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Academic English reading proficiency at the university level: A Norwegian case study

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Abstract

In this paper the academic English reading proficiency of 578 Norwegian university students was quantitatively examined. Self-assessment items were used to measure reading proficiency in Norwegian and English and validated using an International English Language Testing System Academic Reading Module. The study found that about 30% of the respondents had serious difficulties reading English, while an additional 44% found it more difficult than reading in their first language. The main problems encountered were unfamiliar vocabulary and slow reading, while extracurricular readers and respondents who were able to guess word meanings from context had higher reading scores. Poor language proficiency was a problem for many, to the extent that they fell below the linguistic threshold level. The study showed that, contrary to expectations, Norwegian EFL instruction at upper-secondary schools fails to develop the academic English reading proficiency needed for higher education.

Keywords: reading, foreign language, English for academic purposes, linguistic threshold level

The inhabitants of the Nordic countries are known for their fluency in English, as reflected by the Norwegian, Danish, and Swedish scores in a 2004 eight-country comparative European survey of 16-year-olds' English proficiency (Bonnet, 2004). In Norway, English is even considered on the verge of becoming a second language (Graddol & Meinhof, 1999).

Several studies, however, have challenged the current Norwegian complacency about its citizens' English proficiency (Hellekjær, 2005, 2007a, 2007c, 2008; Lehmann, 1999). All of the studies point out that while most Norwegians may seem orally proficient in everyday situations, in the sense of possessing basic interpersonal communication skills (BICS; Cummins, 2000), this does not mean that they have developed the cognitive academic language proficiency (CALP) English needed for higher education or for occupational purposes. Hellekjær (2005), for instance, tested the academic English reading proficiency of 217 senior-level students attending the college preparatory branches of seven upper-secondary schools. Two thirds of the students did not achieve the Band 6 level on the International English Language Testing System (IELTS) Academic Reading Module. Band 6, on a scale from 1 to 9, is the minimum level for most universities who use the test for admission purposes. To make matters worse, some validation

studies question whether the Band 6 level is high enough (Feast, 2002; Lee & Greene, 2007). Furthermore, a large-scale survey of language use and needs in Norwegian export firms has shown that these firms lack staff with the advanced English proficiency needed for sales, negotiations, and networking (Hellekjær, 2007a).

This situation is unfortunate for a small language community with about 4.6 million inhabitants and an export-dependent economy. It causes difficulties in higher education, where the lack of textbooks in Norwegian means that students have to read English texts (Dahl, 1998; Hatlevik & Norgård, 2001), and where an increasing number of university and college courses are being taught in English (Hellekjær, 2007c). At the same time, Norwegian institutions of higher education take for granted that English as a foreign language (EFL) instruction in upper-secondary schools effectively prepares students for the use of English in higher education. This assumption is challenged in the present study.

The present study uses survey data from Hellekjær (2005) to investigate whether and to what extent Norwegian undergraduate and graduate students from three different faculties at the University of Oslo, Norway's largest and most prestigious university, are able to read and understand the English texts on their reading lists. The main goal is to find out to what extent the poor academic English reading scores found at the upper-secondary level (Hellekjær, 2005, 2008) persist in higher education. The study also examines the nature of student reading difficulties and variables that covary, positively or negatively, with reading proficiency.

Norwegians are reputed to be proficient in English. Not only is the English closely related to Norwegian, but Norwegians are also extensively exposed to the language through the media, and English has been a compulsory subject from the elementary to upper-secondary schools since 1959. It will therefore be argued that to the extent that academic English reading comprehension problems are found in Norway, these findings should be of interest to and relevant for other countries where English has a comparable or weaker position.

Defining Reading in a Second Language

In the present article, reading is understood as a more complex process than simply decoding the written words in a text. It is the active creation of meaning in an interactive process between information in a text and the knowledge of the reader (Bråten, 1997). Moreover, the focus is on reading in a second language (L2), and thus, it is useful to look very briefly at reading in an L2 as opposed to in an L1. Alderson (1984) summed up the issue as follows: "We do not, and indeed find it difficult to, draw a clear distinction between first and foreign language reading—in fact, it is not clear to what extent reading in a foreign language is different from reading in a first language" (p. xv). Indeed, much indicates that the reading process in an L2 is largely the same as in an L1, which is returned to in the construct definition below.

Subsequent research considered reading in an L2 as a process largely similar to that of reading in an L1 but one that is subject to "a number of additional constraints on reading and its development" (Grabe, 1999, p. 11). The current view, however, is that readers approach L2 reading with a dual-language system (Koda, 2005, 2007). For many, the resulting dual processing might even be an advantage in the L2. After all, an L2 reader will as often as not have

the advantage of having developed reading proficiency and a large sight vocabulary in the L1. In the *interdependence hypothesis*, Cummins (2000) argued that "academic proficiency transfers across languages such that students who have developed literacy in their first language will tend to make stronger progress in acquiring literacy in their second language" (p. 173). Bernhardt (2005) made a somewhat similar claim: "The question is not if language and literacy skills transfer. The question is how much transfers, under what conditions, and in which contexts" (p. 138). She went on to present a compensatory model of L2 reading that attempts to quantify the importance of L1 literacy, L2 language knowledge, and what she termed "unexplained variance." The last category comprises content, comprehension strategies, interest and motivation, and so on for L2 reading. Bernhardt argued that these interact and that a weakness in one area might be compensated for by knowledge from another (see also Stanovich, 1980). Koda (2007) developed this further, looking at the conditions under which this transfer might occur. A number of other issues in L2 reading could be mentioned here, as well as areas of further research, but this would be outside the scope of the present study, where the focus is on academic English reading comprehension in Norway.

Defining Academic Reading in an L2

The present study focuses on student respondents at the University of Oslo. It is often taken for granted that students at this level have developed the skills and strategies needed for academic reading in their L1 and that they should be able to transfer them to their reading of English as an L2 (Koda, 2005, 2007). However, the ability to do so depends on their L2 proficiency, also known as the *linguistic threshold level*. This means that if a reader's L2 proficiency falls below a certain level, the transfer of these skills and strategies to the L2 is prevented even though the student is a fluent reader in the L1 (Alderson, 2000; Bernhardt & Kamil, 1995; Carrell, 1991; Laufer, 1997). With particular relevance for academic reading, Alderson pointed out that "this linguistic threshold is not absolute but must vary from task to task: The more demanding the task, the higher the linguistic threshold" (p. 39). The following paragraphs will focus on the importance of language proficiency for fluent reading in further detail.

