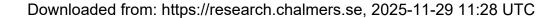


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English reading expectations in Swedish higher education

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ABSTRACT

In higher education, students' learning conditions are shaped in no small part by the reading they are expected to do. This study documents the scope of English reading assigned in Swedishmedium undergraduate education. Although instruction is conducted in Swedish, students are nevertheless frequently required to engage with English texts, a practice long established in non-Anglophone contexts but not previously mapped in detail. Drawing on an extensive sample of reading lists from 2,225 Swedish-medium undergraduate courses across major disciplines, the study shows that students are often expected to manage substantial volumes of English reading, frequently without clear alignment to course credits or realistic consideration of workload. There is also considerable variation in academic reading expectations, reflected for example in the weekly English reading load both across and within disciplines. The study is descriptive by design: establishing a baseline of English reading load is a necessary first step toward theorizing reading practices in higher education and preparing interventions. At the same time, the results highlight the need for reflection and adjustment: ensuring that English reading demands are transparent, purposeful, and balanced across the curriculum will make them more manageable for students and support a more effective use of English texts in Swedish higher education.

The seemingly unstoppable spread of English as a *lingua franca* has affected higher education (HE) in multiple ways. In addition to listening to lectures and engaging in seminars in English when English is the medium of instruction, many students in HE encounter English through English texts assigned to them by teachers (books, articles, reports, novels, standards, manuals etc.); this frequently happens also when the instruction and classroom interaction is in the local language. However, many students who are compelled to read academic texts in foreign or second language (L2) English purportedly struggle with their reading (e.g., Eriksson, 2023; Grabe & Zhang, 2013; Hellekjær, 2009; Jin et al., 2024; Malmström et al., 2025; Shepard & Morrison, 2021).

Given these reported challenges of reading in L2 English, it is important to examine more closely the use of English texts in higher education, particularly when instruction is conducted in the local language since, in such cases, students may face additional difficulties due to the conflicting linguistic demands of being taught in one language while reading in another. Such situations have been called *parallel language* settings (e.g., Bolton & Kuteeva, 2012; Gregersen, 2014; Holmen, 2017). Although this practice has long been documented in educational contexts as diverse as Thailand (Ward, 2001), Taiwan (Huang & Wible, 2024) and Sweden (Eriksson, 2023), it remains a poorly understood aspect of HE.

This study examines the practice of assigning English texts in Swedish-medium undergraduate education. Previous research suggests that English texts are a common occurrence in Swedish HE (Bolton & Kuteeva, 2012; Malmström & Pecorari, 2022; Salö &

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Josephson, 2014). However, the full scope of this phenomenon, and consequently the extent of the reading challenge it poses for students, remains unclear. Based on an extensive sample of reading lists collected from several thousand undergraduate Swedish-medium courses representing major disciplines from across Swedish HE institutions, the present study is guided by the overarching objective of understanding the second-language academic reading demands placed on Swedish undergraduate students. The study's chief objectives are descriptive: establishing the scope of English reading alongside the use of the national language is a necessary first step in both conceptual and pedagogical responses. The findings clarify the conditions under which students engage with academic reading in English and yield insights of direct pedagogical relevance, helping teachers and curriculum designers reflect on the scale and purpose of assigned reading. With a focus on Sweden, this study also directly addresses calls for increased research about academic reading practices beyond the Anglophone context (cf. Baker et al., 2019).

1. Background

Academic reading is widely regarded as instrumental for academic success by virtue of its role in enabling students to "acquire and construct knowledge" within their disciplines; simultaneously, academic reading "enhances composition skills... and improves critical thinking" (Howard et al., 2018, p. 190). However, academic reading also appears to challenge many students in higher education (Fairbairn & Winch, 2011; Isakson & Isakson, 2017; St Clair-Thompson et al., 2018), and research indicates that the reading challenge often increases when the reading happens in a second or foreign language.

1.1. English L2 reading challenges

According to Grabe and Zhang (2013, pp. 10–11) the challenges associated with reading in L2 English "stem from limited reading proficiency, the challenge of reading long passages, a lack of fluency in reading [,] limited L2 background knowledge [and the need for] inferencing." Several recent studies, from across different contexts involving English L2 academic reading, highlight these and other challenges for some groups of students.

Shepard and Morrison (2021) used the EMI (English-medium instruction) Challenges Scale (Evans & Morrison, 2011) to survey Hong Kong students about challenges experienced during their first year of learning through English. When the students were asked about the perceived ease or difficulty with which they engaged in English writing, reading, speaking, and listening, reading was considered the second most difficult academic activity, and particularly difficult was "understanding specific vocabulary, working out the meaning of difficult words, and reading quickly to find specific information" (p. 179). The same instrument was used by Aizawa et al. (2023) when they surveyed Japanese students about perceived English-language challenges in their disciplinary courses. Reading was considered the most demanding academic English task, regardless of the students' English proficiency.

