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Abstract

This study investigates the reading strategies used by academically novice, but high proficiency L2 students of English enrolled in a teacher education programme at a major Swedish university. Data were obtained from personal reading blogs kept by the students as they undertook course reading at home. An analysis revealed that students employed various reading strategies; however, there was limited evidence to suggest that students employed these strategies routinely. The most common strategy reported was connecting to short-term writing task. While students reported reflecting on their reading, they did not appear to amend unsuccessful strategy use, or re-use successful strategies. The study reveals the difficulties and limitations of high proficiency L2 students who lack experience of reading academic literature in English, and discusses pedagogical implications for reading blogs.

Key words: academic reading, blogs, high proficiency L2, novice academic readers, reading strategies

1. Introduction

Reading is a central, high-stakes activity in any tertiary-level academic course; course literature often provides the basis for the content knowledge students require in order to complete written assignments, which are in turn used as the basis for assessment. The interdependent relationship between the development of reading and writing skills has now been established. Indeed, it is widely acknowledged that good readers make good writers (e.g. Hirvela, 2004), and that students' writing problems are often rooted in the difficulties they experience when reading (Hirvela, 2004). Nonetheless, a scan of *JEAP*, for example, reveals

that recent scholarship within EAP has tended to focus more on the productive rather than receptive skills.

From a course-design perspective, identifying the “target situation” (Hutchinson & Waters, 1987) and supporting students’ development of academic reading skills entails an understanding of how successful readers read (e.g. Ashby & Rayner, 2006). To this end, research has provided an account of how texts are tackled by experienced academic readers, such as professional scholars who are acculturated into their disciplinary context (e.g. Bazerman, 1985). Grabe (2008, p. 220) describes such readers as “strategic” as they “automatically and routinely apply combinations of effective and appropriate strategies depending on reader goals, reading tasks, and strategic processing abilities”. Furthermore, the strategic reader is “aware of his or her comprehension effectiveness in relation to reading goals and applies sets of strategies appropriately to enhance comprehension of difficult texts”.

In terms of methodological approaches to uncovering students’ reading strategies, studies tend to fall into the following categories: large-scale quantitative surveys investigating trends in reading habits (e.g. Malcom, 2009; Matsumoto, Nakayama & Hiromori, 2013; Pecorari, Shaw, Irvine, Malmström & Mežek, 2012), experimental studies (e.g. Martínez, 2002), questionnaire studies investigating reading strategies (e.g. Malcolm, 2009; Mokhtari, & Reichard, 2004; Sheorey & Mokhtari, 2001) and qualitative studies using interviews and think-aloud protocols with small groups (e.g. Hirano, 2015; McCulloch, 2013). In accordance with Grabe (2008), results derived from these methods show that effective readers have a portfolio of strategies, categorized as top-down and bottom-up (e.g. Abbott, 2006), mining and writerly (Hirvela, 2004) and metacognitive and cognitive (e.g. Dhieb-Henia, 2003). These studies have greatly increased our knowledge of reading strategies in a variety of contexts.

Nonetheless, in order to develop students' reading skills at the start of their university careers, more insight is needed into students' skill sets when they arrive at university ("the current situation" (Hutchinson & Waters, 1987)), and how they engage with academic texts within their own study contexts (McCulloch, 2013). Indeed, what happens outside the classroom, and in a "real life setting" has received considerably less attention (Malcolm, 2009, p. 640) in the EAP literature.

Thus, the focus of the present study is how inexperienced academic readers read when they begin their studies in tertiary education, at the start of socialization into their disciplines. Students' prior general and educational experience is a pertinent factor here (Bernhardt, 1991, 2005), and therefore investigations of readers from different linguistic, sociocultural (e.g. Parry, 1996) and educational backgrounds (e.g. Hirano, 2015) are needed. Recent studies into academic reading include investigations situated in, for example, Asia (Ohata & Fukao, 2014), Turkey (Nergis, 2013), North Africa (Dhieb-Henia, 2003; Mokhtari & Reichard, 2004), and the Middle East (Malcolm, 2009) as well as in the US (e.g. Plakans, 2009). Students in Scandinavia have received less attention, as the reading research focus in this sociolinguistic context has been predominantly parallel language use (i.e. lectures in L1 accompanied by course literature in English) (e.g. Mežek, 2013a, 2013b), rather than strategies students of English use to complete reading assignments per se. Nonetheless, these students present a particularly interesting case for EAP reading research, as their general English proficiency is comparatively high. Thus reading difficulties may stem from unfamiliarity with the discursive conventions of academic writing and domain-specific vocabulary, and a lack of prior content knowledge, rather than L2 deficits (Bernhardt, 2011).

We therefore investigate 26 first-semester students training to be English teachers at a Swedish university. Academic Reading and Writing 1 is the first course taken by these students, and is delivered via five two-hour seminars over a five-week period. While dealing with EAP material and skills, the course is a compulsory component in the teacher-education programme, and should not be understood as a preparatory language class. The overarching aim is to develop academic reading and writing skills, as well as content knowledge, which students will draw on in subsequent courses in the English department. The final assignment is a short argumentative essay on the topic of implicit and explicit vocabulary learning.

