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Moving toward(s) Americanization

A study of the use of and attitudes toward American spelling, vocabulary and pronunciation among Norwegian students and teachers

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Abstract

The increasing use of American English around the world is well documented. Previous research on the use of English varieties in Norway has been restricted to the use of American pronunciation. The present thesis investigates the use of English varieties in Norway with regard to pronunciation, spelling and vocabulary, with special focus on American versus British English. The method was threefold; a teacher survey, a student survey and a corpus analysis were conducted to examine Norwegian teachers' and students' use of and attitudes toward American English. The results suggest that Norwegian students use American English features more frequently than British English features even though British English is the leading variety among English teachers. The results also indicate that Norwegian students' pronunciation and vocabulary are somewhat more Americanized than their spelling. However, the corpus analysis provides evidence of an increase in the use of American spelling in Norwegian students' writing over the last 15-20 years.

Résumé

L'utilisation croissante de l'anglais américain dans le monde est bien documentée. Toutefois, les recherches antérieures sur l'utilisation des variétés d'anglais en Norvège ont été limitées à l'étude de la prononciation américaine. Ce mémoire examine l'utilisation des variétés d'anglais en Norvège en termes de prononciation, d'orthographe et de vocabulaire, en se concentrant plus particulièrement sur l'anglais américain et l'anglais britannique. Il repose sur trois méthodes d'analyse : une enquête auprès d'enseignants, une enquête auprès d'élèves et une analyse de corpus, dans le but d'examiner comment les enseignants et les élèves norvégiens utilisent l'anglais américain et quelles sont leurs attitudes par rapport à cette variété. Les résultats suggèrent que les élèves norvégiens utilisent plus fréquemment des caractéristiques de l'anglais américain que de l'anglais britannique, même si l'anglais britannique est la variété plébiscitée par les professeurs d'anglais. Les résultats indiquent également que la prononciation et le vocabulaire des élèves norvégiens sont un peu plus influencés par l'anglais américain que leur orthographe. Cependant, l'analyse de corpus révèle une augmentation de l'utilisation de l'orthographe américaine dans les écrits d'élèves norvégiens au cours des 15 à 20 dernières années.

Preface

During my internship at the University of Oslo, I was transcribing texts written in English by Norwegian primary school students. In one of the texts, I noticed that the teacher had corrected the spelling *pajamas* to *pyjamas*. In the next sentence, the student had written *math*, but this spelling was left uncorrected. This brief episode sparked my interest in the use of American English in Norway and how varieties of English are being taught in Norwegian schools.

I would like to thank my supervisors, Doctors Gaëtanelle Gilquin and Hildegunn Dirdal, for the help and guidance they have given me.

To all the students and teachers who participated in my surveys, thank you for your valuable insights into how you use and teach English.

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List of abbreviations

AmE	American English
BNC	British national corpus
COCA	Corpus of Contemporary American English
BrE	British English
EFL	English as a foreign language
EFCAMDAT	EF-Cambridge Open Language Database
ELF	English as a lingua franca
ELT	English language teaching
ENL	English as a native language
ESL	English as a second language
GloWbE	Global Web-based English (corpus)
ICLE	International corpus of learner English
NICLE	Norwegian component of ICLE
SUSEC	Stockholm University Student English Corpus
SWICLE	Swedish component of ICLE
TRAWL	Tracking written learner language

1 Varieties of English

The English language covers a wide range of varieties, with two of the most commonly known varieties being British and American English. English varieties can be distinguished from each other by comparing their characteristics from both spoken and written language, such as features of pronunciation, intonation, lexis, spelling and grammar. Research on varieties of English has in recent decades expanded its scope as more varieties are recognized and given closer attention.

The present chapter presents the most commonly applied framework in the study of English varieties, i.e. Kachru's model of the three concentric circles of English. It also provides an overview of an alternative view on World Englishes, namely Mair's (2013) World System of Englishes. The next section introduces the concept *Americanization* and identifies some examples of American influence on other varieties of English. Finally, the situation of English in Norway and other Scandinavian countries is discussed, especially in terms of the predominance of British English in Scandinavian classrooms.

1.1 A traditional view: Kachru's (1982, 1985, 1986) three circles of English

In the 1980's, Braj Kachru presented his pioneering model of World Englishes which has since been used widely in studies of English varieties. The model consists of three concentric circles: the *inner circle*, the *outer circle* and the *expanding circle*. The UK, USA, Canada, Australia and New Zealand are listed as examples of countries that are found in the inner circle. These are countries in which English is used as a native language and where we find the "traditional cultural and linguistic bases of English" (Kachru 1982: 356). The outer circle includes countries such as India, Nigeria, the Philippines and Singapore. In these countries we find non-native speakers who use "an institutionalized second-language variety of English" (Kachru 1986: 19). The expanding circle also consists of countries with non-native speakers, such as China and Indonesia, but in these countries, English is considered a foreign language and is only used in "highly restricted domains" (Kachru 1986: 19). The inner, outer and expanding circles are often used interchangeably with the terms English as a native language (ENL), English as a second language (ESL) and English as a foreign language (EFL),

respectively. The difficulties of distinguishing between ESL and EFL learners will be discussed in the present section and in regard to the situation in Norway (Section 1.4.1).

Laporte (2018) summarizes Kachru's distribution of varieties into the three circles with the following key "criteria": (1) the **spread** of English, (2) the **status** of English, (3) the **functions** of English, (4) the **acquisitional setting**, and (5) **the norm-orientation** of the speakers. Most of the outer circle countries have been colonized by inner circle countries, while the expanding circle countries have not. Furthermore, English is the (de facto) official language in most of the outer circle countries, but not in the expanding circle. Kachru (1985) focuses the most on Laporte's third aspect; he repeats the term "institutionalized" several times. In outer circle countries, English is used in a wide variety of social, educational, administrative and literary domains (Kachru 1985: 13). Kachru also emphasizes the significance of the literary domain: Literary traditions have been established for English in a range of genres in countries where English is spoken as a second language (ESL), while this is rarely the case in countries where English is spoken as a foreign language (EFL). The fourth aspect, namely the acquisitional setting, distinguishes between learners in EFL countries who learn English in the classroom with limited exposure to the language outside the classroom, and ESL speakers who also aquire the language through participation in society. When discussing the norm-orientation found in the three circles, Kachru (1985) presents three terms: The inner circle consists of *norm-providing* varieties, the outer circle of *norm-developing* varieties, and the expanding circle is *norm-dependent* (1985: 16-17). In other words, the inner circle varieties have been used as models for both the outer and expanding circle countries. However, the outer circle countries have, to a greater or lesser extent, developed their own norms while the expanding circle countries have been more reliant on following the inner circle norms. In traditional English language teaching (ELT), British English has been the dominant model, especially in European classrooms.

Even though Kachru (1985) presents specific examples of how to distinguish between ESL and EFL varieties, he admits that this is challenging in many cases:

> The outer circle and the expanding circle cannot be viewed as clearly demarcated from each other; they have several shared characteristics, and the status of English in the language policies of such countries changes from time to time. What is an ESL region at one time may become an EFL region at another time or vice versa (Kachru 1985: 13-14).

As he points out, there are not always clear-cut distinctions between ESL and EFL varieties and the status and function of English has changed in several of the countries mentioned in the model since the 1980s. Tanzania, for example, was originally placed in Kachru's outer circle, but English has since lost its status in several domains in Tanzanian society and only a small percentage of the population understand English (Mohammed 2015; Petzell 2012).

In our continually globalizing world, speakers in many EFL countries continuously improve their English proficiency. Sweden, like most European countries, is not mentioned in Kachru's model, but in terms of most of the criteria mentioned above, Sweden would be placed in the expanding circle. According to the *Education First English Proficiency Index* (EF EPI 2018), Sweden is ranked the most proficient in English among 88 non-native countries, including countries such as Singapore, Philippines, Malaysia, India and Nigeria, which are all found in the outer circle in Kachru's (1982) model. Even though the country's average proficiency is not a criterion in itself in Kachru's model, the example of Sweden illustrates that a country's placement in the Kachruvian circles should not influence how the ELT of that given country is formed. Today, many EFL learners develop their English skills outside the classroom, e.g. through popular culture, which goes against Kachru's aspect on the acquisitional setting.

1.2 New approaches: Mair's (2013) World System of Englishes

In more recent years, several scholars have found different ways of organizing varieties of English. Based on de Swaan's (2002) World Language System, Mair (2013) created the World System of Englishes, a system which is divided according to standard and non-standard varieties. Mair presents his model as "better equipped to handle uses of English in domains beyond the post-colonial nation state" (2013: 253) and uses the case of Nigerian Pidgin to illustrate its usefulness. He argues that "circular imagery is pervasive in modelling relationships among different kinds of English" (2013: 257), meaning that placing varieties in circles does not properly illustrate the relationships between the varieties. Instead, Mair divides varieties into four groups: the *hyper-central*, *super-central*, *central* and *peripheral varieties*. Perhaps the most surprising aspect of the model is the fact that he defines American English (AmE) as the hub of the system (the hyper-central variety), while varieties such as British English (BrE) and Australian English (AuE) are found in the group of super-central

varieties. This goes against the traditional view of BrE as the most original variety and more recent view of BrE and AmE as equally important models for English language teaching. Mair explains that lexical borrowings will mostly be "downward" in his model and this is one of the arguments for placing AmE on "top" of the other varieties. He maintains that lexical Americanisms are found in nearly every other variety, also in BrE. Briticisms, on the other hand, are rarely found in AmE (Mair 2013: 262). Mair (2013) adds two examples from popular culture: American children's cartoons are broadcasted in their original form around the world, while some British cartoons (such as *Bob the Builder*) are dubbed with American accents when aired in the US and some British novels (e.g. the *Harry Potter* series) are adapted lexically for the American audience (2013: 262).

1.3 Americanization

1.3.1 Americanisms

With the rise of the United States as an economic, technological and military superpower, American influence has increased in numerous areas, including through the use of Americanisms. An Americanism is here meant as a "characteristic feature of American English especially as contrasted within British English" ("Americanism," n.d.). These can be features of grammar, syntax, lexis, spelling, phonetics, and so forth. The present thesis will focus on the three latter aspects. The distinctions between *pavement* and *sidewalk*, *colour* and *color*, and [təmɑtəʊ] and [təmeɪDoʊ] are typical examples of differences between British and American lexis, spelling and pronunciation, respectively.

Separating between American and British features is, however, not always an easy task. The obvious reason is that BrE is the mother of all English varieties. After the colonial period, several features changed in many BrE dialects, but were kept in AmE, such as rhoticity. Pronouncing the /r/ in postvocalic positions is therefore commonly considered an American feature today, even though it used to be a shared feature between BrE and AmE, and many British speakers still use it. Noah Webster's pioneering publication of an American dictionary in 1828 could be considered the starting point of AmE as an "official" written variety, but it is not possible to pinpoint a specific year in which AmE started to diverge from BrE. There are several words and expressions that are classified as American today, but which were originally British, such as *trash* which was used by Shakespeare in 1616 ("Trash," n.d.). In

addition, there are spellings which are, to a greater or lesser extent, used consistently by AmE speakers, but also regarded as alternative spellings in BrE, such as the *-ize* suffix instead of *-ise*. Words such as *realize* and *recognize* are spelled with *-ize* by approximately 20% of BrE speakers (Baker 2017: 33). This spelling is an example of a feature which is often classified as American, but which has been used by a varying number of BrE speakers for a long time.

The more recent influence of AmE on BrE further complicates the separation between AmE and BrE features. Instead of saying *school dance* or *ball*, many BrE speakers now use the term *prom* (a clipping of the French loanword *promenade*). It is also increasingly common for BrE speakers to use AmE spellings, but it is often arbitrary which AmE spellings are adopted in British usage. For example, there is variation within the group of verbs that are spelled with *-ed* in AmE and *-t* in BrE. In the *British National Corpus* (BNC), the American spelling *learned* (v.) was used more than twice as often as the British spelling *learnt* (v.), while the British spelling *spelt* (v.) was used almost twice as much as the American spelling *spelled* (v.). British pronunciation, on the other hand, has been influenced by AmE to a lesser extent. Wells (1999) found an increase in the use of a few AmE features such as initial stress in words like *princess* and /sk/ pronunciation of *schedule*. It is nevertheless problematic to distinguish between American and British pronunciation due to the wide variety of accents found in Britain, many of which share features with American accents.

Leech et al. (2009) performed extensive corpora analyses of grammatical changes in contemporary English. Some of the analyses were devoted to the differences between BrE and AmE and how the grammar of the two varieties is changing. Leech et al. distinguish between five types of change in this regard and provide examples of the different patterns of change in BrE and AmE. The choice between the mandative subjunctive (e.g "I suggest she *give* the money back) and the mandative *should* (e.g. "She *should* give the money back") serves as an example of *convergent change*, *region-specific change* and *follow-my-leader change*. AmE mainly used the subjunctive and BrE mostly used mandative *should* in the 1961 corpora[1]. Compared with the corpora from 1991-2[2], AmE had changed insignificantly in this respect, while BrE had changed considerably in the direction of AmE. Convergent change is characterized as the "most clearly suggestive of transatlantic influence from AmE to BrE" (Leech et al. 2009: 254). Furthermore, Leech et al. (2009) found that in most of the changes

[1] In the Brown Corpus (AmE) and the Lancaster-Oslo/Bergen Corpus (LOB; BrE)
[2] The Freiburg-Brown Corpus (Frown; AmE) and the Freiburg-Lancaster-Oslo/Bergen Corpus (F-LOB; BrE)

which fall into the *follow-my-leader* pattern, BrE follows the lead of AmE and it is rarely the other way around. AmE takes the lead in decreasing the frequency in the following features: modals (e.g. *may* and *must*), the *be*-passive (e.g. "the cow was bought") and *wh*- relatives (e.g. *which*), and in increasing frequency of epistemic *have to* (e.g. "he has to win"), the *to*-infinitive (e.g. "he asked to leave early") and the *s*-genitive (Leech et al. 2009: 253; examples made by me).

1.3.2 Americanization across the Kachruvian circles

In their innovative study from 2017, Gonçalves et al. compared the use of American and British spelling and vocabulary in a Google Books dataset with a large collection of geolocated tweets. They used a dataset of books published between 1800 and 2010 by both American and British publishers and a dataset of 30,898,072 tweets written in English between 2010 and 2016 by speakers from 30 different ENL, ESL and EFL countries. In these two datasets, they searched for a wide variety of lexical items that are distinctive of AmE and BrE in terms of vocabulary and spelling (e.g. *railroad* vs. *railway* and *skillful* vs. *skilful*). Reference tools such as the *Oxford Dictionaries*, the BNC and the *Corpus of Contemporary American English* (COCA) were used to distinguish between American and British vocabulary and spelling and only the "pairs of words in which one of the members exhibits a significantly higher frequency in either of the two varieties were considered for inclusion in the list" (Gonçalves et al. 2017: 4).

The researchers found that there has been a marked shift from British to American vocabulary and spelling conventions in the past two centuries and that this trend was particularly strong after WWII (Gonçalves et al. 2017: 8-9). Among the 30 countries investigated, only three countries use BrE vocabulary more often than AmE vocabulary, namely the UK, Ireland and India. Surprisingly, people in countries such as Australia, New Zealand and South Africa used more AmE vocabulary than BrE vocabulary in their tweets. The study revealed, however, that the Americanization process is different in the use of spelling conventions; all the countries listed above, in addition to Canada, follow British spelling conventions to a greater extent than AmE spelling. For the purpose of this study, it is also noteworthy that the three Nordic countries Sweden, Denmark and Finland all share the same tendency: AmE vocabulary clearly dominates, while AmE spelling is used only slightly more than BrE spelling. Data from Norwegian tweets were unfortunately not included in the study.

Gilquin (2018) also examines the influence of AmE and BrE on a wide range of varieties from all the Kachruvian circles. The study compares the frequencies of twenty pairs of lexical items that are distinctive between AmE and BrE in two large corpora: the corpus of *Global Web-based English* (GloWbE) and the *EF-Cambridge Open Language Database* (EFCAMDAT). Lexical items were taken from Algeo's (2006) book *British or American English?* after testing that the items were in fact distinctive between AmE and BrE using the American and British components of GloWbE. Some of the items were simple nouns such as *movie* vs. *film* and *apartment* vs. *flat*, while some were multi-word constructions such as *GIVE it a try* vs. *GIVE it a go*. The English varieties were grouped according to the Kachruvian circles, but also investigated as individual countries or continents.

Contrary to the initial hypothesis, the study found a higher influence of AmE in EFL countries than in ESL countries with average Americanness rates of 63.18% and 58.35%, respectively. Gilquin (2018) also calculated the Americanness rate in the *International Corpus of Learner English* (ICLE) based on the same lexical items and found an average rate of 49%. The fact that the texts in ICLE are older than those in EFCAMDAT suggests that the American influence on EFL varieties has increased in the recent decades. It should be noted that the average Americanness rate for the 33 European countries in EFCAMDAT was somewhat lower than the EFL average, namely 58.26%. This average is still, however, considerably higher than the average found in ICLE.

1.3.3 Scandinavian learners and teachers

Larsson (2012) zooms in on Swedish learners and compares them with two other EFL groups, namely Bulgarian and Italian learners. She investigates the learners' use of spelling varieties and the degree of consistency found in their spelling. Based on Tottie's (2002) book *An introduction to American English*, Larsson chose 30 words from four different categories of spellings that are distinctive between AmE and BrE. The frequencies of these 30 items were retrieved from the respective three subcorpora of ICLE and the frequencies of the Swedish data were also compared to those of the *Stockholm University Student English Corpus* (SUSEC). The texts in the Swedish component of ICLE (SWICLE) were written between 1993 and 1999, while SUSEC was compiled in 2007. Furthermore, SUSEC was divided into groups of first- to fourth-term texts, which enabled the study of consistency across these levels.

The study revealed, contrary to previous research, that there was still a clear preference for BrE spelling among Swedish learners. Out of the 30 lexical items, 82% and 78% of the words had BrE spelling in SWICLE and SUSEC, respectively. Larsson comments that even though the difference between the two corpora is not significant, it could still indicate that AmE spelling is becoming increasingly frequent, as found in other studies. The Bulgarian and Italian learners also demonstrated a strong preference for BrE spelling. The investigated words were spelled according to BrE conventions in 87% and 97% of the cases in the Bulgarian and Italian subcorpora, respectively. Larsson points to two possible explanations for the high percentage in the Italian subcorpus: the overwhelming predominance of BrE in Italian schools and the fact that nearly every English-speaking TV show is dubbed, which decreases the exposure to AmE.

Surprisingly, the level of consistency in the use of a variety was highest in the first-term texts and was gradually lower for each term. 95% of the first-term texts were consistent in their use of spelling conventions, while only 65% of the fourth-term were consistent. However, the average length of the fourth-term texts was more than ten times as long as the average first-term text, and since the study only looked for 30 lexical items, this could explain the difference in consistency.

Ranta (2010) studied attitudes toward the use of English in school and in the "real world" through surveying 108 students and 34 non-native teachers of English in Finnish upper secondary school. The student survey covered a wide range of questions; they were asked to predict their use of the language in the future in terms of what type of speakers they would communicate with, they were asked if they comply to a specific variety of English, and they were asked about their attitudes toward non-native English in the media, to name some. The teachers were asked questions about the use of different varieties in English teaching and the importance of consistency.

The study found that 70% of the students did not comply to a specific variety of English, 23% used AmE, and 7% used BrE. The question did not specify if this was in terms of pronunciation, but it seems that the students interpreted the question in this way based on their comments. Among the students who did not use a specific variety, 34% replied that they "considered it unnecessary, 'phony', or even counter-productive to cling to a particular native variety" (Ranta 2010: 163), while 23% used a mix of AmE and BrE. Some of these students

commented that they mix the two varieties because they were taught BrE in school but were mostly exposed to AmE outside the classroom.

When asked about their own use of a variety, 85% of the teachers responded that they use BrE and 15% AmE. Another question was "Do you think one variety of English should consistently be conveyed as a model in upper secondary school English teaching?" (Ranta 2010: 170), to which 79% of the teachers replied "no" and 15% replied "yes, BrE". When asked if they agree or disagree with the statement "Students should learn to use consistently one variety of English in their speech and writing" (Ranta 2010: 171), 47% of the teachers agreed and 50% disagreed. Ranta stresses that it is difficult to achieve statistically significant results with only 34 teachers, but comments that most of the teachers who agreed to the statement were older teachers. Overall, both the Finnish students and (especially younger) teachers were "well aware of the lingua franca role of English in the world and the consequences it at least *should* have on their English instruction" (Ranta 2010: 175).

1.4 English in Norway

Johansson (2009) reports that English is "approaching the status of a second language" in Norway (2009: 192). English is used widely within many domains, and to such a great extent that it is influencing the Norwegian language. Not only do we find countless lexical borrowings from English, but Norwegian grammar is also changing due to influence from English (Sunde & Kristoffersen 2018).

1.4.1 EFL or ESL?

Even though Norway is not explicitly mentioned in Kachru's (1985) model, it has been placed in the expanding circle together with other European countries (see e.g. Rindal 2014a; Caine 2008). Following the criteria of norm-dependency and the spread and status of English, it is sensible to place Norway in the expanding circle; Norwegian speakers of English are still highly norm-dependent, Norway has never been colonized, and English is not an official language in Norway. Kachru (1985) also emphasized the importance of literary traditions in English in the outer circle countries. Except for the high proportion of music lyrics written in English, there are few examples of English literary works in Norway.