Holzknecht et al. (2022) wanted to know whether English L2 students in English-taught programs in Egypt, Lithuania and Austria were reading English texts at an appropriate level of difficulty. Students took the Aptis Reading Test and their scores were correlated with assessments of the lexical difficulty of key texts assigned to them (using the Lexile Framework for Reading). Across all three settings, and based on overall mean scores, students were found to be reading texts at a suitable level of complexity, aligning with their overall reading comprehension abilities (CEFR B2 for the Egyptian and Lithuanian students and CEFR C1 for the Austrian students). However, the authors' conclusion highlights a variation in ability: "a considerable number of students would not be able to fully understand many texts, while other students would easily understand even the most complex texts" (2022, p. 191).

The variation reported by Holzknecht et al. (2022) is reflected also in recent research by Pecorari et al. (2024). When EMI students in Sweden took the Nelson-Denny Reading Test they obtained levels of comprehension and rates of silent reading which indicate that many would be able to engage with academic reading in English in a satisfactory way. For some, however, reading speed in particular caused concern; the bottom quartile of the sample read at a speed of 137 words per minute (wpm), substantially slower than first language (L1) speakers of English (a meta-analysis by Brysbaert, 2019, reports an average silent reading rate for English L1 speakers of 238 wpm).

Challenges similar to those reported for EMI teaching and learning settings are reported also in parallel language settings, i.e., when the instruction (including most forms of classroom interaction) happens in the local language but when some or all of the assigned reading is in English (cf. Bolton & Kuteeva, 2012; Holmen, 2017). This is confirmed, for example, by Cabral and Tavares (2002) who surveyed Portuguese students about their reading habits, specifically reading strategies and comprehension, and found a clear difference between students' experiences from reading in Portuguese and reading in English. In response to the prompts "I understand the texts I read" and "I understand texts written in English," 70% of the students stated that they understood texts written in their first language "very often" or "always." By contrast, when responding to the prompt about reading in English, only 45% indicated the same level of high confidence in their reading ability; instead, 55% attested to lower comprehension of the English texts, responding that they sometimes (31%), rarely (21%), or never (3%) understood the reading.

Inadequate comprehension when reading academic texts in English was a central theme also in Hellekjær's (2009) study of reading among Norwegian university (undergraduate and graduate) students. When asked to compare their reading of Norwegian course literature with their reading of English texts many students reported being challenged by English texts; the difficulties – primarily due to limited English vocabulary knowledge and reduced reading speed when reading in English – were diagnosed as "severe" for 33% of the study participants, whereas another 44% "indicated that they find reading in English more difficult than in Norwegian, but to a lesser extent" (2009, p. 206). Hellekjær notes that the English proficiency baseline for Norwegian students in his study was very high (it was high at the time of the study and still is among the highest in the world), suggesting that the reading challenges experienced by these students could be compounded in HE contexts where the baseline is lower.

Research from Sweden provides some confirmation of Hellekjær's findings concerning reading in parallel language settings. In a study conducted by Pecorari et al. (2011), approximately 1,000 university students participating in courses taught in either English or the majority language, Swedish, were administered a questionnaire aimed to investigate their perceptions, attitudes, and practices related to required reading in English. The results revealed that 74% of the students felt that reading in English required more effort compared to reading in their first language. Fifty-five percent of the students answered that it took them substantially longer to read in English, and the same proportion of students reported understanding less of the content when reading academic English.

Spending more time to understand less is likely to be perceived as challenging, and this is echoed in a recent study of Swedish first year university students' reading in behavioural and social science programs (all with Swedish as the official medium of instruction). Eriksson (2023) found widespread negativity toward reading for academic purposes in English. A majority of students (68%) expressed a negative general attitude towards assigned reading in English, using words like "annoying," "difficult," "stressed," "panic," and "time-consuming" (p. 5). Almost the same proportion of students (69%) said they sometimes or always struggled to understand what they read when faced with an English text. A third of the students in the study stated that they felt unprepared to read academic texts in English, and 41% claimed it was quite difficult or very difficult to do the English reading. Even if a subset (36%) appeared unperturbed by English texts (saying it was quite easy or very easy to read them), many more (86%) gave those (positive) responses when asked about reading in Swedish. In addition to failing comprehension, the reduced speed of reading associated with reading in English was seen as a major obstacle by Eriksson's respondents: 89% indicated that their reading speed in Swedish exceeded that in English.