In order to support students in their construction of an academic argument, a need to ensure that students were reading the set literature more effectively was identified, and was the motivation behind our study. Through an analysis of student reading blogs, we investigate the strategies students report and the relationship between the strategy selected and text (see research questions 1 and 2 below). Our third research question asks what reading blogs can reveal in terms of students' reading practices:

RQ1. What reading-related strategies do novice, high proficiency academic readers report in their reading blogs?

RQ2. Do students adjust their reading according to text and task?

RQ3. What can reading blogs tell us about how students tackle academic reading?

The article is organised as follows. First, a brief overview of the educational background of the students is provided, followed by the theoretical framework and methodological approach adopted in the study. The results are then presented and discussed, supported by illustrative

examples from the students' reading blogs. Last, pedagogical implications arising from the findings and future research directions are discussed.

2. Learning English in Swedish schools

Pupils in Sweden have extensive exposure to English and generally achieve a high proficiency in the language. As an illustration, two thirds of Swedish pupils in Year 9 achieved B2 (CEFR) (Council of Europe, 2001) in reading comprehension in the ESLC 2011 survey (Skolverket, 2012). To qualify for tertiary-level education, pupils take two further obligatory English courses at upper-secondary level (English A and B¹), and can choose to study the advanced optional course (English C). Thus, on arrival at university, students prototypically have achieved a high standard of English, especially in terms of receptive skills (Berggren, 2015).

While the upper-secondary curriculum does not specify teaching methods, one of the aims for English is that students “deepen their ability to read, understand, and critically reflect on non-literary and factual texts within their own areas of interest and competency, or within the area of their programme” (Skolverket, n.d.) (our translation). A clear distinction is made between reading fiction and other types of texts; however, it is unclear to what extent this includes academic texts, and therefore whether or not students have the opportunity to develop strategies tailored specifically towards reading academic literature is uncertain.

3. Theoretical framework

We view academic reading as a practice undertaken within a specific social context (e.g.

Hirano, 2015). In other words, while the ability to engage with academic texts (reading them

¹ This information describes the Curriculum for non-compulsory school in Sweden which was issued in 1994. There is a new Curriculum since 2011, but the students who participated in our study followed the previous syllabus.

as well as writing them) is contingent on linguistic knowledge, an understanding of how disciplinary specific knowledge is constructed, validated and presented (e.g. Wingate & Tribble, 2012) is also beneficial. Therefore, the ‘problem’ of academic reading is not understood here primarily in terms of an L2 deficit, but rather as part of the need for students to become familiar with the academic practices that shape academic texts (e.g. Hyland, 2003). This approach is supported by Bernhardt’s (2011) compensatory model of second-language reading, which shows that pertinent performance predictors among L2 readers with high language proficiency are domain knowledge, strategies, and motivational factors (rather than simply L2 knowledge). These predictors can compensate for factors such as low vocabulary knowledge.

In addition to linguistic competence and domain knowledge, and in line with Bernhardt’s model, successful readers set goals, self-monitor and comprehension check (e.g. Grabe, 2008; Malcolm, 2009). Therefore, we also draw on theories of metacognition and self-regulation. We understand self-regulation to be how students regulate their cognition, behaviour and context (Pintrich & Zuscho, 2002). This regulation pertains to the goals students set for themselves, the strategies they use to achieve those goals, and how much effort they deem necessary for successful task completion. Metacognition refers to how students monitor their understanding and the effectiveness of their approach (Veenman, Van Hout-Wolters, & Afflerbach, 2006). Thus, the metacognitive knowledge relevant to this study is knowledge of a range of reading strategies, knowledge of which reading strategy would be appropriate for a particular reading task, and self-awareness in terms of personal strengths and weaknesses. For example, if students have significant background knowledge of the topic of a chapter in a text book, this is considered a strength, as students will be able to call on background knowledge to assist them in their understanding of the material (Pintrich, 2002).

4. Method

4.1 The students

In total, 29 students were recruited from two groups taught by the second author in the study.

All the students have at least completed English B and many of them also reported taking English C (see Section 2). All are training to be English teachers. The students were self-selecting and recruited by one of the authors of the study who was not involved in delivering the course. Participants were recruited after course completion. Informed consent was obtained, and students were told that they could withdraw their participation at any time.

A questionnaire was issued to establish informants' L1, the extent of their previous studies at tertiary level, and the language of reading material they used. Two students included in the study (S24 and S26) do not have Swedish as L1 and did not receive their secondary education in Sweden. Students with prior experience of English-language course literature at the university level were excluded from the study as our focus was on novice academic readers of English.

4.2 The reading material

Students read three texts about academic vocabulary learning. The theme was chosen as students taking the course were concurrently preparing for an academic vocabulary examination. Text 1 is the introduction to a text book, and Texts 2 and 3 are research articles.

