A Case Study of Academic Vocabulary in a Novice Student’s Writing at a UK University

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Abstract
Mastering appropriate writing style is one of the challenges frequently experienced by novice student writers entering higher education. Developing academic writing skills is, however, crucial for students new to academic settings since written assignments constitute the main form of assessment in tertiary education. Novice student writers thus need to acquire the writing conventions used in academic settings to achieve success in high-stakes assessment. Underlying success in academic writing is the usage of academic vocabulary regarded as a key feature of academic writing style. Through textual analysis accompanied by interview data utilising the ‘talk around text’ technique, this corpus-based case study reports on the deployment of academic vocabulary in four genres of assessed academic writing produced by one international foundation-level student at a UK university. The findings reveal a small number of newly acquired academic vocabulary items deployed in each written assignment with all new academic words having been acquired from reading materials. In addition, the important role that the topic and genre play in student written production becomes apparent. These findings have potentially important pedagogical implication for contexts catering for novice student writers entering tertiary education, such as foundation programmes or pre-sessional courses.

Keywords: academic vocabulary, academic writing, novice student writer, second language writing, writing genres
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1. INTRODUCTION

Writing has long constituted the main means of demonstrating knowledge and understanding in university contexts with written assignments likely to continue to be at the centre of assessment procedures at a tertiary level of education (Lillis & Scott, 2007). Writing is thus regarded as a ‘high stakes’ activity in university settings as students need to demonstrate the required standard of academic writing if they are to succeed in their studies (Flowerdew, 2016; Lillis & Scott, 2007). The vital role of academic writing in turn highlights two aspects vital for successful written production in university contexts: familiarity with the different text types (i.e. genres) as students are assessed on the knowledge and production of relevant writing genres (Flowerdew, 2016; Wingate, 2019), and familiarity with academic vocabulary as there is a well-established link between the knowledge of academic vocabulary and academic success (Gardner & Davies, 2014; Nagy & Townsend, 2012).

Academic vocabulary items are generally understood as words frequently occurring in a wide range of academic texts across disciplines which are not so common in non-academic texts (Baumann & Graves, 2010; Charles & Pecorari, 2016; Coxhead, 2000, 2019; Nation, 2001; Townsend & Kieman, 2015). This type of vocabulary is considered a crucial component of academic writing style (Coxhead, 2019; Hyland & Tse, 2007) and potentially the most obvious element of academic language (Nagy & Townsend, 2012). A control of these vocabulary items has been found to be a predictor of writing quality, hence linked to academic achievement (Csomay & Prades, 2018; Gardner & Davies, 2014; Maamuujav, 2021; Masrai & Milton, 2021; Townsend et al., 2012), particularly learners’ long-term success (Donley & Reppen, 2001).

It is, therefore, vital for university students to become familiar not only with the genres they are required to produce in their specific academic contexts (Wingate, 2018), but also to develop awareness of appropriate writing style incorporating some of the most common characteristics of academic writing, such as the deployment of specialised vocabulary prevalent in academic texts. This makes academic vocabulary an important learning goal for novice students, who have very little or no experience with the kind of writing required of them at universities, as knowledge of this type of vocabulary may be the most important factor in the ‘gate-keeping’ tests of education (Gardner & Davies, 2014). Despite the vital role that academic vocabulary plays in academic settings, learners are often less familiar with this type of vocabulary than they are with discipline-specific words (Coxhead, 2000). Hence, it is important for learners, practitioners and vocabulary researchers to know more about the behaviour of this type of vocabulary in academic texts (Coxhead, 2016).

This study explores the usage of academic vocabulary in one novice student’s writing in the context of an international foundation programme at a UK university. With the increasing numbers of non-UK students wishing to pursue university study at British Universities, such foundation courses play a vital role in the UK higher education climate as they prepare overseas students for study at a degree level by helping them develop the necessary academic and language skills.
2. LITERATURE REVIEW

Academic vocabulary research has been greatly assisted by academic word lists (i.e., compilations of the most frequently occurring words in academic texts) and recent decades have seen the creation of several such lists, including: the Academic Word List (AWL) (Coxhead, 2000) which has updated and replaced the University Word List (UWL) (Xue & Nation, 1984), the Academic Keyword List (AKL) (Paquot, 2010), the New Academic Word List (NAWL) (Browne et al., 2013), or the new Academic Vocabulary List (AVL) (Gardner & Davies, 2014). Despite their common aim of providing a list of the most frequent academic vocabulary encountered in a variety of texts across scientific disciplines, significant differences can be found between these word lists with regard to their size, age, organising principle and methodologies used for their compilation. These differences inevitably result in several potential limitations, as reviewed by Therova (2020).

