

Students' perspectives on English medium instruction: A survey-based study at a Norwegian university

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Abstract

Internationalisation of higher education (HE) has led to an extensive implementation of English medium instruction (EMI) in Nordic higher education. This study explores students' attitudes towards EMI in the Norwegian study context. A total of 346 students within the fields of law, philosophy, and natural science responded to a questionnaire and evaluated statements concerning the language use in the educational context. Indexes measuring confidence in English skills and attitudes towards EMI were constructed and analysed using multiple regression. Natural science students and students with high confidence had significantly more positive attitudes towards EMI than students who were less confident in their English skills. Furthermore, confidence correlated positively with students' plans to study abroad, which could suggest that confidence in English is a predominant factor influencing students' choices of whether or not to go abroad as part of their education.

Keywords: EMI; disciplinary fields; confidence; language attitudes; higher education; study abroad

1. Introduction

Higher education (HE) institutions have sought to adapt the educational systems to the demands of internationalisation. One of the predominant strategies behind these internationalisation efforts has been to implement EMI, which refers to English-taught programmes where language learning in itself is not an aim (Ljosland 2010). It covers the implementation of English in lectures and syllabi, to adjust to, and prepare students for, an increasingly globalised society in general, as well as the educational system and work life, specifically. Language, and more specifically the introduction of EMI, is in this respect viewed as a tool for increased internationalisation.

Whereas the EMI practice has been extensive in many countries, Wächter and Maiworm (2014) show that the implementation of EMI has been particularly prominent in the Nordic countries, and the Netherlands. The increase in EMI programmes in the Nordic region can be explained as a result of disciplinary, institutional and politically motivated changes

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(Airey et al. 2017). Such changes partly stem from the Bologna process, which aimed at standardising university degrees across EU countries (Bolton and Kuteeva 2012). Airey et al. (2017: 563) argue that one reason for the particularly rapid increase of EMI programmes in the Nordic region is the relative small number of L1 speakers of the Nordic languages, which makes it too costly to develop the national language(s) as a general consensus within all areas of HE.

While the impact of introducing EMI on the national languages has been much debated (see Hultgren et al. 2014, Dimova, Hultgren, and Jensen 2015), less attention has been given to the experiences of students enrolled in programs where English is used to a greater or lesser extent as a medium of instruction (with the exception of studies such as Bolton and Kuteeva 2012, Doiz, Lasagabaster and Sierra 2012, Jensen et. al 2013). One needs to consider the target population when instigating such policy changes, and it is therefore important to gain insight into the attitudes held by the students. Such insights can provide a basis for developing more viable language policies in educational settings, so that language becomes an asset, not a burden, for the students.

In this context, with the goal of contributing to a more comprehensive understanding of students' experiences, this article reports the results of a survey of students' attitudes towards the use of English and Norwegian at a major Norwegian university.

To explore students' perspectives on language use in their studies, I have developed two main research questions, both followed by more specific sub-questions.

- 1) How confident are students in their own English skills?
 - a. Is it possible to find systematic differences in confidence between disciplinary fields?
 - b. Do students' confidence in their English skills correlate with their plans to study abroad?
- 2) How do students view EMI?
 - a. Do the attitudes towards EMI vary systematically between disciplinary fields, and are any such differences reflecting differences in syllabus load?
 - b. To what extent is it possible to detect patterns of differences in attitudes towards EMI associated with individual self-confidence?

The present study uses survey-based methods, which give the opportunity of examining whether results from small-scale studies can be generalised to larger student populations. Comparing the attitudes of students from three different academic fields—natural sciences, law, and philosophy—makes it possible to investigate how HE language policies resonate with students' experiences and their perspectives on language and its role in teaching. In addition to the variables mentioned in the research questions, I have also included information about students' length of education, gender, and previous education as control variables in the analyses.

Before describing the methods used when developing the survey and analysing the responses, I want to briefly describe previous research on language attitudes in higher education and give an overview of the Norwegian HE context.

2. Previous research on language attitudes in higher education

Some themes from previous Nordic and international research on language use in HE are especially pertinent to this study. First, in the Nordic countries, the role of disciplinary knowledge has been a major focus in research on EMI and bilingual education (Airey 2011, Airey et al. 2017, Kuteeva and Airey 2014). In their overview of the present research on EMI in the Nordic countries, Airey et al. (2017) note that research on students' experiences with EMI reveals systematic disciplinary patterns in attitudes. Bolton and Kuteeva's (2012) examination of the disciplinary use of English in a study including both staff and students at a Swedish university also shows that attitudes towards EMI vary between disciplines, and Kuteeva and Airey (2014) argue that such differences in attitudes towards EMI are systematically related to the type of knowledge structures that are favoured by the disciplines.