As the employment of reading strategies is to some extent driven by the associated task, it is important to note that in conjunction with reading Texts 1 and 3, students wrote a summary of the texts in pairs (see Table 1). The final course outcome was an argumentative essay based on the theme of academic vocabulary learning.

(TABLE 1 HERE)

4.3 Data collection

As highlighted in the introduction, the aim of the study was to get at the strategies students use in their own study contexts. While other reading studies have used think aloud protocols, this method was rejected, as the instrument can increase stress levels and distract students (McCulloch, 2013). Novice readers in particular have difficulty writing and talking concurrently, and require some training (McCulloch, 2013). Therefore, in order to track the students' reading behaviours in a naturalistic context, a diary method (e.g. Mann, 2000; Manarin, 2012) was used in the form of a blog. In the execution of our project we kept two aims in mind: first, the students' goals as learners, and second, the researchers' aims which entail the collection of viable data (Dörnyei, 2007). Although a blog entails expenditure in terms of time and effort, the student at least has some control over the extent to which they choose to engage in the activity. Given that successful reading entails reflection on reading performance (Grabe, 2008), a blog was also considered conducive to encouraging this learning behaviour (Dunlap, 2006; Lee, in press). In other words, the blogs not only provided data, but also served as an integrated learning activity.

During the course, students were asked to keep a reading blog by posting an entry each time they engaged with one of the course texts. A minimum of three entries was required, with no upper limit. Three students did not provide blog posts for all of the obligatory readings and were therefore excluded from the study at this stage. Thus, the total number of informants was 26. Students were asked to note what they did before, during and after reading. In order to obtain comparable data, only the blog posts which related directly to the reading of the three

obligatory texts were analysed. This excluded posts describing additional reading at the end of the course, as not all students in the groups reported this activity on the blog. Last, if the student divided the reading of one text into several blog entries, these were combined. These operations resulted in one set of blog data per text and per student. Blogs were anonymised prior to the course tutor accessing the data.

4.4 Data analysis

Both inductive and deductive coding were employed. Li and Munby's (1996) taxonomy of reading strategies was used as a starting point as it provides a broad range of potential strategies and focuses explicitly on academic reading. The taxonomy was based on a study of two postgraduate Chinese students at a British University using thinking aloud protocols. In our study, codes were adjusted and new codes added in order to provide a more accurate description of our data. This was to be expected as we have a different student profile and data collection method. The coding process was iterative, and individual as well as collaborative coding sessions took place.

The coding resulted in 19 categories in total, listed in Table 2 with examples from the blogs. We define a strategy as an action reported by students in relation to reading the course literature. Therefore, we draw no distinction between automatic processes and conscious strategies in our analysis (e.g. Cohen & Upton, 2007). We observe that while our research design is able to capture strategies students use "routinely" (Grabe, 2008, p. 220), we cannot account for automaticity, which may result in the student not noticing what they do and therefore not reporting the activity in their blog. During the coding process, all instances of strategies were coded. However, since the aim of this study is to investigate the range of

strategies used by students, multiple mentions of a strategy used for the same text and by the same student are only counted once in the results.

5. Results

In this section, the results of the analysis are presented. Section 5.1 corresponds to the first research question, which probes the reading-related strategies students employed. Section 5.2 reports the results corresponding to the second research question, namely which strategies students used repeatedly and in relation to which text. Section 5.3 draws out significant themes from the data, and reveals what can be learnt about students' reading behaviours from the analysis of reading blogs.

5.1 Reading strategies used by students

Table 2 shows the categorisation resulting from the analysis with examples from the reading blogs. In all extracts and examples, spelling and grammatical errors have been retained.

(TABLE 2 HERE)

The range of strategies reported by students as a group is in line with research results derived from studies of more experienced academic readers (Li & Munby, 1996; Sheorey & Mokhtari, 2001). Students recorded engaging in preliminary activities to enable them to prepare for the reading task. This included anticipating the scope of the task, predicting the content of the text, and scanning for gist before reading in more detail. During reading, students reported working with content and word comprehension, and re-reading the entire text and/or specific sections. In terms of goal setting and monitoring performance, students considered the purpose or outcome of the reading task, and also reflected on the success of their approach.

Reflections on how the content of the articles related to students' own experience were also reported, as was recognition of a developing understanding of disciplinary subject-matter and practices.

In Section 5.2, the number of students who engaged in each reading activity is reported and repeated use of strategies is shown.

5.2 Consistency and variation in strategy use overall and per text

Table 3 shows the number of students using each strategy according to text, and therefore corresponds to our second research question. Column 2 shows the number of students who used the strategy at least once in at least one text. Columns 3 to 5 show the number of students who used a strategy for a particular text (Texts 1, 2, 3). Columns 6-7 show repeated use of strategies per student. Column 6 shows how many students used a particular strategy in two texts only, and column 7, three texts.

(TABLE 3 HERE)

Students appear to have a reasonably broad repertoire of strategies that they employ with varying degrees of regularity. On average, a student employed five different strategies each time they read. If we consider reading across all three texts as a whole (the reading activity across the entire course), the average increases to nine different strategies.