1.2. Academic reading load of students

The amount of English reading expected from students is an important consideration when trying to understand the conditions – and reported challenges – under which English L2 students engage with English academic texts. However, there is limited research about the academic reading load of students and little of it beyond the L1 reading context (as previously noted by, e.g., Karakoç et al., 2022).

Three studies from English L1 academic contexts are worth noting for benchmarking purposes. Anderson (2015) investigated academic reading expectations in introductory undergraduate courses across multiple US institutions as reported by teachers. Findings revealed significant variation across the five disciplines studied. Business courses had the highest average reading load at 85 pages per week, followed by psychology (61 pages per week), biology (45), engineering (42), and computer science (38).

Respondents to Arum and Roksa's (2011) survey with more than two thousand students at four-year colleges and universities from across the US revealed that while a majority, 68%, of the diverse sample they investigated had taken at least one course during the previous semester that required more than 40 pages of reading per week, almost a third of the students in the study had not taken *any* such course, causing the authors to voice concerns regarding the impact of too little reading on students' learning.

Finally, a study by Baron and Mangen (2021) compared reading assignments in the US and Norway. The authors asked US and Norwegian faculty members within the humanities and social sciences about the number of books and approximate number of pages they assign per semester. Overall, Norwegian teachers seemed to assign more reading than their American colleagues for approximately the same number of credits (the language of the reading was not reported). US teachers required students to read, on average, 1.7 books for an introductory level course and 2.3 books for an advanced level course, compared to an average of 2.8 books in Norway (regardless of educational level). There was also an apparent difference between US and Norwegian assigned reading in terms of the number of pages assigned per semester; 72.7% of the Norwegian faculty assigned more than 600 pages of reading per semester at introductory level, compared with 53.0% for the US faculty. Similarly, at advanced level, 75.7% of the Norwegian faculty assigned more than 600 pages of reading per semester at introductory level, compared with 63.3% for the US faculty. Baron and Mangen report large variations across the sample regarding the amount of assigned reading, ranging from no books assigned at all in some courses, to eight books for a single course. The authors attribute some of the difference concerning reading assignment between US and Norway to nationally adopted guidelines relating to readings assignments in Norway.

Importantly, the amount of assigned reading is not a trivial parameter in higher education teaching and learning. Arum and Roksa (2011, p. 93) note that "having demanding faculty who include reading ... requirements in their courses (i.e., when faculty require that students ... read more than forty pages a week) is associated with improvement in students' critical thinking, complex reasoning, and writing skills." Similarly, Carini et al. (2006) established that the amount of assigned reading is significantly correlated with students' grades and critical thinking and problem-solving; students who are assigned more reading are more likely to achieve higher grades and demonstrate stronger critical thinking skills.

Given the significance attributed to the reading students do, and the reported challenges faced by many English L2 students when reading in English, it is pertinent to probe deeper into this aspect of academic reading. This study set out to investigate the volume of English academic reading assigned in Swedish undergraduate education, guided by the following research question: *To what extent are students assigned academic reading in English in Swedish-medium undergraduate courses?*

By addressing this question, the study seeks to provide insights that could inform curriculum design and pedagogical practices, ultimately enhancing the academic reading experiences of English L2 students.

2. Context, data and methods

This research focuses on the English reading experience planned for undergraduates in Swedish HE, in the sense that it paints a picture of the extent to which students are expected to engage with English, in the form of reading assignments, even on courses which are ostensibly taught exclusively through the medium of Swedish.

2.1. Study context

In Sweden, 95% of the degree programs and 80% of the courses at undergraduate level use Swedish as a medium of instruction. Despite Swedish being the dominant teaching and learning language at this level, several studies have reported the widespread practice of assigning reading in English, even when the medium of instruction is Swedish (Bolton & Kuteeva, 2012; Malmström & Pecorari, 2022; Salö & Josephson, 2014). Assigned reading is just one of the many domains in which English is common in Swedish higher education. The prevalence of English is the result of various factors, but it is enabled by a high standard of English proficiency across the society, including in the sphere of HE. However, as the above review has demonstrated, while university students are assumed to be able to use English for academic purposes, the use of English does impose an extra burden on many English L2 users in this context.