Numerous studies have utilised academic word lists to investigate academic vocabulary in learner writing in various educational contexts (e.g., Cons, 2012; Csomay & Prades, 2018; Durrant, 2016; Maamuujav, 2021; Masrai & Milton, 2017, 2018, 2021; Nadarajan, 2011; Olinghouse & Wilson, 2013; Townsend et al., 2012). These studies draw predominantly on the Academic Word List (Coxhead, 2000) or the new Academic Vocabulary List (Gardner & Davies, 2014). While these studies provide important insights into the deployment of academic vocabulary in learner writing, fewer studies focused on the learners’ experiences with academic vocabulary.

Among the few identified studies offering insights into the learners’ perceptions is Brun-Mercer and Zimmerman’s (2015) study exploring academic vocabulary in the writing of nine L2 advanced college-bound learners aged 18 - 32 at an Intensive English Program in California. Their study focuses on the decision-making processes relating to the integration of academic vocabulary in their writing, the factors influencing their lexical choices in composition and the techniques that help them deploy academic words effectively. Utilising the learners’ essays, interview data and a survey on vocabulary strategy use, their study showed that their participants found it difficult to use academic vocabulary items effectively and appropriately due to their unfamiliarity with the register of a word. Their results also revealed that insufficient encounters with an academic vocabulary item resulted in the learners not feeling comfortable using the word in their writing; conversely, their participants reported feeling more confident in using new words having learned them in a meaningful way and after multiple exposures to the vocabulary items in different contexts. Other factors reported as beneficial by their participants included opportunities to use newly acquired academic words in writing production together with receiving feedback on the deployment of academic words. Brun-Mercer and Zimmerman (2015) thus highlight the importance of explicit teaching of the register of new words, including encouraging students to use a learner’s dictionary to verify the appropriacy of a given vocabulary item for the target genre. They also call for practitioners to draw learners’ attention to examples of academic words and their usage in appropriate texts and for learners to be provided with ample opportunities to practise using the same vocabulary item in different contexts.

Academic vocabulary was also investigated as part of Knoch et al.’s (2014) study examining academic vocabulary as part of ESL students’ overall writing proficiency at an Australian university over a period of one year. Their study involved 101 students from
various linguistic backgrounds pursuing a range of degree courses across the university. In addition to an analysis of the students’ writing scripts, the participants also completed a questionnaire after one year of study relating to their writing, reading, listening and reading practice. A subset of the participants also took part in a semi-structured interview about their perceptions of their writing development. Their study showed no change in the percentage of academic vocabulary (measured on the basis of the AWL) after one year of degree study. Knoch et al.’s (2014) study formed a part of their larger study (Knoch et al., 2015) exploring university student writing development over three years of undergraduate study at the same Australian university involving 31 undergraduate students. Knoch et al. (2015) also utilised semi-structured interviews and questionnaires to complement the textual analysis at the end of the three-year period. Similar to their earlier study, this study’s results also showed no significant increase in the percentage of the AWL items deployed by the students. Knoch et al. (2014, 2015) hypothesise that the lack of improvement in the deployment of academic vocabulary may have resulted from the fact that the participants did not have an opportunity to write about a topic relating to their discipline, which may have resulted in a higher usage of AWL items. In addition, Knoch et al.’s (2015) study highlighted lack of writing practice over the duration of the degree programme.