The three most commonly used strategies encompass the goal-setting and reflective dimensions. These are preparing for reading, connecting to task, and reflecting on approach to reading. However, the picture becomes more complicated when the reading strategies per

individual text are investigated. In Text 1, the most-reported strategies are connecting to task, preparing to read, re-reading the whole text, and relating the content to own experience. In Text 2, this shifts to recapping what was read, drawing on background knowledge of the topic, previewing the text and reflecting on the approach taken. In Text 3 (as in Text 1) students connected their reading to task and undertook preparations for reading. They also previewed the text and reflected on their approach. In Text 1, fewer students drew on background knowledge and previewed the text in comparison to when they read Texts 2 and 3.

A more consistent pattern is revealed in terms of the least reported strategies. These are guessing words from context, reading the text without identifying a purpose or any other activity, and translating into L1 (which only one student referred to loosely). The only clear break in the pattern is for Text 2, where connecting to task scores very low. The most repeated strategies (and therefore most consistently used) were reflecting on the approach to reading, connecting to task, and recapping what was read.

The most striking finding is revealed in column 6. While students employed a variety of strategies, few used them across all three texts. For example, not one student used a dictionary, or anticipated the scope of the task, or predicted content, or took notes across all three texts.

In summary, the data suggest that students did employ different strategies when reading different texts, and according to set task. However, whether their approach can be interpreted as “strategic” will be probed further in the following section.

5.3 Thematic exploration of the data

In this section, we explore in more detail the reading behaviours of the students, and assess the usefulness of reading blogs in terms of providing a deeper insight into students' strategy use. Our discussion is illustrated by extracts from the data. For each extract, the student and text are identified. For example, S01T2 indicates that the extract comes from Student 1's blog entry, written while reading Text 2.

5.3.1 Pre-reading and re-reading

Pre-reading strategies reported were predicting content, selective reading, and anticipating the scope of task. Only three students did not use at least one pre-reading strategy in at least one text, and some patterns emerged in terms of when this strategy was selected. Pre-reading was used the least in conjunction with Text 1, which may be explained by the limited length of the text (only four pages). In addition, as Text 1 is not a research article, there were no prototypical genre features such as an abstract and section headings which would facilitate predicting content and selective reading. While an overview of the structure and content could have been gained by reading topic sentences for example, none of the students reported doing so. Indeed, the efficacy of this strategy has been questioned in the literature (Li & Munby, 1996).

Conversely, students did report attention to abstracts and headings when reading Texts 2 and 3. In example 1, the student draws on genre knowledge, by noting that the abstract will provide an indication of the topic. In example 2, Student 24 is able to make content predictions based on the title, drawing presumably on existing knowledge of learning processes or personal experience:

- (1) Also, before reading the whole entire text I focused on the abstract part and read it two times so I had an idea of what the text would be about. (S03T2)

- (2) I am going to read an extract of Vocabulary in Language Teaching by Schmitt. According to the title I assume that the author will discuss of the different ways that exist to acquire new vocabulary. Maybe the author will talk about the importance of repetition in the process of learning or of the importance of knowing how a word should be used and in which context. (S24T1)

However, other students displayed less developed pre-reading skills. In the following example, a student expresses surprise that the course literature coheres with a theme, and therefore some text content could be anticipated:

- (3) I am not always a smart man, I don't know why I haven't thought about this until now. I'm referring to the fact that all the texts we read are about language, learning, vocabulary and so on. This is of course very logical but I still expect, foolishly, that some texts will be about maybe The Second World War, something that of course has nothing to do with learning, language etc. (S25T1)

The overall number of students who previewed the text (shown in Table 3) may be in part due to teacher-led discussions in the coordinating seminar. Evidence of students responding to teacher input is of course positive; however, it should be noted that still only 11 out of 26 students employed the strategy for Text 2, and only 10 for Text 3.

The way students re-read the three texts also provides insight into their strategic abilities. The first noteworthy finding is that re-reading the whole text was more common than re-reading parts of text. This was the case in Texts 1 and 2, but in Text 3, there is an even split among the students. The preference for re-reading the whole text was surprising as other research has found selective reading to be a popular strategy (e.g. Hirano, 2015). The reason behind this pattern is difficult to ascertain. A plausible hypothesis is that students were unable to decide which parts of the text were the most important to return to, which points to the need for clearer reading goals. Alternatively, students may not have felt under the same time pressure as students in other contexts (e.g. Malcolm, 2009), as the literature list was not burdensome compared to more advanced courses.