Several scholars have, however, debated whether Norway and some other European countries should be placed in the outer circle. The main arguments are linked to the important status English has in these countries, how it is being acquired, and the fact that it has become institutionalized to a smaller or greater extent. Rindal (2014a) argues that "increased intra-national exposure and transnational travel and communication has led to improved language proficiency and confidence, contesting the idea of English in Norway as "foreign"" (2014a: 313-314). Even in the national curriculum, English is not presented as a foreign language and the learning criteria are very different from those of languages such as German, Spanish and French (Norwegian Directorate for Education and Training [UDIR] 2013). The present subsection outlines some arguments for placing Norway in the outer circle, based on Kachru's (1985) descriptions of the functions of English and the acquisitional setting in outer and expanding circle countries.

Kachru (1985) defines the expanding circle countries as countries where English is learned mostly in the classroom. The majority of Norwegians today acquire most of their English skills outside the classroom, through various activities such as watching TV, using social media and playing interactive games in English. For example, 55% of Norwegian households subscribe to Netflix (Forbrukerundersøkelsen 2019), a streaming service offering mainly English-speaking content. YouTube, also dominated by English-speaking content, is the most popular video service among young Norwegians (Språkrådet 2018). English movies and TV shows are rarely dubbed in Norway, and several studies (e.g. Micola et al. 2019; Birulés-Muntuné & Soto-Faraco 2016) have found a strong correlation between a country's use of subtitles (instead of dubbing) and its average English proficiency level. Micola et al. (2019: 4) found that more than 90% of the Norwegian participants in their study prefer to watch foreign movies and TV programs with subtitles, rather than dubbed.

Brevik (2016) conducted a contrastive study of 10,331 Norwegian upper secondary students' reading comprehension skills in Norwegian and English. She discovered that among the participants, 74% of the students scored about the same in the English test as in the Norwegian test. Surprisingly, she even found that among the students who had the lowest scores in Norwegian reading comprehension, only 56% were poor readers in English as well (2016: 40). In fact, 22% of the students who scored low in Norwegian reading comprehension read considerably better in English, and some were even among the most proficient English readers. After further study of these "outliers" (students scoring very low in Norwegian and

high in English), Brevik presented online gaming as the most likely contributing factor. This finding is supported by other studies that have revealed a positive link between the number of hours spent on online gaming and English proficiency (see e.g. Sletten et al. 2015; Sundqvist & Wikström 2015).

In Norway, English has become the "official" language in international corporations such as Equinor, a Norwegian multinational energy company, and in academia (Awedyk 2009). Between 1993 and 2000, 81% of all doctoral theses were written in English (Kyvik 2002: 81), and in 2018 the number rose to 90.8% (Språkrådet 2018). The same trend is found in master's theses: around 10% were written in English in 1986, and in 2011 the number was approximately 40%. In 2007-2008, 27.4% of all master's degree students were enrolled in programs fully or partly taught in English (Kristoffersen et al. 2014). We also see an increase in the number of study programs with readings in English in the syllabus, also at undergraduate level (Schwach & Dalseng 2011).

The Norwegian government has in recent years devoted attention to the Norwegian language in technology (Språkrådet 2018). As in many other countries, major corporations such as Facebook, Google, Amazon and Microsoft control the development of the media and the language used in them. When new technology and digital solutions become available in Norway, they are often available only in English for a long period of time. One example is the launch of smart speakers. Before *Amazon Alexa* and *Google Home* were able to understand Norwegian speech, 120,000 Norwegians had already started using these devices (Aune & Eriksen 2018).

Many of the examples listed above indicate that the average proficiency in English in Norway is high. The EF English Proficiency Index (EF EPI 2018) supports this view, as Norway is ranked as number four among the 88 countries included in the index. Even though proficiency is not mentioned directly in Kachru's outline of the three circles, it is still considered an indication of the status and use of English in a given country.

1.4.2 American influence in Norway

The following section discusses the predominance of BrE in English language teaching in Norway. Outside the Norwegian classrooms, learners are exposed to American English more than British English. As previously mentioned, more than half of Norwegian households

subscribe to Netflix. Not only is most of the content in English, but the majority of the TV series and movies have American actors and actresses in them. Fittingly, the most viewed Netflix series in Norway in 2017 was *The Americans* (Oaks 2017). The same trend is found in Norwegian movie theaters, where 43% of all new movies in 2018 were North American (6% were from England) and 61% of the tickets sold in the same year were for American movies (Petterson 2018).

1.5 English language teaching in Norway: varieties of English

1.5.1 The national curriculum

As in most European countries, BrE has traditionally been used as the model for English teaching in the classroom. Simensen (2014) summarizes the national curricula from 1936 to 2013 with regard to the use of different varieties. The present subsection is based on her summary and the quotes from the curricula are translated from Norwegian into English by the present author.

In 1936, English was introduced as a school subject in Norwegian primary education. At this point and in the following decades, the British Council assisted the Norwegian directorate for education, for example by offering supplementary teacher training by native speakers of British English (Simensen 2014: 9). In the following curriculum from 1960, it is specified that American content should be included in the syllabus, but it should be written in British English orthography.

In the curriculum of 1974, it is maintained that the model for pronunciation should be *English Standard Pronunciation*, but it is also added that "It would be useful for the students to be made aware of typical features of American pronunciation" and that "A student who has learned American English should not be forced to use British pronunciation, orthography and vocabulary" (*Mønsterplan for grunnskolen* 1974: 149). Simensen (2014) identifies this as a big step toward the treatment of BrE and AmE as equal varieties.

In 1987, BrE and AmE are considered equal as models for ELT: Students should learn to use a "normalized variety of British or American English" (*Mønsterplan for grunnskolen* 1987: 210). English is also labelled an "international language" for the first time in the same

curriculum, and one aim is for the students to know "where English is the official language, a lingua franca and a minority language" (*Mønsterplan for grunnskolen* 1987: 207). Simensen (2014) points out that the curriculum authors appear to have had Kachru's concentric circles in mind when designing the curriculum.

In the curricula of 1997, 2006 and 2013, English is classified as a lingua franca, and teachers are instructed to let their students listen to examples of different pronunciations. According to the 2006 version, students should also be provided insight into cultures where English is the main language or an official language, meaning countries from both the inner and outer circle (Simensen 2014: 10). In the present curriculum from 2013, one of the overarching aims is for students to "be able to understand varieties of oral English from different parts of the world" (Læreplan i engelsk 2013: 4). This can be interpreted as bringing varieties from all of the three Kachruvian circles into the classroom (Simensen 2014: 11).

Despite the increased focus on different varieties of English in Norwegian national curricula, there has been no mention (after 1974) of how the students' language production should be measured in terms of their use of a dialect, or lack thereof. Neither does the present curriculum express any preference for the students' choice of English variety in terms of pronunciation, spelling or vocabulary, nor does it mention the need for students to be consistent in their own oral and written language production. From the outline provided above, it seems that ELT in Norway has moved from an English as a foreign language to an English as a lingua franca (ELF) perspective. In the ELF community, there appears to be a general agreement that learners should not adhere to native speaker norms.

1.5.2 Teachers' attitudes

Even though the curricula from 1997 and onward focus on English as a lingua franca, Hansen (2011) found that the native speaker model is still preferred among Norwegian teachers (2011: 46). He reports that 48% the teachers who participated in his study responded that the students should "make a conscious choice in terms of a native-speaker variety they wish to model and try to apply consistent use of this standard" (2011: 42). This discovery matches that of Ranta (2010) who found that 47% of the Finnish teachers in her study believe that "students should learn to use consistently one variety of English in their speech and writing" (2010: 171). Hansen (2011) debates the lack of specific aims in the curricula regarding the use of English varieties:

> [The curriculum] does not, however, indicate a speaker model which the students' linguistic performance should be measured against. The interpretation of the oral competence aims is delegated to the local level, and school districts are responsible for the development of their own, concretized assessment criteria. (2011: 4)

As a result, Norwegian students' language production is assessed in numerous different ways. Hansen uses the example of the two counties Oslo and Østfold. In Oslo, the students should strive for a "near-native-speaker level" in their pronunciation, while the criteria in Østfold do not mention the native speaker as model of reference (Hansen 2011: 4).

1.5.3 Students' attitudes and use

Some research has been conducted on Norwegian students' attitudes and preferences in the use of different English varieties, both in their own language production and in others' (e.g. fellow students, other learners and teachers). These studies mostly focus on oral English, however, and little research has been made on the use of different varieties in Norwegian students' written English. The present subsection outlines some previous findings on Norwegian students' pronunciation preferences and their reasons for aiming or not aiming at a specific accent.

Rindal (2014b) carried out a study with 70 seventeen-year-olds from three separate schools in Oslo who had all studied English for 11 years (2014b: 318). Among the participants, 30 reported that they aimed at speaking with an AmE pronunciation, compared to 23 who said that they aimed at using BrE pronunciation and 11 who wanted their pronunciation to be "neutral". However, several of the respondents who aimed at using BrE used more AmE features than BrE features, according to a language test based on the same 70 participants. Overall, 81% of the participants had a back onset for GOAT vowels, 82% were rhotic, 75% tapped or voiced intervocalic /t/, 68% used [æ] for BATH words and 56% used [ɑ] in LOT words (Rindal & Piercy 2013: 218). When asked about their motivation for choosing the different accents, there was a clear difference between those who aimed at using AmE and those who aimed at a BrE accent. Among the students with a BrE aim, the most common response (N = 12) was that the accent is more aesthetic or intelligible, and the second most common response (N = 10) was that BrE is associated with formality, class, intelligence, education, and the like (Rindal 2014b: 326). Among the students with an AmE aim, on the other hand, the most common response (N = 16) was that the accent feels more natural, or

easier, or more accessible and the second most common response (*N* = 6) was that the accent is *not* associated with formality, class, intelligence, education, and so forth (Rindal 2014b: 326).

Sannes (2013) reports similar findings in terms of attitudes toward the two accents in her study of Norwegian students from the same age group: the two most common descriptions of Standard BrE were that it sounds "polite" (*N* = 76) and "intelligent" (*N* = 53), while the two most common descriptions of Standard AmE were that the accent is "easy to understand" (*N* = 68) and "cool" (*N* = 50; Sannes 2013: 77). She also observes that many of the participants were very negative toward the use of a strong Norwegian accent (2013: 104). The results differ from those of Rindal (2014b), however, in terms of the number of students wanting to use one specific accent: Only 47.9% of the participants reported that they aim at a particular variety (Sannes 2013: 80), which is significantly lower than in Rindal's (2014b) study (78.6%).

2 Objectives

As shown in Section 1.5, some research has been carried out on Norwegian students' and teachers' use of and attitudes toward American and British pronunciation. There is very little research, however, on their use of other features of English varieties, such as spelling and vocabulary. One of the main objectives of the present thesis is therefore to investigate whether there are any differences in the use of and attitudes toward varieties of pronunciation, spelling and vocabulary in Norway. The principal focus is on the use of AmE features compared to BrE features. Furthermore, the thesis attempts to identify any potential recent changes in the use of American spelling in Norway. The main research questions are listed below.

1) Are there any differences between pronunciation, spelling and vocabulary with regard to the use of American features in Norwegian students' English language production?
2) How do Norwegian teachers of English influence students' use of English varieties?
3) Are features of American spelling used more frequently by Norwegian students today than they were 15-20 years ago?

To answer these research questions, a three-part method was adopted. A student survey, a teacher survey and a corpus analysis were carried out to answer the first, second and third research questions, respectively.

Based on previous research and personal experiences in Norwegian schools, a number of hypotheses were formulated before creating the surveys and performing the corpus analysis. The preconceived notion was that many Norwegian students are being "pulled" in two different directions; students are still more likely to be exposed to BrE than other varieties in school, while they are more exposed to AmE than BrE outside the classroom. However, BrE is thought to be gradually losing its dominant position in Norwegian ELT. Therefore, more students use American features because their overall exposure to AmE is arguably higher than of other varieties and because the BrE model is no longer promoted in school. Furthermore, the exposure to BrE in school and to AmE outside of school presumably affects the students in different ways. It is assumed that the exposure to AmE has a greater effect on the students' oral English than written English and that the exposure to BrE affects their written English more than their spoken English. This could lead to more frequent use of American features of

pronunciation and vocabulary than American spelling. It is also hypothesized that teachers focus more on following a native-speaker norm in terms of spelling than in terms of vocabulary and pronunciation. The ideas presented above can be formulated into the following hypotheses:

1) American pronunciation is used more frequently than American vocabulary and spelling among students, and British spelling is used more frequently than American spelling.

2) British English is the most frequently used variety among teachers and British spelling is used more frequently than British vocabulary and pronunciation.

3) Teachers are still encouraging students to adhere to native-speaker norms even though the national curriculum mainly focuses on the ELF perspective. However, teachers focus more on being consistent in the use of a variety than on the use of one specific variety.

4) Whether or not teachers encourage students to use a specific variety and to be consistent correlate with the teachers' age, the institution she teaches in, her level of education and her personal use of English varieties[3].

5) Whether or not students have been encouraged to use a specific variety and to be consistent correlate with the students' present level of education.

6) Students' expressed (non-)use of varieties of pronunciation, spelling and vocabulary correlate with their present level of education and the varieties the students have been encouraged to use.

7) American features of spelling are used more frequently today than they were 15-20 years ago.

[3] The original hypothesis also included the following teacher variables: the number of years teaching, whether they are native speakers of English and whether they teach in a private institution. These factors were later removed either because they were colinear with other predictor variables or because there were not enough data points at each level.

3 Methodology

In this chapter, the teacher and student surveys are outlined in terms of the choice and structure of the questions given to the participants. The process of distributing the surveys, collecting and handling the survey data is also discussed. The distinctive features between BrE and AmE used in the student survey language test are justified using corpus data, and the statistical tests performed on the datasets are explained. Finally, the subcorpora and lexical items investigated in the corpus analysis are presented.

3.1 Teacher survey

The present subchapter outlines the process of creating and distributing the teacher survey. An overview of the questions and follow-up questions asked in the survey is provided in Table 1. The original survey in Norwegian and a more literal translation into English are found in Appendix A.

Table 1 Teacher survey overview

Question	**Follow-up question**
Gender	
Age	
Is English your mother tongue?	Which variety of English do you use?
Have you lived in an English-speaking country for more than four consecutive months?	Where did you live and for how long?
Highest completed education	
County of teaching	
Institution(s) of teaching	
Do you teach at a private institution?	
Number of years teaching English	
Pronunciation used in teaching	
Spelling used in teaching	
Vocabulary used in teaching	
To what extent do you encourage students to use a specific variety of **pronunciation** (the teacher's preference)?	Which variety?
To what extent do you encourage students to use a specific variety of **spelling** (the teacher's preference)?	Which variety?
To what extent do you encourage students to use a specific variety of **vocabulary** (the teacher's preference)?	Which variety?
To what extent do you encourage students to use one variety of **pronunciation** consistently?	
To what extent do you encourage students to use one variety of **spelling** consistently?	

To what extent do you encourage students to use one variety of **vocabulary** consistently?	
To what extent were you encouraged to use a specific variety during your **teacher training**?	Which variety/varieties?
To what extent were/are you encouraged to use a specific variety by **colleagues**?	Which variety/varieties?
To what extent were/are you encouraged to use a specific variety during your **teacher training**?	Which variety/varieties?
Have you experienced any changes in the use of English varieties in Norwegian schools?	
Other comments	

3.1.1 Choice of questions

The first nine questions and two follow-up questions were chosen to provide relevant metadata about the teachers. Most of these questions are directly linked to the objectives of the study, while some were included in case they provided interesting results (e.g. questions concerning gender and teaching at a private institution) or to ensure that the sample was representative (e.g. county of teaching).

The three next questions concern the teachers' own use of varieties of pronunciation, spelling and vocabulary. They were specified to ask about the varieties they use in the classroom because some teachers may have different preferences in and outside the classroom. The following six questions asked to what extent the teachers encourage students to use a specific variety (the teacher's preference) and to what extent they encourage students to be consistent in their use of a variety (regardless of the choice of variety). The questions were separated according to pronunciation, spelling and vocabulary to see if there were any differences between the teaching of these areas. All the questions that contained the verb "encourage" were open to interpretation. Some teachers may have understood this as to outrightly ask the students to use a specific variety or to be consistent, while others may have seen his or her own use of a variety as an unintentional encouragement to the students to choose the same variety. Nevertheless, I chose not to provide any definitions or examples of what an encouragement could be, mainly because there are numerous ways of encouraging someone. One could also claim that the answers would be subjective in any way, because it is difficult to judge one's own influence on other people.

Subsequently, the teachers were asked to what extent they are or have been encouraged themselves to use a specific variety. There are many potential sources of encouragement, but the questions were limited to asking about encouragement from colleagues, from students and during teacher training. The question concerning teacher training is wide as it could be interpreted to include influence from instructors, fellow students, text books, other teaching material, and so forth. Finally, the teachers were asked to make comments: The first question specifically asked if the teachers have experienced any changes in the use of varieties in Norwegian schools and the second asked for general comments regarding the answers given in the survey.

3.1.2 Structure and accessibility

In order to attract participants, a survey needs to be appealing in terms of structure and accessibility. It should not take too long to complete the survey and it should be structured in a way that makes the questions clear. The survey was therefore limited to 31 questions (including eight follow-up questions) with most of the questions being multiple choice questions, so that it would take no more than ten minutes to complete it. A table with examples of differences between American and British pronunciation, spelling and vocabulary was provided before the teachers were given questions involving these terms, and definitions of the terms "specific variety" and "consistent" were given in the sections devoted to these topics. The survey was written in Norwegian mainly because most of the teachers have Norwegian as their L1 and they would therefore be more likely to fully understand the questions. It arguably also made it more comparable to the student survey which was also carried out in Norwegian.

The survey was conducted using Google Forms. This is a user-friendly application for both the participants and the one constructing the survey. The interface is clean, and the User Interface (UI) text adjusts according to the location of the participant so the UI text (e.g. *Required* and *Submit*) was also in Norwegian. Except for the two last questions, all were multiple-choice questions where the participants ticked off one or several boxes. The alternatives to the questions that asked for a specific variety were limited to British English, American English and "other". When the teachers ticked off the box "other" they were asked to specify the name of the variety. The eight follow-up questions in the survey were only given if the participants ticked off a specific box(es) in the preceding question; for example,

the question “where did you live and for how long?” was only asked to those who answered “yes” to the question “have you lived in an English-speaking country?”. This function reduced the time spent completing the survey for many participants. Google Forms also offers the alternative that participants must log in to their Google account to ensure that no one completes the survey more than once or to register the e-mail addresses of the participants. I chose not to use this function for two reasons: to avoid that the participants lost the feeling of being anonymous and to avoid losing potential participants because they did not have a Google account or because they did not want to spend time logging in to it. The downside of not using this function is that it cannot be guaranteed that no one replied more than once, and I had no way of tracing the participants.

As one of the objectives was to investigate whether there are any differences in how varieties of English are being taught in different institutions, English teachers from all types of educational institutions were asked to take part in the survey. To reach potential participants, the survey was shared in a Facebook group named “Engelsklærere” (*English teachers*). The group has over 10,000 members who work in different levels of education in Norway. The survey was also shared with teachers among family and friends and they were asked to share the survey with colleagues and other English teachers.

3.2 Student survey

In this subchapter, the process of designing and distributing the student survey is summarized. An overview of the questions and follow-up questions asked in the survey is provided in Table 2. The original survey in Norwegian and a more literal translation into English are found in Appendix B.

Table 2 Student survey overview

Question	**Follow-up question**
Gender	
Age	
Current grade level	
Is English your mother tongue?	Which variety of English do you use?
Have you lived in an English-speaking country for more than four consecutive months?	Where did you live and for how long?
Pronunciation of *card*	
Pronunciation of *laugh*	
Pronunciation of *better*	

Spelling: *colour* or *color*?	
Spelling: *centre* or *center*?	
Spelling: *analyse* or *analyze*?	
Vocabulary: *pavement* or *sidewalk*?	
Vocabulary: *jumper* or *sweater*?	
Vocabulary: *lift* or *elevator*?	
Which variety of **pronunciation** do you use or attempt to use?	
Which variety of **spelling** do you use or attempt to use?	
Which variety of **vocabulary** do you use or attempt to use?	
To what extent have your teachers encouraged you to use a **specific** variety of **pronunciation**?	Which variety?
To what extent have your teachers encouraged you to use a **specific** variety of **spelling**?	Which variety?
To what extent have your teachers encouraged you to use a **specific** variety of **vocabulary**?	Which variety?
To what extent have your teachers encouraged you to **consistently** use a variety of **pronunciation**?	
To what extent have your teachers encouraged you to **consistently** use a variety of **spelling**?	
To what extent have your teachers encouraged you to **consistently** use a variety of **vocabulary**?	
Comments	

3.2.1 Choice of questions

The first five questions of the student survey were included to provide metadata about the students. The next nine questions constitute the testing of the students' use of American and British features; in each question, the students were asked to choose between the American or British counterpart of a lexical item or pronunciation. The justification for this selection of features is given in the next section. Subsequently, the students were asked which variety they aim for in their use of pronunciation, spelling and vocabulary, to which the participants were offered four alternatives: British English, American English, "I do not use a particular variety of pronunciation/spelling/vocabulary" and "other"[4]. The goal was to see if there were any differences between the students' choices in the test and their expressed aim. The participants were then asked to what extent they have been encouraged by teachers to use a specific variety and to be consistent. The students' answers to these questions will be compared with

[4] If the participants chose "other", they were asked to type their answer.

those of the teachers. Finally, the students were asked to write potential comments on the answers given in the survey.