For the most part, current models of reading describe it as an interactive, but first and foremost lower-level (bottom-up) process that also draws upon higher-level (top-down) processes (e.g., Alderson, 2000; Bråten, 2007; Grabe, 1999, 2009; Koda, 2005). The core, bottom-up process involves recognizing the written words in the text along with relevant grammatical information. This hinges upon automatic word recognition, which in turn provides the basis for higher-level processing, that is, the creation of meaning in an interactive process between the information in the text being read, the reader's knowledge of the language and content, and his or her processing skills and strategies.

With a fluent reader, the process of word recognition proceeds effortlessly and rapidly in the working memory. When the reader encounters a problem, an unfamiliar word, for instance, the process may slow down or even stop entirely while the reader attempts to use "other knowledge sources, regardless of their level in the processing hierarchy" to deduce meaning (Stanovich, 1980, p. 3; see also Bernhardt, 2005). However, due to the limited processing capacity of the working memory, this will reduce reading speed and fluency (Bernhardt, 2005; Rayner & Pollatsek, 1989; Stanovich, 1980). This slowdown highlights the importance of a large sight

vocabulary for fluent reading, an area where one finds the main differences between reading in an L1 and in a foreign language. Grabe (1988) argued that the lack of "a massive receptive vocabulary that is rapidly, accurately and automatically processed . . . may be the greatest single impediment to the fluent reading by ESL students" (p. 63). Grabe (2009) repeated that for reading in a foreign language the "importance of word recognition is hard to overestimate" (p. 23). Alderson (2000) put this as follows: "Measures of a reader's vocabulary knowledge routinely correlate highly with measures of reading comprehension, and are often, indeed, the single best predictor of text comprehension" (p. 35). The importance of vocabulary knowledge notwithstanding, fluent reading in an academic context also requires the ability "to integrate text and background information appropriately and efficiently" (Grabe & Stoller, 2002, p. 28). This involves using background knowledge, that is, content knowledge and knowledge of the language and text types. It also involves other cognitive processes. The following focuses on the processes of metacognitive monitoring and reading strategies.

To start with background knowledge, research has shown that this not only influences what a reader remembers from a text, but also his or her understanding of the content (Alderson, 2000). Indeed, knowledge of the world in general and knowledge of the topic in question can, to a limited extent, support understanding when needed to compensate for language difficulties (Bernhardt, 2005; Stanovich, 1980). Nevertheless, in a study of students' academic English reading proficiency, Clapham (1996) found that "language proficiency appeared to have a much stronger effect on students' scores than did background knowledge. However, the comparative importance of the variables seemed to depend on the specificity of the tests" (p. 197). In other words, she found that poor language proficiency prevented her respondents from compensating for their lack of understanding by using a top-down strategy such as drawing on subject matter knowledge to guess the meaning of unknown words and phrases, or, if the specific topic was unfamiliar, to build up understanding from the text using a bottom-up strategy. By contrast, the linguistically proficient readers in her sample could "compensate for a certain lack of background knowledge by making full use of their language resources" (Clapham, p. 196).

Next, when faced with an apparent inconsistency in a text or in their understanding of the content, proficient readers can use metacognitive monitoring. This denotes the ability to monitor understanding across the text and use linguistic and/or content knowledge to repair comprehension (Alderson, 2000, p. 43). In fact, this is one of the main factors distinguishing good readers from poor readers (Alderson, 2000; Bråten, 2007; Bråten & Olaussen, 1997). Alderson argued that good readers are

> more sensitive to inconsistencies in the texts . . . and tend to use meaning-based cues to evaluate whether they have understood what they read whereas poor readers tend to use or over-rely on word-level cues, and to focus on intrasentential rather than intersentential consistency. (p. 41)

This focus on word-level cues and on intrasentential relations may explain the tendency of many poor readers of foreign languages to focus on and be hindered by unfamiliar vocabulary. More proficient readers, on the other hand, seem better able to decide when to ignore unfamiliar words and avoid unduly disrupting the reading process.

The last point in this brief overview concerns skills and strategy use. A strategy can be described as a set of abilities that is under the conscious control of the reader, while the use of skills is automatic. Depending upon the reader's proficiency, some of decisions will be made consciously, others automatically (e.g., Urquhart & Weir, 1998). Examples of either, depending on whether their use is based on a conscious decision or automatic, are rereading to sort out a discrepancy in meaning, guessing to sort out the meaning of unknown words, and ignoring unclear meanings if possible. Others are adjusting how one reads to the purpose of reading, such as skimming to get the main points of a text, searching to find particular information, and scanning to find a particular name or phrase. Further examples are engaging in careful reading at the local level to understand the syntactic structure of a sentence or clause and careful reading at the global level to comprehend the main ideas of a text.

Developing skills and using strategies are considered weak areas in L1 reading instruction in Norway. Bråten (1997) cited several studies claiming that too little emphasis is put on teaching Nordic students how to *read to learn*, which would entail instruction in reading as well as in learning strategies (Bråten, 2007; Bråten & Olaussen, 1997; Roe, 2006). Instead, reading instruction has an almost exclusive emphasis on what Urquhart and Weir (1998) called "careful reading at the global level for comprehension of the main ideas of a text" (p. 103). They attributed this to careful reading being "favoured by many educationalists . . . to the exclusion of all other types" (p. 103). They also argued that this focus on one type of reading is problematic because it prevents students from learning to adjust how they read to their purposes. Arguably, this is equally relevant for EFL instruction, given its strong, even excessive reliance on textbook reading.

To sum up, reading proficiency can be described as more than simply the ability to decode the written words in the text; it is also the active creation of meaning in an interactive process between information in a text and the reader's knowledge. For fluent reading in the L2, this to a large extent hinges upon language proficiency in general and vocabulary knowledge in particular.