Considering the highly prominent role of academic writing in university contexts with written assignments in the form of various writing genres representing the main way of assessment and academic vocabulary regarded as a key element of academic writing style, research into the usage of academic vocabulary in various genres of assessed academic writing is an important area of vocabulary research. This is particularly important in the context of novice student writers, who have often had very little, if any, prior exposure to the type of language required of them at universities. The reviewed literature shows that although some studies investigating academic vocabulary in student writing also explore the student writers’ perceptions, little has been reported on the usage and perspectives of academic vocabulary in novice students’ writing. In addition, no literature utilising a case study approach to the investigation of academic vocabulary has been identified. To address this important omission, the current research takes the form of a case study with the aim of providing a detailed account of the phenomenon under study. Specifically, this paper reports on the writing practices of one novice student writer over the duration of a foundation programme at an English-medium university with a particular focus on the acquisition and deployment of academic vocabulary in various genres of assessed academic writing accompanied by ‘talk around text’ (Lillis, 2008) providing insights into the learner’s perspectives and writing processes as they engage with texts. In doing so, this study seeks to address the following research questions (RQs): RQ1. What is the usage of academic vocabulary in various genres of a novice student’s assessed academic writing? RQ2. What is the size of newly acquired academic vocabulary used in various genres of a novice student’s assessed academic writing? RQ3. What are the main contributing factors impacting the acquisition and usage of academic vocabulary in various genres of a novice student’s assessed academic writing?
3. RESEARCH METHODS

3.1 Context

This case study was motivated by a larger study (N=193) conducted in the context of an International Foundation Programme (IFP) at a British university located in the South-East of England between 2016 and 2018 (Therova, 2021). The IFP is targeted at international students who aspire to pursue undergraduate study at the University but do not meet the requirements for direct entry to the University’s degree programmes in terms of their English language. The goal of the IFP is hence to prepare these students for academic study by helping them develop their language as well as various other skills necessary for successful study at a degree level, such as research skills, academic writing, presentation skills or independent learning strategies. The IFP is generic in its nature (as opposed to discipline-specific), meaning that on successful completion of the course students are able to progress onto a degree programme of their choice within the University. The IFP is delivered over one academic year, equalling 24 teaching weeks delivered over six months, during which the students receive 16 hours of taught sessions per week in the form of lectures, seminars and laboratories.

3.2 Participant

The current study reports on a case study conducted with one participant (pseudonym “Alice”) enrolled on the IFP during the academic year 2017-2018, who voluntarily agreed to take part in this study. Alice was an 18-year-old Vietnamese student who had come to Britain to pursue university study due to the reputation of the British higher education system and to continue to improve her English. Prior to that, she had learned English in her home country, where the focus was mainly on accuracy of language production and vocabulary expansion primarily through controlled grammar and vocabulary tasks: “every exercise is about grammar and new words” (Alice). In Vietnam, Alice was also often required to complete short writing tasks for assessment purposes only, with little feedback on her written production which would relate to grammar only. Having taken the International English Language Testing System (IELTS) test was reported by Alice as her only experience with academic writing prior to the IFP. Alice took the IELTS test three months before enrolling on the IFP (following a six months’ preparation period at a local language centre) and scored 7.0 overall and 5.5 on the writing component, which she had found the most challenging aspect of the test. On completion of the IFP, Alice progressed to study Business Management at the University.

3.3 Data

For the purpose of this study, two types of data were collected: textual and interview data. The textual data consist of four summative written assignments submitted to the University for assessment purposes over the course of the IFP. These written assignments, collected in electronic format, were labelled as ‘essays’ and ‘reports’ by the University. This issue of nomenclature used to describe different writing genres has been highlighted by Nesi and Gardner (2018, p. 52), who point out that various types of writing are often “described as either ‘reports’ or ‘essays’, often interchangeably and without acknowledging that different assignments with the same descriptor might require different uses of language and
different organisational patterns”. Therefore, the collected assignments were examined and categorised into writing genres. For the genre classification, Nesi and Gardner's (2012) taxonomy of assessed university student writing was followed as it provides a comprehensive and relatively recent classification of British university student writing. A closer examination of the assignments indeed revealed that there were differences in their structure and purpose, resulting in a different classification of the collected text, summarised in Table 1.

Table 1. Overview of Textual Data

<table>
<thead>
<tr>
<th>Writing genre</th>
<th>Topic</th>
<th>Word length</th>
<th>Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposition Essay</td>
<td>Intelligence and learning</td>
<td>751</td>
<td>Month 2</td>
</tr>
<tr>
<td>Problem Question</td>
<td>Sustainable tourism</td>
<td>1452</td>
<td>Month 4</td>
</tr>
<tr>
<td>Research Report</td>
<td>Barriers to sustainability</td>
<td>1558</td>
<td>Month 5</td>
</tr>
<tr>
<td>Discussion Essay</td>
<td>Mobile telephone usage</td>
<td>1021</td>
<td>Month 6</td>
</tr>
</tbody>
</table>

The categorisation of the collected assignments presented in Table 1 was achieved with reference to the actual written assignments produced by Alice as well as the assignment instructions with which Alice was presented. As Table 1 shows, the four assignments represent four writing genres (Exposition Essay, Problem Question, Research Report, and Discussion Essay).