3.2.2 Choice of lexical items

As discussed in Section 1.3.1, it is difficult to find items that are used exclusively in one variety and not in another. The questions testing the students' choices in lexical items and pronunciations will therefore not be sufficient for determining which variety of English the participants use. Neither can their choices be used to determine whether they use a variety consistently. Arguably, their choices could have been used to classify their (non-)use of a variety if there had been more items included in the survey. However, I considered it as more important to keep the survey short to attract more participants than to attempt to classify their use of varieties with certainty. Their choices will nevertheless be used as an indication of their use of varieties.

Based on Tottie's (2002) extensive overview of differences between AmE and BrE, six pairs of lexical items were chosen for testing the students' use of English spelling and vocabulary. The items that are spelled differently in BrE and AmE can be grouped according to their distinctive suffixes. The items used in the survey were taken from three of these groups, namely *-our* vs. *-or*, *-re* vs. *-er* and *-yse* vs. *-yze*. Some of the most commonly used words from these groups were retrieved from the BNC and COCA. The relative frequencies of these words were compared according to whether they were written with BrE or AmE spelling. The same corpora were also used to check the frequencies of the three pairs of distinctive vocabulary between BrE and AmE. The selection of vocabulary pairs from Tottie was based on my intuition of which items are more likely to be familiar to Norwegian students. Figures 1 and 2 show the relative frequencies[5] of the six lexical pairs in the BNC and COCA, respectively. The frequencies of the BrE items are illustrated with dark gray bars and the AmE items with light gray bars.

[55] Per million words (pmw).

Figure 1 Frequencies of the lexical items per million words in the BNC

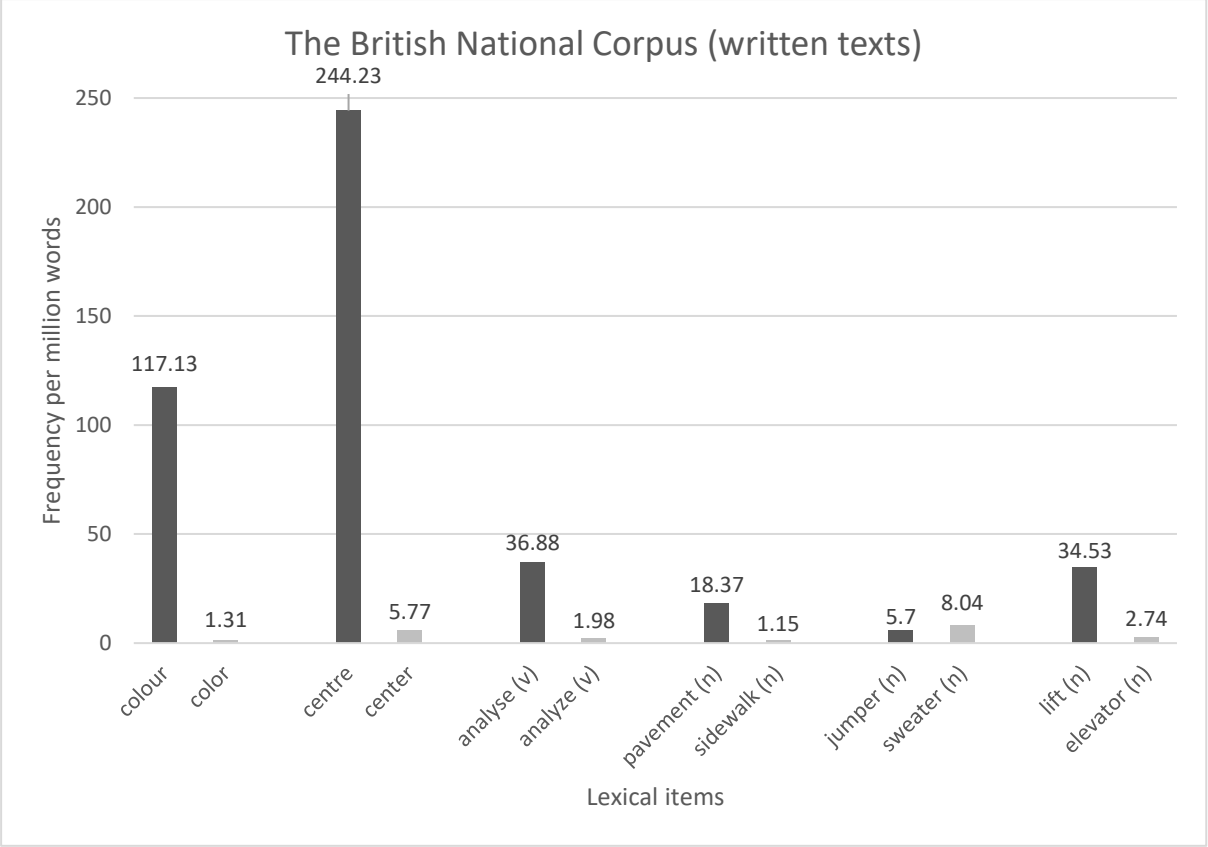
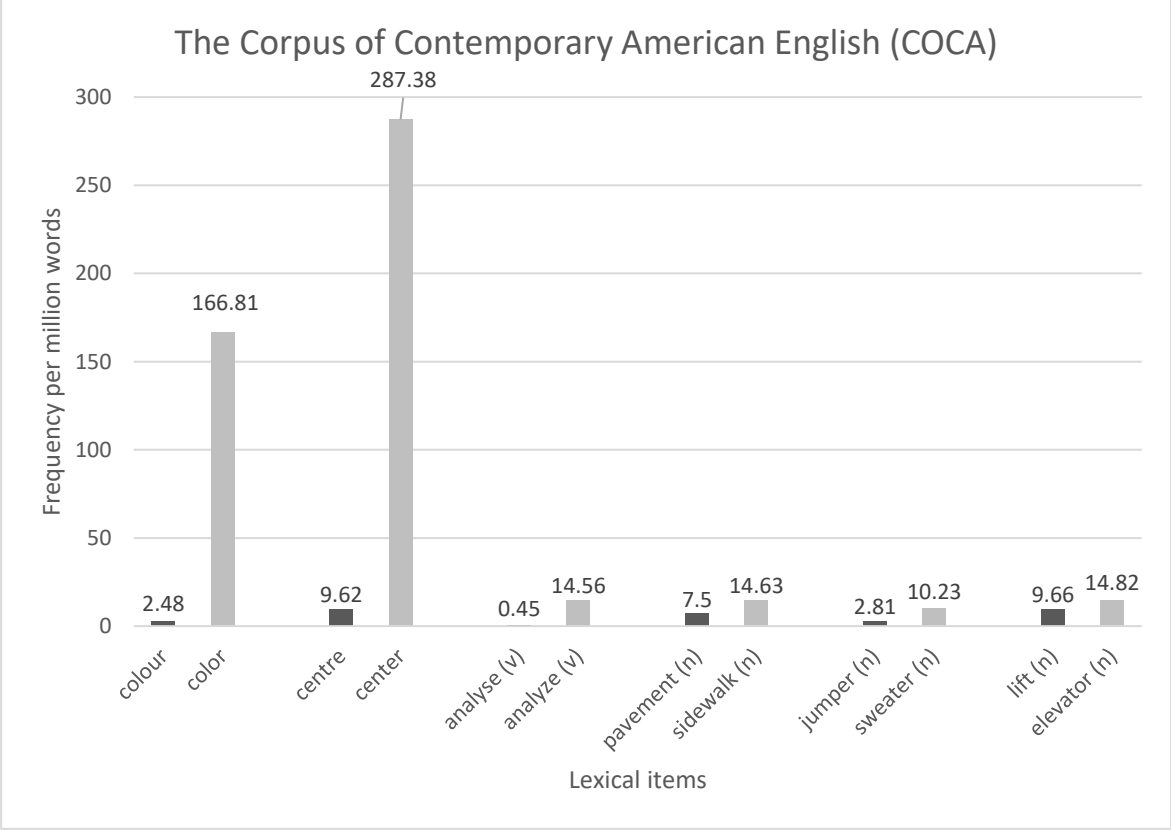


Figure 2 Frequencies of the lexical items per million words in COCA



As can be seen in the figures, there is a marked difference in frequency between the BrE and AmE spellings of *color*, *center* and *analyze* in the corpora. The difference is not as clear between the three vocabulary pairs, and we even see that *sweater* (AmE) is used more frequently than *jumper* (BrE) in the BNC. However, after consulting a professor and native speakers of British English, the pair was included because they claimed that the pair is still distinctive. The pair also has an overall higher frequency than many other pairs which may be more distinctive between BrE and AmE (e.g. *aubergine* vs. *eggplant*), but which are less likely to be familiar to the learners.

Two other distinctive lexical items were included in the survey, namely *theatre* vs. *theater* and *queue* vs. *line*. When the students were asked to self-assess their use of varieties, these pairs were provided to ensure that the participants would understand the meaning of the terms "spelling" and "vocabulary" and the difference between the two. The pairs were selected using the same method as explained above, but with less accuracy. In large corpora like the BNC and COCA, it is too time-consuming to read through all the concordance lines given when searching for items such as *theatre*/*theater* and *queue*/*line*. For example, it is possible to limit the search of *line* to only include nouns, but it is not possible to retrieve the occurrences only including the sense of *line* as a synonym of *queue*. Similarly, when looking at a sample of the concordance lines with *theatre* in COCA, there are many occurrences where it is used in the names of specific theaters, such as the Globe Theatre in London. We do, however, see a clear difference in frequencies of *queue* (12.25 pmw in the BNC; 1.50 pmw in COCA) and *theater* (0.46 pmw in the BNC; 46.98 pmw in COCA).

It should be mentioned that while COCA consists of texts written between 1990 and 2017, the BNC includes texts written between 1960 and 1993. Given the previously mentioned increase in American spelling and vocabulary in other varieties of English, the numbers presented from the BNC may not represent how the lexical pairs are being used by BrE speakers today and the pairs may be less distinctive than what the tables above show.

The items used to distinguish between BrE and AmE pronunciation were recommended by the same mentioned professor who specializes in English phonetics. The BrE features are, however, not used by all British speakers. The BrE features are, on the other hand, rarely used by AmE speakers. Table 3 lists the items used in the student survey that are distinctive between Received Pronunciation (RP) and General American (GenAm). In the survey, the students were provided with simplified phonetic transcriptions of the items. For example, to

show the RP pronunciation of *card*, the alternative was spelled "kaad". To illustrate the phoneme /æ/ in *laugh*, I simply used the Norwegian letter "æ" since this is pronounced exactly like the phoneme.

Table 3 The distinctive pronunciation features used in the student survey

Item in student survey	BrE (Received Pronunciation)	AmE (General American)
card	/kɑːd/	/kɑːrd/
laugh	/lɑːf/	/læf/
better	/bet.ə/	/bet.ər/

3.2.3 Structure and accessibility

The structure and distribution methods for the student survey were very similar to those of the teacher survey. The student survey mainly consisted of multiple-choice questions and it was limited to 29 questions (including five follow-up questions). As in the teacher survey, definitions of the terms "specific variety" and "consistent" were provided where needed and examples of contrastive pairs of spelling and vocabulary between BrE and AmE were also given. The same application, Google Forms, was used to conduct the survey and the same functions were applied as in the teacher survey (e.g. limiting the number of questions given based on the participants' answers). Another function was used in the student survey: In the nine questions where the students were asked to select their preferred pronunciations, spellings and translations, the answers were given in random order. This function was used to avoid that students ticked off the boxes without properly considering which choices to make because they found a pattern where all the BrE items were on the left-hand side and the AmE items on the right-hand side.

In the original plan for the student survey, the students were not supposed to be able to navigate backward in the survey after having completed the language test. This was to avoid that students changed their answers after replying that they use a certain variety in the following section. Unfortunately, this function was not available in Google Forms. I then considered asking the students to refrain from navigating backward after having completed the language test, but I decided not to do this, as it would probably not have stopped those who wished to change their answers. Furthermore, there is no way to uncover whether the students consulted a reference tool or received help from anyone while completing the survey.

If the students used a tool when selecting their preferred items, it would lead to a higher degree of consistency in the language test. However, the students' consistency in the language test will not be measured. One can also argue that it is unproblematic if the students used tools when selecting items; it could demonstrate that the students have made conscious decisions in their use of a variety, but they need help from a reference tool to adhere to a variety.

Participants were not asked to log in to a Google account for the same reasons as for the teacher survey. The student survey was also distributed on Facebook where students from my network were asked to participate and share the survey link with other students. It was shared in two Facebook groups for English teachers, where the teachers were asked to pass it forward to students. It should be mentioned as a general limitation that the surveys probably attracted specific teacher and student populations. Teachers and students who feel less knowledgeable about the topic of English varieties are arguably less likely to participate. If this is the case, the answers from the surveys are less representative of the population.

Another limitation concerns the students' expressed use of varieties. When they were asked which varieties they (attempt) to use, they were provided with examples of distinctive spellings and vocabulary and they had just completed the test in which they were shown nine distinctive pairs between BrE and AmE. Therefore, the participants were likely to be colored by the examples that they were given when reporting on which varieties they (attempt) to use. It is possible that the participants would have given different answers if they had not been provided with the examples; for instance, when asked about their use of vocabulary, the students were provided with *queue* and *line* as examples of British and American vocabulary, respectively. If a student normally uses the word *line*, but otherwise uses mostly British words, the student could have answered "American English" even though this is not the case. However, I found it necessary to give examples of distinctive pairs to ensure that the students would understand the questions.

The student group was limited to student in upper secondary schools, colleges and universities for two main reasons. First, the aim was to be able to compare the results with those from the corpus analysis which uses two subcorpora with texts written by high school and university students. Second, even though it would be interesting to compare the answers from different age groups, I believe that the questions would be too difficult for students in middle school and primary school. It would also be interesting to look at answers from non-students and

older people, but it is likely that that those who have not been in school for a long time have forgotten how English was taught to them.

3.3 Handling the survey data

3.3.1 The teacher survey

Two weeks after publishing the survey in the Facebook group, 240 teachers had taken part in the survey. The collected data were then downloaded from Google Forms as a CSV file and cleaned in Excel. In addition to translating all the data to English, a number of changes had to be made in the Excel sheet before importing it into RStudio[6]. First, each column was given a short one-word heading in order to easily access the factors in RStudio (e.g. the question "are you a native speaker of English?" was renamed "native"). Second, the factor "education" (the teachers' highest completed level of education) had to be regrouped. In the survey, the alternatives "bachelor's degree", "master's degree", "one-year study" and several other alternatives were offered. The teachers could also type in other answers, which is what the majority did. This is because most teachers in Norway, especially those who teach in primary school, have completed a four-year study program which does not correspond to either a bachelor's or a master's degree. These teachers were grouped with those with a bachelor's degree and the teachers who had completed four-year programs and an additional year of studies were placed with those who had obtained a master's degree. Other responses were regrouped according to the total number of years of study.

Finally, the most time-consuming task was to clean the responses to the questions related to the extent to which the teachers encourage the use of a specific variety. Many teachers misunderstood the term "specific variety". This was detected through looking at their answers to the follow-up questions. The most common pattern was that the teacher confirmed that she encourages the use of a specific variety, but when asked which variety she encourages the use of she responded "I do not care which variety they use as long as they use it consistently". In these cases, the answer to the preceding question was changed to "not at all" and the answer to the follow-up question was removed. This method was also applied when teachers typed

[6] RStudio is an open source software for statistical computing.

more than one variety because this also contradicted the answer given in the preceding question.

The edited CSV file was then imported into RStudio to compile descriptive and analytical statistics. The main areas of interest for the teacher survey analysis can be divided into three parts: (1) the teachers' personal use of varieties and how they were encouraged themselves, (2) the extent to which the teachers encourage students to use a specific variety and to be consistent and (3) correlations between how they encourage students and the teachers' metadata (e.g. age and personal preferences in varieties).

3.3.2 The student survey

In total, 162 participants took part in the student survey[7]. The data were collected and cleaned in the same way as the teacher survey. As in the teacher survey, the answers to the question about level of education were regrouped. An additional column was added which simply showed whether the participant was in high school or college/university. There were also several students who misunderstood the questions about being encouraged to use a "specific variety". Luckily, as in the teacher survey, these misunderstandings were detected if the students wrote something along the lines of "It did not matter which variety we used as long as we were consistent". However, in the student survey, the participants were given the opportunity to tick off several boxes, e.g. both "British English" and "American English", in the follow-up questions in case they had been encouraged to use different specific varieties by different teachers. There were 25, 14 and 23 participants who ticked off both the BrE and AmE boxes in the questions about pronunciation, spelling and vocabulary, respectively. In these cases, we cannot be confident that the participants were in fact encouraged to use two different varieties or if they were encouraged to choose between BrE and AmE, which contradicts the preceding answer.

3.3.3 Statistical testing

As presented in Chapter 3, hypotheses 4, 5 and 6 concern the correlation between different variables found in the two surveys. These hypotheses are repeated below.

[7] 164 people had completed the survey, but two of these were not students and were therefore removed from the data set.

- Whether or not teachers encourage students to use a specific variety and to be consistent correlate with the teachers' age, the institution she teaches in, her level of education and her personal use of English varieties.

- Whether or not students have been encouraged to use a specific variety and to be consistent correlate with the students' present level of education.

- Students' expressed (non-)use of varieties of pronunciation, spelling and vocabulary correlate with their present level of education and the varieties the students have been encouraged to use.

These hypotheses comprise 33 individual hypotheses which all include only one dependent variable and one independent variable; for example, it was hypothesized that older teachers are more likely to encourage student to use a specific variety of pronunciation than younger teachers are. After having explored the data sets in R, the original hypotheses were reformulated so that they would be testable with the data sets. Using the same example as above, this hypothesis was reformulated to "teachers aged 35 or over are more likely to encourage students to use a specific variety of pronunciation than are teachers younger than 35". The teachers were regrouped into these two categories to allow for a simpler statistical test of correlation and the two groups (< 35 and ≥ 35) were chosen because this gave the most equal distribution of the total number of teachers based on the original age categories[8]. Furthermore, the dependent variables that originally had five levels from "not at all" to "to a very great extent" were reduced to two levels, namely "no" and "yes". The answer "yes" then included those who promoted a specific variety or consistency to a greater or lesser extent. This was also to allow for simpler statistical tests.

The hypotheses predicting correlation between two variables are listed below. For simplicity's sake, the term "variety" is used for pronunciation, spelling and vocabulary, even though these were tested separately.

a) Teachers aged 35 or over are more likely to encourage students to use a specific variety than are teachers younger than 35.

b) Teachers aged 35 or over are more likely to encourage students to consistently use a variety than are teachers younger than 35.

[8] 109 teachers were younger than 35, and 131 teachers were aged 35 or over.

c) Teachers with a bachelor's degree are more likely to encourage students to use a specific variety than are teachers with (the equivalent of) a master's degree.

d) Teachers with (the equivalent of) a master's degree are more likely to encourage students to consistently use a variety than teachers with a bachelor's degree are.

e) Teachers in primary school are more likely to encourage students to use a specific variety than are teachers in middle school and upper secondary school.

f) Teachers in upper secondary school are more likely to encourage students to consistently use a variety than are teachers in middle school and primary school.

g) Teachers who use British English when teaching are more likely to encourage students to use a specific variety than are teachers who use American English and no specific variety.

h) High school students are more likely to use American English than college students are.

i) Students are likely to use the variety that their teacher(s) encouraged them to use.

j) University students are more likely to have been encouraged to use a specific variety than high school students are.

k) University students are more likely to have been encouraged to consistently use a variety than high school students are.

For each of these hypotheses, a chi-square test of independence was conducted[9]. When several chi-square tests were performed on the same dependent variable, a Bonferroni correction was made for each dependent variable. For instance, the dependent variable saying whether the teacher encouraged the use of a specific spelling was tested against four separate independent variables. In this case, the .05 level of significance was divided by four which gave a new $p_{critical}$ of .0125. Statisticians from numerous areas of study seem to disagree on how to apply corrections for multiple comparisons and if they should be applied at all (see e.g. Cabin & Mitchell 2000). For the purpose of the present study, it was considered necessary to apply a correction, but not by the total number of tests in each data set because not every variable was tested against each other. Instead, a correction was applied for the number of tests conducted with each dependent variable because separate hypotheses were formulated on the basis of each dependent variable.

[9] Two of the hypotheses were not tested with a chi-square test because there were not enough data points at each level.

In addition to testing the hypotheses above, exploratory data analyses were conducted based on descriptive analyses. For example, no hypothesis had been formulated about a correlation between the students' gender and whether they had been encouraged to use a specific spelling. However, when visually examining the data sets with bar plots, I found a marked difference between the male and female participants in terms of this dependent variable. A chi-square test of independence was therefore performed with these two variables to confirm that the correlation was significant.

Furthermore, three additional chi-square tests of independence were performed to test the claims made by some of the teachers from the teacher survey. As is discussed in Section 4.1.4., several teachers commented on the difference between younger and older teachers in terms of the bias toward BrE in Norwegian classrooms. Therefore, the correlations between the teachers' use of pronunciation, spelling and vocabulary and their age were tested. To be able to perform these tests, the teachers were divided into the same age groups as shown above (< 35 and ≥ 35) and the teachers who used other varieties than AmE, BrE and "no specific variety" were not included in these tests.