Secondly, Nordic EMI-research has pointed out how perceived language competence can influence student attitudes, both when it comes to students' opinions of their teachers' English proficiency (Jensen et al. 2013), and students' opinions of their own proficiency (Lueg and Lueg 2015). In studies from outside the Nordic region, self-confidence has been identified as an important factor influencing students' academic performance and learning motivation (see Robson, Francis, and Read

2004, Clément, Dörnyei, and Noels 1994, Stankov, Morony, and Lee 2014).

Thirdly, student mobility has been a highly debated topic. The present literature offers a range of factors that are associated with students' choice of whether or not to study abroad: socioeconomic background and parents' educational level (Lörz, Netz, and Quast 2016, Wiers-Jenssen 2011, Di Pietro and Page 2008), gender and various forms of cultural capital (Salisbury, Paulsen, and Pascarella 2010), students' expected benefits from studying abroad (Petzold and Moog 2017), and high school performance in foreign language skills (Di Pietro and Page 2008).

Looking beyond the Nordic region, there has been some research on student attitudes towards EMI in other countries. In their study, Doiz, Lasagabaster, and Sierra (2012) investigated the introduction of English at a bilingual university in the Basque county in Spain. They found that local students showed a certain resistance towards EMI and English as a lingua franca. International students, on the other hand, were clearly in favour of these English practices. This dichotomy is a clear example of the challenging role that universities could face when facilitating internationalisation, while at the same time following up on national responsibilities.

Even though there has been an increasing interest in attitudes towards EMI, Macaro et al. (2018) argue, in their systematic review of EMI research, that before attempting to draw any conclusions of where the EMI phenomenon is going, more research needs to be devoted to beliefs held by students and how these beliefs manifest themselves in different academic disciplines.

No studies have combined the perspectives on disciplinary differences, self-confidence, and student mobility when examining students' attitudes towards EMI. If we narrow down our focus to research within the Norwegian context, the practical use of EMI has been examined through an observational study by Hellekjær (2010), who found that students in Norwegian HE experienced difficulties practicing EMI in the classroom. There is however altogether a paucity of recent research on attitudes towards EMI among students in Norwegian HE institutions. The present study aims to fill these gaps in the research literature.

3. The Norwegian context

When it comes to the Norwegian HE institutions' rationales for choosing between mediums of instruction, Ljosland (2008: 321) suggests that various factors affect the choice between English and Norwegian in the academic context. These include globalisation, internationalisation efforts, national and university policies, as well as ambitions to become "excellent", in addition to factors such as attitudes and perceived prestige of the languages in question. The white paper titled "Internationalisation of Education in Norway", outlines a policy of increasing the number of English language study programmes as a means of improving educational quality and making Norwegian HE more attractive and competitive both nationally and internationally (Norwegian Ministry of Education and Research 2008-2009).

EMI is introduced through both spoken language and the syllabus. In their study on syllabus language, Schwach and Mæsel (2013) conducted a review of languages used within different disciplines at Norwegian universities. They found that physics students at bachelor level receive approximately just over 50% of their required readings in English. The only other language reported in their study is Norwegian. Within the field of law, no English syllabus was used. When it comes to syllabus language in philosophy, a 2001 report (Hatlevik and Norgård 2001) showed some variety in the language distribution between the different Norwegian educational institutions. While the University of Oslo offered 99% of their required readings in English, the University of Bergen offered a broader variety of languages, 38% English, 33% in Norwegian and 29% in Danish.

4. Theory and hypothesis development

Languages shape and are being shaped by disciplinary practices and epistemologies (Kuteeva and Airey 2014). Leman (1999: 250) argues, "subject areas carry with them specific and sometimes very powerful social stereotypes, which entail attitudes regarding the 'sort of person' an individual is expected to be". Socialisation into becoming part of an academic community can be considered one of the learning objectives for students (Nissen and Ulriksen 2016, 14).

4.1 Social identity theory

I use Tajfel and Turner's (1986) *social identity theory* as an interpretational framework to explain possible disciplinary differences in attitudes towards EMI. Social identity theory suggests that "social categories [...] provide members with a social identity [...] [which] not only describe members but prescribe appropriate behaviour and specific tactics for members" (Hogg and Vaughan 2005: 408). Hogg and Vaughan argue that by using the distinction between the types of identities as a starting point, attitudes may be explained through an extension of social identity theory and its focus on intergroup perspectives in the social psychology of language. They define *intergroup behaviour* as "[b]ehaviour among individuals that is regulated by those individuals' awareness of and identification with different social groups" (Ibid: 392).