The Exposition Essay assignment displayed the social function of demonstrating knowledge and understanding through constructing a coherent argument and employing critical thinking skills with a typical ‘thesis – evidence – restatement of thesis’ structure staged as introduction, series of arguments and conclusion (Nesi & Gardner, 2012). In this essay, Alice examined the theory of multiple intelligences and analysed which type of intelligence reflected her own learning, supported with examples from her past learning experiences serving as evidence for her argument.

The Problem Question assignment was aimed at providing practice in applying the theory and methods of the discipline in response to a professional problem with a ‘situation / context - problem - solution – evaluation’ structure with the stages of a problem scenario followed by application of relevant arguments leading to possible solutions (Nesi & Gardner, 2012). In this assignment, Alice had to choose an organisation within the tourism industry and discuss in which way the organisation demonstrates commitment to sustainable tourism and the barriers preventing the organisation from being more sustainable together with suggestions on implementable ideas that would enable the organisation to support sustainable tourism practices and an evaluation of the beneficial effects that sustainable development projects would have on the environment.

The Research Report with its social purpose of demonstrating the ability to undertake a piece of research displayed an ‘Introduction - Method - Results - Discussion’ structure focusing on both empirical research as well as exploration of relevant literature relating to the issue under investigation (Nesi & Gardner, 2012). This assignment required Alice to
write a report on preventing barriers to sustainability including a literature review exploring the topic under investigation, primary research, presentation of results and a discussion about how the various barriers may impact the sustainable development initiatives and how these barriers could be prevented.

The Discussion Essay displayed the same social purpose as the Exposition Essay. The difference was in the ‘issue - alternative arguments - final position’ structure of the Discussion Essay, which required the inclusion of alternative positions relating to the issue under discussion before reaching a position based on the evidence discussed (Nesi & Gardner, 2012). In this essay, Alice was asked to discuss whether mobile phone usage can harm or enhance human communication.

The collected textual data were complemented by interview data utilising the ‘talk around text’ technique, which aims to provide insights into writers’ perspectives on their texts (Lillis, 2001). In this study, text-focused talk around text was utilised with the text representing the primary research object and the talk collected as additional data, commonly adopted in English for Academic Purposes (EAP) research contexts (Lillis, 2008). This was executed by interviewing Alice after submission of each of the four assignments with reference to the actual texts. Although the interviews explored various aspects surrounding Alice’s academic writing on the IFP, this paper reports on Alice’s perspectives on academic vocabulary due to the important role of academic vocabulary in academic written production.

In total, there were four interviews with Alice, each relating to one of the four written assignments collected for the purpose of this study. The interviews were up to 30 minutes long. To enable extensive follow-up of Alice’s responses, a semi-structured format of interview was adopted as its loose set of guidelines enables flexibility, which gave Alice the opportunity to discuss her experiences and perspectives. To aid the discussion, accompanying Alice’s assignments were lists of academic vocabulary items extracted from her texts. These served as a basis for discussion of Alice’s experience with academic vocabulary revolving around the acquisition of new academic vocabulary items and their subsequent deployment in written production.

3.4 Procedure

The collected assignments were first amended in a number of ways to preserve only the text produced by Alice in order to achieve more accurate results. This involved the deletion of the list of references and appendices. In addition, tables and figures including captions were deleted as most of these were taken from external sources, meaning that the language did not reflect Alice’s language production. These amendments were considered necessary as different parts of texts are of unequal importance and the running texts may be regarded as the text proper (Nesi et al., 2005).

Due to its strengths over other existing word lists (Therova, 2020), this study utilises the new Academic Vocabulary List (AVL) (Gardner & Davies, 2014) for identification of academic vocabulary in Alice’s texts. To correspond to the AVL’s organising principle based on lemmas (i.e. all inflectional forms related to one stem which belong to the same part of speech), the collected texts were lemmatised first using TagAnt (Anthony, 2015). This was followed by identification of academic vocabulary on the basis of the AVL using
AntWordProfiler (Anthony, 2013). The identified academic vocabulary items were subsequently considered from the perspective of the coverage that academic vocabulary accounted for and by counting the number of academic vocabulary types (i.e. unique words), reflecting two common ways of measuring academic vocabulary in texts (Nation, 2001).