There were several correlations which were not tested for various reasons. Among the hypotheses listed above, the correlation between the students' use of spelling and the varieties which they had been encouraged to use was not tested because there were not enough data points in each group. There were also some teacher and student factors that were not tested at all, for two main reasons. First, variables such as the number of years that the teachers had taught English was collinear with their age. Collinearity was also found between the students' age and level of education and also, to some extent, with whether they had lived in an English-speaking country (the ratio was much higher among the older students and those in college). Second, some variables did not have enough data points at each level. There were very few native speakers among both the teachers and the students, so native and non-native speakers could not be compared. The same applied to the teacher variables saying whether the teachers work in a private institution and which county they teach in.

3.4 Corpus analysis

The main aim for the corpus analysis was to investigate whether American spelling is used more frequently by Norwegian students today than 15-20 years ago. It was hypothesized that

American spelling is used more frequently nowadays because of the rise in American influence and the increase in acceptance of AmE spelling among English teachers in Norway. In order to test this hypothesis, two subcorpora of learner English were used to retrieve the number of occurrences of 45 pairs of lemmas or strings which are systematically spelled differently in British and American English. The present subchapter outlines the lexical items, the subcorpora and the tools used to perform the corpus analysis.

3.4.1 Lexical items

The corpus analysis included the extraction of 45 lemmas from nine different groups of words that are spelled differently in AmE and BrE. Most of these groups and lemmas were taken from Tottie (2002) and Larsson (2012). An overview of the items is given below.

- *-our* (BrE) vs. *-or* (AmE): *colour/color, favour/favor, flavour/flavor, honour/honor, humour/humor, labour/labor, rumour/rumor, neighbour/neighbor, behaviour/behavior*
- *-re* (BrE) vs. *-er* (AmE): *centre/center, metre/meter, litre/liter, theatre/theater*
- *-c* (BrE) vs. *-s* (AmE): *defence/defense, offence/offense, licence/license (v)*
- *-s* (BrE) vs. *-c* (AmE): *practise/practice (v)*
- *-ll* (BrE) vs. *-l* (AmE): *cancell-/cancel, travell-/travel-, counsell-/counsel, labell-/label-, modell-/model-, signall-/signal-*
- *-l* (BrE) vs. *-ll* (AmE): *skilful/skillful, wilful/willful, fulfil/fulfill, appal/appall, instil/instill, enrol/enroll*
- *-s* (BrE) vs. *-z* (AmE): *analyse/analyze, organise/organize, realise/realize, recognise/recognize, globalise/globalize, normalise/normalize, criticise/criticize, prioritise/prioritize, summarise/summarize, isation/ization* (search string)
- *-t* (BrE) vs. *-ed* (AmE): *learnt/learned, burnt/burned, spelt/spelled*
- *-ae/oe* (BrE) vs. *-e* (AmE): *mediaeval/medieval, foet-/fet-, archaeolog-/archeolog-*

As previously discussed, many spellings used to be considered American, but are no longer viewed this way because they are now used more frequently than their British counterparts by British speakers. The three latter groups above contain spellings that are, to a greater or lesser extent, no longer distinctive between American and British spelling. For example, *learned* has

been used more frequently than *learnt* by British speakers for many decades now[10]. The items were, nevertheless, included in the corpus analysis to see whether there are any differences between the groups and whether the spellings which are less frequently used by British speakers nowadays are still used by Norwegian learners. It was hypothesized that the BrE spellings of the items from the three latter groups are used less than their American counterparts in Norwegian component of ICLE and that they are absent in a newer corpus.

3.4.2 Corpora used in the study

The Norwegian component of the International Corpus of Learner English (ICLE-NO) consists of 316 argumentative texts, all from different learners who have Norwegian as their native language. The texts were written between 1999 and 2001 by university students, most of which were first-year students (N = 204). The majority of the texts were written in un-timed conditions (N = 309) and were not part of an examination (N = 314). Among the students, 199 had access to reference tools, while 117 did not. The subcorpus contains 213,372 words in total and the average text length is 675.2 words. The students wrote the argumentative texts based on a limited number of essay prompts about topics such as feminism, the prison system and dreaming and imagination.

There is detailed metadata available about ICLE-NO. Especially relevant for the present study is the information about the students' first, second and third languages spoken at home, because learners who use English at home are more likely to be biased toward a certain English variety. None of the students from ICLE-NO are listed as having English spoken at home. There is also metadata about the number of months the students had spent in an English-speaking country. Among the 316 students, 139 had lived in an English-speaking country for one month or longer. However, there is no metadata about which countries these students lived in so we do not know which English varieties they potentially had a bias toward.

The Tracking Written Learner language corpus (Graedler et al. 2017) is currently being compiled by researchers at three Norwegian universities[11]. It is a longitudinal project which follows Norwegian students from their fifth to thirteenth year in school. For the purpose of the

[10] In the BNC, there are 5226 hits for *learned* and only 2151 hits for *learnt*.
[11] The Inland Norway University of Applied Sciences, the University of Oslo and the University of Agder.

present thesis, only the texts written by upper secondary students in year 11 and 12 were included in the corpus study. As of May 2019, the corpus contains texts from 175 upper secondary students. To make the corpus more comparable with ICLE-NO, only one text per student was used for the present study. This subcorpus consisting of 175 texts will henceforth be referred to as TRAWL. The texts in the subcorpus were all written in 2016 or 2017, thus the ICLE-NO and TRAWL texts were written 15-18 years apart. Table 4 compares the size of ICLE-NO and TRAWL.

Table 4 Size of subcorpora

	ICLE-NO	TRAWL (year 11-12)
Number of texts	316	175
Number of word tokens	213,372	165,613

Unlike the texts in ICLE which were written to be included in the corpus, the texts in TRAWL are collected from the participants' school assignments (e.g. exams, homework and classroom writings) and cover a large range of text types and topics. The texts in the subcorpus come from 13 different school assignments. Most of the texts are argumentative essays and some are written as letters and speeches. They deal with topics such as living in a multicultural society and indigenous people in English-speaking countries.

As in ICLE, the TRAWL project involves the collection of detailed metadata. Relevant to the corpus study is the information about the students' country of birth, their parents' first language (L1), whether they have lived in an English-speaking country (and where) and whether they have attended a school where the language of instruction was English. In total, 17 students were considered as potentially biased students. Among these, six were potentially biased toward British English and four toward American English. These assumptions are based on the country from which the student was from or had lived in and the dominant English variety in that country. The remaining ten students either had a parent whose L1 is English or had attended an English-speaking school, but it was not specified what country the parent was from or where the school was.

There are both advantages and disadvantages of using small subcorpora for the present analysis. The obvious disadvantage is that the results are based on a small number of learners. The data used to interpret today's Norwegian learners' spelling is based on only 175 learners

which is not enough to draw any firm conclusions about the general population. Furthermore, the pairs of items included in the analysis are used relatively infrequently and the number of occurrences per item is low. However, the main advantage of using small corpora compared to large corpora is the accuracy when extracting data. For example, it would be very difficult to use large corpora to find the frequencies of the American spelling *meter* because this spelling is used in BrE to denote a device that measures time, distance or speed, while *metre* is used for any other purpose. In this study, I manually read through the concordance lines with *metre/meter* to find the meaning of the word, which would have been an extremely time-consuming task in larger corpora.

3.4.3 Extracting the corpus data

To extract the lexical items from the subcorpora, the corpus analysis toolkit AntConc (Anthony 2019) was used. Two functions, the concordancer and the concordance plot, were used to manually read through the concordance lines and to identify the number of occurrences per learner text, respectively. It was considered important to compare the number of learners who use the lexical items to ensure that not only a few learners had written all the occurrences of one item. For each lexical item, a wildcard search was made by placing an asterisk on each side of the search string. With this method, the search string *favour* gave words such as *disfavour, favourable* and *favourite*. It also included words such as *elaborate* and *laboratory* for the search string *labor* which had to be disregarded. The extraction of words that are spelled with -*s*- in BrE and -*z*- in AmE included wildcard searches for the strings *isation* and *ization* to retrieve the number of occurrences for lemmas such as *globalisation/globalization, socialisation/socialization* and *characterisation/characterization*. Furthermore, any lexical item which was part of a quote or a proper name (e.g. *Organization* in *World Trade Organization*) was disregarded.

For each search, I also looked at the distribution of occurrences from the different assignment topics. As previously mentioned, some assignments in TRAWL were related to English-speaking countries, and it was relevant to investigate whether the assignment topic influences the students' spelling behavior. It was hypothesized, for example, that a student who is unaware of the differences between British and American spelling is more likely to use British spellings when discussing a text that follows British spelling conventions than when discussing a text that follows American spelling conventions. Finally, the lemmas used by the

TRAWL students who were potentially biased toward a specific variety of English were noted. The filenames of texts from these 17 students were marked before importing the texts into AntConc so that they would be easily recognized. It should be mentioned that the factors given in the metadata are only some of the possible influences on the students' (non-)use of a spelling convention. Nevertheless, it was considered important to account for the number of occurrences coming from the 17 potentially biased students from TRAWL.

4 Results

In the present chapter, the teacher and student survey findings are presented, followed by the corpus data results. Comparisons between the surveys and between the survey and corpus data results are presented and discussed in Chapter 5.

4.1 Teacher survey

4.1.1 Personal use and influence

Table 5 shows the teachers' use of English varieties in the classroom. Overall, British English is the most frequently used variety, but there are some differences between pronunciation, spelling and vocabulary; BrE spelling (*N* = 144) is used more than BrE pronunciation (*N* = 121) and BrE vocabulary (*N* = 108). There were more teachers who reported that they use AmE pronunciation (*N* = 71) than AmE spelling (*N* = 49) and AmE vocabulary (*N* = 45). There was a higher percentage of teachers reporting that they use no specific vocabulary or a mix of BrE and AmE vocabulary than in the two other aspects.

Table 5 The teachers' own use of English varieties in teaching

	BrE	AmE	No specific variety	BrE and AmE
Pronunciation	50.4% (*N* = 121)	29.6% (*N* = 71)	14.2% (*N* = 34)	3.6% (*N* = 9)
Spelling	60.0% (*N* = 144)	20.4% (*N* = 49)	12.5% (*N* = 30)	7.1% (*N* = 30)
Vocabulary	45.0% (*N* = 108)	18.8% (*N* = 45)	23.8% (*N* = 57)	12.1% (*N* = 29)

Tables 6 and 7 show the extent to which the teachers have been or are encouraged to use a specific variety of English and what varieties they were encouraged to use. Nearly half of the teachers reported that they were, to a greater or lesser extent, encouraged to use a specific variety of English during their teacher training (*N* = 116). Among these, 82 teachers were encouraged to use BrE, 12 were encouraged to use AmE and 22 were encouraged to use BrE and AmE. There is a chance, however, that the teachers in the latter group misinterpreted the question and were not encouraged to use the two varieties in separate occasions. Instead, they might have been encouraged to choose between AmE and BrE, which contradicts the preceding question. Overall, there were far fewer teachers who had been encouraged to use a specific variety by colleagues (*N* = 26). Among these, 19 reported that they had been

encouraged to use BrE. In total, there were 39 teachers who reported that they have been encouraged to use a specific variety by students, whereof 18 were encouraged to use BrE and 12 were encouraged to use AmE.

Table 6 The extent to which the teachers were encouraged to use a specific variety during teacher training, by colleagues and by students

	Not at all	To a small extent	To some extent	To a great extent	To a very great extent	N/A
Teacher training	47.3% (*N* = 113)	10.5% (*N* = 25)	13.0% (*N* = 31)	13.4% (*N* = 32)	11.7% (*N* = 28)	(*N* = 11)
Colleagues	88.3% (*N* = 212)	5.0% (*N* = 12)	2.9% (*N* = 7)	2.5% (*N* = 6)	0.4% (*N* = 1)	(*N* = 2)
Students	83.8% (*N* = 201)	10.8% (*N* = 26)	5.4% (*N* = 13)	-	-	-

Table 7 The varieties which the teachers were/are encouraged to use

	BrE	AmE	BrE and AmE
Teacher training	70.1% (*N* = 82)	10.3% (*N* = 12)	18.8% (*N* = 22)
Colleagues	73.1% (*N* = 19)	7.7% (*N* = 2)	19.2% (*N* = 5)
Students	45.0% (*N* = 18)	30.0% (*N* = 12)	25.0% (*N* = 9)

4.1.2 Influence on students

Overall, most of the teachers reported that they do not encourage students to use a specific variety of English. As can be seen in Table 8, there are more teachers who, to a greater or lesser extent, encourage the use of a specific variety of spelling (*N* = 89) than of vocabulary (*N* = 86) and pronunciation (*N* = 68). Table 9 shows that among these teachers, BrE is the most frequently encouraged variety, especially in terms of spelling; there were 70 and 17 teachers who said that they encourage the use of British and American spelling, respectively. Among those who encourage the use of a specific pronunciation, 46 teachers promote BrE pronunciation, while 21 promote AmE pronunciation. There were 23 teachers who encourage the use of AmE vocabulary compared with 62 who promote BrE vocabulary.

Table 8 The extent to which the teachers encourage students to use a specific variety (of the teachers' choice)

	Not at all	To a small extent	To some extent	To a great extent	To a very great extent
Pronunciation	71.7% (*N* = 172)	17.1% (*N* = 41)	9.2% (*N* = 22)	1.7% (*N* = 4)	0.4% (*N* = 1)
Spelling	63.0% (*N* = 151)	11.3% (*N* = 27)	15.4% (*N* = 37)	8.8% (*N* = 21)	1.7% (*N* = 4)
Vocabulary	64.2% (*N* = 154)	18.3% (*N* = 44)	13.8% (*N* = 33)	3.8% (*N* = 9)	-

Table 9 The varieties which the teachers encourage students to use

	BrE	AmE
Pronunciation	67.6% (*N* = 46)	30.9% (*N* = 21)
Spelling	78.7% (*N* = 70)	19.1% (*N* = 17)
Vocabulary	72.1% (*N* = 62)	26.7% (*N* = 23)

There were far more teachers who encourage students to use a variety consistently than there were teachers who encourage the use of a specific variety. Table 10 shows there are also clearer differences between the three areas in terms of encouraging consistency; while 196 teachers reported that they, to a greater or lesser extent, advise students to be consistent in their spelling, only 162 teachers encourage students to adhere to one pronunciation variety. There is also a tendency that the teachers who encourage consistent use of spelling do this to a greater extent than those who encourage consistency in pronunciation and (especially) vocabulary.

Table 10 The extent to which the teachers encourage students to use a variety consistently

	Not at all	To a small extent	To some extent	To a great extent	To a very great extent
Pronunciation	32.5% (*N* = 78)	20.4% (*N* = 49)	20.8% (*N* = 50)	20.0% (*N* = 48)	6.3% (*N* = 15)
Spelling	18.3% (*N* = 44)	15.4% (*N* = 37)	25.0% (*N* = 60)	29.2% (*N* = 70)	12.1% (*N* = 29)
Vocabulary	26.7% (*N* = 64)	27.5% (*N* = 66)	24.6% (*N* = 59)	17.1% (*N* = 41)	4.2% (*N* = 10)

4.1.3 Correlations

The present section presents the results of the chi-square tests of independence performed with the teacher survey data. Tables 11 and 12 summarize the results from the 24 tests. They

also show the degrees of freedom (df) and Table 11 provides the adjusted level of significance, $p_{critical}$, after the Bonferroni corrections. For the eleven significant results, descriptive bar plots are presented below. Descriptive statistics for the four correlations which were only significant prior to the Bonferroni correction are found in Appendix A.

Table 11 Chi-square tests performed with the teacher survey dataset: the gray boxes show the tests with significant correlations after a Bonferroni correction. The p-values marked in bold were significant only prior to the correction.

	Specific pron.	Specific spelling	Specific vocab.	Consistent pron.	Consistent spelling	Consistent vocab.	df
Age: <35 vs. ≥35	p = .4929 χ^2 = 0.47018 *N* = 240	**p = .03351** χ^2 = 0.5197 *N* = 240	p = .4891 χ^2 = 0.47844 *N* = 240	p = .1 χ^2 = 0 *N* = 240	p = 1 χ^2 = 0 *N* = 240	p = .8681 χ^2 = 0.02759 *N* = 240	1
Education: bachelor vs. master	p = .0529 χ^2 = 3.7457 *N* = 230	p = .0016 χ^2 = 9.9669 *N* = 230	p = .0095 χ^2 = 6.7205 *N* = 230	p = .4978 χ^2 = 0.4597 *N* = 230	p = .0035 χ^2 = 8.518 *N* = 230	p = .0080 χ^2 = 7.0326 *N* = 230	1
Institution: Primary, middle and high school	p = .0034 χ^2 = 11.347 *N* = 216	p = .0008 χ^2 = 14.161 *N* = 216	**p = .0171** χ^2 = 8.1358 *N* = 216	p = .543 χ^2 = 1.2213 *N* = 216	p = .0035 χ^2 = 11.301 *N* = 216	p = .1272 χ^2 = 4.1243 *N* = 216	2
Personal pron.: AmE, BrE, no specific pron.	**p = .033** χ^2 = 6.8226 *N* = 226	N/A	N/A	N/A	N/A	N/A	2
Personal spelling: AmE, BrE, no specific spelling	N/A	**p = .0158** χ^2 = 8.2988 *N* = 223	N/A	N/A	N/A	N/A	2
Personal vocab.: AmE, BrE, no specific vocab.	N/A	N/A	p = .000022 χ^2 = 21.479 *N* = 210	N/A	N/A	N/A	2
New significance level ($p_{critical}$)	.0125	.0125	.0125	.0167	.0167	.0167	

Table 12 Chi-square tests performed with the teachers' personal use of varieties as the dependent variable: all tests were highly significant

	Personal pronunciation: AmE, BrE, no specific pronunciation	Personal spelling: AmE, BrE, no specific spelling	Personal vocabulary: AmE, BrE, no specific vocabulary	df
Age: <35 vs. ≥35	p = 3.661e-05 χ^2 = 20.431 *N* = 226	p = 6.894e-07 χ^2 = 28.375 *N* = 223	p = 1.841e-05 χ^2 = 21.805 *N* = 210	2

Figure 3 compares teachers in primary school (Y1-7), middle school (Y8-10) and upper secondary school (Y11-13) and whether they encourage the use of a specific variety of pronunciation. As we can see, there was a higher proportion of teachers who encourage the use of a specific pronunciation among those who teach in primary school than among those who teach in middle and upper secondary school. The difference between middle school and upper secondary school teachers is, however, smaller than between primary school and middle school teachers. The correlation between the variables was significant according to a chi-square test of independence, χ^2 (2, N = 216) = 11.347, p < .0125.