Disciplinary fields display certain traits or characteristics that make them distinguishable from other disciplines (Trowler 2014). Language use can be one such feature of a field. Therefore, identifying with, and conforming to the language norms can be a way for students to affiliate with the academic milieu that they are a part of. Students who are not able to master the language norms or unspoken policies within the academic discipline could then withdraw and not identify with the given discipline. This is closely related to research question 2, concerning the extent to which it is possible to predict attitudes towards EMI and first languages based on academic disciplines, confidence and syllabus load. Drawing on social identity theory and the notion that disciplinary fields display certain traits that make it possible to distinguish disciplines from one another, one can expect to predict attitudes towards EMI on the basis of the characterising features of the field.

When investigating the relationship between disciplinary fields and perspectives on language use in the educational context, one should take the range of academic traditions into account. By including study fields with various scholastic emphases and backgrounds, rather than focusing on a single academic field, we will get a more complete picture of student perspectives on language, and its role as part of an internationalisation process. It would also be of great interest to find out whether students, from different disciplinary backgrounds, vary in their attitudes towards English at the normative level, or at the level of their perceived practices.

4.2 Confidence as a predictor of language attitudes

Research question 1, concerning the role confidence plays, both within and between disciplines in the shaping of attitudes towards EMI and students' plans to study abroad, can be linked to the social-cognitive concept *self-esteem*, which relates to a person's feelings and evaluations of oneself. Confidence, a factor that has proved important in predicting student achievement (Stankov, Morony, and Lee 2014), can influence how students perceive language use. In this respect, confidence could be seen as closely connected to the research of Herrmann, Bager-Elsborg, and McCune (2017: 388) who found that learners often define themselves in terms of the contexts where they feel competent. Vice versa, they disidentify themselves with communities, and their ideologies and practices, where they perceive a lack of competence.

5. Methods

A survey was distributed by email to students at one of the largest universities in Norway, with a student population of approximately 30 000 students, during the 2015 spring term. The study population is comprised of students enrolled in one of the three academic disciplines, (1) Law, (2) Philosophy, (3) Natural Sciences.

5.1 The respondents

All registered students were invited to participate, and no prerequisites were formulated. Respondents were informed that by participating, they consented that data would be used for research, but that all information was to be treated confidentially.

Approximately 2250 students were enrolled in one of the three academic disciplines, according to the email-addresses provided by the university. Of these, approximately 2060 studied law, approximately 130 were enrolled within the natural sciences, while approximately 65 were philosophy students.

There were 542 (24%) students who completed the survey. The target population was bachelor students, but since law in Norway is a five-year integrated master programme, all law students received an invitation to participate. To make the three study fields as similar as possible, students who exceeded the nominal length of three years were

excluded from the analyses, leaving 346 respondents to be extracted for further analyses. Accounting for the total enrolment within the fields, both students within the natural sciences and philosophy students had a participation of approximately 60%. Law, however, had a total participation of 20%.

Out of the total sample, 65% (225) were law students, 11.3% (39) were enrolled in philosophy, and 23.1% (80) studied either chemistry or physics. The latter two programmes were later combined into one group under the broad heading *natural sciences*.

Apportioned by gender, 147 (42.5%) men and 193 (55.8%) women participated. The median age of the sample was 22. These numbers fit well with statistics on students in Norway, which shows that more women than men enrol in higher education, and that the majority of students are between 19-24 years old (Statistics Norway 2018). Respondents were evenly distributed by length of study as bachelor students: 119 (34.4%) were first year students, 124 (35.8%) were in their second year of study and 103 (29.8%) were in their third and final year. As to previous education, 158 students (45.7%) reported that they had been students ahead of their current studies, whereas for the remaining 188 (54.3%) students, this was their first encounter with higher education. A total of 307 (88.7%) students reported Norwegian to be their first language, whereas 39 (11.4%) were non-native speakers of Norwegian. 172 (49.7%) students planned to study abroad as part of their degree.

5.2 The survey

A number of fixed questions and statements were presented for students to evaluate on a Likert-scale ranging from 1-5. The items covered the following topics; self-reported English skills, usefulness of English and Norwegian in areas related to further studies, research and dissemination, self-confidence using English in the educational context, languages and learning effect.

5.3 Developing composite measures of language attitudes

In order to interpret attitudes towards EMI, an index was developed on the basis of statements from the survey. Three statements were chosen

encompassing perspectives on English as an important language for future studies and career prospects. The statements describe similar, yet not identical aspects of EMI:

- 1) I feel better prepared for future work when I use English actively in my education.
- 2) It is important to learn how to use English properly for further studies and future work.
- 3) Accustoming oneself to using English is a competitive advantage when applying for jobs.

All three statements used for the index are worded so that a higher score denotes more positive attitudes towards using English and its potentially favourable outcomes.

A composite measure gives a more complete representation of the theoretical concept we want to investigate. It improves the quality of measurement by increasing the measure's content validity. While the index does not cover all possible aspects relevant for internationalisation in higher education, it encompasses important dimensions of attitudes towards EMI. As a tool for the analysis, this makes the index superior to reporting responses to single questions. We are not only interested in what students think of selected, isolated questions, but an understanding of the broader tendencies and systems of attitudes towards EMI. By combining similar variables, one can move towards a more complete representation of students' attitudes. In addition, using the index allows for analysing responses as interval scale data (Neuman 2014: 226).