Overall, most students re-read Text 1. As Table 1 shows, this was the shortest and most accessible text in terms of style and content. As previously stated, the text is not divided according to sections, which means students may have had difficulty locating specific parts if they did not use a strategy such as highlighting key information on the first reading. It is also quite possible that given the length, many students considered re-reading the whole text manageable in terms of time and effort. However, an alternative explanation is motivation; in Text 1, 16 students engaged in some kind of re-reading. In Text 2, this dropped to 12 students, and in Text 3, eight students. In Text 1, three students who re-read parts also re-read the entire text. However, this was not the case in Texts 2 and 3. In these texts, some re-read the entire text, and some read some parts only. Text 3 was the longest and most complex. Four students re-read the whole text and four re-read part of the text. This finding suggests that academically novice students such as ours do not consistently apply appropriate strategies, and perhaps points to a significant motivational decline over a very short period (e.g. Pecorari

et al., 2012). This lack of motivation is encapsulated by the following comment, where the student views re-reading as “punishment”:

(4) So I punished my self by reading the text twice so I was really got it all in. (S10T2)

In summary, the students were more likely to re-read the whole text rather than parts of the text, which suggests that more training may be required in terms of identifying key information and setting reading goals. In addition, consistency in terms of strategy use and declining motivation also need to be addressed as the decisions student took in terms of text difficulty and re-reading strategy do not appear logical.

5.3.2 Working with words

Students’ comments pertaining to vocabulary also provide insight into strategy use. The importance of vocabulary knowledge for reading has been established (e.g. Nation, 2001). In order for students to process university literature, a rapid increase in academic vocabulary is required (e.g. Nergis, 2013). As previously stated, the students in the present study were concurrently preparing for an academic vocabulary exam, which provided the motivation for the course theme, and a key message of all the texts students read was that academic vocabulary requires explicit learning methods (e.g. Gu, 2003). Given the theme, there was some expectation that vocabulary development would be a learning goal of students while reading. Furthermore, previous studies have shown that engagement on the word-level is a frequently used approach to reading (e.g. Anderson, 1991; Malcom, 2009). In our study, three categories in the data correspond to working with words: guessing meaning of words from context, using a dictionary and noting or noticing new or difficult words.

In total, 13 of the 26 students reported using a dictionary, meaning that this was the most used word-level strategy. This represents half the group. Interestingly, and in contrast, Hirano (2015) found that dictionary use was not a popular strategy with her L2 students at a US university. As discussed in Section 1, our students are proficient in general English, and therefore vocabulary-based strategies including dictionary use were expected to address academic and/or domain specific lexis. However, no students listed in their blogs entries which words were problematic. Instead, they describe “difficult” words or note that comprehension difficulties occurred. Only one student noted a subject specific term of interest (“metacognitive”) which was investigated using a dictionary.

Students refer to online dictionaries (but do not specify which one), and one student refers to the Longman dictionary, which was recommended reference material for the course. In other cases, it is not known whether students used mono or bilingual dictionaries. No students referred to using other sources to research terminological difficulties, such as online encyclopedias. This is noteworthy in light of Chung and Nation’s (2003) study of technical vocabulary in specialist texts. They found that a high proportion of the technical vocabulary in applied linguistics texts would be classified as high frequency or academic word list items (e.g. Coxhead, 1998, 2000), if run through a vocabulary profiler. Thus, students using general dictionaries would find general definitions for words such as "input", rather than the specialist meanings intended.

In terms of when the dictionary was used, most mention this strategy in relation to Text 2. In contrast, one student reflected that having worked with vocabulary in Text 1, she was able to access Text 2 more easily.

- (5) I had no vocabulary issues with this text, which surprised me after reading the Schmitt (2000) article last time. Maybe I'm already improving my vocabulary? Maybe this text was easier to read? It could also be that the text was easier because I've now improved my academic vocabulary. (S14T2)

Other students displayed a distinct lack of familiarity with dictionary use. For example, one student noted that “I have taken to looking up words for the first time in my life”, but did not embark on this new experience until Text 3 (S16T3), while another expressed amazement at the usefulness of a precise definition:

- (6) (...) being a somewhat lazy learner who hopes I will get it, I am now amazed by the difference it can make, knowing the exact meaning of the word and not just the sense of it. (S16T3)

The number of words dealt with ranged from “hardly no ‘totally new’ words” (S10T2) to “frequently looking up difficult Words”, (S21T3) and some specified whether they used dictionaries during reading or after. S01, for example, only used the dictionary during the second reading of Text 1, some waited until after reading and reported listing problematic vocabulary (e.g. S03T2), while others looked up words during reading (e.g. S12T2).

Students also had different strategies for recording words that were unfamiliar or problematic, such as highlighting, writing in the margins of the text and making lists. However, no students actually reported what they intended doing with these words once noted, and therefore did not link their own learning to the content of the set texts, which stressed the importance of explicit vocabulary learning methods. A fairly representative comment is as follows:

(7) I wrote down some words I wasn't sure of. (S05T2)

Only four students reported guessing words from context, despite this being a fairly common strategy in the literature. For example:

(8) I figured out most of the words that were “hard” and “unknown” to me, without a lexicon, just by the context of the sentence. (S01T2)

The low occurrence of guessing words from context may suggest that the problematic words are terminological. Alternatively, there may have been insufficient familiar words in the surrounding co-text to facilitate guessing (Nation, 2001), which is also plausible given the students' unfamiliarity with academic discourse.