Figure 3 Correlation between the type of institution the teachers work in and whether they encourage the use of a specific pronunciation

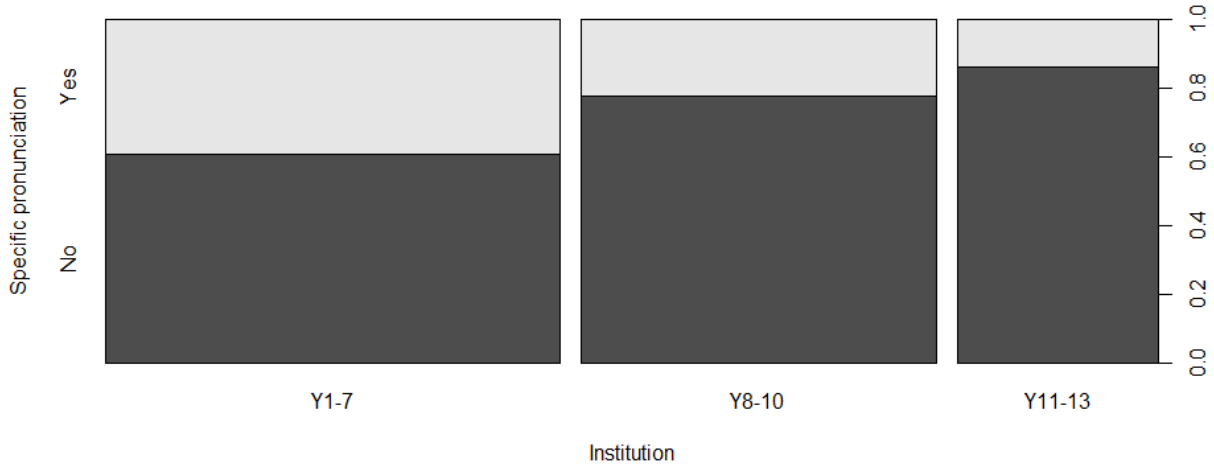
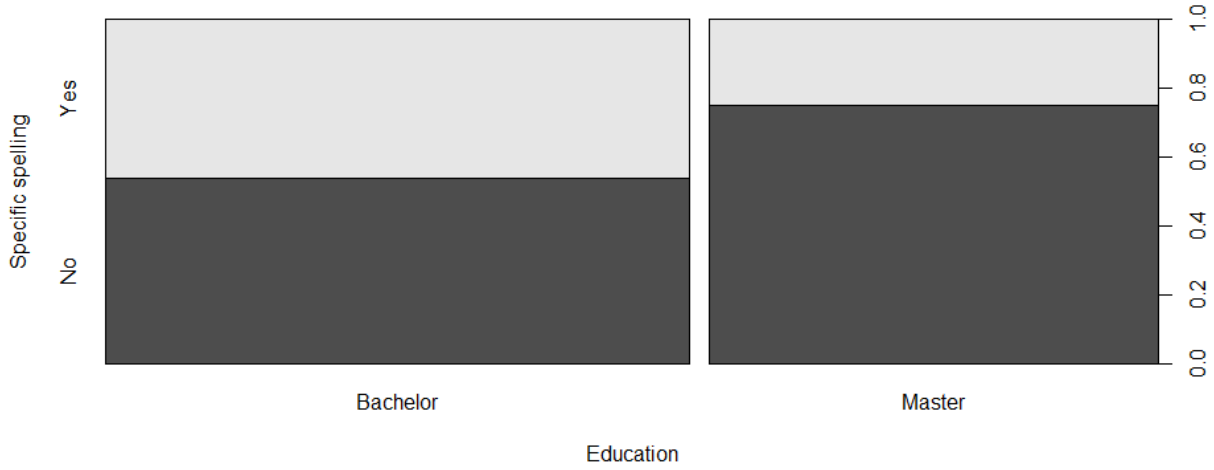


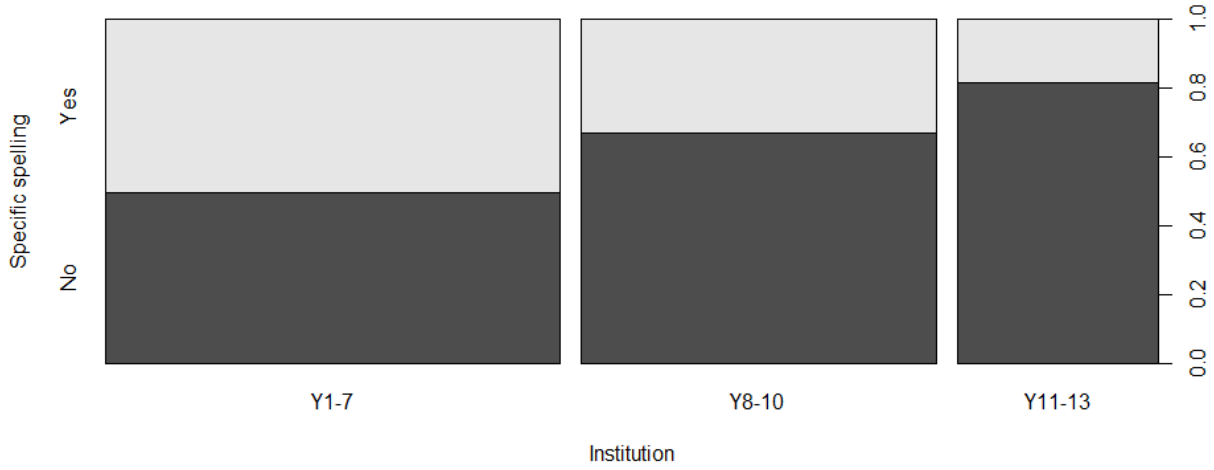
Figure 4 illustrates the difference between the teachers in terms of their highest completed level of education and whether they encourage students to use a specific spelling. Teachers with a master's degree were less likely to encourage the use of a specific spelling than were teachers with a bachelor's degree. The difference between the groups was found to be significant, χ^2 (1, N = 230) = 9.9669, p < .0125.

Figure 4 Correlation between the teachers' highest completed level of education and whether they encourage the use of a specific spelling



As demonstrated in Figure 5, the teachers in primary school were more likely to encourage the use of a specific variety of spelling than the teachers in middle school and upper secondary school. The correlation was significant according to a chi-square test, χ^2 (2, N = 216) = 14.161, p < .0125.

Figure 5 Correlation between the type of institution the teachers work in and whether they encourage the use of a specific spelling



As depicted in Figure 6, teachers with a master's degree (or the equivalent) were less likely to promote the use of a specific variety of vocabulary than were teachers with a bachelor's degree. The relation between these variables was significant, χ^2 (1, N = 230) = 6.7205, p < .0125.

Figure 6 Correlation between the teachers' highest completed level of education and whether they encourage the use of a specific vocabulary

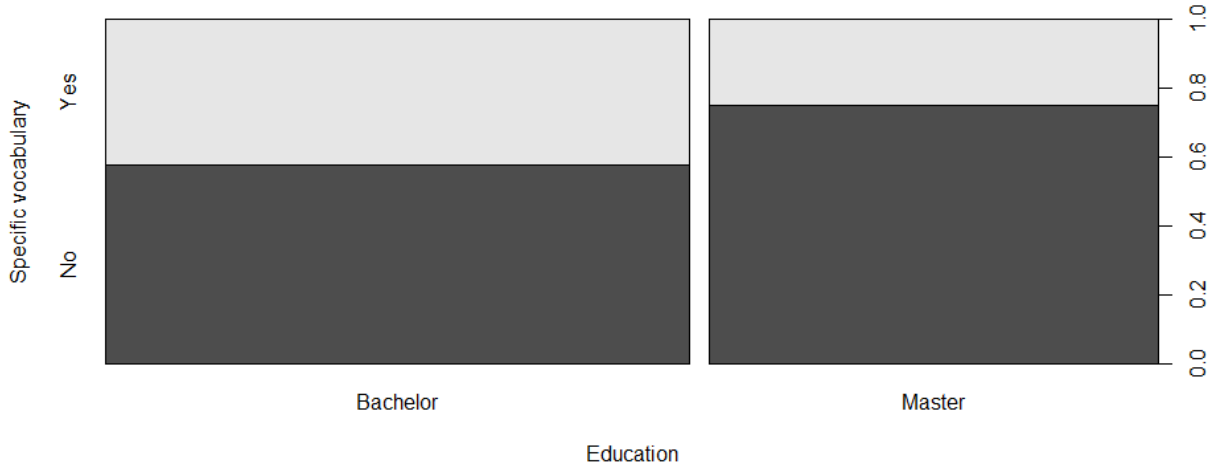


Figure 7 compares the teachers' personal use of vocabulary in the classroom to whether they encourage the use of a specific vocabulary. A chi-square test of independence indicated that the relation between the variables was significant, χ^2 (2, N = 210) = 21.479, p < .0125. However, the difference between the teachers who use AmE and BrE vocabulary in the classroom was marginal. We can therefore not conclude that teachers who use BrE vocabulary are more likely to encourage students to use a specific variety of vocabulary than are those who use AmE. We can conclude, however, that teachers who do not use a specific vocabulary in the classroom are less likely to encourage the use of a specific vocabulary than are those who use only AmE or BrE vocabulary.

Figure 7 Correlation between the teachers' personal use of vocabulary and whether they encourage the use of a specific vocabulary

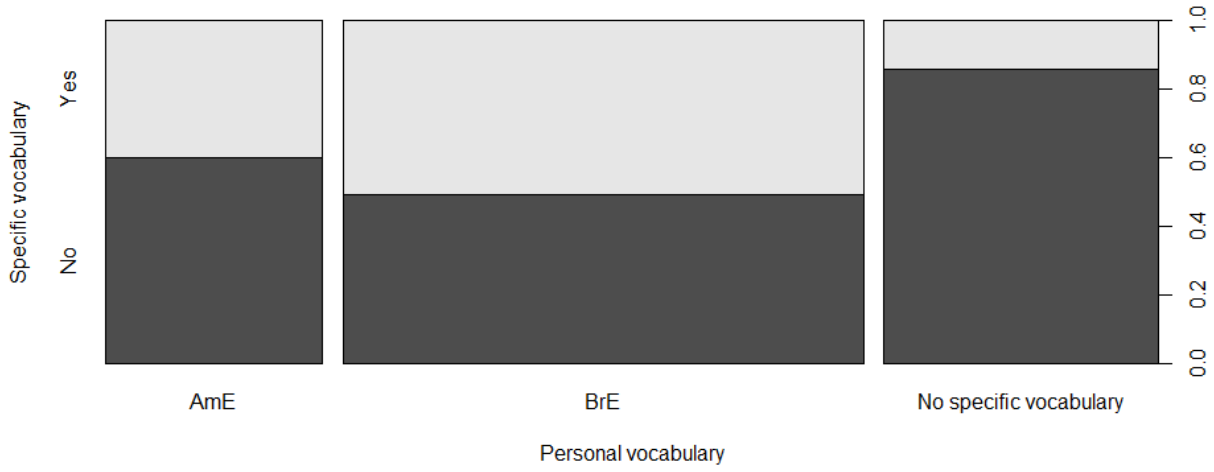
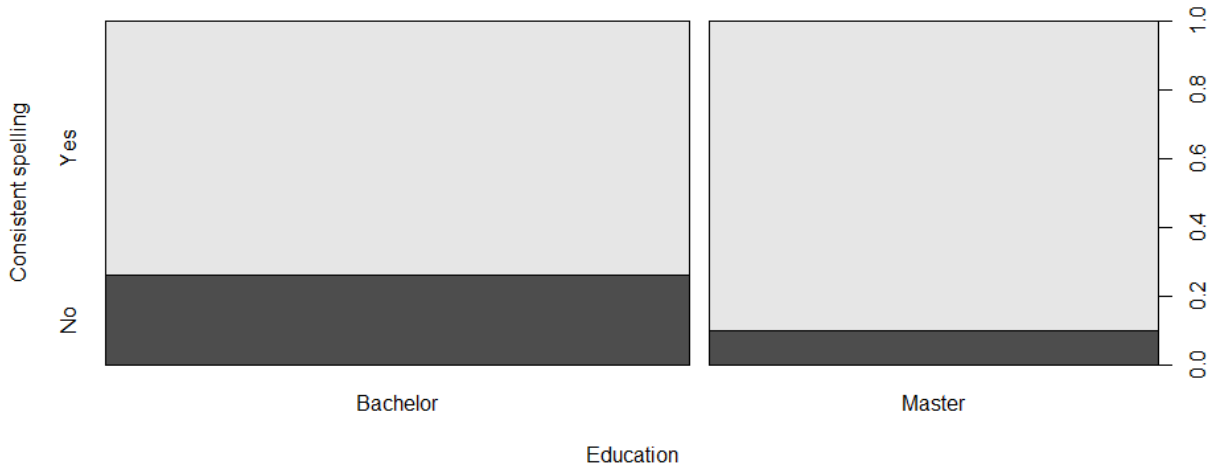


Figure 8 illustrates the difference between teachers with a bachelor's and master's degree in terms of whether they encourage students to use a variety of spelling consistently. Among the

teachers with a master's degree, 90% encouraged consistency, while 74% of those with a bachelor's degree did the same. The correlation was significant, χ^2 (1, N = 230) = 8.518, p < .0167.

Figure 8 Correlation between the teachers' highest completed level of education and whether they encourage consistent use of spelling



The correlation between the type of institution the teachers work in and whether they encourage students to use a variety of spelling consistently is demonstrated in Figure 9. According to a chi-square test of independence, the two variables have a significant correlation, χ^2 (2, N = 216) = 11.301, p < .0167. However, as the bar plot shows, there is only a minor difference between teachers in middle school and upper secondary school. The significant difference seems to be between middle and upper secondary school teachers on the one hand and primary school teachers on the other hand. Since the hypothesis was formulated as "teachers in upper secondary school are more likely to encourage students to consistently use a variety than are teachers in middle school and primary school", we cannot reject the null hypothesis.

Figure 9 Correlation between the type of institution the teachers work in and whether they encourage consistent use of spelling

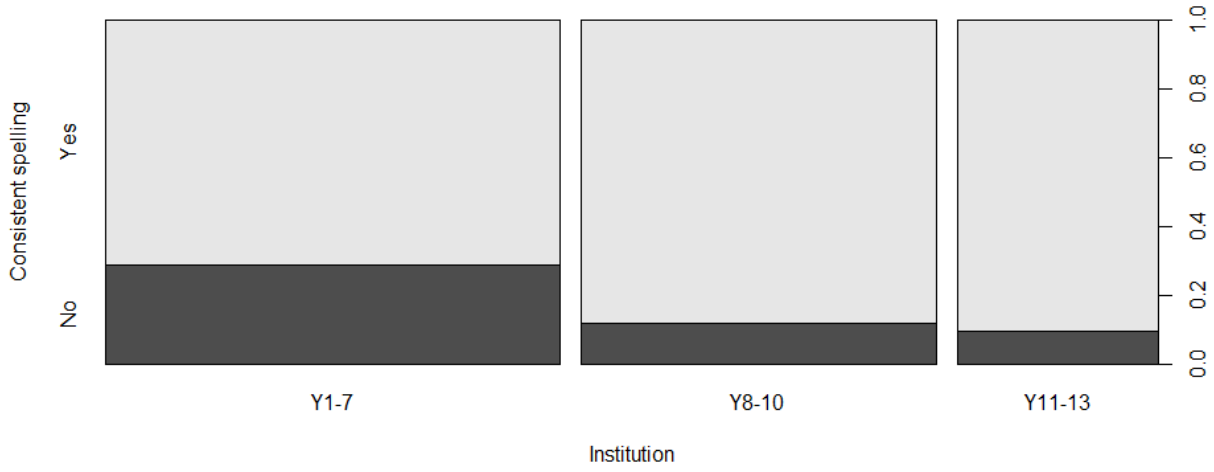
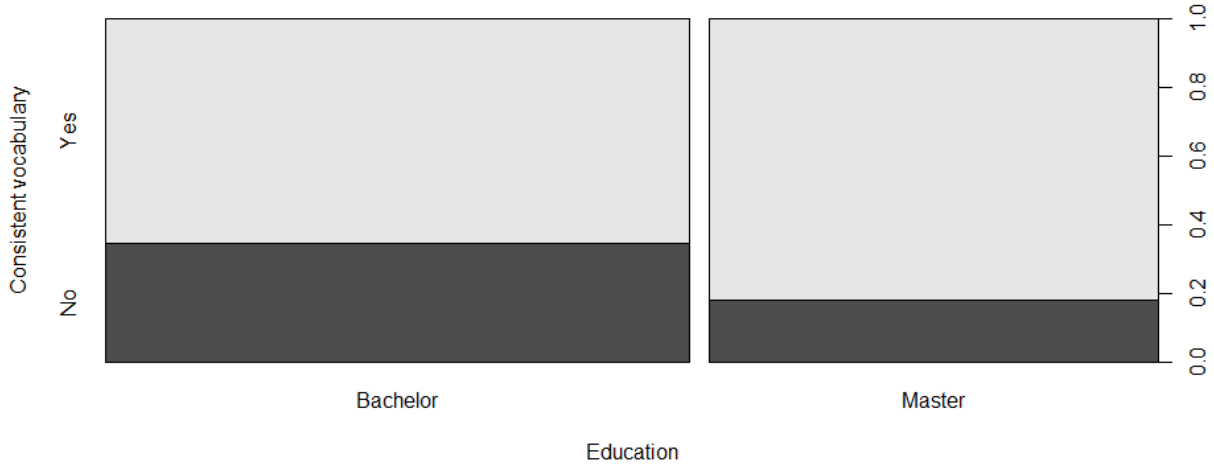


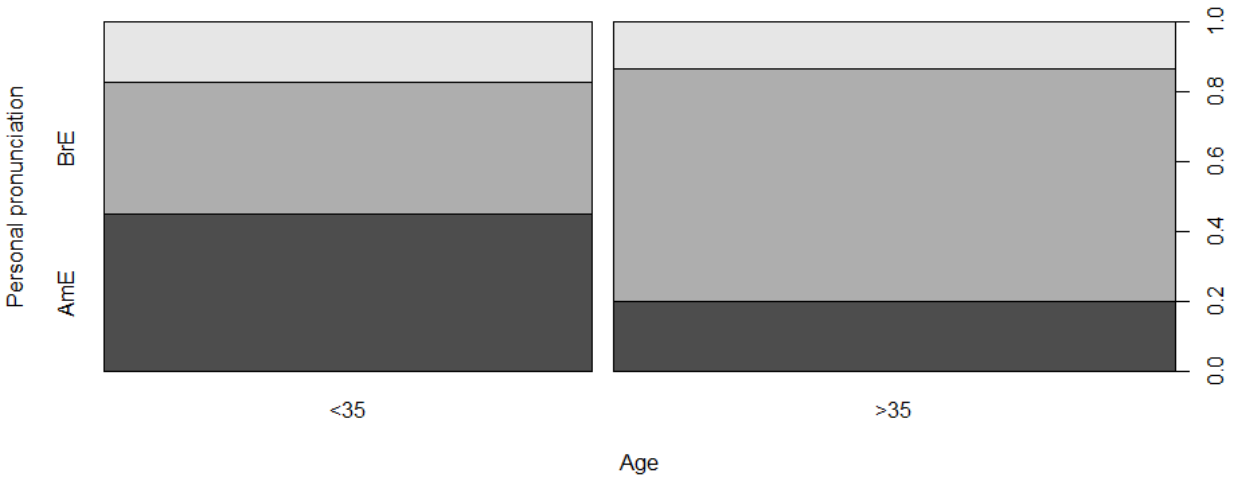
Figure 10 displays the difference between the teachers with a master's degree and those with a bachelor's degree in terms of whether they encourage students to use a variety of vocabulary consistently. The relation between the two variables was found to be significant, χ^2 (1, N = 230) = 7.0326, p < .0167. Teachers with a master's degree were more likely to encourage consistent use of a vocabulary than were teachers with a bachelor's degree.

Figure 10 Correlation between the teachers' highest completed level of education and whether they encourage consistent use of vocabulary



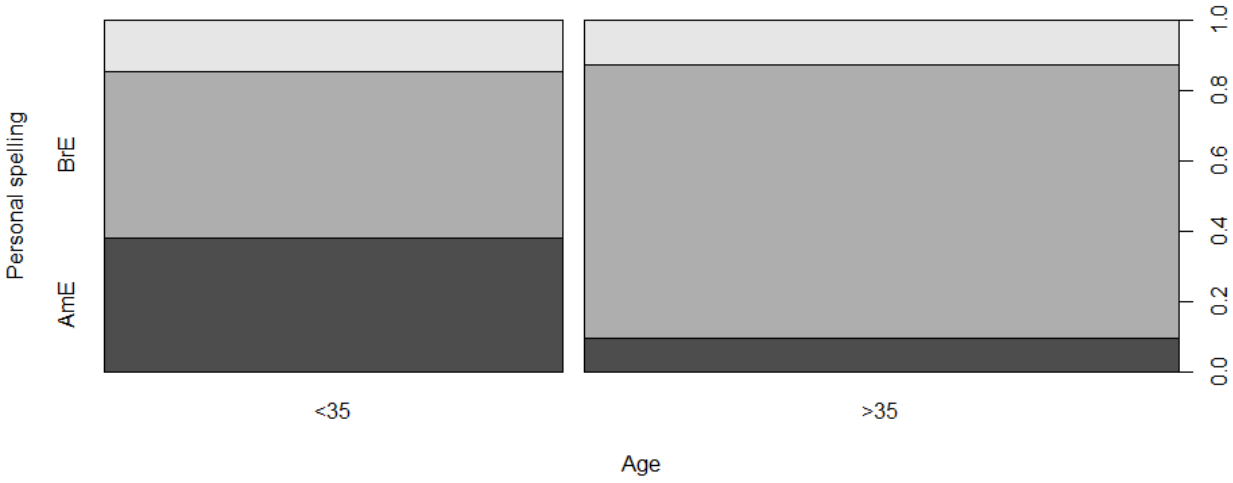
As hypothesized by some of the teachers from the teacher survey (see the following section), the younger teachers (< 35) were more likely to use AmE pronunciation and less likely to use BrE pronunciation than were the older teachers (≥ 35). Figure 11 demonstrates this difference between the teachers. The correlation was significant according to a chi-square test of independence, χ^2 (2, N = 226) = 20.431, p < .001.

Figure 11 Correlation between the teachers' age and their personal use of pronunciation



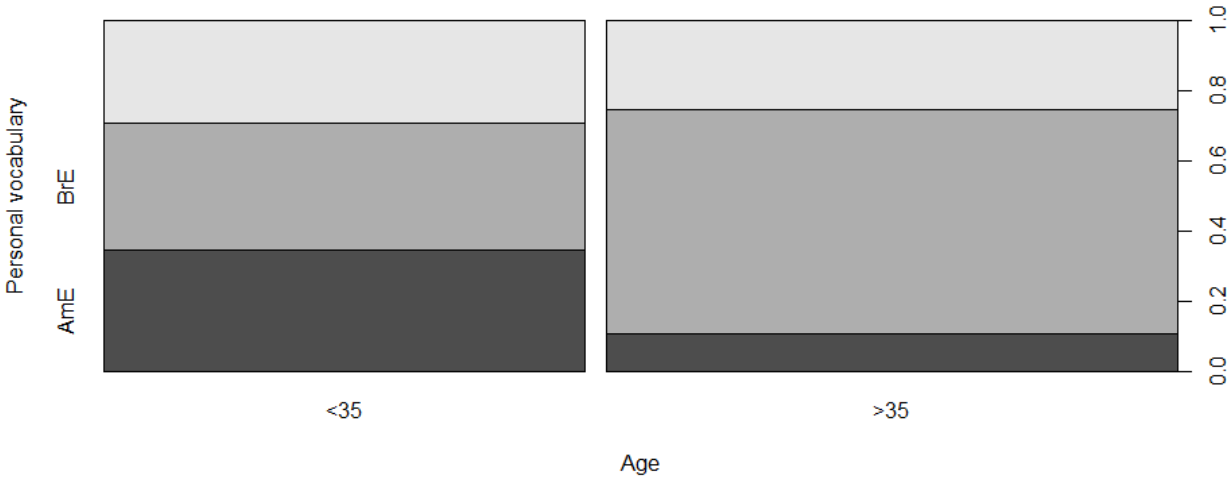
As can be seen in Table 12, the same difference was found in terms of personal spelling. The correlation between the teachers' age and their personal spelling was significant, χ^2 (2, N = 223) = 28.375, p < .001.