After selecting variables, statistical correlation was checked between the selected variables making sure that the theoretical association between the statements was matched by a statistical association, i.e. that agreeing to one statement increased the likelihood that students agreed with related variables. The correlational analysis shows strong, yet not perfect correlations between the different statements (.56 - .66) included in the index. This is ideal, since a perfect correlation would indicate that we were merely measuring a single aspect of the EMI attitude, and the construct validity of the measurement tool would be questionable. Lastly, the index was tested using a reliability measure, Cronbach's alpha,

giving an alpha of 0.818. This confirms that, in addition to resting on a sound theoretical rationale, the index has a good internal consistency.

To measure students' confidence, respondents were asked to evaluate their own productive and receptive English skills. This included a separate five-point Likert-scale, ranging from 1 (very poor) and 5 (very good) for the following skills: (1) speaking, (2) reading, (3) writing and (4) listening to and understanding English. These variables were combined into one index, as a measurement of students' confidence. The index was constructed and tested in the same way as the index of EMI. The correlation between variables in the index range from .65 to .79, and a Cronbach's alpha on 0.91 confirms that the measure is reliable.

5.4 Statistical analyses

Survey data were analysed by reporting mean scores of subgroups with 95% confidence intervals and by using multiple linear regression in SPSS version 23, with the indexes of EMI and self-reported skills as dependent variables in two separate analyses. Independent variables were added into the analyses according to the specified theoretical model. The assumptions of the regression models were tested by inspecting graphs of residuals and performing separate regressions of subsets of dichotomous variables to identify possible interactions between variables. The tests showed that the models met the assumptions.

6. Results

6.1 Syllabus

Students reported on their syllabus language on a scale ranging from 1 (nothing) to 5 (everything), results are presented in figure 1.

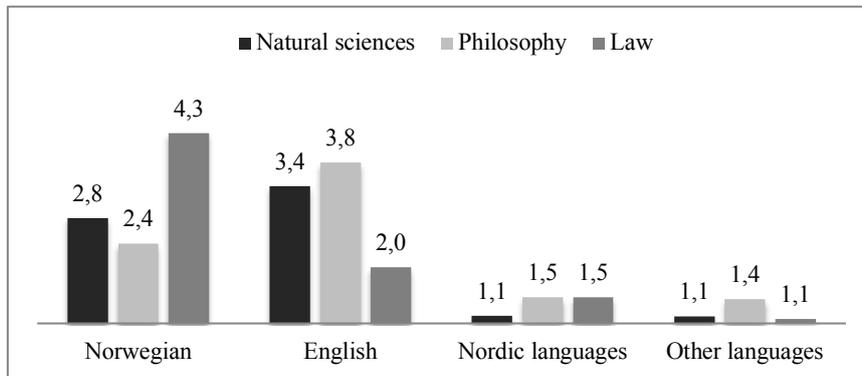


Figure 1. Students' reports on languages used in their syllabus on a Likert scale ranging from 1-5.

These results show that natural science students and philosophy students report the majority of their syllabus to be in English, whereas law students report Norwegian to be the predominant language.

In addition to collecting data on syllabus load through the survey, I reviewed published reading lists from the courses within the three disciplinary fields. Though it is not possible to directly compare data from these lists with the survey, they confirm that English material is more common within philosophy and natural sciences, than in law. See supplementary table.

6.2 Students' self-reported skills

Figure 2 shows that a large proportion of the student group consider themselves as quite skilled in English, with a mean score ranging from 3.9 to 4.7 on the 5-point Likert-scale.

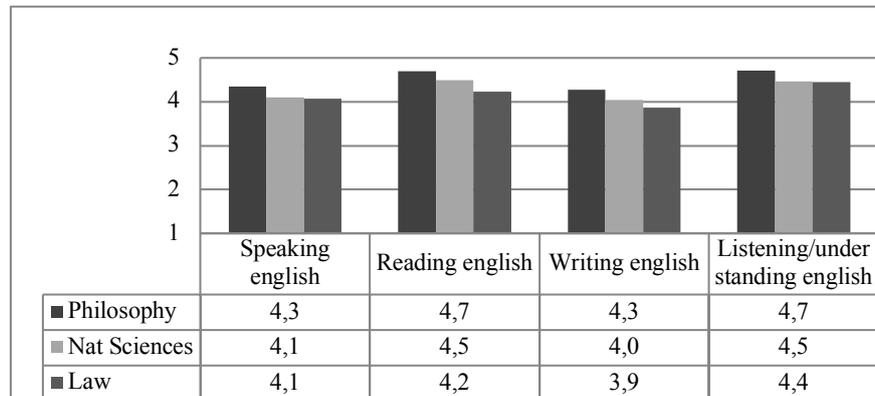


Figure 2. Mean score of self-reported skills in productive and receptive competence in English, measured on a Likert scale ranging from 1-5.