In the course of a year's full-time undergraduate study in Sweden, undergraduates earn 60 ECTS credits. In the vast majority of cases, this is distributed across two semesters of 20 weeks each. Credit loading for individual courses or modules vary greatly, but three patterns are widely spread: a semester-long course of 30 credits, two courses of 15 credits each, or four courses of 7.5 credits each. Undergraduates on full-time programs are expected to devote, on average, 40 h per week to their studies across the 40 weeks of the academic year. These 40 h are expected to encompass all study-related activities, i.e., not only going to class, but engaging in any preclass preparation or post-class follow-up, as well as preparing for and sitting exams, preparing assessments, etc. Educational institutions have a responsibility to insure that required teaching and learning activities fall broadly within these parameters (while acknowledging that differing levels of preparation and ability mean that some students will need to invest more time on study-related activities than others). In other words, academic institutions have a responsibility to plan teaching and learning activities in such a way that they can ordinarily be accomplished within this 40-h-per-week limit.

One implication of this is that time demands made by reading assignments—regardless of language—should be of a scope which is compatible with other study-related activities. In other words, when reading assignments are added to all the other teaching, learning and assessment activities, the time obligation placed upon students should be neither significantly greater than nor significantly less than 40 h per week. A further implication is that when the language of assigned reading is an L2 for the majority of students, this should perhaps be reflected in a reduced volume of reading, since it will be a more time-consuming task for most students.

2.2. Data collection

To address the research question of this study, reading lists from Swedish-medium undergraduate courses were collected from HE institutions in Sweden. Academic reading lists are public information in Sweden; using a list of undergraduate Swedish-medium courses provided by the Swedish Council for Higher Education, university registrars' offices were contacted to obtain reading lists for the relevant courses. The sample included a broad selection of 18 universities (collectively responsible for educating approximately 75% of students in Sweden), encompassing large and small institutions, research-intensive and teaching-focused universities, as well as comprehensive universities and those specializing in certain disciplines.

2.3. Methodology

The following features were recorded (where that information was provided): for each course, the institution at which it was offered, the academic discipline, and the number of credits; and for each text assigned, whether it was required, as opposed to recommended, the language in which it was written, the number of pages, and the type of text. Since no standard format for reading lists exists, the available information for classification varied, even within the same university (some lists contained the bare minimum of information, sometimes only a title, whereas other provided extensive information, including full bibliographical details and number of pages to be read). Consequently, not all of these features could be verified for every assigned text.

The classification according to discipline followed the nomenclature adopted by Statistics Sweden (n.d.) (which largely follows the International Standard Classification of Education, ISCED, n.d.). For reasons of space, in this study findings are reported for five major disciplines: (i) social sciences, law and business administration (referred to in this paper collectively as "social sciences"); (ii) humanities and arts ("humanities"); (iii) education science and teacher training ("education"); (iv) natural sciences, mathematics and information and communication technologies ("natural sciences"); and (v) health and welfare ("health"). The classification of text type was based on that used by the Royal Library of Sweden, with modifications as needed; for example, course packs, collections of readings curated by the teacher, were frequently assigned, and a category had to be created for it.

When reading lists from the five disciplines were filtered out, the sample contained a total of 2,225 courses, and these contained a total of 30,006 assigned texts. Reading volume was measured along two dimensions: (i) the number of texts and (ii) the number of pages (when page information was available). Each measure has limitations on its own; "a text" can range from a short article to a monograph, and page counts were not always provided. The number of texts assigned, though imperfect, is an analytically meaningful metric, as it reflects how teacher structure reading and signals the extent to which students must engage with multiple voices, perspectives, and disciplinary registers. Page counts, in turn, provide an indication of total reading load. In combination, these measures allow us to capture both the organization and the volume of academic reading.

A protocol was created by the authors and a lead research assistant. Research assistants were then trained to enter the reading assignments into a spreadsheet in accordance with the protocol, with the lead research assistant checking classification results. When these checks revealed consistently accurate results, the research assistants completed the data entry. Subsequently, systematic spotchecking concluded the process.

Reading assignments marked as optional have been excluded. Teachers who designate texts this way imply they do not expect all students to engage with them and so including them would give a misleading impression about the reading students are *expected* to do.

3. Findings

This section considers the amount of academic reading in English expected of Swedish undergraduate students across courses and disciplines. When all the required reading in all Swedish-medium undergraduate courses is considered, the majority of texts (58.8%) are in Swedish, whereas 28.3% of the texts are in English (see Table 1). Academic texts in languages other than English and Swedish (most frequently texts in Norwegian, Spanish and French) are assigned very rarely (1.1%). For 3,089 required readings (11.8%) the language of the text is not known because this information was lacking in the reading list. This happened most often in the case of course packs, i.e., collections of shorter texts (frequently research articles or non-fiction book chapters) curated by the teacher, often with no additional details given, or a reference to "journal articles to be selected by the teacher"; the majority of the texts for which the language is unknown is therefore likely to be research articles (in many cases in English) but this cannot be verified.