Figure 12 Correlation between the teachers' age and their personal use of spelling



There was also a significant correlation between the teachers' age and their personal vocabulary, even though a higher proportion of the teachers responded that they do not use a specific variety of vocabulary. Figure 13 shows that the younger teachers were more likely to use AmE vocabulary and less likely to use BrE vocabulary than were the older teachers. The correlation was significant, χ^2 (2, N = 210) = 21.805, p < .001.

Figure 13 Correlation between the teachers' age and their personal use of vocabulary



4.1.4 Qualitative data: comments

The teachers provided detailed insights into the use of English varieties in Norwegian schools. Among the 240 teachers, 52 teachers commented on the increase in the use of American English and 39 teachers reported that there is more variation in the use of varieties or that the students can choose more freely which variety they take into use. Four representative or otherwise interesting teacher comments and their translations into English are given below.

(1) Opplever at mangelen på britisk i media og kultur, til sammenligning med Amerikansk, gjør det vanskelig å legitimere og anbefale. Alle skriver *truck* og *candy*, ikke *lorry* og *sweets*.

I experience that the lack of British in media and culture, compared with American, makes it more difficult to legitimize and recommend [British English]. *Everyone writes* truck *and* candy, *not* lorry *and* sweets. (middle school teacher)

(2) Det er fortsatt mye fokus på at lærerne skal lære bort britisk engelsk. Min bruk av amerikansk uttale overrasker både kolleger og elever (som tror at de bare får god karakter i engelsk muntlig om de kan snakke RP).

There is still an expectation that teachers teach British English. My use of American pronunciation surprises both colleagues and students (who think that they only get good grades in oral English if they can speak RP). (primary and middle school teacher)

(3) Eldre lærere kommenterer gjerne på at elever har "vakker britisk engelsk", i motsetning til de andre elevenes mer amerikanske uttale. Jeg har også blitt spurt om jeg har tenkt å bruke "den amerikanske engelsken min" i klasserommet. Jeg vet ikke om det handler om generasjonsskifte eller utdanning, siden jeg kjenner et par eldre lærere med

bakgrunn i lingvistikk som ikke har tilsvarende holdninger. Vanskelig å si om det er alderskonservatisme eller utdanningsbakgrunn som er mest utslagsgivende.

Older teachers often comment that students have "beautiful British English" compared to the other students' more American pronunciation. I have also been asked if I am planning on using "that American English of mine" in the classroom. I do not know if it is about a generational shift or education since I know a couple of older teachers with a background in linguistics who do not have the same attitudes. It is hard to say whether it is age conservatism or the educational background that makes the biggest difference. (high school teacher)

(4) Amerikansk engelsk velges oftere av elevene nå enn for 10-20 år siden.
American English is chosen more often by the students today than 10-20 years ago. (middle school teacher)

The first teacher describes that it is difficult to teach BrE due to the prevalence of AmE in media and culture. The teacher also says implicitly that he encourages the use of BrE, but it is more difficult to make the students use BrE features because of exposure to AmE. The second and third teachers comment on the bias toward BrE in Norwegian schools and the third teacher also points out that especially older teachers are biased toward BrE. The final comment was the only one which mentioned a change over a specific period of time. It was noteworthy that this number of years corresponds so well to that in the third research question.

In addition, several teachers also expressed that they work in primary schools or with children at a lower proficiency level and that they therefore rarely focus on the use of English varieties in their teaching. Two teachers also pointed to the ambiguity of the verb *encourage* and that there is a difference between conscious and unconscious encouragement.

4.2 Student survey

4.2.1 Students' expressed preferences

Overall, there were more students who reported that they use American English than there were students who said that they use British English. There are, however, some differences between the reported use of pronunciation, spelling and vocabulary, as shown in Table 16. In terms of pronunciation, the most common response was that they use AmE (N = 72), but there

were also 70 students who said that they do not use a specific pronunciation. The proportion of students who reported that they use BrE was lower when asked about pronunciation than when asked about spelling and vocabulary.

Table 13 The students' expressed use of varieties of pronunciation, spelling and vocabulary

	AmE	BrE	No specific variety	Other
Pronunciation	44.4% (*N* = 72)	11.7% (*N* = 19)	43.2% (*N* = 70)	(*N* = 1)
Spelling	48.1% (*N* = 78)	25.3% (*N* = 41)	25.9% (*N* = 42)	(*N* = 1)
Vocabulary	48.8% (*N* = 79)	24.7% (*N* = 40)	25.9% (*N* = 42)	(*N* = 1)

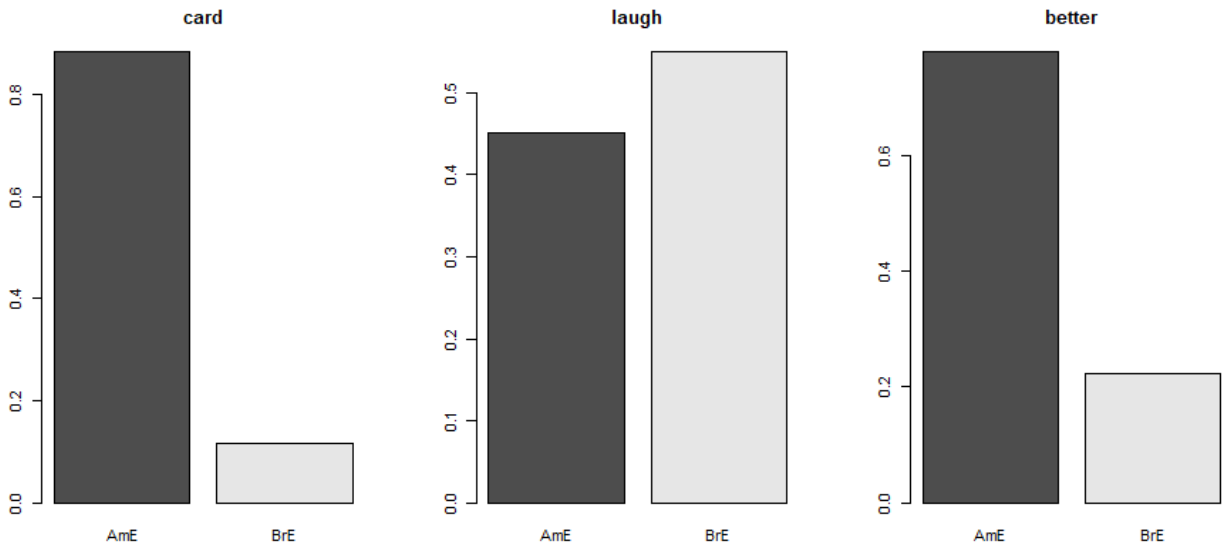
4.2.2 Students' choices in the language test

Before the students were asked about which variety they use or attempt to use, the students were asked to choose between two different pronunciations of three items, two different spellings of three items and two different translations of three Norwegian words. The results from this language test were markedly different from the students' expressed use of English varieties. Figures 14, 15 and 16 demonstrate the distribution of students selecting American and British features. Table 17 shows the exact percentages of students choosing each American feature and the average percentage per group of features of pronunciation, spelling and vocabulary. It should be repeated that the students' choices in the language test cannot be used to determine which varieties the students use, but they can be used as an indication of which variety is used more commonly among the students.

Figure 14 illustrates the students' preferred pronunciations of *card*, *laugh*, and *better*. The General American pronunciation /kɑːrd/ was selected by far more students (88.3%) than the equivalent RP pronunciation /kɑːd/. The GenAm pronunciation of *laugh* /læf/ was selected by 45.1% of the participants and the GenAm pronunciation of *better* /beɾ.ər/ (with a tapped /t/) was selected by 77.8% of the participants. These findings are relatively similar to those of Rindal & Piercy (2013). In their study of 70 Norwegian students' spoken English, they found that 82% of the students were rhotic, 68% used /æ/ in BATH words and 75% used a tapped or voiced intervocalic /t/. While the percentages of the GenAm pronunciations of *card* and *better*

were somewhat higher in the present study, the number of students using /æ/ in *laugh* was 23 percentage points lower than in Rindal & Piercy (2013).

Figure 14 The students' preferred pronunciation of *card*, *laugh* and *better*



The bar plots in Figure 15 show that the American spellings *center* and *analyze* were selected more frequently than the BrE counterparts, but the British spelling *colour* was chosen more frequently than AmE *color*.

Figure 15 The students' preferred spelling of *color/colour*, *center/centre* and *analyze/analyse*

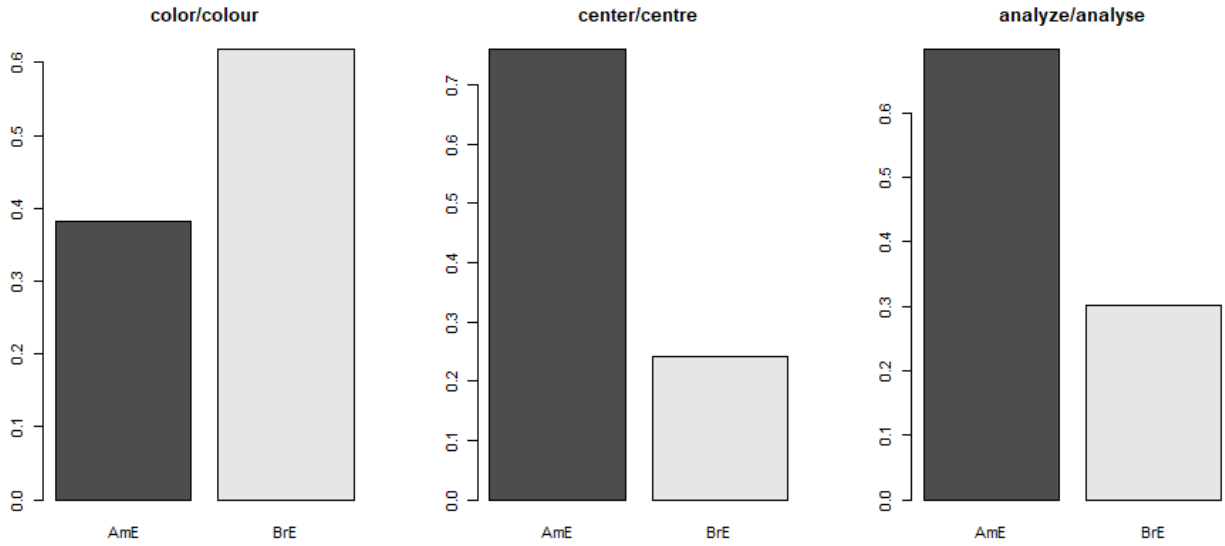


Figure 16 demonstrates that the American items *sidewalk*, *sweater* and *elevator* were selected by far more students than the British counterparts *pavement*, *jumper* and *lift*. Overall, the American lexical items in Figure 16 were chosen by a higher number of students than the American spellings in Figure 15 were. This finding corresponds to those of Gonçalves et al.

(2017) who found that among the 30 countries investigated in their study, they found a more widespread use of AmE vocabulary than AmE spelling in 24 countries, including the Scandinavian countries Denmark, Sweden and Finland.

Figure 16 The students' preferred lexical items (*sidewalk/pavement*, *sweater/jumper* and *elevator/lift*)

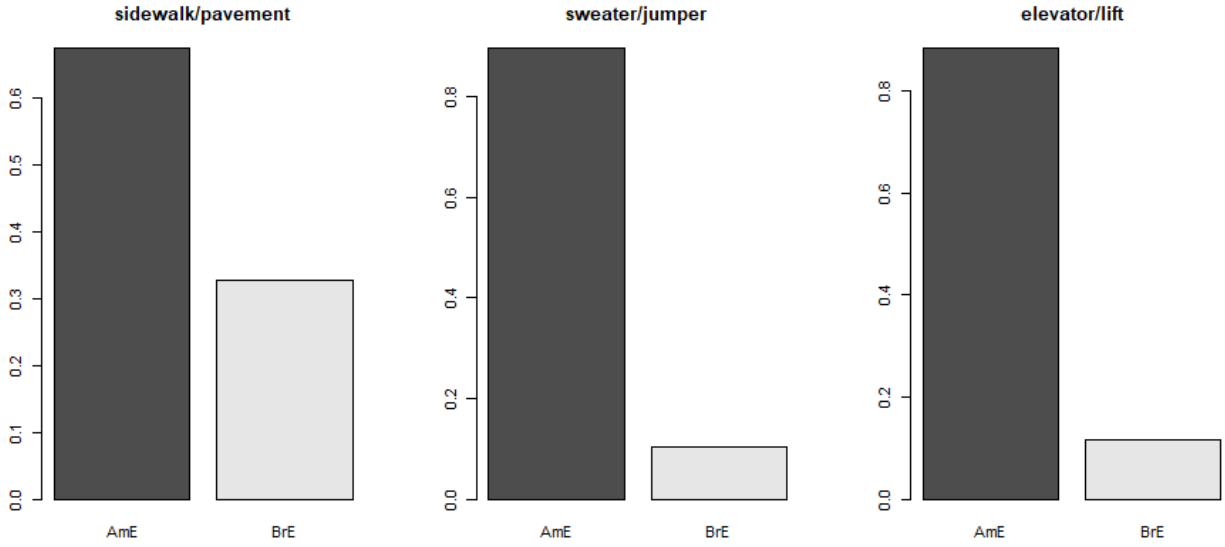


Table 17 lists the percentages of students selecting each item and the average "Americanness rate" of pronunciation, spelling and vocabulary. The average percentage is the highest for American vocabulary (81.7%) and the lowest for American spelling (61.3%). The standard deviations of the means reflect the discrepancies found in the figures above.

Table 14 The percentage of students selecting each American feature and the average per group (American pronunciation, spelling and vocabulary)

American features	Percentage of students selecting each American feature	Mean	Standard deviation
/kɑːrd/	88.3% (*N* = 143)	**70.4%** (*N* = 114)	36.51
/læf/	45.1% (*N* = 73)		
/beţ.ər/	77.8% (*N* = 126)		
color	38.3% (*N* = 62)	**61.3%** (*N* = 99.3)	32.72
center	75.9% (*N* = 123)		
analyze	69.8% (*N* = 113)		
sidewalk	67.3% (*N* = 109)	**81.7%** (*N* = 132.3)	20.23
sweater	89.5% (*N* = 145)		
elevator	88.3% (*N* = 143)		

4.2.3 Influence from teachers

The present section presents the results from the questions asked to the students regarding their teacher(s)' encouragements. Table 18 shows the extent to which the students have been encouraged to use a specific variety. Overall, around 34% of the students responded that they have not been encouraged to use a specific variety at all. The answers are also quite similar between the questions concerning pronunciation, spelling and vocabulary. There were, however, more students who responded that they have been encouraged to a great or very great extent to use a specific variety of spelling (*N* = 40) than of vocabulary (*N* = 26) and pronunciation (*N* = 23).

Table 15 The extent to which the students have been encouraged by teachers to use a specific variety (of the teachers' choice)

	Not at all	To a small extent	To some extent	To a great extent	To a very great extent
Pronunciation	34.0% (*N* = 55)	28.4% (*N* = 46)	23.5% (*N* = 38)	10.5% (*N* = 17)	3.7% (*N* = 6)
Spelling	33.3% (*N* = 54)	20.4% (*N* = 33)	21.6% (*N* = 35)	19.8% (*N* = 32)	4.9% (*N* = 8)
Vocabulary	34.0% (*N* = 55)	23.5% (*N* = 38)	26.5% (*N* = 43)	11.1% (*N* = 18)	4.9% (*N* = 8)

Table 19 compares the number of students who have been encouraged, to a greater or lesser extent, to use AmE, BrE and both AmE and BrE in terms of pronunciation, spelling and vocabulary. As mentioned in the methodology chapter, we cannot dismiss that the students who reported that they have been encouraged to use both AmE and BrE (by separate teachers) were in fact encouraged to choose between the two varieties. However, it is still interesting to note the frequencies of students who have been encouraged to use AmE or BrE. Overall, British English is the most frequently reported promoted variety.

Table 16 The varieties which the students have felt encouraged to use by teachers

	AmE	BrE	AmE and BrE
Pronunciation	18.7% (*N* = 20)	57.9% (*N* = 62)	23.4% (*N* = 25)
Spelling	22.2% (*N* = 24)	64.8% (*N* = 70)	13.0% (*N* = 14)
Vocabulary	21.5% (*N* = 23)	57.0% (*N* = 61)	21.5% (*N* = 23)

Table 20 provides an overview of the extent to which the students have been encouraged to use a variety consistently. Overall, there were more students who reported that they have been encouraged to use a variety consistently than there were students who reported that they have been encouraged to use a specific variety. There is a tendency that the students' teachers have focused more on consistent spelling than on consistent vocabulary and pronunciation.

Table 17 The extent to which the students have been encouraged to use a variety consistently

	Not at all	To a small extent	To some extent	To a great extent	To a very great extent
Pronunciation	22.2% (*N* = 36)	31.5% (*N* = 51)	23.5% (*N* = 38)	17.9% (*N* = 29)	4.9% (*N* = 8)
Spelling	17.3% (*N* = 28)	24.1% (*N* = 39)	22.2% (*N* = 36)	25.3% (*N* = 41)	11.1% (*N* = 18)
Vocabulary	21.0% (*N* = 34)	30.2% (*N* = 49)	27.2% (*N* = 44)	14.2% (*N* = 23)	7.4% (*N* = 12)

4.2.4 Correlations

The present section presents the results of the chi-square tests of independence performed with the student survey data. Tables 21 and 22 summarize the results from the ten tests that were conducted based on the hypotheses from Section 3.3.3. They also show the degrees of freedom (df) and Table 21 indicates the adjusted level of significance after the Bonferroni correction. For the three significant results, descriptive bar plots are presented below. There were not enough data points per level to test the correlation between the students' expressed use of spelling and the varieties of spelling promoted by their teacher(s). However, the descriptive analysis of the two variables showed interesting results and will also be given below. As previously mentioned, the survey analysis also included exploratory analysis of other variables which were not included in the hypotheses. A marked difference was found between male and female students in terms of whether they have been encouraged to use a specific variety of spelling. A chi-square test was then performed on these variables to determine whether the correlation was significant. The results of the test and a descriptive analysis is provided at the end of the present section.

Table 18 Chi-square tests with the students' expressed use of a variety as the dependent variable: the gray boxes show the tests with significant correlations after a Bonferroni correction.

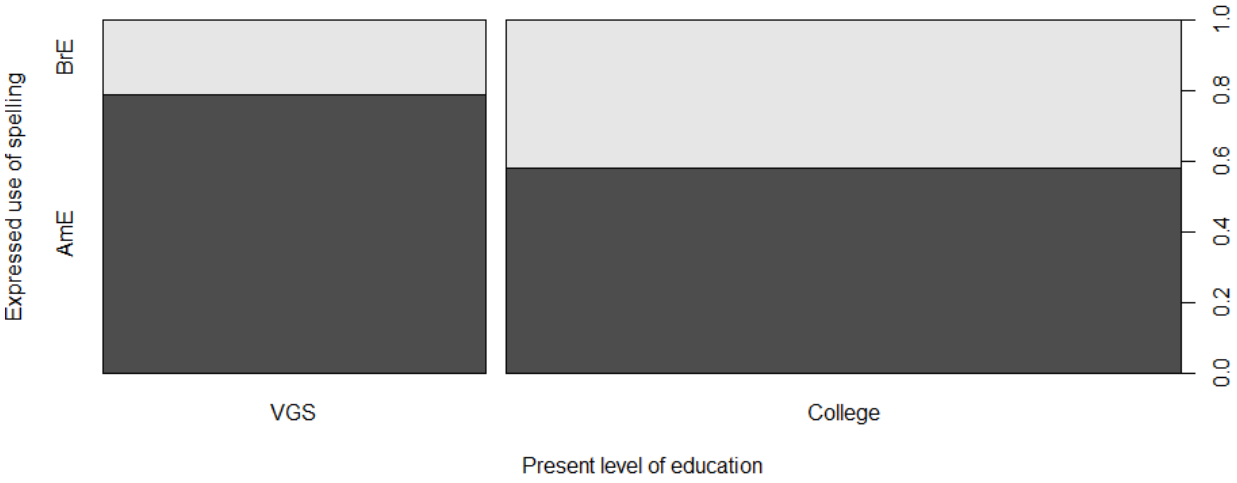
	Expressed use of pronunciation: AmE vs. BrE	Expressed use of spelling: AmE vs. BrE	Expressed use of vocabulary: AmE vs. BrE	df
Education: high school vs. college	p = .8342 χ^2 = 0.0438 *N* = 91	p = .03282 χ^2 = 4.5552 *N* = 119	p = .02436 χ^2 = 5.0689 *N* = 119	1
The pronunciation promoted by teacher(s): AmE, BrE, AmE+BrE	Not enough data points *N* = 58	N/A	N/A	2
The spelling promoted by teacher(s): AmE, BrE, AmE+BrE	N/A	Not enough data points *N* = 82	N/A	2
The vocabulary promoted by teacher(s): AmE, BrE, AmE+BrE	N/A	N/A	p = .01803 χ^2 = 8.0312 *N* = 82	2
New significance level ($p_{critical}$)	.05	.05	.025	

Table 19 Chi-square tests with the students' level of education and whether they have been encouraged to use a specific variety or to use a variety consistently. None of the correlations were significant.