Despite minor differences between the fields, philosophy students rate themselves highest on the scale. Further, all three fields follow a pattern where students are more confident in their receptive skills (reading and listening to and understanding), than the productive ones (speaking and writing). These results have formed the basis of the skills index, in which all four skills are combined into one single measure.

A multiple linear regression was carried out and calculated to predict responses to the skills index based on the following variables (1) plan to study abroad (2) disciplinary field, (3) length of education and (5) gender. Table 1 gives an overview of the results from the regression analysis concerning the skills index as a dependent variable. Theoretically important, non-significant, variables were included to present a more complete picture of the defining variables affecting attitudes towards the index.

Table 1. Students' self-reported skills in English, dependent variable ranging from 1-5 on a Likert-scale.

ANOVA					
	<i>df</i>	SS	MS	F	<i>p</i>
Regression	6	8.871	1.479	2.692	.014
Residual	330	181.236	.549		
Total	336	190.107			

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	St. Error	Beta		
Constant	4.147	.099		41.922	<.001
Plan to study abroad (1 if yes)	.226	.082	.150	2.746	.006
Natural science students (0 other)	.156	.101	.088	1.546	.123
Philosophy students (0 other)	.288	.133	.121	2.156	.032
First years students (0 other)	-.130	.097	-.082	-1.332	.184
Third year students (0 other)	-.133	.100	-.081	-1.329	.185
Gender (1 if women)	-.038	.084	-.025	-.448	.655

Dependent variable: Skills index. *R Square* = 0.047

Table 1 shows that, accounting for the variables listed in the table, philosophy students' evaluation of their English skills is significantly higher than those of natural science and law students. The results also suggest that students who plan to study abroad are more confident than those who do not plan to do so. The first regression analysis predicts that students who plan to study abroad will receive a score of 0.226 above those who do not plan to study abroad ($p=.006$) on the skills index.

6.3 Attitudes towards language use in the academic context

Comparing means between groups shows that whereas students within all academic fields display positive attitudes towards English, natural science students, in contrast to law and philosophy students, tend to exhibit less positive attitudes towards the statement; "it is a democratic problem if not all subject fields can be explained in Norwegian" (mean = 2.63), on a scale ranging from 1 (very negative) to 5 (very positive). Law and philosophy students however, are more positive towards this statement both with a mean score of 3.2. A score in close proximity of 3

on this scale shows that whereas students do not positively agree with this statement, they do not actively disagree with it.

Answers to another statement, “it is important being able to communicate research in Norwegian”, indicate that philosophy students are slightly more positive (mean = 4.36) towards the role of Norwegian in science and dissemination than law students (mean = 4.29), and significantly more positive than natural science students (mean = 3.79). This inference is further supported by results showing that law and natural science students are less positive towards the statement “teaching material in other languages than Norwegian and English should be made available (average 1.91 and 1.94), compared to philosophy students’ average of 2.93. Whereas none of the student groups are entirely positive towards this statement, philosophy students are significantly higher on the Likert-scale than both law and natural science students.

Finally, out of the three groups, law students agree most with the following statement: “I participate less when discussions are held in English” (3.22), compared to 2.30 (philosophy students) and 2.74 (natural science students). Results are summarised in table 2.

Table 2. Summary of mean scores and confidence intervals.

Question/measure	Discipline	N	Mean	95 % Confidence Interval	
				Lower limit	Upper limit
<i>It is a democratic problem if not all subject fields can be explained in Norwegian.</i>	Natural sciences	62	2.63	2.29	2.97
	Philosophy	35	3.23	2.71	3.75
	Law	194	3.26	3.07	3.46
<i>It is important being able to communicate in Norwegian.</i>	Natural sciences	77	3.79	3.52	4.07
	Philosophy	39	4.36	4.06	4.66
	Law	206	4.29	4.16	4.41

<i>Teaching material in other languages, than Norwegian and English, should also be made available</i>	Natural sciences	69	1.91	1.64	2.19
	Philosophy	33	2.93	2.48	3.40
	Law	197	1.94	1.78	2.11
<i>I participate less when discussions are held in English.</i>	Natural sciences	69	2.74	2.38	3.10
	Philosophy	33	2.30	1.81	2.79
	Law	189	3.22	2.99	3.44

6.4 Students' attitudes to the EMI index

Independent of disciplinary fields, students display positive attitudes towards EMI, averaging a score of 4.05 measured on the EMI index. Figure 3 shows a comparison of means of the EMI index between the three study fields. Natural science students report slightly more positive attitudes towards the index (mean score 4.21), than philosophy and law students (mean score 4).