Further analysis of the reading assigned in English shows that 56.4% of the courses (n=1,254) included in the sample have at least one required text in English on the reading list (see Table 2). Moreover, for 25.2% (n=561) of the courses, a majority (>50%) of the texts students are expected to read are in English, and for 7.0% (n=155) of the courses, all the texts are English, even though the official medium of instruction is Swedish.

The English reading load varies considerably across courses; some assign only a single text, while others require students to read several dozen or more. As Table 3 shows, the average number of English texts across all courses is about six, but the median is only two and the standard deviation much larger, indicating a highly skewed distribution. The same pattern is seen across courses of different sizes: 7.5-credit courses average just over three texts, 15-credit courses about four, and 30-credit courses about eleven. Interestingly, the median is the same in 7.5- and 15-credit courses (two texts), showing that course size does not translate into a higher English reading load until the larger, 30-credit courses. In each case, the median remains well below the mean, highlighting that most courses assign few texts, while a minority assign disproportionately many. Overall, this suggests that students face a highly uneven English reading load across the undergraduate curriculum.

An alternative way to consider the English reading load is by the number of pages assigned, which more directly reflects the weight of the reading. For this analysis, we include only courses (n = 587) where page information was available for all assigned texts, limited to courses of 7.5, 15, or 30 credits.

As can be seen in Table 4, the median number of assigned pages in English is 304 in 7.5-credit courses, 448 in 15-credit courses, and 566 in 30-credit courses. The corresponding means (426, 705, and 962) and standard deviations (442, 768, and 1,126) are all higher, again indicating skewed distributions with considerable variation in the number of pages assigned.

Notably, though, the volume of reading assignments is not commensurate with the credit loading of the course. This becomes clear when the English reading load is normalized per week (based off median values). A student on a 30-credit course is expected to read approximately 28 pages per week, compared to just under 45 pages in a 15-credit course and about 61 pages in a 7.5-credit course. Put differently, a student enrolled in four 7.5-credit courses would be expected to do roughly 115% more weekly reading over the semester than a student enrolled in a single 30-credit course.

It does not fall within the scope of the present study to explore why these rather striking differences exist. It is possible that the differences are indicative of a lack of reflective pedagogy in determining reading assignments. All other things being equal, if it is reasonable to ask students to read 28 pages per week in English, then it is not reasonable to ask them to read 61 pages per week, and vice versa; what is reasonable should remain consistent, regardless of the credit load of the course.

As noted in the literature review, we are not aware of any comparable studies examining undergraduate English reading load in English L2 contexts, which means that the only "benchmarking" data available are from within L1 contexts of reading (e.g., Anderson, 2015; Arum & Roksa, 2011); such data may help put the findings into (some) perspective. By that comparison it would appear many Swedish undergraduate (English L2) students are expected to read approximately as much (or as little) English text as many American undergraduate students, with the obvious difference that the American students do the reading in an English L1 context. In Anderson's (2015) study of American introductory courses, the weekly reading load ranged between 38 and 85 pages. By comparison, the typical weekly English reading load in the Swedish undergraduate courses varies between 28 and 61 pages.

The English reading load also appears to differ by academic discipline. Table 5 illustrates how, in some fields, a significant portion of the undergraduate reading materials are in English, while in other subjects the practice of requiring students to read English texts is much less common.

Table 5 shows that English texts are prominent in the reading lists in social sciences (42.2%) and natural sciences (41.5%), and a little less frequent in the humanities (31.1%). A much lower proportion of English texts is found in education (13.7%) and health

Table 1
Language of required reading assignments.

	Number of required texts assigned	Proportion of required texts assigned
Texts in English	7,394	28.3%
Texts in Swedish	15,371	58.8%
Texts in other languages	285	1.1%
Text in unknown language	3,089	11.8%
All texts	26,139	100%

Table 2 Reliance on English texts.

Courses with:	Number of courses	Proportion of courses
at least one text in English	1,254	56.4%
>50% of the texts in English	561	25.2%
all texts in English	155	7.0%

 Table 3

 Number of required English texts assigned by credit loads.

Course size	Mean	Median	SD
All courses	5.9	2	15.0
7.5 ECTS	3.1	2	4.4
15 ECTS	4.3	2	5.7
30 ECTS	11.1	5	24.8

 Table 4

 Number of pages assigned in courses by credit load.

Course size	Mean	Median	SD	Md pages/week
7.5 ECTS	425.8	304	441.6	60.8
15 ECTS	705.1	448	767.7	44.8
30 ECTS	961.8	566	1,125.9	28.3

 Table 5

 Assigned texts in English across disciplines.

	Number of texts in English	Proportion of texts in English
Health	163	11.2%
Education	1,070	13.7%
Humanities	2,640	31.1%
Natural sciences	495	41.5%
Social sciences	3,026	42.2%
All disciplines	7,394	28.3%

 Table 6

 Reliance on English texts across different disciplines.

