4	5 067	32,2	
5 Very satisfied	6 140	39,0	
Gender			
Male	5 944	37,7	
Female	9 806	62,3	
Age			25,1 (6,3)

23 percent of the respondents have a positive value (=1) on the dependent variable. Most of the respondents have never studied outside of Norway. The most common way of having studied outside of Norway is through student exchange programmes. 45 percent of the respondents report having no international students in their study programme, which means that a majority of the respondents have at least some international students in their study programme. A large majority of the respondents are satisfied with the social environment in their study programme (value 4 and 5), while only three percent report being not satisfied. 62 percent of the respondents are female and the average age of the respondents is 25 years.

Table 5 contains the results from a logistic regression analysis with *academic/social activities with international students* as the dependent variable. We start by presenting results for a model that only includes *studied outside of Norway*, which is the independent variable of interest in our analysis. We then add control variables in two steps, resulting in a final model (model 3) with all the controls included. Note that the sample size is the same for all three models.

Table 5: Logistic regression models with dependent variable: Participated in academic and/or social activities with international students. Odds ratios.

	Model 1	Model 2	Model 3
Studied outside of Norway			
No	(ref.)	(ref.)	(ref.)
Student exchange	2,58**	1,63**	1,56**
Field work/short courses	2,35**	1,86**	1,67**
Work placement	1,36	1,46	1,67*
Other	1,78**	1,49**	1,58**
Est. share of int. students			
None		(ref.)	(ref.)
1-5 %		1,78**	1,60**
6-10 %		4,08**	3,34**
11-25 %		6,75**	5,48**
26-50 %		13,43**	11,44**
51-100 %		24,55**	22,79**
Social environment			
1 Not satisfied			0,59**
2			0,68**
3			0,73**
4			0,82**
5 Very satisfied			(ref.)
Age			0,97**
Female (male=0)			0,66**
Field of education (BA/MA)			-
n	15 750	15 750	15 750

*p<0,05, **p<0,01. Field of education is included in model 3 (set of dummy variable).

The first model contains only the variable *studied outside of Norway*, which is the independent variable of interest. The results show a positive and statistically significant odds ratio for all values except “work placement”. This means that students who have been on student exchange, done field work or taken short courses abroad, or have experience from other forms of studies abroad, are more likely to participate in academic and/or social activities with international students.

In the second model we add a control for the estimated share of international students in the respondent’s study programme (from survey data). The assumption is that a higher share of international students in a study programme should lead to more students participating in academic and social activities with

international students. The results show that this assumption is correct. The odds ratio increases for each value of the estimated share of international students. The high odds ratios for the intervals 26-50 percent and 51-100 percent is perhaps not surprising, but it is interesting to see such clear differences between 1-5 percent, 6-10 percent and 11-25 percent. Adding controls for the estimated share of international students in the respondent's study programme does lead to lower odds ratios for having studied outside of Norway, especially for student exchange and field work/short courses. However, we still see positive and statistically significant odds ratios between having studied outside of Norway and engaging in academic and/or social activities with international students.

In the third model we also add controls for the respondent's view of the social environment in their study programme, age, gender, field of education and level of study. There is a statistically significant relationship between the quality of the social environment and the dependent variable. Respondents who are very satisfied with the social environment in their study programme have higher odds of participating in academic and/or social activities with international students, compared to respondents who are less satisfied. The most positive endpoint (very satisfied) was chosen as the reference category due to relatively few observations in the lowest endpoint (not satisfied). We also see a statistically significant relationship for both age and gender. The low odds ratio for female respondents is surprising. We have attempted to calculate other models not shown here to find an explanation for this finding, but have not been successful. This result will not be investigated further, as it is beyond the topic of this paper. Field of education, which also includes level of study, does show some statistically significant differences between both fields and levels. However, the variable is only included in the model for control purposes and we will not be discussing these differences in further detail.

The results show that respondents with previous experience from studying abroad have higher odds of participating in academic and/or social activities with international students. In addition to background variables like gender, age, field of education and level of study, we also control for the quality of the social environment and the presence of international students in the respondent's study programme. We find that high satisfaction with the social environment and a higher presence of international students both increase the odds of participating in academic and/or social activities with international students.

Conclusion

In this paper we show that the integration between Norwegian and international students in Norway is weak. This is in line with prior studies. The Norwegian Government has lately issued several white papers where internationalisation of higher education has been put forward as an important issue. The results from the regression analysis suggests that having previous experience from studies abroad increases the odds of participating in academic and/or social activities with international students. To put it another way, students with international experience seems more likely to be inclusive towards international students at their own higher education institution in Norway. In general, there are many potential benefits from student exchange programmes and other forms of studies abroad, for both institutions and individual students. The results presented in this paper show that better integration of international students at Norwegian institutions is also one of these potential benefits. There are several measures that can be taken by an institution looking to improve the academic and social integration of international students. Increasing the international experience of its own students, for example via student exchange programmes, could be one such measure.

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¹ <http://studiebarometeret.no/en/artikkel/2>