The coverage (henceforth ‘density’) of academic vocabulary refers to the proportion of academic words in relation to all words and was calculated as a percentage of academic words per all words. The number of academic vocabulary types provides insights into the range or variety (henceforth ‘diversity’) of academic vocabulary in relation to all types and was calculated as a percentage of academic types per all types. It is noteworthy that in the current study, academic types refer to the different academic lemmas as opposed to “a unique word form” (Brezina, 2018, p. 39) belonging to the same stem. This is because the academic vocabulary items were identified using lemmatised texts, which did not contain inflected word forms.

Utilising AntConc (Anthony, 2018), the most frequently occurring academic vocabulary items were further explored through concordance lines, which provided insights into the usage of these vocabulary items in their contextual environment. This was complemented by concordance plots showing the location of the items under study in the text.

For comparative purposes as well as to establish whether Alice can be regarded as representative of the wider student population on the selected IFP programme, the density and diversity of academic vocabulary were compared to the findings generated by a larger study conducted on the same IFP programme between 2016 and 2018 (Therova, 2021), as outlined in section 3.1. The purpose of this was to gain insights into the uniqueness or typicality of Alice’s usage of academic vocabulary in relation to the larger group of IFP students at the University.

The textual analysis was accompanied by an analysis of the interviews collected after submission of each of the four assignments, which provided insights into Alice’s perspectives and writing practices. During the interview analysis, the issue of reactivity was also considered, referring to the effects of the researcher on the nature of the collected data (Hammersley & Atkinson, 2007). The issue of reactivity, however, is likely to have been reduced by the fact that I was not Alice’s tutor on the IFP modules for which the written assignments explored in this study were produced, nor was I the marker of the assignments under discussion. Further, eliminating the problem of reactivity is not always a prime consideration provided that the researcher understands how their presence may have influenced the interview data, which should be interpreted accordingly (Hammersley & Atkinson, 2007).

4. FINDINGS

In response to RQ1 (i.e. What is the usage of academic vocabulary in various genres of a novice student’s assessed academic writing?), the textual analysis showed that the density of academic vocabulary in Alice’s written assignments ranged between 14.4% (Discussion Essay) and 25.74% (Research Report) and the diversity of academic vocabulary was between 20.57% (Discussion Essay) and 30.98% (Research Report) across the four writing
genres (Table 2). The Research Report thus displayed the highest density as well as diversity of academic vocabulary and the Discussion Essay showed the lowest density and diversity of academic vocabulary, pointing to the impact of the writing genre on the deployment of academic vocabulary. Table 2 also shows the newly acquired academic vocabulary deployed in each written assignment, as reported by Alice during the follow-up interviews (addressing RQ2 i.e. What is the size of newly acquired academic vocabulary used in various genres of a novice student’s assessed academic writing?).

<table>
<thead>
<tr>
<th>Writing genre</th>
<th>Word length</th>
<th>Academic words</th>
<th>Types (total)</th>
<th>Academic types</th>
<th>Acquired academic vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposition Essay</td>
<td>751</td>
<td>115 (15.31%)</td>
<td>329</td>
<td>86 (26.14%)</td>
<td>comprehend, initiative, empirical, overarching</td>
</tr>
<tr>
<td>Problem Question</td>
<td>1452</td>
<td>235 (16.18%)</td>
<td>546</td>
<td>121 (22.16%)</td>
<td>initiative, sector</td>
</tr>
<tr>
<td>Research Report</td>
<td>1558</td>
<td>401 (25.74%)</td>
<td>523</td>
<td>162 (30.98%)</td>
<td>deterioration, simultaneously implementation</td>
</tr>
<tr>
<td>Discussion Essay</td>
<td>1021</td>
<td>147 (14.4%)</td>
<td>418</td>
<td>86 (20.57%)</td>
<td>converse, degradation, inseparable</td>
</tr>
</tbody>
</table>