In the following, the design of self-assessment items of academic English is related to this brief construct definition of reading in a foreign language (see Alderson, 2000, p. 119). Given the importance of language proficiency for reading, or as Alderson put it, that "second-language knowledge is more important than first-language abilities" (p. 39), the focus is on items that tap into language proficiency as a possible constraining factor in L2 reading.

Method

Research Design

The present quantitative study uses a quasi-experimental, one-group, posttest research design (see Shadish, Cook, & Campbell, 2002, pp. 106–107). This design does not allow hypotheses about causal relations because it does not allow for the satisfactory "identification and study of plausible threats to internal validity" needed to identify causal relations (Shadish, Cook, & Campbell, p. 105). The statistical analysis therefore concentrates on presenting mean scores, score and respondent distributions, and covariations between dependent and independent

variables. Nevertheless, in a few cases, the limitations of the research design are traversed to suggest possible causal relations.

Operationalization

The questionnaire used in this survey was in Norwegian, but an English version has been included in Appendix A. It comprises 74 items, of which the first 33 are about background factors, ranging from the courses the respondents are attending to their educational backgrounds and knowledge of English. These are followed by items tapping into academic reading comprehension in the L1 (Items 34–39) and in English (Items 40–45). The next items are indicators of independent variables expected to covary with reading comprehension, such as how they read (Items 46–50), how they handle unfamiliar vocabulary (Items 51–57), and about how much they read or to what extent they are exposed to English (Items 58–62). The last are items about the content of the respondents' upper-secondary level EFL instruction (Items 63–74). The data was analyzed using the Statistical Program for the Social Sciences. Not all of the items have been included in the analysis.

An important consideration when surveying university students is assuring a reasonably high reply rate. The questionnaire was therefore designed so that it could be filled out in about 10 minutes, during or after lectures. This meant using closed, multiple-choice items, and for reading proficiency, using self-assessment items instead of more time-consuming reading tests. However, it is important for validity that these "self-assessments are . . . based upon task content tied to students' situations as potential users of the language in question" (Bachman, 1990, p. 148). For the present study, this meant ensuring that the respondents had English texts on their reading lists and ensuring that the Items 34 to 45 clearly referred to their academic reading experiences.

With regard to operationalization—the development of the self-assessment items on reading proficiency—six items were created using seven-point Likert scales in which 1 indicates the maximum level of difficulty and 7, no difficulty at all. Comparable items addressed reading in the L1, Norwegian (Items 34 to 39). These items were intended to tap different levels of the reading process/construct described above. For English, Items 41 and 42 query respondents about difficulties with word recognition and syntactic understanding, areas crucial to lower-level processing. Next, Item 40 asks about reading speed as an indication of fluency. A high score would indicate quick and easy reading, and a low score, slow and laborious reading reflecting difficulties with word recognition and/or syntactic parsing and the need to use compensatory strategies. Difficulties finding coherence in a given text when reading (Item 43) or with dense presentation of information (Item 44) tap possible difficulties with text model formation. Finally, Item 45 focuses on content understanding.

Factorial analysis (principal axis factoring) confirmed that the six items for both languages loaded on the same latent variable. For Norwegian, the items explained 50% of the variance; for English, 73%. The Cronbach's alpha coefficients for the six items in the self-assessment indices were high, $\alpha = .84$ for Norwegian and $\alpha = .94$ for English ($N = 578$). These items could therefore be combined into additive indices and used as dependent variables in the statistical analysis. In the following, these are referred to as *Noindex* and *Enindex*.

Sample

When selecting the sample, the respondents' reading lists needed to include English texts, which precluded a random sample. Therefore, a number of courses at three faculties were selected that included respondents at the graduate and undergraduate levels. After checking their reading lists for English texts, the questionnaires were handed out during lectures. The respondents (578 in total) included 159 (28%) from the Faculty of Education, 266 (46%) from the Faculty of Mathematics and Natural Sciences, and 153 (26%) from the Faculty of Social Sciences. Of these, 363 (63%) were undergraduate students, and 215 (36%) were graduate students.

The reply rate (in this case, the proportion of students in the selected courses who completed the questionnaire in relation to the number of students attending the courses) is somewhat difficult to determine. First, no counts were made of the students present to allow for a comparison with the number of completed questionnaires. Second, only a few of the courses had compulsory attendance. This leaves two options. One is using the number of students who registered for examinations for the courses in question, which gives a reply rate of 51%. The other is using the number of students who completed examinations in these courses, which gives 65%.

Validity

One important issue is the external validity of the findings (i.e., whether the findings are valid for Norwegian students in general). Another is the construct validity of the self-assessment items used to measure reading proficiency (i.e., whether the scores based on these items give an accurate picture of the respondents' academic English reading proficiency).

With regard to external validity, the sample is from three faculties at a single university. Furthermore, it is not a representative sample because the respondents needed to have English texts on their reading lists, which precluded the random selection of courses or respondents. Moreover, the respondents surveyed were probably among the more active students because they were present at the lectures and because they composed about 65% of those who sat for examinations, but only 51% of those registered. Although firmer conclusions would require a representative sample, the respondents in this study arguably still provide a useful picture of the academic English reading proficiency of Norwegian university students.

Another issue is the construct validity of the self-assessment items used in the additive indices and whether the scores reflect reading proficiency in English and Norwegian. A number of studies show that self-assessment can provide reliable and valid pictures of skills and/or levels of proficiency in low-stakes contexts (Bachman & Palmer, 1989; Oscarson, 1997). Self-assessment has also been confirmed as a predicator of reading proficiency in a number of validation studies (Brantmeier & Vanderplank, 2008; Marian, Blumenfeld, & Kaushanskaya, 2007; Ross, 1998). Furthermore, the validity of the self-assessment items for reading in English was checked in a separate validation study (see Hellekjær, 2005, pp. 163–182). In this study, 53 university students filled in a questionnaire comprising the above mentioned questionnaire and self-assessment items in addition to a reading test: an IELTS Academic Reading Module. The correlation between the additive index scores for English and an index based on the IELTS scores was reasonably high, $r = .72$, $p < .01$, $N = 53$, which reflects Oscarson's findings on self-

assessment. Therefore, without entering into further discussion of the construct validity of the IELTS tests (e.g., Feast, 2002; Fulcher, 1999; Lee & Greene, 2007) or other aspects of construct validity (Messick, 1995, 1996), on the basis of this validation study in particular, the scores from the self-assessment items in the present study arguably provide a useful and valid picture of the respondents' academic English reading proficiency.