Courses with:	at least one text in English	>50% of the texts in English	all texts in English
Health	46%	14%	5%
Education	60%	10%	2%
Social sciences	59%	34%	10%
Humanities	77%	41%	15%
Natural sciences	69%	63%	48%

(11.2%), which is unsurprising since these fields typically cater to national professional education needs, and because there is a much larger national (Swedish language) literature associated with this praxis.

This trend is confirmed when looking more closely at the varying reliance on English texts across different disciplines. As can be seen in Table 6, natural sciences and humanities stand out with the highest use of English texts. In natural sciences, 69% of the courses include at least one English text, with 63% having more than half of their texts in English, and nearly half (48%) using exclusively English texts. The humanities also show a strong presence of English reading, with 77% of the courses assigning at least one English text and 41% with more than half. The numbers for social sciences show that 59% of the courses include at least one English text, and 34% have over half of their texts in English. In contrast, while a fairly high proportion of courses in health and in education include at least some English readings (46% and 60% respectively), relatively few courses rely heavily on English texts.

As illustrated in Table 7, there is apparent disciplinary variation also with respect to the number of English texts assigned. In 7.5-credit courses, medians range from 1 in health and natural sciences to 4 in education, with humanities and social sciences in between. At the 30-credit level, the medians are somewhat higher in humanities and social sciences than in the other disciplines. The corresponding means are consistently above the medians, in some cases much higher. This points to skewed distributions where most courses assign relatively few English texts, while a smaller number assign disproportionately many. Variation also differs across fields: health and natural sciences are both low in number and consistent, whereas social sciences in particular show much higher variability.

As noted earlier, the English reading load can also be calculated based on the number of pages assigned, where that information is available. When that is done, a somewhat different picture emerges: see Table 8.

Table 7Number of English texts assigned across disciplines.

	Number of English texts assigned in:			
	7.5 ECTS courses	15 ECTS courses	30 ECTS courses	All courses in the discipline
Mean/Median/SD				
Health	1.8/1/1.5	2.7/2/2.0	5.6/5/4.9	3.0/2/2.9
Education	2.7/4/3.5	3.8/3/4.9	5.0/3/5.3	4.5/3/5.3
Humanities	4.6/2/5.4	7.0/4/8.3	12.3/8/13.2	8.1/4/10.2
Social sciences	4.6/2/6.6	3.2/2/4.2	16.4/6/39.9	10.0/3/28.6
Natural sciences	1.6/1/1.0	1.5/1/1.0	7.5/5/7.4	2.1/1/34.8

Table 8Number of pages of English reading assigned across disciplines.

	Average number of pages assigned in:			Weekly reading load (median based on 7.5 ECTS)	
	7.5 ECTS courses	15 ECTS courses	30 ECTS courses		
	Mean/Median/SD				
Health	213.1/100/245.2	(insufficient data)	(insufficient data)	20.0	
Education	233.5/48/382.9	269.2/68/500.2	430.7/159/945.2	9.6	
Humanities	425.2/311/442.1	860.4/565/713.5	1,067.4/788/978.0	62.2	
Social sciences	507.5/452/458.2	615.0/520/462.4	1,412.9/826/1,360.6	90.4	
Natural sciences	686.6/650/461.5	1,108.0/873/968.0	1,567.9/1,566/995.1	130	

As expected, the reading load increases with the number of course credits across all disciplines; however, the increase is again not commensurate with the credit loading of the course. The highest number of pages is assigned in natural sciences courses, ranging from 650 pages in a 7.5-credit course to 1,566 pages in a 30-credit course. Courses in social sciences assign between 452 pages (7.5 ECTS) and 826 pages (30 ECTS), and humanities between 311 (7.5 ECTS) and 788 (30 ECTS). Many fewer pages of English reading are assigned in education and health. Across all disciplines, the differences between means, medians, and standard deviations once again point to the great variation in reading demands, with some courses requiring only a fraction of the average while others assign disproportionately heavy loads. The differences between Tables 7 and 8 may be attributable to the types of texts prevalent in different disciplines (with fewer but longer texts assigned in natural sciences, for example).

A weekly reading load can also be calculated for each discipline. Based on the medians for 7.5-credit courses, natural sciences students are expected to read about 130 pages of English per week, compared to about 90 pages in social sciences, 62 pages in humanities, 10 pages in education, and 20 pages in health. Thus, the weekly English reading load in natural sciences is about 13 times higher than in education, and six times higher than in health. These results reinforce the earlier findings and highlight once more the considerable variation in English reading demands, both across and within disciplinary contexts.