	Specific pronunciation	Specific spelling	Specific vocabulary	Consistent pronunciation	Consistent spelling	Consistent vocabulary	df
Education: high school vs. college	p = .05652 χ^2 = 3.6366 *N* = 162	p = .2727 χ^2 = 1.2029 *N* = 162	p = .2234 χ^2 = 1.4821 *N* = 162	p = .5269 χ^2 = 0.40034 *N* = 162	p = 1 χ^2 = 0 *N* = 162	p = 1 χ^2 = 0 *N* = 162	1

Figure 17 compares the high school students (VGS) and college students in terms of their expressed use of spelling. As we can see, there was a higher proportion of high school students who reported that they use American spelling than among the college students. A chi-square test of independence confirmed that the correlation was significant, χ^2 (1, *N* = 119) = 4.5552, p < .05.

Figure 17 Correlation between the students' present level of education and their expressed use of spelling. The column on the left-hand side represents the high school students (VGS).



The bar plot in Figure 18 shows the proportion of students who were encouraged to use AmE, BrE or both varieties compared to the proportion of students who reported that they use AmE and BrE spelling (N = 82). In other words, it does not include data from the students who were not encouraged to use a specific variety of spelling (N = 54) and who do not use a particular variety of spelling (N = 25). The bar plot indicates that being encouraged to use AmE spelling was more influential on the students than being encouraged to use BrE spelling. However, there were not enough data points in each group to perform a chi-square test of independence, so the relation between the variables was not confirmed as significant.

Figure 18 Correlation between the varieties of spelling the students were encouraged to use and the students' expressed use of spelling. The column on the right-hand side represents the students who were encouraged to use BrE and AmE spelling.

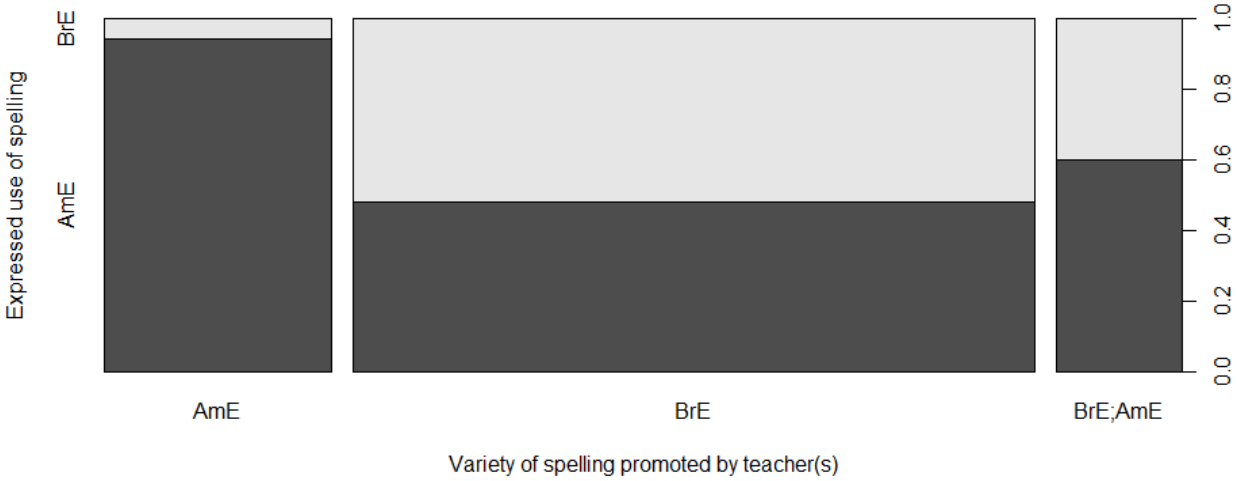
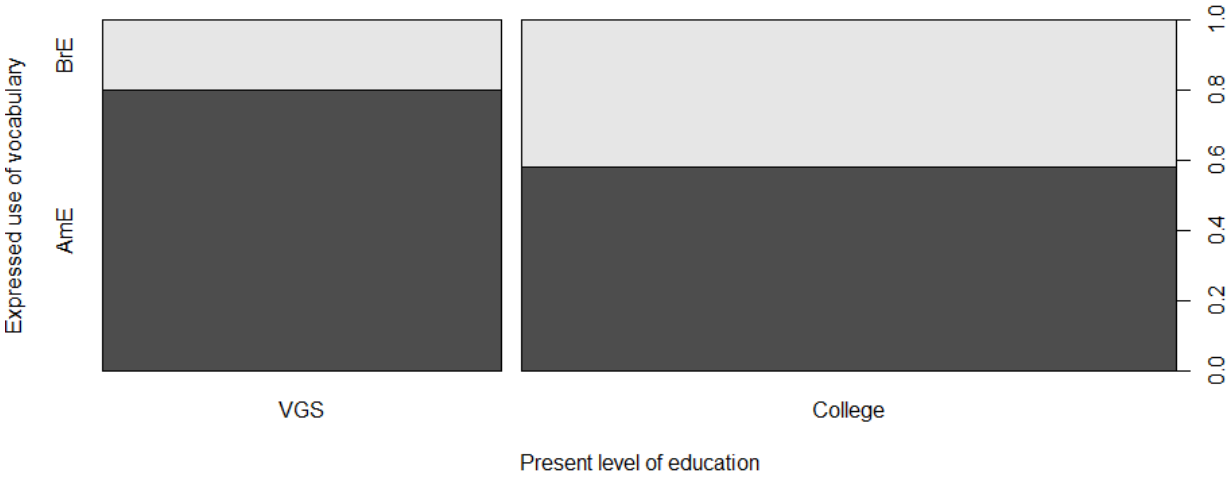


Figure 19 illustrates the difference between high school and college students in terms of their expressed use of vocabulary. As in the bar plot showing their expressed use of spelling, we see that there is also a higher proportion of high school students who use AmE vocabulary

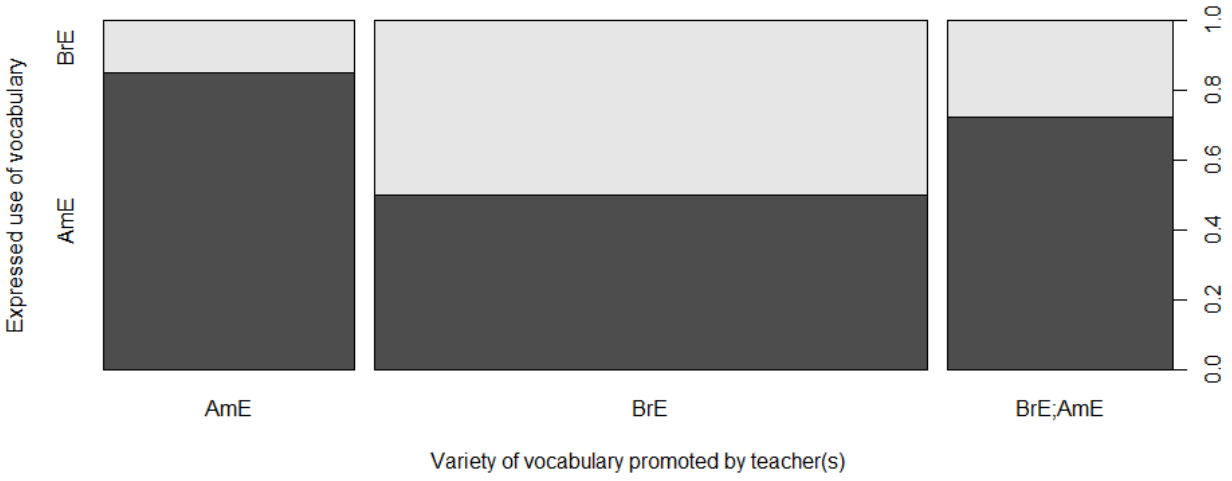
than there are college students who use AmE vocabulary. A chi-square test of independence showed a significant relation between the two variables, χ^2 (1, N = 119) = 5.0689, p < .025.

Figure 19 Correlation between the students' present level of education and their expressed use of vocabulary. The column on the left-hand side represents the high school students (VGS).



The bar plot in Figure 20 compares the proportion of students who were encouraged to use vocabulary from AmE, BrE and both varieties to the proportion of students who reported that they use AmE and BrE vocabulary (N = 82). The differences between the groups are somewhat similar to those in Figure 15, but less distinct. In this case there were also enough data points in each group to perform a chi-square test of independence which indicated that the relation between the variables is significant, χ^2 (2, N = 82) = 8.0312, p < .025.

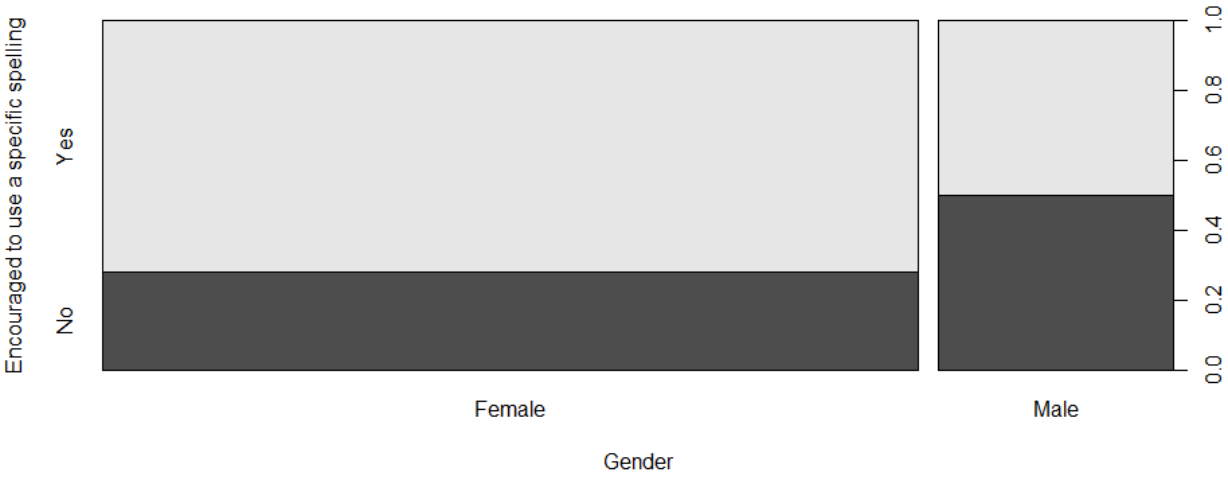
Figure 20 Correlation between the varieties of vocabulary the students were encouraged to use and the students' expressed use of vocabulary. The column on the right-hand side represents the students who were encouraged to use BrE and AmE vocabulary.



In addition to testing the hypotheses, a number of variables were also explored visually. One of these variables was gender. The relationships between gender and a number of dependent

variables were explored in both data sets. Overall, there were few noticeable differences between the genders, but one marked difference was found between male and female students in regard to whether they had been encouraged to use a specific variety of spelling. The difference between the groups is demonstrated in Figure 21. The relation between the variables was significant, χ^2 (1, N = 161) = 5.1703, p < .025[12]. Male students were less likely to have been encouraged to use a specific variety of spelling than were female students.

Figure 21 Correlation between the students' gender and whether they have been encouraged to use a specific spelling



4.2.5 Qualitative data: comments

The student survey asked the students to provide potential comments about the survey in the last question. Some interesting comments and their translations into English are provided below.

> (1) Synes ofte at valg av ord og uttale speiler den jeg snakket med. Er jeg i USA blir det amerikansk og britisk med briter.
> *I often think that the choice of words and pronunciation mirrors the person I am talking to. If I am in the US it becomes American and British with Brits.* (College student)

> (2) Når det gjelder uttale velger jeg å prate som det faller meg komfortabelt, dette svinger mest mot amerikansk, men er opplært i britisk uttale på universitetet. Jeg føler det blir feil av meg å "ta" et annet lands uttale, så jeg kommer nok til å holde meg et sted i midten og er stolt av min noen ganger norske uttale.
> *In regard to pronunciation I choose to speak in a way that feels comfortable, this leans*

[12] The level of significance was adjusted to .025 because this was the second chi-square test performed with the dependent variable "whether or not the students were encouraged to use a specific spelling". The p-value of the test was still significant after the Bonferroni correction. The number of data points included in the test was 161 instead of 162 because one of the participants did not identify as male or female.

more toward American, but was trained in the use of British pronunciation at university. I feel it is wrong of me to "take" another country's pronunciation, so I will stay somewhere in the middle and I am proud of my sometimes Norwegian pronunciation. (College student)

(3) Min uttale er mest sannsynlig påvirket av tv, media, serier o.l. , men lærte britisk engelsk stavemåte på barneskolen, u-skole, VGs og har holdt meg til det.
My pronunciation is most likely influenced by TV, media, series, and the like, but I learned British English spelling in primary school, middle school and high school and have kept to that. (college student)

(4) Generelt har jeg engelsklærerne mine hatt lite fokus på forskjellene på amerikansk og britisk. Vi har hatt om kulturforskjellene, men mindre om selve språkforskjellene.
In general, my English teachers have not focused much on the differences between American and British. We have learned about the cultural differences, but less about the language differences. (College student)

The two first comments describe the students' inconsistent use of varieties and what influences them to alternate between varieties. The third comment lists some of the sources of influence on her pronunciation. Several students provided comments similar to the fourth one, namely that their teachers did not focus on English varieties. Some students also pointed to the fact that they had had teachers with different demands. One student also reported that he was not allowed to use American English.

4.3 Corpus analysis

The present section presents the findings from the corpus analysis. First, the number of occurrences of the distinctive items included in the study are listed. The second part provides the qualitative analysis of certain patterns that were found in the subcorpora and information about the potentially biased students in TRAWL.

4.3.1 Quantitative findings

Among the 45 pairs of items listed in Section 3.4.1, 39 items were found in either the TRAWL or ICLE-NO subcorpus, in either its British or American form. Tables 23 and 24 summarize the findings from ICLE-NO and TRAWL, respectively. The tables provide the number of occurrences (raw frequency) from the nine groups of lexical items that have

distinctive spellings in BrE and AmE and the number of students who used one or several spellings from each of the groups. For example, there were in total 98 occurrences of the lemmas *colour*, *favour*, *flavour*, *honour*, *humour*, *labour*, *rumour*, *neighbour* and *behaviour* in ICLE-NO. For each lemma, the number of occurrences and the number of student texts that contained the said lemma were noted. The sum of the number of student texts per lemma is given in the columns "student texts" in Tables 23 and 24. A complete overview of the findings from each lemma search is found in Appendix C.

Overall, there were far more occurrences of the lexical items in their British form (*N* = 414) than in the American form (*N* = 242) in ICLE-NO, as seen in Table 23. The British spellings were also found in a wider range of student texts (*N* = 290) than were the American spellings (*N* = 150). There was, however, considerable variation between the groups of spellings. As hypothesized, the spellings *learned* and *burned* were used more frequently than *learnt* and *burnt*, and the use of *-ae-* and *-oe-* was less frequent than *-e-*, as in *medieval*. The use of *-s-* in words such as *analyse* and *criticise* was still more frequent than the use of *-z-*, which contradicts the hypothesis. However, there was some variation within this group; *recognize* and *globalize* were used by more learners than were their British counterparts.

Table 20 Overview of British and American spellings in ICLE-NO per group of lexical items with different spelling

Group of BrE lexical items	Raw frequency	Student texts	Group of AmE lexical items	Raw frequency	Student texts
-ou- (colour)	98	77	*-o- (color)*	30	21
-re- (centre)	21	18	*-er- (center)*	8	8
-c- (defence)	55	27	*-s- (defense)*	9	5
-s- (practise (v))	9	4	*-c- (practice (v))*	4	4
-ll- (cancelled)	25	24	*-l- (canceled)*	12	6
-l- (skilful)	17	16	*-ll- (skillful)*	12	11
-s- (analyse)	172	122	*-z- (analyze)*	129	91
-t- (learnt)	11	9	*-ed- (learned)*	30	23
-ae/oe- (mediaeval)	6	2	*-e- (medieval)*	8	4
Total	**414**	**290**	**Total**	**242**	**150**

Table 24 lists the findings from TRAWL. Overall, there were higher frequencies of American spellings of the lexical items (*N* = 271) than there were British spellings (*N* = 117). The American spellings also came from a higher number of students (*N* = 188) than did the British spellings (*N* = 76). The hypothesis suggesting that the BrE spellings *-s-*, *-t-* and *-ae/oe-* would

not be found in the corpus was rejected. As we can see, these spellings were detected in 23, 6 and 1 student texts, respectively.

Table 21 Overview of British and American spellings in TRAWL per group of lexical items with different spelling

Group of BrE lexical items	Raw frequency	Student texts	Group of AmE lexical items	Raw frequency	Student texts
-ou- (colour)	63	35	*-o- (color)*	84	48
-re- (centre)	4	3	*-er- (center)*	15	11
-c- (defence)	-	-	*-s- (defense)*	3	2
-s- (practise (v))	2	2	*-c- (practice (v))*	3	3
-ll- (cancelled)	11	6	*-l- (canceled)*	15	11
-l- (skilful)	-	-	*-ll- (skillful)*	1	1
-s- (analyse)	30	23	*-z- (analyze)*	127	91
-t- (learnt)	6	6	*-ed- (learned)*	22	20
-ae/oe- (mediaeval)	1	1	*-e- (medieval)*	1	1
Total	**117**	**76**	**Total**	**271**	**188**

4.3.2 Qualitative findings

As mentioned in the methodology chapter, it was considered important to look out for patterns in terms of the topics of the texts the spellings came from and which spellings the potentially biased students (according to the student metadata) used in their texts. The present section summarizes some of the interesting findings from the process of extracting corpus data.

The titles of the ICLE-NO texts were examined before conducting the corpus analysis. Among the 45 items searched for, the item *industrialisation* was used in 24 essay titles which come from a prompt that uses the same word. It was therefore believed that the spelling *industrialisation* would be used more than the American counterpart in the texts with this title. Among these texts, 18 contained the BrE spelling and 3 contained the AmE counterpart *industrialization*. We cannot know whether the students who wrote the former texts were influenced by the essay prompt, but it seems likely that EFL students follow different spelling conventions in different contexts and that the type of spelling used in a prompt could have an impact on their spelling.

There were also observations of several spellings coming from the same essay topic in TRAWL. For example, most of the occurrences of *favour* and *humour* were found in texts in which the students were asked to discuss British events and history. Furthermore, 11 out of 13 occurrences of *behavior* were from texts with the same text code. The context of the 11 occurrences of *behavior* was then further investigated and it was discovered that the students were discussing either an American movie or poem when they used the spelling *behavior*. These findings further support that learners are influenced by the context and topic of their writing.

Another interesting finding from ICLE-NO was a student's use of the compound noun *movie theatre*. This can be seen as a combination of American lexis and British spelling. In this case, it reflects the findings from the student survey, which was also mentioned by two English teachers, that American vocabulary is used more frequently than American spelling by Norwegian students. A similar combination of lexis and spelling from the two varieties was found in TRAWL. One of the texts included the noun phrase *English defense league*. This is the name of an organization from the UK, so *defense* should be spelled *defence*. Both of these examples could also demonstrate the influence spell-check has on the students' writing. The spelling *theater* is underlined in red if the selected language for spell check is English (United Kingdom). The same applies to *defence* if the language is set as English (United States). The significance of spell-check is further discussed in Chapter 6.

The issue of consistency was not included in the corpus analysis. For further study, it would be interesting to compare the number of occurrences of American and British spelling and lexis in each learner text to identify the extent to which the learners adhere to one variety of English. However, some instances of inconsistent spelling were found in the present study, such as one student's use of both *counseling* and *counselling* in ICLE-NO.

The lexical items found in the texts written by students with a potential bias toward a particular variety were written down. This was mainly to ensure that not every occurrence of a spelling was from one of these students. Among the 17 potentially biased students, 14 used one or several of the items searched for in the subcorpora. An overview of the items these students used from the list is found below.

- BrE 1: *color*
- BrE 2: *travell*, learned*
- BrE 3: *colour, humour, centre, realise, globalised, globalisation*

- BrE 4: *organization*
- BrE 5: *colonization*
- AmE 1: *practice (v)*
- AmE 2: *learnt*
- AmE 3: *realise*
- AmE 4: *globalization*
- Unknown 1: *colour*
- Unknown 2: *color, flavor, realize*
- Unknown 3: *realize*
- Unknown 4: *realize, recognize*
- Unknown 5: *color*

In total, 2 out of the 39 items that were searched for in the corpora were only used by one of the students listed above, namely *flavor* and *globalise*. The potentially biased students are therefore not considered to largely influence the results from TRAWL. We also see that there is a fairly even distribution of British and American spellings from these students. Unfortunately, the same type of investigation was not made of the ICLE-NO students due to less detailed metadata about the countries they have lived in and where their parents are from. We do know, however, that none of the students from ICLE-NO used English as a first, second or third language at home.

5 Discussion

The present chapter discusses the findings from the survey data and corpus analysis. In the first section, some of the teacher and student survey results are compared. The second section compares findings from the student survey and the corpus analysis and the third section examines how the results from the present thesis relate to those of previous research.