Results

Reading Difficulty

Comparing the mean scores for the additive indices Enindex and Noindex is one way of examining whether the respondents experienced the reading of texts and textbooks in English as more difficult than reading similar texts and textbooks in Norwegian. The six items composing the indices use 7-point Likert scales, where 1 indicates a high level of difficulty when reading and 7, no difficulty. The mean score for Enindex is 4.6 (N = 576, SD = 1.1) and for Noindex, 5.7 (N = 572, SD = 0.7). Not only are the scores for Enindex clearly lower, the standard deviation also indicates a greater variation between the readers with regard to proficiency.

Norwegian students having greater difficulties reading English than Norwegian textbooks is only to be expected. The key questions are, at which score level are their problems serious, and how many students experience these problems. One way of examining this is by looking at the difference between the scores in the two languages for the individual respondents.

Table 1. *Distribution of differences in scores for reading in Norwegian (Noindex) and in English (Enindex)*

Difference in scores for reading in Norwegian and English	Number of respondents	Percentage
-3	2	0.4
-2	3	0.5
-1	12	2
0	113	20
1	250	44
2	130	23
3	49	9
4	6	1
5	3	0.5
Total	568	100

Note. Values below 0 indicate that the respondents found reading English easier than reading Norwegian, and those above 0 indicate that they found reading English more difficult than reading Norwegian. The results have been recoded for display purposes; values from the lowest to -2.49 are counted as -3, from -2.5 to -1.49 as -2, etc.

As can be seen in Table 1, only 130 respondents (23%) have scores that indicate that they found reading in English easier than or as easy as in Norwegian. About a third, 188 (33%), found English more difficult, with a gap between the languages of two points or more.

The next question is whether a cut-off point can be determined on the 7-point scale where reading proficiency scores fall to a level that indicates serious reading difficulties. This requires comparison with actual reading test scores, which was done in a separate validation survey where, as mentioned above, the self-assessment scores were compared with those from an IELTS Academic Reading Module (Hellekjær, 2005, pp. 163–182). The comparison showed that a self-assessment score of 4 or below corresponded with IELTS test scores below the Band 6 level. For the Noindex scores, this means that 20 respondents (3%) fall below this level, while for Enindex, the number is 185 respondents (32%). In other words, at least 32% of the 578 respondents in this study may have considerable difficulties reading academic English texts. A further 44% indicated that they find reading in English more difficult than in Norwegian, but to a lesser extent.

The next issue is the nature of the difficulties experienced. In Table 2, the mean scores for items in the additive indices are displayed. Norwegian was not an L1 for 45 students, and they have been excluded from the calculations.

Table 2. *Comparison of reading difficulties between English and Norwegian for items in the Noindex and Enindex indices*

	Noindex (Items 34–39)		Enindex (Items 40–45)	
Item	*M*	*SD*	*M*	*SD*
• Indicate on the scale from 1 to 7 how quickly you read the texts on your reading lists	5.4	1.2	4.3	1.4
• Indicate on the scale from 1 to 7 how many words you do not understand in the texts on your reading lists.	5.9	0.8	4.5	1.1
• Indicate on the scale from 1 to 7 to what extent you find the sentences in the texts difficult to understand.	5.8	1.0	4.6	1.2
• Indicate on the scale from 1 to 7 to what extent you find the texts coherent when reading.	5.8	0.9	4.7	1.3
• Indicate on the scale from 1 to 7 to what degree the information in the texts is so densely presented that it hinders your understanding of the content.	5.4	1.0	4.6	1.3
• Indicate on the scale from 1 to 7 to what extent you find the content of the texts understandable.	5.8	0.8	4.9	1.2

Interpreting the differences in the mean scores for equivalent items in Norwegian and English requires some caution. Nevertheless, the low mean scores for reading speed indicate that this is a problem in both languages. In addition, the gap between the mean values with regard to vocabulary indicates that unfamiliar vocabulary is a key source of difficulty.

Another way of examining the extent to which language or reading skills and strategies impact scores is to examine the covariance between the scores for Enindex and Noindex. If reading skills and strategies are paramount, that is, if a respondent reads well in Norwegian, he or she should also read well in English, giving a high correlation. A low correlation, on the other hand, would indicate interference from language difficulties. That the latter is the case is indicated by a

moderate bivariate correlation between reading in Norwegian and in English (as measured by Noindex and Enindex) of $r = .43$, $p < .01$, $N = 528$. The 45 respondents for whom Norwegian was not an L1 were excluded from the calculations.

The next issue concerns whether any of the respondents fall below the linguistic threshold level, that is, have a large gap between their scores, with high scores for the L1 but low ones for English. This can imply that their level of English proficiency is so poor that it prevents them from transferring their L1 reading processing skills and strategies to English. These respondents manifest high scores for reading in Norwegian compared to low scores for English.

Crosstabulating the Noindex and Engindex scores (see Table 3) shows that that 217 (41%) of respondents have high scores in Norwegian (5 or better), but low scores in English (4 or less), which is indicative of their falling below the linguistic threshold level. The numbers of these respondents are highlighted, in the upper right-hand section of the table. In other words, while these respondents are quite proficient readers of Norwegian, they fall below the linguistic threshold level when reading in English. The situation is one in which a fluent reader in the L1 has an L2 proficiency that is so poor that the transfer of skills and strategies from the L1 to the L2 is hindered (Alderson, 2000; Bernhardt & Kamil, 1995; Carrell, 1991; Laufer, 1997).

Table 3. *Crosstabulated Noindex and Engindex scores*

	Noindex score						Number of
Engindex score	2	3	4	5	6	7	respondents
2	0	2	3	8	6	1	20
3	1	2	6	37	27	1	74
4	0	1	9	62	70	5	147
5	0	1	5	58	123	11	198
6	1	0	0	5	54	22	82
7	0	0	0	0	1	6	7
Number of respondents	2	6	23	170	281	46	528

Note. The numbers of respondents with high Noindex scores (5 or better) and low Engindex scores (4 or less), which is indicative of falling below the linguistic threshold level, are highlighted at the upper right of the table. $N = 528$.