One student (S18) appeared to work with vocabulary while reading to develop not only his control of subject specific terminology, but also his command of an academic register. Rather than noting difficult or unknown words in terms of content, the student took the opportunity to develop his vocabulary from a stylistic perspective, relating the activity to the argumentative essay task and thus exhibiting what Hirvela (2004) describes as “writerly reading” behaviour.

(9) (...) since all the texts including this one had importance to later assignments, I usually underline words which not only interested me, but also struck me as cleverly formulated (this only applied to certain sentences). This would presumably be

helpful in the near future as an essay is to be written on the subject which all the texts have been going on about. (S18T3)

Thus, students tried out different approaches to working with vocabulary, but did not engage with the texts on the word-level to a great extent. Although vocabulary was recorded by some, these students did not report any explicit learning of new vocabulary items. This reading behaviour may be explained by the sociolinguistic context. In northern Europe, students have extensive exposure to English throughout schooling via social media, music, television and computer games and so forth (Berns, de Bot & Hasebrink, 2007; Sundqvist, 2009). These extramural encounters with English are guided by young people's own interests and needs, and enable implicit learning. Conversely, at university, students are expected to adopt explicit strategies for learning academic language, which would not necessarily have featured strongly in their previous English learning experiences. This suggests a need for high-proficiency students to receive targeted instruction pertaining to how to deal with new vocabulary, as well as guidance on how to research domain-specific items.

5.3.3 The goal: Connecting reading to the writing task

This section explores strategies pertaining to students' reading goals. The most prevalent strategy in this section is connecting the reading activity to the goal of completing a writing task. As previously stated, all the course literature was selected to contribute to developing content knowledge for the final course essay, and therefore all the set reading was connected to a writing goal. As Table 1 shows, students had an additional summary task in relation to Texts 1 and 3.

The majority of students connected their reading to task at least once. However, their focus was predominantly on the summaries, rather than the final essay, the long-term assessed writing goal. For example, all the comments pertaining to writing task in Text 1 relate to the summary. Only one student linked the reading of Text 2 to the essay task. Interestingly, another noted the absence of task, which he found “unsettling”, suggesting perhaps that students are used to an externally-set task or goal in relation to course reading (as commonly found in EAP course books for example).

(10) Better start reading, it's a bit unsettling that we don't have any assignment to do directly related to the text before the seminar. By summarizing the last text I memorized it very well I think, this time I will have to rely more on notes and my own close-reading. (S25T2)

While the student's personal goal is questionable (text memorization), he did find the task useful. In fact, the student wrote his own short summary on the blog, which provides evidence of personal goal-setting, and thus some self-regulatory and metacognitive maturity.

In relation to Text 3, 17 students referred to the summary task, but only five referred to the essay as a goal, even though at this stage the essay had been talked about extensively in seminars. In some cases, comments in this category simply expressed knowledge that a summary exercise had been set (e.g. S15T3: “our task is to write a summary”). However, most went on to explain how the goal of writing a summary guided their approach to reading. For some, this task knowledge was present at the preparatory stage; students collected writing material for note-taking (thereby also selecting a strategy) and checked the specifics and scope of the summary task:

(11) (...) before reading the article by Schmitt I prepared myself by bringing a notebook and a pencil since I knew we were going to write a summary. (S02T1)

(12) (...) before I started to read the article I checked again how long the summary is supposed to be. (S10T1)

Other students reported recording key words, sentences or passages from the texts while reading, which were intended for use in the summary writing process. One student, in relation to reading Text 1, observed that a summary entailed reading the entire text, whereas his initial plan had been to just scan. While scanning is a skill used by advanced academic readers (e.g. Bazerman, 1985), this initial strategy selection is surprising given that Text 1 provided an introduction to the topic and was only four pages long.

(13) I would of course just scan for the information needed to complete it and not read it entirely. But as I started reading I came to realise that summarising the text would prove to be difficult since the information was extensive, and leaving anything out might result in faults in the summary. (S18T1)

In terms of relating the reading to the long-term goal (the essay), students approached the texts with different purposes in mind. One student (S21) reading Text 2 viewed the article as a genre model for the argumentative essay. Three students focused on the content of the texts, mining for “ideas that I might want to include in my essay” (S24T3), one paid close attention to lexis and formulations that would in his view enhance the language quality of his own text, and another used the text as a model for referencing style.

(14) I observed how the referencing was layed out since I thought it could be helpful when writing the essay. (S18T3)

Thus, students who did refer to the writing tasks tended to focus on the short-term goal of the summary, rather than the essay. While some students simply noted the summary task, others applied specific strategies such as identifying useful parts of the text, mining for content, and noticing surface level features which could contribute to their achievement of the writing goal.

5.3.4 Reflecting on reading

While all the comments on the blog constitute a reflection to a certain extent, some are explicitly self-regulatory in that students refer to, for example, comprehension effectiveness. 19 students reported reflecting on how they read the texts at least once, but only eight did so across two texts (four on both Texts 2 and 3, and four on Texts 1 and 3), and only four students routinely, namely for Texts 1, 2 and 3. Nonetheless, an increasing number of students reflected (Text 1, 9 students, Text 2, 11 students, and Text 3, 15 students) as the course progressed.