The results presented in Table 2 can be regarded as comparable to those generated by the larger corpus-based study involving 193 participants pursuing the same IFP programme (Therova, 2021), which showed that the average density for the different writing genres (each also representing different topics) ranged between 11.61% - 16.62% in Exposition Essay, 16.15% - 19.44% in Problem Questions, 18.97% in Research Reports, and 14.50% - 21.36% in Discussion Essay. With the exception of the Research Report (in which Alice demonstrated a denser usage of academic vocabulary), Alice’s density of academic vocabulary falls within the average density of academic vocabulary found in the larger sample. In terms of the diversity of academic vocabulary, Alice’s usage of academic vocabulary in two out of the four assignments (i.e. Exposition Essays and Research Report) can also be seen as typical of her peers, whose average diversity of academic vocabulary was 19.21% - 27.89% in Exposition Essays, 26.61% - 30.33% in Problem Questions, 29.81% in Research Reports, and 24% - 30.13% in Discussion Essays. To some extent, Alice’s usage of academic vocabulary can thus be regarded as representative of her peers.

4.1 Exposition Essay

The analysis of the Exposition Essay showed that the most frequently deployed academic vocabulary items were spatial (x6), theory (x5), and multiple (x4) providing coverage of approximately 13% (15/115) of all academic words. These vocabulary items reflect the assignment topic of Intelligence and Learning where Alice was required to discuss the theory of multiple intelligences together with her intelligence type, as illustrated by Figures1 - 3.
The assignment topic thus seems to have impacted the coverage of academic vocabulary in the Exposition Essay. This becomes apparent from the repeated references to spatial (Figure 1) and the combination of theory with multiple intelligence (Figure 2) as well as multiple occurring in combination with intelligence only (Figure 3).

When presented with the list of academic vocabulary identified in her Exposition Essay, Alice selected the following words that she reportedly had not known or used prior to completing the essay: comprehend, empirical, initiative, overarching (Table 2). That is, Alice used four new academic vocabulary types in the Exposition Essay (each of them was used once only), out of the total of 86 academic vocabulary types used in the essay (Table 2), meaning that less than 5% (4/86) of the academic vocabulary types deployed in the essay were newly acquired academic vocabulary.

In terms of comprehend, Alice reported that it is a word which she does not often use as she uses understand instead, but she used it in the essay as “it was a very nice word to use” and she felt it fit the context and topic under discussion (Interview 1). Alice also noted that she had acquired the word from the background reading she had done on the topic. Empirical and overarching were also reported to have been acquired from reading materials on the topic, such as journal articles. When asked about initiative, Alice noted: “there is not often a situation where I can use it” (Interview 1).

4.2 Problem Question

The analysis of the Problem Question assignment revealed that the most frequently deployed academic vocabulary items were sustainable (x29), group (x13) and development (x12) providing coverage of 23% (54/235) of all academic words. This is interesting as Alice deployed 121 academic vocabulary types in total (Table 2) and only three of these
vocabulary items (i.e. 2.5% of all academic vocabulary types) accounted for nearly a quarter of academic vocabulary coverage in this assignment. It is noteworthy that group in this assignment referred to a specific hotel group chosen by Alice as an organisation within the tourism industry to explore in this assignment, resulting in a high frequency of this vocabulary item.

Similar to the Exposition Essay, these three most frequently occurring academic vocabulary items reflect the topic under discussion, which required Alice to focus on the benefits of sustainable tourism development projects on the environment, thus further highlighting the impact of the topic on the density of academic vocabulary in Alice’s writing. This can be seen from Figure 4 showing that several occurrences of development were in combination with sustainable tourism.

Figure 4. Usage of ‘development’

In the interview, Alice reported that she had found this assignment very difficult as it was the first time she was required to complete this type of assignment: “It was very difficult for me because this is the first time I wrote a report and actually I didn’t know where to start” (Interview 2). Alice also stated that after completing this assignment, she still found it a challenging task although she had a better understanding of its structure and content of each section: “I have more idea about how it is structured and what should be included in each section but it’s still a difficult task for me” (Interview 2).