Unfamiliar Vocabulary

Unfamiliar words are considered a key challenge when reading in a foreign language. This makes their frequency, as well as the strategies respondents use in dealing with them, important issues. A number of items asking how often the respondents use various strategies to handle unfamiliar words on a scale from 1 (*never*) to 7 (*frequently*) were therefore included. One item was on the use of dictionaries. Others asked whether the respondents guessed the meaning of a word on the basis of their knowledge of the subject or on the basis of context and whether they ask the lecturer or fellow students, ignore the word or words and keep on reading, or give up reading entirely.

As shown in Table 4, several word-handling strategies either correlate negatively with Enindex or are not significant. Such strategies are dictionary use or asking the lecturer or fellow students, which are all strategies that seriously disrupt the reading process. The highest negative correlation is for the item where students indicate how often they actually give up reading due to unknown words with $r = -.5$ ($p < .01$). This can be contrasted to the positive correlations for the compensatory strategies of guessing meanings on the basis of subject matter knowledge, $r = .17$ ($p < .01$), and in particular for guessing from context, $r = .27$ ($p < .01$). However, Grabe (2009) mentioned that "information provided by the context is usually not very accurate and further confirmation is needed" (p. 28). Furthermore, he said that "strong context use . . . is typically an indicator of a weak reader, not a strong reader" (Grabe, 2009, p. 29). This provides two interpretations of the data. With regard to guessing on the basis of context or subject knowledge, the respondents who indicated that they do so frequently might have higher levels of English proficiency. This means that they have less trouble with unfamiliar words and might at times even be able to deduce word meanings from context. Alternatively, the correlations might indicate that they are proficient enough to have less need to disrupt the reading process to find the meanings of words, such as consulting a dictionary or asking other students for help. It might well be that the items on the handling of unfamiliar words are indicators of language proficiency more than they are indicators of word-handling strategies. Whatever the case, vocabulary knowledge is important for fluent reading, as indicated by the multiple regression analysis for these variables with Enindex giving an explained variance of $R^2 = .32$. (See the regression analysis table in Appendix B). This means that these variables together account for 32% of the variation in Enindex.

Table 4. *Bivariate correlations between Enindex and ways of handling unfamiliar words when reading* ($N = 527$)

Independent variable	*r*
Dictionary use	-.17*
Guess meaning of word using subject knowledge	.17*
Guess meaning of word using context	.27*
Ask lecturer	-.01
Ask other students	-.11*
Keep on reading	.04
Give up reading	-.50*

Note. *$p < .01$.

Study Experience

When discussing student reading of English textbooks, it is reasonable to expect reading difficulty to decrease with study experience, either because of improved content knowledge or because students' English proficiency improves over time due to their reading of English texts on their reading lists. The survey therefore included an item asking how many European Credit Transfer System (ECTS) study credits respondents had completed at the time of the survey. Numbers varied from 131 (23%) with no Norwegian credits, 58 (10%) with 2 to 10 credits, and 260 (45%) with 40 or more. When this was correlated with the additive indices Enindex and Noindex, no significant or meaningful correlations could be found for the group as a whole. This means that the data in this survey does not indicate that student reading proficiency improves with study experience. Closer analysis, however, showed that for respondents at the Faculty of

Mathematics and Natural Sciences, there was a low, positive correlation indicating improvement in reading proficiency in English with study experience, $r = .11$, $p = .05$, $n = 349$, but not in Norwegian. By contrast, at the faculties of Education and Social Sciences, no significant correlation was found for English but was found for reading in Norwegian, $r = .20$, $p = .05$, $n = 222$.

For English, one interpretation of these low or nonexistent correlations is that although the students' reading proficiency does improve over time, they notice little improvement due to the increasing difficulty of the subjects that they are studying. Another is that they find reading the texts and textbooks in question so difficult that they do not manage to acquire new terms and expressions from context. A third is that the number of English texts on the reading lists determines improvement, that is, only respondents who read a large number of English texts experience improvement. Finally, it might be that students use inefficient reading and learning strategies. Bråten and Olaussen (1997), for instance, found that many Norwegian students use inefficient reading and learning strategies and at times only succeed through sheer effort. Furthermore, Fjeldbraaten (1999) found that changing how students read and study is extremely difficult. Although these findings concern reading in Norwegian, the same may reasonably be assumed for the reading of English textbooks.

Exposure to English

Norwegians receive extensive exposure to English through the media, and media exposure and reading habits were expected to covary positively with reading proficiency. Items about student reading habits and media use were therefore included in the survey (Items 58–62). With regard to media exposure (Item 62), how frequently students watched TV programs, films, and videos without subtitling correlated positively with Enindex, $r = .3$, $p < .01$, $N = 574$.

For reading (Item 58), respondents were asked to indicate how many English novels they had read on a seven-point Likert scale from 1 (*none*) to 7 (*51 or more*). Likewise, students were asked how often they read English magazines (Item 60) on a scale from 1 (*never*) to 7 (*several times daily*) and were posed a similar question on reading English on the Internet (Item 61). The answers show that a large number of students read extensively. About half had read 16 novels or more, and of these, 108 (18%) had read 51 or more. Not unexpectedly, bivariate correlation analysis showed that this variable has fairly high and positive correlation with Enindex, $r = .47$, $p < .01$, $N = 573$. Furthermore, multiple regression analysis of the variables for reading novels, magazines, and periodicals and reading on the Internet with Enindex as a dependent variable showed that these three together (Items 58, 60, 61) have an explained variance of $R^2 = .29$; that is, they account for almost 30% of the variation in the scores.

Unsurprisingly, the students who read English extensively mastered the reading of English textbooks better than those who did not. One explanation is that these respondents have, through extensive reading, acquired a vocabulary adequate to the task of mastering the language in their textbooks; in short, they have better language skills. They may also have developed efficient processing skills and strategies through practice and/or are better able to transfer them from their L1 due to their English proficiency. The respondents who read extensively may also be select in that they come from backgrounds where reading and literacy are highly valued. In any case,

extracurricular reading is the most important predicator of academic English reading proficiency found in this study, while media exposure is less important.