The students' comments in this category cover a broad spectrum. Some monitored their reading and remarked that reading course literature differed from their previous reading experiences, while others evaluated specifically the effectiveness of their selected strategy. For example:

(15) This article took me a bit longer to read and comprehend than it should, considering it's length, mostly because of my unfamiliarity with reading academic texts I presume. (S12T1)

(16) I tried to write down some words to remember it but it didn't work. (S08T2)

However, very few reported taking action to remedy an ineffective strategy. An exception is S06 (below). After having made several unsuccessful attempts to read and understand the text, the student identified a lack of focus as the issue. The problem was addressed through the selection of note-taking as a strategy, resulting in a tangible improvement in the eyes of the student:

(17) The third time, though, I forced myself to really focus and take notes on every paragraph and that worked much better. (S06T2)

The physical environment also featured heavily in students' reflections on their reading performance, as was the digital versus paper decision. At times, technology proved unhelpful or a distraction. S01 for example observes that reading a print copy would be beneficial, while S20 expresses frustration with technology. In the third example (below) the student resorts to taking a bus in order to avoid distraction:

(18) At this point I've realized that I really should print the text out and also that I should read an academic text when I feel rather rested. Not on late nights, which I usually am doing. (S01T2)

(19) What made the reading itself harder (...) was the fact that the document had to be rotated after every two pages since we read it on my laptop. (S20T1)

(20) I had to create an atmosphere where I could melt in the information continually without having to take a break from reading. Such atmosphere could only be created during a buss ride. (S18T3)

These comments suggest that while some students are able to monitor their own performance, very few report amending an unsuccessful strategy. In addition, when an amendment was reported, it tended to pertain to adjustments in the physical environment, scheduling, and computer-related issues, rather than cognitive approaches to tackling the texts. The students' focus on "moments and places conducive to better reading" (Hirano, 2015, p. 184) supports Mann's (2000, p. 297) observation that "the normally neutral or pleasurable activity of reading is disturbed in the academic context", even among these high-proficiency students. As a result, complex preparations (or procrastination) often form part of the reading session.

5.3.5 Drawing on a developing disciplinary expertise

While not part of Grabe's (2008) description of a strategic reader, our theoretical framework assumes that successful academic readers draw on disciplinary knowledge in order to support their reading processes. Reading is socially situated, and therefore some socialization into the discipline (both in terms of content knowledge and practices) is advantageous in decoding literature. This means that novice students, as in our study, are at a disadvantage. Nonetheless, the data provided evidence that some students were able to develop and draw on content knowledge and disciplinary expertise over the course of the reading. In relation to Text 1, more students contextualized what they were reading by relating the content to their own

experience, rather than to field knowledge. However, this trend already reverses in relation to reading Texts 2 and 3. The following example (S22) illustrates the shift.

(21) I find out that the text is about two different ways we learn vocabulary, both in L1 and L2: incidental learning and explicit learning. I recognize some concepts from random, sleepless nights in my youth that I spent searching Wikipedia, and I think to myself: “Yes, this makes sense.” (S22T1)

(22) Ooh, so this is also about incidental and explicit learning! This makes it easier, since some parts touch on things brought up by Schmitt, and I can compare to what I know from both texts in order to get a clearer view of incidental and explicit learning. I think it’s interesting to get to know more details and sort of the history of vocabulary acquisition. (S22T2)

Some students simply stated that their understanding of the topic had improved, or that their recognition of recurrent concepts such as explicit and implicit learning had increased. In contrast, 20 comments actually related knowledge gained from the text (2 or 3) to previous text(s), through comparison and contrast. For example:

(23) I noticed how much it reminded me of the previous article we read (...), however this article goes further deep into the subject, with different perspectives and examples. (S23T2)

Other students were able to relate their reading of the texts to disciplinary practices and knowledge construction. In the following, a student notes Text 3 is relatively dated (published in 2000), which is significant in that applied linguistics knowledge is open to revision:

(24) I just realized one thing, the text is from 2000, maybe some new eye-opening conclusion have been made in this area the last 13, 5 years (...). (S25T1)

Another student notices his developing knowledge of disciplinary methods, even though his understanding of the actual questions and conclusions drawn in the study he cites lack nuance:

(25) (...) reading this text was not only informative, but also insightful in terms of how the experiments were conducted with different methods though all wanted to reach the same conclusion; whether explicit or incidental learning is better. (S18T2)

Thus, our data did not suggest that a lack of disciplinary knowledge caused significant problems for our students. This is perhaps due to the genre selected (a text book introduction and two review articles) and to the choice of theme that related to a certain extent to the students' own experience as language learners.

The aim of this section was to draw out key themes from the data, and to explore what can be learned about students' reading behaviours from the analysis of their reading blogs, which may not be captured by alternative data collection methods. In the following section, we discuss our findings and propose pedagogical and research implications.