From the list of academic vocabulary with which Alice was presented, initiative and sector were selected as words that she had not known or used prior to completing this assignment (Table 2), used once and twice respectively. This is interesting as Alice had selected initiative during the previous interview about the Exposition Essay. When asked about the usage of initiative in her Problem Question assignment, Alice reported that despite knowing the word she did not use it in informal writing. This may indicate that novice student writers need multiple opportunities for the usage of new academic vocabulary items or items which they do not use in contexts other than academic writing. As far as sector is concerned, Alice explained that it was a new word which she had acquired from an article she had read and provided a definition of the word in the context of her assignment: “sector is a part, an element of something, but in this case tourism is a sector” (Interview 2). This highlights Alice’s awareness of the important role that the context plays in the selection of academic vocabulary. Alice also noted that the time between the Exposition Essay and the Problem Question assignment was too short to notice any improvement in her academic writing.
4.3 Research Report

The analysis of the Research Report showed that two academic words (development used 53 times and sustainable deployed 50 times) accounted for approximately 25% (103/401) of all academic words in this assignment. This result highlights the frequency with which these two academic vocabulary items were deployed (Figures 5 and 6). As can be seen from the concordance plots in Figures 5 and 6 showing the location of the vocabulary items in the report, these two academic words were deployed throughout the assignments. The rather high coverage of academic vocabulary caused by two academic vocabulary items only (out of the total of 401 academic vocabulary types used in this assignment) is worth noting as it further highlights the impact of the assignment topic on the density of academic vocabulary in written production.

A closer inspection of these two words revealed that they were often used in combination (Figure 7), further emphasising the impact of the assignment topic revolving around barriers to sustainable development.

In the interview (Interview 3), Alice pointed out the difference in this assignment compared to the others she had completed, which lay in the collection of primary data in the form of an online survey. In terms of new academic vocabulary, Alice selected deterioration, simultaneously, and implementation from all academic words used in this assignment, which she reported were acquired from an article relating to the assignment topic. These three academic vocabulary items were used once (deterioration and simultaneously) and three times (implementation) in the report.

4.4 Discussion Essay

The analysis of the Discussion Essay showed that the most frequently deployed academic vocabulary items were communication (x14), face-to-face (x6) and social (x6)
providing coverage of around 18% (26/247) of all academic words. The occurrence of *communication* with the highest frequency of all academic vocabulary items can be explained by the fact that the assignment instructions required Alice to discuss the question of whether mobile phone usage can harm or enhance human communication. It can thus be assumed that the prevalence of this academic vocabulary item in Alice’s essay was in response to the essay question and was used repeatedly as a way of explicitly addressing the assignment instructions thereby answering the essay question (Figure 8).

As far as the usage of newly acquired academic vocabulary items is concerned, Alice selected *converse, degradation,* and *inseparable* (each used once in the essay) from the list of academic vocabulary deployed in her essay and noted that they were all acquired from the readings she had done during the process of completing the essay.

### 4.5 Final Reflections

In the final interview (Interview 4), Alice was asked to reflect on her experience with academic writing on the IFP in terms of the perceived changes in her academic writing and the main contributing factors that had impacted these changes. Alice reported that she thought there had been “a significant change” in her writing over the duration of the IFP. Alice elaborated on this by explaining that prior to the IFP, her only experience with academic writing was preparation for her IELTS exam. Alice also thought that her writing style had become more formal and academic during the course of the IFP and at the end of the programme she could distinguish between what is acceptable academic writing style and informal expressions less suitable to use in academic writing. Alice also reported that she had learned about the structure and requirements of various types of texts that she was required to produce, such as a report which she had never done before. To continue to develop her writing skills, Alice noted that she was going to read more and practise more writing.

### 4.6 Summary of Findings

In response to RQ1 (i.e. What is the usage of academic vocabulary in various genres of a novice student’s assessed academic writing?), the textual analysis revealed that the density of academic vocabulary in Alice’s assessed academic writing ranged between 14.4% and
25.74% across the four writing genres investigated in this study and the diversity of academic diversity was between 20.57% and 30.98%. Through textual analysis of the different writing genres, the impact of the topic and genre on the deployment of academic vocabulary in Alice’s assessed academic writing became apparent. Complemented by the interview data addressing RQ2 (i.e. What is the size of newly acquired academic vocabulary used in various genres of a novice student’s assessed academic writing?), it also showed that in each of the four written assignments Alice used a rather limited number of newly acquired academic vocabulary items. With regard to RQ3 (i.e. What are the main contributing factors impacting the acquisition and usage of academic vocabulary in various genres of a novice student’s assessed academic writing?), the interview data highlighted the important role that reading sources play in the acquisition and subsequent productive usage of academic vocabulary.