EFL Instruction

It is taken for granted that Norwegian upper-secondary EFL instruction develops the reading proficiency required to master the reading of English texts and textbooks in higher education. This survey shows that a large number of respondents have difficulties reading English texts and textbooks, which indicates that this assumption is unfounded. Before drawing any further conclusions about the quality of EFL instruction, however, is it the students who have the fewest hours of English instruction who have the most serious reading difficulties? If not, this indicates that the difficulties are due to an insufficient number of lessons, rather than to the content and quality of the instruction itself.

The Norwegian respondents in this sample had EFL instruction from the third to ninth grade in elementary and lower-secondary school. At the upper-secondary level, the students in the branches that qualify for higher education have to follow a compulsory EFL course of five lessons per week in their 1st year. Students can then opt for an elective course of three or five lessons per week in the 2nd year, or a 2-year course of five lessons per week known as the advanced English course. Because the students indicated which English courses they had completed (Item 23), it is possible to see whether additional hours of teaching in upper-secondary school covary positively with higher reading scores.

To examine this, an independent variable *t* test was used to compare the mean Enindex scores of the students with only 1 year of upper-secondary EFL instruction with those who had completed the advanced English course. A large difference in the reading scores in favor of the advanced English course would indicate that the number of teaching hours is important, whereas little or no difference would indicate that the content and quality of teaching is important. The *t* test showed that the mean Enindex score for the foundation course respondents on a 7-point scale was 4.4 ($N = 195$) and 4.8 ($N = 167$) for the advanced English course, a difference that is statistically significant ($p < .01$). However, this low difference indicates that it is not the number of teaching hours, but most probably the content and quality of EFL teaching in general and the lack of reading practice in particular that explains the reading difficulties that were found (Hellekjær, 2005, 2008). This outcome obviously paints a highly unflattering picture of the efficacy of the advanced English course as preparation for higher education. Similar results were found in a separate study where senior upper-secondary students were tested with the IELTS Academic Reading Module (Hellekjær, 2005, 2008). This lack of improvement is particularly serious given the considerable input of five lessons per week for 2 school years on top of a compulsory, 1st-year English course.

Discussion

One of the goals of the present study was to see whether and to what extent the academic English reading difficulties found at the upper-secondary level persisted in higher education. Whereas 66% of the upper-secondary students did not achieve the Band 6 level on the IELTS Academic

Reading Module (Hellekjær, 2005, 2008), the present study has found that about 33% of the university-level respondents have comparable reading difficulties (see Table 1). An additional 44% percent of the 578 respondents experienced less severe difficulties.

With regard to the nature of these difficulties, slow reading and unfamiliar vocabulary were the most noteworthy problems (Table 2). The respondents' word handling strategies were also particularly important. Items reflecting that the respondents avoided disrupting the reading process, whether this was due to higher language proficiency or due to their being able guess or deduce word meanings from context, had positive correlations with reading scores (Table 4). By contrast, items indicating that the respondents frequently disrupted the reading process to use dictionaries or ask others, sometimes even giving up reading altogether, had negative correlations. Again, this might reflect poor language proficiency or a tendency to dwell on the meanings of unfamiliar words. Language problems contributed to the reported difficulties, to the extent that many fluent L1 readers fell below the linguistic threshold level when reading English. Rather unexpectedly, study experience did not correlate positively with reading scores, meaning that reading proficiency does not necessarily improve over time. However, the respondents' total exposure to English through reading and the media did correlate positively, extracurricular reading in particular. By contrast, respondents who had completed the advanced elective English course in upper-secondary school did not read significantly better than other respondents, which is a sign of deficiencies in the content and quality of EFL instruction in Norway. This finding, in addition to the number of respondents with reading difficulties, indicates that the current assumption that Norwegian EFL instruction develops the academic reading proficiency needed for higher education is highly questionable. Furthermore, considering that that Norwegian and English are closely related, that Norway has had compulsory EFL instruction for all in schools since 1959, that media exposure to English is extensive, and that all parties consider proficiency in English highly important (e.g., Kunnskapsdepartementet, 2008), the reasons are ample for arguing the need for a critical examination of Norwegian reading instruction, in English as well as in the L1.

To start with the latter, reading instruction in the L1 has been criticized for being overly focused on teaching decoding skills and for neglecting the teaching of reading to learn (Bråten, 1997; Bråten & Olaussen, 1998). This has been confirmed by recent surveys of the Organization for Economic Cooperation and Development Program for International Student Assessment (PISA) that have repeatedly shown that Norwegian 15-year-olds do not score well on L1 reading proficiency (Kjærnsli, 2007; Kjærnsli, Lie, Olsen, Roe, & Turmoe, 2004; Lie, Kjærnsli, Roe, & Turmoe, 2001). Other studies have shown that these problems persist in higher education, where students tend to use inefficient ways of reading to learn, are unable to adjust how they read to the reading purpose, and are difficult to "retrain" with regard to reading for information (Fjeldbraaten, 1999). In other words, ample research has shown the need to improve reading instruction in Norwegian, above all, when it comes to reading to learn. To what extent these deficiencies transfer to reading in English is an issue that requires a separate study.

Returning to the teaching of reading in Norwegian EFL instruction, a closer examination of EFL syllabi showed that the number of pages of required reading was quite small, even for the elective advanced English course in upper-secondary school (Hellekjær, 2005). This and other studies confirmed that students at this level read very little in general. In fact, data from two

ongoing, qualitative Master's studies indicate that the majority of EFL teachers at the lower- and upper-secondary levels are largely unaware of the need to teach different ways of reading, such as skimming and scanning, in addition to reading for detail (Bakke, in progress; Faye-Schøll, 2009).