5.1 Comparing the teacher and student survey results

The teachers and students were asked questions about the extent to which they encourage or have been encouraged to use a specific variety and to be consistent, respectively. It should be repeated that the verb *encourage* can be interpreted in different ways, as was mentioned in the methodology and by one of the teachers in the comments section. The responses from both the teachers and students are therefore highly subjective. It is, nevertheless, interesting to compare the students' and teachers' responses to these questions. It should also be stressed that the students who participated are unlikely to have been taught by the teachers who participated in the teacher survey. Furthermore, as pointed out by one of the students, the survey was not applicable for those who had been taught by several teachers who had different expectations of their students. There were also many older students among the participants and these have perhaps not been taught English in school in many years. Potential changes in the use of native-speaker models in Norwegian classrooms may therefore be reflected in the students' and teachers' responses.

Table 25 compares the percentages of students and teachers responding positively to the questions about encouraging a specific variety. As we can see, the responses are very different between the students and teachers and vary from 29.7 to 37.7 percentage points according to whether they were asked about pronunciation, spelling or vocabulary. Again, this might be because the teachers interpreted *encourage* as conscious encouragement, while the students interpreted it as unconscious encouragement. It might also serve as an indication of how English is being taught differently today or, alternatively, that teachers do not wish to "admit" that they are promoting a specific variety in the classroom. In other words, the present thesis will not attempt to make any conclusions about the discrepancies between the students' and teachers' responses to these questions.

Table 22 The percentage of students reporting that they have been encouraged to use a specific variety and the percentage of teachers reporting that they encourage students to use a specific variety

	Students	Teachers
Pronunciation	66.0%	28.3%
Spelling	66.7%	37.0%
Vocabulary	66.0%	35.8%

Table 26 shows the percentages of students and teachers responding positively to the questions about consistency. Their responses were far more similar in this respect. Overall, the percentages are higher which indicates that the teachers' clear focus on consistency is recognized by the students.

Table 23 The percentage of students reporting that they have been encouraged to use a variety consistently and the percentage of teachers reporting that they encourage consistent use of a variety

	Students	Teachers
Pronunciation	77.8%	67.5%
Spelling	82.7%	81.7%
Vocabulary	79.0%	73.3%

We can also compare the teachers and students in terms of their expressed use of varieties. Seeing that most of the participants in the teacher survey were older than most of the participants in the student survey, we can treat the classifications "teacher" and "student" as indications of age. While only 11.7% of the students expressed that they use BrE spelling, more than half of the teachers said that they use BrE spelling in the classroom. The percentages of participants reporting that they use AmE spelling and vocabulary were also twice as high in the student survey as in the teacher survey. These substantial differences indicate that AmE is becoming increasingly common, not only in the use of pronunciation, but also in terms of spelling and vocabulary.

5.2 Comparing the survey and corpus data results

One of the hypotheses of the thesis was that there are more students who use American pronunciation than there are students who use American vocabulary and spelling. Neither the language test results nor the students' expressed use of varieties correspond with this

hypothesis. Table 27 compares the number of students who expressed that they aim at using AmE and the average number of students selecting AmE features among the three items. As we can see, there are substantial discrepancies in every category, with the smallest difference in percentage points being 13.2 (in spelling). However, as previously discussed, the language test does identify which varieties the student use. The differences in Table 27 can, nevertheless, serve as an indication of the lack of consciousness many second-language learners have of their own use of varieties. These findings correspond with those found in Rindal & Piercy's (2013) study, where several students reported that they used BrE, while they in fact used more AmE features than BrE features. It should also be mentioned that the highest percentage of students responding "I do not use a particular variety" was found under the question about pronunciation.

Table 24 The number of students expressing that they use AmE and the average number of students selecting AmE features

	Students expressing that they use AmE	Average number of students selecting AmE features in the test
Pronunciation	44.4% (*N* = 72)	70.4% (*N* = 114, *SD* = 36.51)
Spelling	48.1% (*N* = 78)	61.3% (*N* = 99.3, *SD* = 32.72)
Vocabulary	48.8% (*N* = 79)	81.7% (*N* = 132.3, *SD* = 20.23)

Given the fact that the student survey showed such different results in terms of the students' use of English varieties, it is difficult to compare these results to those of the corpus analysis. However, since the three items with distinctive spelling in AmE and BrE from the language test were also included in the corpus data extraction, it seems more relevant to compare the corpus results with the language test from the student survey, rather than the students' expressed aims.

Following the same method as in Gilquin's (2018) investigation of Americanization in EFL and ESL varieties, the Americanness rate in TRAWL was 69.85%. In other words, among the total number of occurrences of the 45 pairs of distinctive spelling searched for in the corpus, 69.85% were spelled according to American spelling conventions. This percentage can be compared with the average percentage of students selecting AmE spellings in the language test (61.3%). The difference between these is subtle, which strengthens the claim that American spelling is more common than British spelling in Norway today.

Both the Americanness rate in TRAWL (69.85%) and the average percentage of students selecting AmE spellings in the language test (61.3%) are (slightly) lower than the average percentage of students selecting GenAm features in the language test (70.4%). These findings indicate that there are more American students who use American pronunciation features than there are students who use AmE features of spelling. However, the average number of students who selected American vocabulary in the language test (81.7%) is higher than both the numbers for spelling and pronunciation. The results from the present thesis therefore contradict the hypothesis that AmE pronunciation is more frequent than AmE vocabulary and spelling.

5.3 Comparing the results with previous research

Several results from the survey and corpus analysis correspond with those of the previous research presented in Chapter 2. The present section identifies some of the similarities and differences between the previous pieces of research and the findings of the present thesis and offers possible explanations for these.

In Chapter 2, Rindal & Piercy's (2013) findings on the number of students who aimed at a particular accent were compared with those of Sannes (2013). In Sannes' study, 47.9% of the students reported that they aimed at a particular variety, while 78.6% of the students in Rindal & Piercy (2013) said that they had an accent aim. The student survey of the present thesis showed that the average number of students who aim at a particular pronunciation, spelling and vocabulary was 68.33%. The number for pronunciation only was lower (56.8%) and is closer to Sannes' (2013) findings. The number of participants in the three studies (70, 165, 162) are relatively low, which could explain the discrepancies between them in terms of the proportion of students aiming at a particular variety. The fact that the percentage from the present survey data is found in between the percentages of the two other pieces of research arguably strengthens the probability of the national average being somewhere between 47.9 and 78.6%.

Rindal and Piercy's (2013) findings were, however, very similar to those of the present student survey in terms of the proportion of students aiming at an American accent/pronunciation (42.86% in Rindal and Piercy; 44.4% in the present thesis). They also found that 32.86% of their participants aimed at a "neutral" variety which can be compared to

the students in the present thesis reporting that they do not attempt to use a specific variety. The average number of participants who gave this answer was 31.67% for pronunciation, spelling and vocabulary combined, while the number was somewhat higher for pronunciation only (43.2%). The fact that the number of students aiming at a BrE pronunciation was lower in the present thesis (11.7%) than in Rindal and Piercy's study (32.86%) could be a coincidence, but it may also be an indication that fewer students aim at a BrE accent today than in 2012. The present study found significant correlations between whether the students were in upper secondary school or in college and their expressed use of varieties of spelling and vocabulary; the students in high school were more likely to use AmE spelling and vocabulary than those in college. Even though no significant correlation was found between their use of pronunciation and their level of education, this could be due to the higher proportion of students not aiming at a specific pronunciation. As mentioned, both Rindal & Piercy (2013) and the present thesis found that there were more students who used AmE pronunciation features than there were students who aimed at an AmE pronunciation. If there are more high school students than college students who use AmE pronunciation features in Norway today, it is also likely that fewer students use BrE pronunciation today than in 2012.

In the student survey, the number of students expressing that they use AmE pronunciation (*N* = 72) was almost identical to those of AmE spelling (*N* = 78) and AmE vocabulary (*N* = 79). The language test, however, indicated that AmE vocabulary is more commonly used than AmE spelling. As mentioned in Section 4.2.2., the latter finding corresponds to that of Gonçalves et al. (2017). They identified a higher frequency of AmE vocabulary than AmE spelling in 24 out of the 30 countries investigates in the study, including Denmark, Sweden and Finland. If we accept that the use of English varieties is similar in the Scandinavian countries, the results of Gonçalves et al. (2017) strengthen the claim that AmE vocabulary is more frequent than AmE spelling in Norway today.

Larsson (2012) found that 82% of the items of distinctive spelling included in her study were written according to BrE spelling conventions in the Swedish component of ICLE (SWICLE). In the Norwegian component, 63.11% of the items included in the present thesis were spelled in BrE[13]. However, the texts in SWICLE are somewhat older than those in ICLE-NO[14], which

[13] If we exclude the three last groups of spelling, namely *-s-* vs. *-z-* (*analyse/analyze*), *-t-* vs. *-ed-* (*learnt/learned*) and *-ae/oe-* vs. *-e-* (*mediaeval/medieval*), the list of items is more similar to that of Larsson (2012) and 75% of the spellings in ICLE-NO were in BrE.

[14] The texts in ICLE-NO were written between 1999 and 2001, the texts in SWICLE between 1993-1999.

could explain this difference if we again accept the claim that students in the Scandinavian countries use varieties similarly.

Gilquin (2018) found an average Americanness rate of 58.26% among the 33 European countries investigated. Even though the twenty distinctive pairs of items included in Gilquin's (2018) study were mostly phrases and/or lexical differences between AmE and BrE, the Americanness can still be compared with the Americanness rate in TRAWL (69.85%). The difference between the Americanness rate in the European countries and the Americanness rate in TRAWL could have different explanations. The most obvious explanations could be that there is a difference in the use of AmE lexical phrases and AmE spelling or that the TRAWL subcorpus only consists of 176 texts, while Gilquin's study used multi-million word corpora. If we do accept the Americanness rate from TRAWL as somewhat representative of Norwegian students and that studies with lexical phrases and spellings can be compared, the discrepancy could, for instance, be explained by a higher degree of Americanization in Norway than in some other European countries. Alternatively, the bias toward BrE in ELT has been reduced further in Norway than in other parts of Europe. In her study, Gilquin (2018) also compares the Americanness rate based on her pairs of lexical items in EFCAMDAT to that of ICLE; the Americanness rate in ICLE was markedly lower than in the newer corpus. This finding further supports the assertion that AmE spelling and vocabulary is used more frequently today than 15-20 years ago.

The number of teachers using BrE pronunciation in the present teacher survey (50.4%) was lower than in Ranta's (2010) study (85%). Again, if we accept that the Scandinavian countries are similar, the difference between these results could indicate that fewer teachers speak BrE today than nine years ago. The significant correlation between the teachers' age and their use of English varieties supports this; among the teachers aged 35 or over in the present teacher survey, 66.95% used BrE, which is closer to the percentage found in Ranta (2010). It can then be further hypothesized that the number of students using AmE in Norwegian schools will continue to increase. Significant correlations were found between the students' expressed used of varieties and the varieties that their teacher(s) encouraged them to use. Also, most of the teachers who encouraged students to use a specific variety promoted BrE. If we assume that students are also influenced by the variety their teachers speak, it is likely that the number of Norwegian students using AmE will continue to increase because more students will be

exposed to AmE in school and fewer students will be taught by teachers who speak BrE and who promote the use of BrE.

Ranta (2010) asked the Finnish teachers whether one variety of English should be conveyed as a model in upper secondary schools, to which 15% replied "yes, BrE". This question is similar to the question "to what extent do you encourage students to use a specific variety?", to which 19.17% of the teachers responded that they, to a greater or lesser extent, encourage students to use BrE. However, it is important to keep in mind two important factors. First, the teachers from the present survey work in different institutions, and most of the teachers work in primary school. Ranta's (2010) teachers, on the other hand, all worked in upper secondary schools. Significant correlations were found between the institution the teachers work in and whether they encourage the use of a specific variety. Second, Ranta's question was given as a yes-no question, while the one from the present thesis was a "to what extent" question. Most of the teachers responded "to a small extent" and "to some extent", so they might not have answered "yes" if they had been asked Ranta's (2010) question. Therefore, the results do not necessarily indicate that the native-speaker model, specifically the BrE model, is as popular among Norwegian teachers today than it was, for example, nine years ago.

The responses to the questions about consistency, however, contradict the claim that the native-speaker model has been abandoned by Norwegian teachers. Hansen (2011) and Ranta (2010) showed very similar findings in terms of consistent use of a variety; 48% and 47% of the teachers in these studies, respectively, believed that students should aim at consistently applying the standards of a model. Given the fact that the national curricula from 1997 and onward emphasize the use of English as a lingua franca instead of the native-speaker model, Hansen was surprised by the high percentage in his study. We would expect that eight years later, fewer teachers would adhere to the native-speaker model in their teaching. On average, 74.17% of the teachers reported that they, to a greater or lesser extent, encourage students to use a variety consistently, while the percentage was somewhat lower for pronunciation only (67.5%). As mentioned, these questions were "to what extent" questions which probably made it easier for the teachers to respond positively, but a great proportion of the teachers responded "to a great extent" or "to a very great extent" to the question about consistent use of varieties, especially in terms of spelling. These findings suggest that most teachers still promote native-speaker models in the classroom. However, the bias toward specific models, especially BrE, seems to be on the decrease.

Gilquin (2018) discusses how the Americanization process is not an either-or situation and notes that, in EFL, there is "a preference for certain individual AmE words/constructions rather than a true phenomenon of Americanisation affecting EFL across the board" (2018: 201). The present thesis has identified several examples which support this claim. In the student survey language test, there were large variations between the number of students selecting each American item or pronunciation. For example, there were far more students who selected the RP pronunciation of *laugh* than the RP pronunciation of *card* and *better*. A possible explanation is that the realization [ɑː] in *laugh* is closer to that of the Norwegian word for *laugh* ("latter" [la´t:ər]), or that the letter combination *au* leads to the realization [ɑː] for some other reason. The same reasoning can be applied to the AmE spelling of *theater* which is more similar to Norwegian "teater" than BrE *theatre*. Learners from a Romance L1 background, on the other hand, would arguably be more likely to choose the BrE spelling because this is either identical or the more similar to the spelling in their first language. Gilquin (2018) also comments on EFL learners' selectivity in terms of which words or constructions are easier to acquire and remember. American spellings such as *color* and *traveled* are morphologically simpler than the corresponding BrE spellings *colour* and *travelled* which could explain why the American spellings of these words were more frequent than the British counterparts in TRAWL. It is more difficult, however, to explain why spellings such as *realize* and *recognize* were more frequent than *realise* and *recognise* using the same reasoning as presented above. The BrE spellings are more similar to the Norwegian cognates "realisere" and "rekognosere", and the letter *z* is very infrequent in Norwegian in general. On the other hand, Norwegian has several loanwords with *z*, which could make the learners more inclined to selecting the *-z-* spellings than the *-s-* spellings.

Lastly, the use of electronic spell checkers should be addressed. Among the students in ICLE-NO, 199 had access to reference tools, while 117 did not. Whether spell checkers fall under the term "reference tools" is not specified. It is nevertheless likely that the TRAWL students had access to more accurate and efficient tools, such as spell checkers, than the ICLE-NO students around the turn of the millennium. It is not known whether the ICLE-NO students had access to a spell checker that differentiated between AmE and BrE spellings, if they had access to one at all. The combination of more exposure to AmE and the availability of better spell checkers may therefore lead to an even higher frequency of AmE spellings in Norwegian students' writing. Students' awareness of their use of varieties is arguably higher in Norway due to their overall higher proficiency in English compared to some other learner groups.

Thus, Norwegian students may recognize their use of American pronunciation features and therefore select an American spell checker because their teachers encourage them to be consistent in their use of a variety, as observed in both the student and teacher survey results. It is likely that these students use a higher number of American spellings than they would if they did not use an American spell checker, because the spell checker underlines or autocorrects the British spellings.

6 Conclusion

In this chapter, the limitations of the conducted research will be presented, following by a summary which revisits the research questions and attempt to answer these. Finally, potential implications of the findings are listed before suggestions for further research are provided.

6.1 Limitations

There are a number of limitations to both the surveys and corpus analysis. The most prominent limitation is that of investigating language use through the use of surveys. As mentioned, the results from the language test in the student survey could not be used to determine the students' actual use of varieties. The large discrepancies between these results and the students' expressed aims in the (non-)use of a variety did, however, indicate that Norwegian students use more American features than they are aware of, as supported by Rindal & Piercy's (2013) findings.

The number of students investigated in both the student survey and corpus analysis was relatively low, meaning that these students are not necessarily representative of Norwegian students. It should be noted that the TRAWL students come from a limited number of Norwegian upper secondary schools, meaning that several students have been taught by the same teachers who potentially influenced them to use American or British spellings.

Several questions in the teacher survey included the verb *encourage*. As discussed, this verb can be interpreted in different ways. Teachers can encourage students both consciously and unconsciously, and several teachers underlined the difference between the two types of encouragement. In general, questions in which teachers are asked to evaluate their own teaching will also lead to subjective answers. Therefore, it would have been preferable to observe teachers in the classroom, but making this type of data collection with 240 teachers would have been an extremely time-consuming task.

The questions concerning the encouragement of a *specific variety* should also be taken with a grain of salt. Many participants in both the teacher and student survey misinterpreted this question. Luckily, many of these misinterpretations were identified through reading the participants' responses to the follow-up questions, and their answers were adjusted accordingly. However, it is not clear whether others may have misinterpreted these questions

as well. In the student survey, the participants could tick off several boxes under the question "To what extent have your English teachers encouraged you to use a specific variety of pronunciation/spelling/vocabulary?". If they did, this was supposed to signify that they had been encouraged by different teachers to use different specific varieties. It is possible that some of those who ticked off both the box for AmE and the box for BrE meant that they were encouraged to choose between the two varieties. This type of response contradicts the preceding question, which could means that a higher number of students reported that their teachers promoted a specific variety than was the reality.

6.2 Summary

The first research question was formulated as follows: "Are there any differences between pronunciation, spelling and vocabulary with regard to the use of American features in Norwegian students' English language production?". The language test results indicated that Norwegian students use American vocabulary to a somewhat greater extent than American pronunciation and spelling. The students' expressed (non-)use of varieties, on the other hand, did not show any marked differences between pronunciation, spelling and vocabulary. Given the fact that it is difficult to compare the student survey findings with those of the corpus analysis and previous research, no conclusion will be drawn in response to the first research question. It should be mentioned, however, that a higher proportion of the students answered "I do not (attempt) to use a specific variety" to the question about pronunciation than to the questions about spelling and vocabulary.

To answer the second research question, which dealt with the influence Norwegian teachers of English have on students' use of English varieties, both the student and teacher survey data should be used. The surveys showed that there were more teachers and students who reported that they encourage or have been encouraged to use a variety consistently than there were teachers and students who said that they encourage or have been encouraged to use a specific variety. These results suggest that the native-speaker model is still used in Norwegian classrooms, but the traditional bias toward BrE is on the decrease. Furthermore, significant correlations were found between whether teachers encourage consistency or a specific variety on the one hand and their level of education, the institution they work in and their personal use of a variety on the other hand. For example, teachers who teach in primary school were more likely to encourage the use of a specific variety and less likely to encourage consistency

than were teachers who teach in high school. Moreover, teachers who used BrE themselves were more likely to promote a specific variety than were those who used AmE. In other words, the bias toward the BrE model is stronger in Norwegian primary schools than in Norwegian high schools.

The third research question focused on spelling, thus the corpus data analysis is most relevant to answer this question. There was a clear difference between the two subcorpora ICLE-NO and TRAWL with regard to the number of occurrences of American and British spellings and the number of learners using these spellings. In ICLE-NO, only 5 out of 45 lemmas were spelled more frequently in AmE than in BrE. In TRAWL, on the other hand, 21 out of 45 lemmas were spelled more frequently in AmE than in BrE. In the student survey test, the majority of the students selected the AmE spellings *center* and *analyze*, while the BrE spelling *colour* was selected more frequently than the American counterpart. This supports the finding from the corpus analysis that, overall, American spellings are more frequent than British spellings in Norwegian upper secondary school students' writing.

6.3 Implications

Two implications arise from the findings of the present thesis. First, there seems to be a need for explicit guidelines in the Norwegian national curriculum regarding the use of English varieties. Given the fact that the majority of the teachers encourage students to consistently use a variety of English, the native-speaker model is still prevalent in Norwegian classrooms even though most teachers allow for their students to select their preferred variety. The current national curriculum does not specify whether teachers should promote native-speaker models or, more specifically, whether students should be evaluated in terms of their level of consistency. It seems that both teachers and students would benefit from more precise instructions about whether students should be measured against a native-speaker norm.

Second, the corpus analysis using two subcorpora collected approximately 15 years apart, demonstrated the need for continually updating or compiling new corpora. Certain linguistic features can change very quickly, thus recent corpora are needed to better investigate current language use.

6.4 Further research

Further research is needed on the use of language varieties in Norway, especially in terms of other aspects than pronunciation, such as spelling, grammar and word combinations. Research using larger corpora, similar to that of Gilquin (2018) and Gonçalves et al. (2017), should be conducted on the situation in Norway regarding the use of American features. Even though the data extraction process is easier and gives fewer errors when using smaller subcorpora such as ICLE-NO and TRAWL than when using multi-million word corpora such as EFCAMDAT and GloWbE, the latter corpora could give more accurate representations of actual language use when investigating the frequency of lexical items.

Larsson (2012) measured Swedish students' level of consistency in their spelling. A similar study should also be conducted on Norwegian students' written English. The level of consistency can also be measured in other aspects of both written and oral English language production.

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