4. Discussion

This study set out to understand the English academic reading demands placed on Swedish undergraduate students by analyzing the volume and proportion of reading assignments in English. The findings indicate that English has a palpable presence in Swedish higher education, even in courses which are designated as Swedish-medium. A majority of the undergraduate courses sampled include reading in English, in a quarter of the courses at least half of the required reading assignments are in English, and in some disciplines, such as the natural sciences, a substantial proportion of the courses relied entirely on English texts. Clearly, strong English skills are important for academic success, even for students who are pursuing their studies in the majority language.

It was not an *a priori* objective of the present study to investigate the degree of variance in English reading assignments, but the findings which emerged demonstrate that a surprising degree of variance does exist, both within and across disciplinary learning contexts (similar patterns of variation have been reported from English L1 academic contexts by Anderson, 2015). Investigating the causes of these varied practices did not fall within the scope of this study, but three possibilities present themselves. First, within some subject areas, there may simply be a more limited pool of Swedish-language texts. Across all academic subjects, Swedish researchers tend to publish in English, but the STEM subjects have led this trend (Malmström & Pecorari, 2022). Data for pedagogical genres, such as the textbook, are lacking, but possibly they too are affected by the propensity for academics in some disciplines to publish in English and not in Swedish.

Another possibility is that some disciplines value the presence of Swedish in the curriculum more than others. The relatively lower levels of English assigned within health, for example, may stem from a belief that future medical and health practitioners in Sweden will communicate with patients and colleagues primarily in Swedish, and are therefore advantaged by learning and reading about their subject in that language.

A third possibility, and one which would explain variation *within* subject areas, is simply that some teachers do not give significant consideration to how much work reading assignments ask students to do. This may tentatively explain the lack of rhyme or reason to the volume of assignments on courses of different scopes; for example, the median reading assignment for a student enrolled on four

courses of 7.5 credits would be 1,216 pages in English, while for a student on one 30-credit course, the figure is just 566 pages. Differences like this one, which lack any evident pedagogical explanation, may be evidence that some teachers assign the reading *they* would like their students to do, without considering how much reading *the students* can feasibly do.

The pedagogical choices—or lack thereof—guiding reading assignments are an important area for future investigation. It is known that student compliance with reading assignments of any kind can be very low (e.g., Graham, 2024), despite the clear pedagogical benefits of engaging with assigned reading. L2 users of English complete reading assignments in English more slowly, and this reduces the amount they can read. Equally, they perceive reading in English as harder and less rewarding and are less likely to complete reading assignments in English (Malmström et al., 2025). Reading assignments, like any other teaching and learning activity, should be thoughtfully planned and informed by pedagogical considerations.

While no universal formula can determine what is "appropriate" or "too much" reading in English, our findings underline the importance of teachers' and curriculum planners reflecting carefully on the volume and distribution of assignments. Reading in an L2 typically takes longer and sometimes results in lower comprehension than in an L1. Teachers should avoid assuming that a load manageable for some students will be equally feasible for all. Practical steps to better accommodate all students include estimating the time likely required for reading, making the purpose of each text explicit, balancing longer, dense readings with shorter texts or other resources, and sequencing English texts later in the semester once students have developed fundamental disciplinary understanding through Swedish readings. At the program level, coordination across courses and, where possible, internal guidelines, can also help ensure consistency and fairness for English L2 readers.

This naturally raises the question of whether the English reading loads documented in this study are in fact manageable for students. This, too, falls outside the scope of the present study, because it requires an understanding of other factors, such as how much time students are expected to spend on other study-related activities, such as attending class or preparing assessments (only so much can be accomplished within the 40-h study week). However, the existing literature can facilitate some tentative interpretations of the present data.

It is possible to consider how much time students would require completing their English reading assignments. Previous research has reported reading rates for English L2 ranging from 118 to 207 words per minute (wpm) across different higher education environments (e.g., Dirix et al., 2020; Tran & Nation, 2014). In a Swedish English-medium instruction context, Pecorari et al. (2024) found a reading rate of 174 wpm among students in master's programs, consistent with the rate reported by Dirix et al. (2020) for Dutch undergraduates (also 174 wpm). Notably, when students in Dirix et al.'s study were asked to read for study rather than for leisure, their reading speed dropped to an average of 50 wpm. Taking 420 words as a typical average on a printed page, students who can maintain the higher rate of 174 wpm could read 24.9 pages in an hour, while at the much lower rate of 50 wpm, 7.1 pages could be read in an hour.