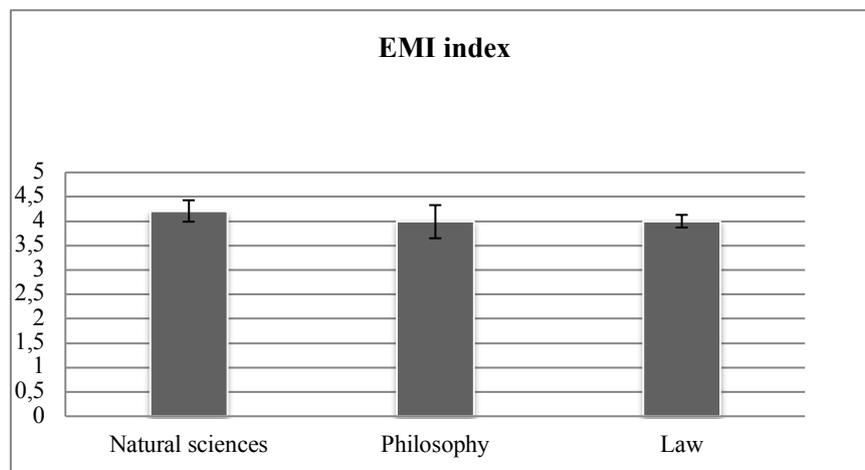


Figure 3. Mean score and confidence intervals on the EMI index on the five-point Likert-scale.

A multiple linear regression was carried out and calculated to predict attitudes towards the index of EMI based on the following variables (1) plan to study abroad (2) disciplinary field, (3) self-reported skills, (4)

years into their education and (5) gender. Results are summarised in table 3.

Table 3. Attitudes towards the five-point EMI index

ANOVA					
	<i>df</i>	SS	MS	F	<i>p</i>
Regression	7	53.546	7.649	12.444	<.001
Residual	282	173.349	.615		
Total	289	226.895			

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	St. Error	Beta		
Constant	1.899	.284		6.675	<.001
Plan to study abroad (1 if yes)	.417	.095	.236	4.372	<.001
Natural science students (0 other)	.343	.116	.162	2.947	.003
Philosophy students (0 other)	-.108	.158	-.037	-.680	.497
Skills index	.422	.064	.353	6.614	<.001
First years students (0 other)	-.108	.112	-.057	-.959	.338
Third year students (0 other)	.099	.113	.052	.881	.379
Gender (1 if women)	.179	.096	.100	1.857	.064

Dependent variable: EMI index. R Square = 0.236

The multiple regression analysis indicates that the differences between natural sciences and the two other student groups, noted above, are indeed significant when controlling for the other variables included in the regression model. Natural science students had a predicted EMI score of .343 above that of law students ($p=.003$).

Furthermore, the results indicate that students' confidence to a certain extent can predict attitudes towards EMI. Each added point on the skills index increased the EMI-index score by 0.422 ($p < .001$). Higher levels of confidence equal more positive attitudes towards EMI.

7. Discussion

A majority of students who participated in this study reported to be confident in their English skills, and slightly more so in their receptive than in their productive skills. However, some systematic patterns of association between disciplinary fields and confidence emerge. Philosophy students rated themselves as slightly more skilled in English than students within the natural sciences and law. There is also a correlation between confidence in English and plans to study abroad, independent of their field of study. Students who displayed high confidence in their English skills did, to a greater extent than students with lower confidence, report that they plan to study abroad.

Overall, the students who participated in this study were positive towards EMI. Students within the natural sciences displayed more positive attitudes towards EMI than either philosophy or law students. The syllabus load in English relative to other languages did not seem to have a direct impact on attitudes towards EMI. Even though philosophy students and students within the field of law find themselves at more or less opposite ends of the scale regarding the use of English and Norwegian in their syllabus, they were equally positive towards EMI. Confidence, on the other hand, seemed to have a strong, positive association with attitudes towards EMI.

The syllabus load, which is one of the most visible manifestations of EMI, differs noticeably between the fields. Judging from student responses on syllabus load, English language syllabus makes up over 50% of the reading material for philosophy and natural science students, compared to only a small amount of the required readings for law students. Concerning natural science, the numbers reported from students in the present study fit quite well with Schwach and Mæsel's (2013) study of syllabus language in Norwegian HE, which found that physics students at bachelor level receive approximately just over 50% of their required readings in English. There is a discrepancy between law students' reported English language syllabus and Schwach and Mæsel's

report, which states that no English syllabus is used within the field. However, law students report only minor usage of English, which is consistent with the amount of English syllabus and recommended readings that I found in official syllabus documents at the university's homepage. When it comes to syllabus language in philosophy, it is difficult to compare the present numbers with Hatlevik and Norgård's (2001) report. The substantially varying language distribution between the different Norwegian educational institutions and the time that has passed since the study was conducted begs caution when using this report for comparison. Even so, the numbers reported by Hatlevik and Nordgård are quite similar to those I found reviewing reading lists in 2015.