As indicated by the data in Table 4, vocabulary and word-handling strategies are another problem. Items indicating that respondents avoid disrupting the reading process, due to language proficiency, the ability to guess word meaning from context, or the ability to ignore these words and continue reading, correlate positively with reading scores. By comparison, there are negative or non-significant correlations for items indicating that readers interrupt the reading process when faced with an unfamiliar word. Although this is probably due to poor language proficiency, the problems may be exacerbated by textbook reading in the EFL classroom due to its strong focus on reading for detail (Faye-Schøll, 2009; Urquhart & Weir, 1998), to the extent that students develop counterproductive reading strategies (Hellekjær, 1996). This was also reflected in other surveys in Hellekjær (2005), which showed that many upper-secondary and university-level respondents, when answering an IELTS Academic Reading Module, tended to read slowly and carefully and for detail. Therefore, a large number did not manage to answer more than half of the test items, even though most of the answers actually given were correct. In other words, this and other studies have not only shown the assumption that Norwegian EFL instruction prepares students for higher education to be unfounded, but they also highlight serious quality issues in the content and teaching of the subject. As Grabe (2009) put it, Norwegian EFL instruction needs to recognize that "there are no simple shortcuts to becoming a good L2 reader" (p. 58). Grabe added the following:

> The need to integrate many processing skills, along with considerable linguistic knowledge, indicates that reading an extensive amount of material over a long period of time is the only way to build mastery of the required skills for reading comprehension. Sadly, many reading curricula lack this very component—lots of reading time on task. The major implication for curriculum development from a well thought out theory of reading comprehension is that the development of L2 reading abilities is a long and complex process. (p. 57)

Conclusion

Norway has recently introduced a new curriculum with a revised EFL syllabus, and the syllabus has introduced a number of much needed changes. One is an increased focus on reading and teaching reading strategies from elementary school up and the need to be able to adjust how one reads to the reading purpose. Next is an increased focus on vocabulary learning. And finally, the role of EFL instruction in preparing for higher education is more clearly recognized. However, two Master's studies show that the new syllabus will not, by itself, be enough to bring about a change in current practices (Bakke, in progress; Faye-Schøll, 2009). Their main finding, based on interview data, is that while most EFL teachers consider reading important, the majority do little to teach reading or reading strategies. Indeed, many teachers have no idea what reading skills and strategies are or what is meant by being able to adjust how one reads to the reading purpose (Faye-Schøll, 2009). Nor do they do much reading themselves beyond the EFL

textbooks, with the exception of reading on the Internet.

Therefore, the main implication of the present and previous studies and the ongoing Master's studies is that little will happen to improve the teaching of academic English reading proficiency in Norwegian schools unless the educational authorities actively pursue this goal. One course of action would be providing in-service courses on the teaching of reading and vocabulary, with emphasis on the need for extensive reading from the elementary level onwards. Because current practices for teaching reading are strongly established, national reading tests in English must be introduced at the lower- and upper-secondary schools to provide sufficient impetus for change. This is because there is little reason to expect that teachers will teach reading strategies, that schools will invest in reading material, or that students will be willing to read more unless they are "encouraged" to do so.

Last but not least, to what extent are the findings presented in this article relevant for other non-English-speaking countries? Arguably, in countries where EFL instruction is heavily textbook dependent, with little emphasis on extensive reading, where vocabulary development is not emphasized, and where systematic instruction in reading and learning strategies is neglected, the findings of this study should be highly relevant. Note that Norwegian 16-year-olds did well in a comparative study of English proficiency in eight European countries (Bonnet, 2004). This could, in fact, imply that the inadequate level of academic English reading proficiency displayed by the Norwegian respondents in the present study is better than the levels that are found in most other non-English-speaking countries.

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Appendix A

Questionnaire

This is the English translation of the questionnaire used in the survey. The survey version was in Norwegian.

1. **[No. _____]**
2. Which subject(s) are you studying at present?
3. In which department and faculty are you studying?
4. At which university/college are you studying?

SOME QUESTIONS ABOUT YOUR BACKGROUND

5. ☐ Male ☐ Female

6. Is Norwegian your first language? ☐ Yes ☐ No

7. If no to 6, please state your first language _____

8. In which Norwegian county (fylke) did you graduate from upper-secondary school (or obtain a comparable education)?

9. If you graduated from upper-secondary school or obtained a comparable education abroad, where was it?

10. What year did you graduate from upper-secondary school or obtain a comparable education?

11. Which of these advanced subjects did you finish in your final year at upper-secondary school, in Norway or abroad? (You may choose several answers.)

12. ☐ Mathematics	16 ☐ Social studies	20. ☐ French
13. ☐ Physics	17. ☐ Economics	21. ☐ German
14. ☐ Chemistry	18. ☐ Business economics	22. ☐ Other:
15. ☐ Biology	19. ☐ English	

If none of these categories are relevant, please describe your course of study:

SOME QUESTIONS ABOUT YOUR BACKGROUND IN ENGLISH

23. Indicate your most advanced upper-secondary English course. (Give only one answer.)
First-year foundation course
☐ **5**-0-0 Foundation (also **2+2+1—**i.e., vocational English with the supplementary course)

Second year

☐ 5-**3**-0 or 5-**5**-0 General English or the first year of the advanced English course

Third year
☐ 5-5-**5** VK2 (the advanced English course)

If none of these categories are relevant, please indicate the course:

24. In what grade did you complete your most advanced upper-secondary course?
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6

25. How interested were you in English as a school subject?

Not interested at all						Very interested
☐ 1	☐2	☐3	☐4	☐5	☐ 6	☐7

Did you receive any other form of instruction in English at upper-secondary school? (You may give several answers.)

26. ☐ Instruction in a non-language subject, for example, history or religion in English.

27. ☐ Schooling in an English-speaking country (6 months or more)

28. ☐ Attended an English-language upper-secondary school, such as International Baccalaureate.

QUESTIONS ABOUT YOUR STUDIES

29. Except for Ex. Phil. or other preparatory courses, please indicate how many credits you are taking (1 Norwegian = 3 ECTS). (A foundation course equals 20 Norwegian credits = 60 ECTS.)

☐ None ☐ 11–20 ☐ 31–40
☐ 2–10 ☐ 21–30 ☐ 40 or more

30. Were any of these credits in the subject English? ☐Yes ☐No

31. If you answered **yes** to **30**, please indicate the number of credits.

☐ 2–10 ☐21–30 ☐ 40 or more
☐11–20 ☐ 31–40

32. How much of the **Norwegian** course material on your reading list have you read so far?

☐ None ☐ Very little **(<10%)** ☐ Some **(10–39%)**
☐ About half **(40–59%)** ☐ Most **(60–99%)** ☐ All **(100%)**

33. How much of the **English** course material on your reading list have you read so far?

☐ None ☐ Very little **(<10%)** ☐ Some **(10–39%)**
☐ About half **(40–59%)** ☐ Most **(60–99%)** ☐ All **(100%)**

QUESTIONS ABOUT YOUR READING OF NORWEGIAN COURSE MATERIAL
(Even if you have no Norwegian texts on your reading list this year, please base your answers to the questions about reading on your experience from other courses and subjects.)