The feasibility of reading assignments also depends on how much students will read. To the best of our knowledge, in the literature on students' reading compliance (e.g., Botha, 2013; Graham, 2024), only one study has examined the amount of time students spend on reading assignments. St Clair-Thompson et al. (2018) estimate that students in English L1 settings spend between eight and 17 h per week for academic reading. To our knowledge, no comparable data exists for students in English L2 settings. In the absence of such data, for the sake of argument we will assume that eight to 17 h may apply to students in English L2 settings as well. A student who invests the lower time frame—eight hours—in academic reading and reads at the lower, study-related rate of 50 wpm, could then read 57.1 pages in English per week. For a student who reads for 17 h at the higher rate, that figure would be 423.3 pages. A middle-of-the-road student, who reads at a rate and for a period of time in between these extremes, could read 200 pages in English per week. These notional readers provide a framework for considering what amount of assigned reading in English may be feasible.

Turning to the data from the present study, we now consider three examples of courses. All three come from religious studies, a subfield of the humanities, and were selected purposively from the subset of courses which identified the number of pages in reading assignments, to approach the average for the humanities, as well as the extreme ends, i.e., the courses with the least and most assigned reading.

The first example is the course "Studies in Faith and World Views: Populism and Christian Theology.\(^1\)" It includes 17 texts on the reading list, 10 of which are in English (two non-fiction book chapters, seven research articles, and a short philosophical text). Most of the remaining texts are in Swedish, except for a short non-fiction book chapter in German. There is also a reference to "additional research articles," totaling around 75 pages, with the language unspecified. However, since all other selected articles are in English, it is reasonable to suppose that many if not all of these additional articles are also in English. In total, then, students are expected to read approximately 225 pages of English text, of which 219 pages are made up of articles and non-fiction book chapters, averaging 45 pages per week. This means that even the slowest reader would be able to finish the texts which were assigned in English but would have little time left over for the rest of the reading assignments. The middle-of-the-road and fast readers should not be challenged by these reading assignments.

The second course, "Religious Texts and Interpretations," includes 36 texts in total, 24 of which are in English. With the exception of a single research article, nearly all the English readings are drawn from non-fiction books, either as individual chapters or as selected sections from longer works. Altogether, the required English readings amount to 489 pages, or 97.8 pages of English text per week. This volume of reading would be within the grasp of the rapid reader and would leave considerable time for the portion of the reading assignment made in Swedish. The middle-of-the-road reader would also be able to complete the English reading assignments but would

¹ This and the other two course names are the official English translations as given in the syllabus.

need approximately 50% of the available time to do so. The English assignment alone is outside the grasp of the slow reader to complete.

The third course is "Judaism as a Lived Religion" and includes five mandatory readings: two non-fiction books and two sets of non-fiction book chapters. Additionally, students choose a work of fiction from a recommended list. All course readings are in English. Over the five-week period, students are required to read a total of 1,331 pages, averaging 266 pages per week. Only the fastest of the three notional readers would be able to accomplish this.

These three examples indicate that the amount of English reading required of Swedish undergraduate students may pose a challenge for some, but not all students. The broader findings of this study across disciplines support this observation.

5. Conclusion

This study aimed to examine the academic reading demands in English faced by undergraduate students in Sweden, and the conclusion we can draw is that students are required to engage extensively with academic texts in English, even when the medium of instruction is in the local language. The majority of undergraduates encounter English reading assignments on their Swedish-medium courses, and a quarter of them are asked to do most of their assigned reading in English. In other words, many students are faced with the extra burden imposed by being asked to read in an L2.

Expectations regarding reading in English were found to vary significantly across courses, often without a clear or consistent pattern. Investigating the causes of this variation or the reasons behind the lack of systematicity lies beyond the scope of this article, but one very likely factor is the amount of time spent on other teaching and learning activities across courses in different disciplines (however, as the examples in the previous section illustrate, not all of the variation in reading assignments can be explained by academic discipline). The findings of the present study could very well be an indication that teachers set reading assignments without significant consideration to other demands on students' time. This raises the prospect that the very real additional time demands which accompany academic reading in an L2 are not taken into account. To better understand the reasoning behind these practices, future research could explore this issue through qualitative methods, such as interviews with teachers. Such an approach would provide additional insights into how teachers perceive students' workloads, their expectations regarding L2 reading, and the factors influencing their decisions when assigning texts (cf. Anderson, 2015; Karakoç et al., 2022).

The implications of these findings extend beyond the Swedish context. They could serve as a basis for comparative studies with other non-English-speaking countries, exploring how English academic reading is integrated into curricula worldwide and the outcomes of such practices.

CRediT authorship contribution statement

Hans Malmström: Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. Diane Pecorari: Writing – review & editing, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

Conflict of interest

None.

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