To some extent, the reported attitudes seem to be more in line with the language tradition in research journals, than with the actual amount of English and Norwegian syllabus. A study of languages used in scientific research reported from Norwegian research institutions (Kristoffersen, Kristiansen, and Røyneland 2014) found that over 70% of research within the field of law is written in Norwegian. Within philosophy, both Norwegian and English are important languages, and approximately 60% of research is written in Norwegian. Natural sciences, however, publish almost 95% of research in English.

In the present survey, natural science students exhibit more English-only attitudes, while philosophy students, together with law students, are more inclined to value more than one language in their education. That is, even though philosophy students report more English language syllabus than natural science students do, and rate themselves as more skilled in English than the other two student groups, as a group, philosophy students do not display more positive attitudes towards EMI. They are, however, in line with law students' attitudes, and slightly less positive than those of natural science students. This suggests that there is no clear-cut tendency for students with a higher English load to become more positive towards the language. One possible explanation for why philosophy students do not display more positive attitudes towards EMI than the other two groups could be the role and importance of other languages within the field. Philosophy students are enrolled in a field where other languages have played an important role in shaping the field. Reading philosophical works in their original language can be an

important identity marker even though the majority of material seems to be English and Norwegian.

Likewise, one can point to specific disciplinary traits to explain that students from the natural sciences are the most positive towards EMI. Kuteeva and Airey (2014: 546) suggest that knowledge within the natural sciences “build on an agreed language and specialist terminology”. This agreed language between academics within the natural sciences is English.

The student responses to the statement “In my field of study, English terms are better developed than Norwegian ones” serve to demonstrate the possible effect of socialisation on attitudes towards EMI. Whereas natural science students agreed to this statement (mean 4.16), law students placed themselves on the other end of the scale (2.34), with philosophy students at an intermediate level (mean 3.6). While this difference in attitudes between students from the three disciplines does not seem to be associated with the amount of syllabus reported in the two languages, it fits well with a theory that disciplinary traditions socialise students into a common belief set, i.e. social identity.

Whereas disciplinary fields can account for some of the systematic differences towards EMI, they do not explain all variation. One important factor seems to be confidence in receptive and productive English skills. The regression analysis shows that students who rate themselves high on the skills index are also more inclined to report positive attitudes towards the EMI index. That is, students who are confident in their English skills do not necessarily problematise EMI, and they value its positive effects. In this respect, the hypothesis that attitudes and confidence go together is supported by these findings. Whereas the relationship between high confidence in English and positive attitudes towards EMI is not surprising in itself, this association highlights the important role language(s) play in higher education. Brown (2000) points out that when students with positive attitudes succeed, their positive attitudes are reinforced. Students with negative attitudes, however, could be in danger of failing to progress and thereby uphold, or even increase, their negative attitudes towards language and learning. In contexts where language learning is not stated as part of the learning objectives, language could easily be overlooked as a factor influencing academic success or student satisfaction. However, as my analysis show, lack of confidence can have a negative impact on the

students' attitudes towards the use of language in their courses. This, in turn, might lead to poorer academic results and an overall negative view of how the courses are taught.

In their study, Lueg and Lueg (2015) show that when given the choice to study in EMI or Danish, in an otherwise identical programme, confidence could affect students' choices. Students lacking confidence in their skills did not choose the EMI programme. The responses in the present study seem to show a similar dynamic. Lack of confidence in own skills is correlated with less positive views on EMI, and students lacking confidence reported participating less in classroom discussions held in English.

Moreover, only looking at differences between academic fields would mask the heterogeneity within a field. Whereas natural science students as a group exhibit more positive attitudes towards EMI, some natural science students do not follow this pattern. This association would not be revealed if confidence had not been accounted for in the multivariate analysis.

In addition to demonstrating the impact of confidence on attitudes towards EMI, the present study shows a clear correlation where students who do not plan for a study abroad score lower on the skills scale. Independent of their educational field, students who display high confidence in their own English skills will be inclined to report more positive attitudes towards the index, than students who report lower confidence using English. Several Norwegian universities encourage studies abroad as part of the education (UiB 2012, UiO 2016). Whereas university policies in the Norwegian context eagerly propose to implement "opt-out"-exchange demands for students at lower level studies, few seem to reflect on the reasons underlying the relatively low rate of students who choose to study abroad. The large research body suggesting several explanations for the mechanisms behind students' choices to go abroad has yet not looked into the role confidence in English skills could play in this context (see for instance Di Pietro and Page 2008, Hadis 2005, Lörz et.al 2016, Salisbury et.al 2010). My data suggest that a positive self-perception of students' own English skills could increase their likelihood to consider going abroad.