34. How **quickly** do you **read Norwegian** texts on your reading lists? (Give only one answer.)

Very slowly Quickly and easily

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

35. Indicate on the scale from 1 to 7 **how many words you do not understand** in the **Norwegian** texts on your reading lists.

All of the words are unfamiliar All of the words are familiar

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

36. Indicate on the scale from 1 to 7 to what extent you find the **sentences in the Norwegian texts** difficult to understand.

All of the sentences are impossible to understand All of the sentences are understandable

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

37. Indicate on the scale from 1 to 7 to what extent you **find the Norwegian texts coherent** when reading.

No coherence at all All of the texts are coherent

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

38. Indicate on the scale from 1 to 7 to what extent **information in the Norwegian texts is so densely presented** that it hinders your understanding of the content.

Impossible to understand Everything is understandable

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

39. Indicate on the scale from 1 to 7 to what extent you find **the content of the Norwegian texts understandable**.

Impossible to understand Everything is understandable

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

QUESTIONS ABOUT YOUR READING OF ENGLISH COURSE MATERIAL

40. How **quickly** do you **read English** texts on your reading lists? (Give only one answer.)

Very slowly Quickly and easily

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

41. Indicate on the scale from 1 to 7 **how many words you do not understand** in the **English** texts on your reading lists.

All of the words are unfamiliar All of the words are familiar

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

42. Indicate on the scale from 1 to 7 to what extent you find the **sentences in the English texts** difficult to understand.

All of the sentences are impossible to understand All of the sentences are understandable

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

43. Indicate on the scale from 1 to 7 to what extent you **find the English texts coherent** when reading.

No coherence at all All of the texts are coherent

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

44. Indicate on the scale from 1 to 7 to what extent **information in the English texts is so densely presented** that it hinders your understanding of the content.

Impossible to understand Everything is understandable

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

45. Indicate on the scale from 1 to 7 to what extent you find **the content of the English texts understandable**.

Impossible to understand — Everything is understandable

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

QUESTIONS ABOUT HOW YOU READ

Indicate on the scale to what extent you use the ways of reading described in the questions below when reading your English course material. (Give only one answer per question)

46. I read straight through the text.

Little used — Much used

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

47. I read through it first before reading carefully.

Little used — Much used

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

48. I underline or note down key words or important points.

Little used — Much used

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

49. I sum up what I have read, in my mind or in writing.

Little used — Much used

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

50. I pause frequently when reading to think about what I have read.

Little used — Much used

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

If you feel that none of these categories are relevant or are only partly relevant, please explain in your own words how you experience the reading of English course material. (Feel free to use the other side of the page.)

SOME QUESTIONS ABOUT HOW YOU HANDLE UNFAMILIAR ENGLISH WORDS

What do you usually do when you encounter unfamiliar words when reading? Indicate on the scale how often you use the proposed solution. (Give only one answer per question.)

51. Consult a dictionary

Never — Very often

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

52. Guess the meaning of the word using my knowledge of the subject.

Never — Very often

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

53. Guess the meaning of the word from the reading context.

Never — Very often

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

54. Ask the lecturer.

Never Very often
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

55. Ask other students.

Never Very often
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

56. Continue reading.

Never Very often
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

57. Give up reading.

Never Very often
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

If no category is suitable, describe in your own words what you do to find the meanings of unfamiliar words. (Feel free to use the other side of the page.)

QUESTIONS ABOUT YOUR READING HABITS

58. How many English novels have you read, at school or on your own?

None 1-5 6-10 11-15 16-20 21-50 51 or more
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

59. How often do you read English books? (Give only one answer)

Never Sometimes Monthly Weekly Several times weekly Daily Several hours daily
☐1 ☐2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐7

60. How often do you read English periodicals, magazines, or newspapers? (Give only one answer.)

Never Sometimes Monthly Weekly Several times weekly Daily Several hours daily
☐1 ☐2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐7

61. How often do you read English on the Internet? (Give only one answer.)

Never Sometimes Monthly Weekly Several times weekly Daily Several hours daily
☐1 ☐2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐7

62. How often do you watch English movies, videos, or TV programs without Norwegian subtitling?

Never Sometimes Monthly Weekly Several times weekly Daily Several hours daily
☐1 ☐2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐7

QUESTIONS ABOUT YOUR ENGLISH CLASSES AT UPPER SECONDARY SCHOOL

What were the main activities in your upper-secondary English classes? Answer each question by ticking on the scale from 1 (never) to 7 (every lesson). (Give only one answer per question.)

63. Working with translation.

Never Every lesson

☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

64. Working with vocabulary and vocabulary tasks.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

65. Working with grammar.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

66. Working with oral activities.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

67. Working with writing tasks/writing texts.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

68. Working with literature and background topics.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

69. Reading and searching for information on the Internet.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

70. Writing e-mail or chatting on the Internet.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

71. Reading the textbook.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

72. Reading novels in class sets.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

73. Reading self-selected novels.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

74. Reading English periodicals, magazines and newspapers.
Never Every lesson
☐ 1 ☐2 ☐3 ☐4 ☐5 ☐ 6 ☐7

If activities from your English class have not been mentioned, please describe them in your own words below. (Feel free to use the other side of the page.)

75. **Other comments:** If you have any comments on the questionnaire or want to add something in connection with this survey, please write it below. (Feel free to use the other side of the page.)

Appendix B

Multiple Regression Table

Variable	*B*	*SEB*	ß
Engindex (dependent variable)	5.16	0.26	
Dictionary use	-0.06	0.02	-.10*
Guess from subject knowledge	-0.02	0.03	-.03
Guess from context	0.17	0.04	.22*
Ask lecturer	0.03	0.04	.03
Ask students	-0.06	0.02	-.10*
Continue reading	-0.06	0.02	-.10*
Give up reading	-0.38	0.03	-.45*

About the Author

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