6. Discussion, conclusion and pedagogical implications

The aim of this study was to gain insight into how high proficiency novice readers tackle academic reading in English in their own study contexts. The main contribution therefore is the insight gained into how students tackle academic reading in their own settings, as reported in the reading blogs, and the examination of the potential of reading blogs as both a pedagogical and methodological tool. Given the increasingly global nature of higher education, the results are of interest to not only EAP practitioners, but also teachers in other disciplines who have high-proficiency L2 students in their classes, or indeed who operate in a parallel-language teaching context.

On the whole, the findings support previous research carried out in different countries and with a different student profile in terms of the strategies reported. However, there were some noteworthy omissions when the data is placed alongside research into cohorts of similarly inexperienced, but successful students. For example, Hirano (2015) found in her study that students adopted a collaborative approach to reading, either reading the text in groups or discussing problematic aspects post reading. In contrast, none of the students in our study reported any collaboration while reading, even though subsequent summary writing tasks were to be completed in pairs. Indeed, some deliberately sought out isolation (e.g. example 20). This may represent a missed opportunity, as students are prevented from potential challenges to their interpretation, and discussions surrounding their experiences and approaches to reading the texts. This seems particularly applicable to the cohort in the present study, as considerable differences were observed in terms of students' academic reading maturity, despite being a relatively homogenous group in terms of their prior educational experience, native language, and inexperience from an academic disciplinary perspective. One way to encourage collaborative reading would be to make the reading blogs open to all, or at least visible to a small sub-group so that students could share their strategies. Alternatively,

applications of online learning platforms such as a chatroom facility could be exploited to encourage the perception of academic reading as a collaborative meaning-making exercise, in contrast to reading for pleasure, when solitude may be preferable.

Another noteworthy omission from the blog is reference to the students' L1. Previous studies have shown that first-year students in particular are more likely to report translating (Malcolm, 2009), or at least "thinking" in L1. Nonetheless, studies on more academically advanced students have also noted that this is a common strategy. Li and Munby (1996) observe that "translating what is read in L2 into L1 is a unique strategy for L2 readers who use their first language as a base for understanding (...) the second language", and note that the Master's students in their study drew extensively on this approach. While translation on a word or sentence-by-sentence level would not be optimal, research has suggested that the use of L1 is important and useful when combined with other strategies for high proficiency readers (e.g. Upton & Lee-Thompson, 2001). It may therefore be useful to reassure high proficiency readers that drawing on L1 is not necessarily to be avoided or a weakness.

While the strategies above were not selected, many others were reported by the students on the blogs. Various research has shown that using multiple strategies enhances reading (e.g. Grabe, 2008), and therefore it could be concluded that our students are well-equipped to cope with the literature. However, our methodology was able to capture not only the strategy reported, but also how the student used the strategy, whether there was repeated use, and in relation to which text and task. This enabled us to interpret the data from a more qualitative perspective. For example, students noted words they did not understand, but did not always report researching the problematic items. Students highlighted parts of the text, but did not comment on the purpose of these highlighted sections or whether they would return to them.

Finally, students reported unsuccessful strategies, but did not necessarily amend their strategy use.

From a metacognitive perspective, some targeted strategy use seems intuitive; for example, many students related their reading to the summary writing task for Texts 1 and 3, and few students previewed the text without an abstract or headings (Text 1). Less intuitive was why students re-read parts of Text 1, which was short and straightforward, but few did so for the longer, more challenging texts. The lack of repeated strategies suggests that students are not “orchestrated” (Malcolm, 2009) in their approach, and employ (albeit numerous) reading strategies unsystematically (e.g. Block, 1986). It would therefore seem that simply providing students with reading strategies is not sufficient; clearly, students need to learn to monitor the success of the strategy selected (Grabe, 2008), and find the motivation to adapt their strategy and re-read the text. Equally, students may need the reassurance to stick with a strategy if successful, which suggests a need for some teacher input.

The reading blogs could also play a pedagogical role in a pedagogical intervention. For example, our data revealed that while repeated engagement with a text when writing (i.e. redrafting) is uncontroversial among students, this does not seem to be the case when it comes to reading (see also Hirano, 2015). This may again be a question of teacher input; teachers can provide feedback between written drafts, but feedback on reading may be less straightforward. Zamel (1992) pointed out that reading diaries enable teachers to give feedback on reading, but the affordances of digital technology make this even more practicable. Indeed, future research could explore the effects of teacher feedback on reading blogs.

As the above discussion reveals, the reading blogs as a tool provided valuable insights into reading behaviours, as the students self-reported over an extended period of time and in their own reading environments. Thus reading blogs could inform needs analysis (e.g. Hutchinson and Waters, 1987) or the design of pedagogical interventions in subsequent courses. From a research perspective, triangulation with interview data and reading performance assessment would also enable an investigation into the effects of teacher input and strategy selection. A longitudinal study tracking students' use of reading strategies via reading blogs as they become more socialized into their disciplines would also provide important insights into students' development as academic readers.

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