Acknowledging students' perspective on language use in the educational context could help HE institutions implementing EMI in a more thoughtful manner. In turn, this could improve educational quality

and inspire students to study abroad. Conversely, failing to consider language as a factor in the teaching context could lead to students' withdrawing from classroom activities, developing negative attitudes towards the implementation of EMI and to disavow studies abroad.

7.1 Limitations

Some limitations of the present study and directions for future research should be presented.

First, one should take into account the somewhat low response rate when drawing generalisations to a wider population. For the two smaller disciplines, the response rates were around 60%, while law had a response rate of about 20%. Both the distribution of male and female students and the median age in the sample seem to match that of the student population. While this establishes that the demographic makeup of the sample is similar to that of the student population, one cannot rule out the chance that the respondents who chose to answer could harbour stronger opinions towards language use, compared to the student population as a whole. In other words, I cannot exclude the possibility for a self-selection bias (Lavrakas 2008), which could be a result of students' choosing to do a survey for reasons that are systematically related to the attributes under study. Even so, it is unlikely that correlations present within the sample should differ substantially from what we can expect to find in the population (e.g., we expect to find differences in attitudes towards internationalisation between academic fields in the population as well as in the sample).

A second objection is that one could question the value of implementing self-reported skills in the EMI studies, since self-reports on language skills are not objective measures. The reliance on self-report data could be a limitation and elicit responses that are not accurate of the actual skill (Holtz and Gnambs 2017). Answers could reflect respondents' projected beliefs rather than an objective measure of one's capacities (Hadis 2005), and people tend to overestimate their own performances and could be motivated to construct favourable images of themselves (Petzold and Moog 2017). However, in this study it is the perceived, not the factual, skills that matter. Self-confidence in itself is an important predictor for attitudes, i.e. positive self-reports in English

skills predicts more positive attitudes towards EMI. Furthermore, confidence seems to correlate positively with planning to study abroad.

8. Conclusion

The present study contributes to research concerning students' perspectives on the role of language in higher education by offering comprehensive index measurements of confidence in English skills and attitudes towards EMI, and by analysing these attitudes using a large set of survey data from students within three different fields of study. It is the first study addressing the correlations between disciplinary fields, language confidence, and students' plans to study abroad. Up until now, this has not been done in the Norwegian context. Neither has it been done in other Nordic countries.

The present study has sought to identify attitudinal differences towards EMI between academic fields, and at the same time to evaluate the impact of self-confidence on such attitudes. Independent of academic affiliation, students were positive towards EMI. However, students from different academic disciplines differ significantly in their perspectives on the practical use of EMI and their first language. Even more striking is the importance of confidence in predicting attitudes towards EMI. These patterns are strong arguments for pursuing this line of research.

These findings are not only relevant for the Nordic countries. Since EMI is a tool implemented within HE institutions universally, it would be natural to assume that both differences connected to disciplinary fields and those connected to confidence are relevant in other parts of the world.

The correlation between confidence and students' plans to study abroad is also an important finding, since it shows that already at the planning stage, language confidence could play a part in the process of deciding whether to pursue a study abroad or not. While it does not come as a great surprise that there exists an association between the two, these findings are important, as this is the first study in which such an association has been documented and its magnitude has been measured. Identifying some of the factors where language use at HE level could influence students' study quality also makes it possible to inform teachers and policy makers on how language affects students.

While language attitudes are interesting in themselves, they also have a crucial bearing on the viability of the chosen language policy. I believe that the findings from the present study should encourage a debate concerning how language policies should be developed within higher education. Students differ in the way they respond to the use of EMI, and it is therefore important to question one-size-fits-all approaches to language policy planning. Ultimately, a more thoughtful and tailored approach would give the best conditions for transforming policy into successful practice.

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Supplementary table: Syllabi languages. Each disciplinary field consists of different courses and/or programmes. The numbers show the total number of reading materials included within each field. Sources: reading lists from the online course pages at www.uio.no, retrieved February 2015.

	Natural Sciences			Law			Philosophy		
	Norwegian	English	Other	Norwegian	English	Other	Norwegian	English	Other
Required readings									
Books	14	31		19	3			8	4 (German)
Chapters	40	72						11	
Extracts from books (sub-chapters)	51	127		34	2		12	11	2 (German)
Articles				9				6	
Recommended readings									
Books	2	5				2 (Danish)		4	
Chapters								20	
Extracts from books (sub-chapters)								3	
Articles		1					1	1	1 (German)
Other resources									
Wordlists									
Exercise sets	3	18		5					
Corpora					9				
Encyclopaedias								8	
Mathematical formulary	20	1							
Notes	1	2							