5. DISCUSSION

5.1 The role of the Topic

The assignment topic was found to be a major factor impacting the density of academic vocabulary across all four writing genres with the most frequently deployed academic vocabulary items closely relating to the topic under discussion. The effect of the topic may be expected, however, as “[e]ach text has its own topic vocabulary which occurs because of the message the text is trying to convey” (Nation, 2001, p. 208), and has also been found by others. Olinghouse and Wilson's (2013) finding, for example, shows that students consider the topic when selecting vocabulary to integrate in their writing as the topic knowledge is one of the “knowledge bases students access to select appropriate words while composing written text” (p. 59). The role of the topic in academic written production was also noted by Knoch et al. (2015, 2014), whose longitudinal studies of productive academic vocabulary in university student writing spanned one (Knoch et al., 2014) and three years (Knoch et al., 2015) and showed no increase in the deployment of academic vocabulary. They theorise that the lack of improvement in the usage of academic words in their studies could be explained in relation to the assigned topic, which may have allowed for a limited range of vocabulary in the student written production. Despite the important role of the topic, Csomay and Prades’s (2018) findings show that other factors impact the usage of academic vocabulary to a greater extent than the topic. Specifically, their study revealed that “text type and rhetorical purpose play a greater role in the percentage of academic words than merely topic selection” meaning that “the genre that students are asked to produce influences academic word use more than topic” (p. 14).

It has to be acknowledged, however, that in this case study some of the vocabulary reflecting the assignment topic not only offered Alice few alternatives, but it can also be assumed that these vocabulary items had to be used in addressing the assignment instructions. This result, therefore, underlines the extent of the effect that the topic had on the density of academic vocabulary in Alice’s written assignments with the academic vocabulary items relating to the assignment topic being among those occurring with the highest density.

These academic vocabulary items relating to the topic reflect Nation’s (2001) category of ‘technical words’, referring to “words that are very closely related to the topic and subject
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area of the text” and “differ from subject area to subject area” (Nation, 2001, p. 12). The prevalence of the identified academic vocabulary closely related to the assignment topics hence suggests that within the category of academic words (i.e. words distinctive to academic language common across disciplines) exist technical words. In other words, in this case study academic vocabulary also subsumes technical words unique to different topics. Thus, this result does not reflect the distinction between technical and academic vocabulary where “academic vocabulary is comprised of words used in a variety of academic contexts … rather than words associated with specific disciplines or topics” (Olinghouse & Wilson, 2013, p. 47), but instead points to an intersection between these two vocabulary types.

This result, therefore, underlines the crucial role that topic knowledge plays in productive academic vocabulary in novice student writing. In doing so, it foregrounds the importance of familiarity with subject-specific vocabulary while at the same time challenging the notion of academic vocabulary commonly used across disciplines. This is supported by several corpus-based studies investigating academic vocabulary (e.g., Durrant, 2014, 2016; Hyland & Tse, 2007, 2009; Martínez et al., 2009) which argue that “there may not be a usefully large set of vocabulary which is frequent across disciplines” (Durrant, 2016, p. 50). This argument rests on two points: one relating to academic words not being evenly distributed across disciplines and the other concerning the various uses of academic words across disciplines (Durrant, 2014, p. 329) with the latter stemming from semantic variations of words as a result of the disciplinary contexts in which they are used (Hyland & Tse, 2007, 2009).

The implication of this result for pedagogy highlights the importance of EAP practitioners raising learners’ awareness of knowledge of topic-related vocabulary items, their behaviour and meaning in the specific contexts in which they occur. In the context of generic IFPs, however, it is important to find a balance between a focus on topic-specific vocabulary necessary for completion of a specific task (often related to a specific discipline, which may not be of equal usefulness to all learners on a generic IFP programme) and academic words commonly used in various academic contexts.

5.2 The Role of the Genre

The analysis of the usage of academic vocabulary across Alice’s written assignments representing four writing genres (Table 2) revealed a similar density of academic vocabulary in the Exposition Essay (15.31%), Problem Question (16.18%) and Discussion Essay (14.4%) with a considerably denser usage of academic vocabulary in the Research Report (25.74%). Similarly, the diversity of academic vocabulary was higher in the Research Report (30.98%) compared to the other writing genres where the diversity of academic vocabulary ranged between approximately 21% and 26% (Table 2). A possible explanation for the Research Report displaying the highest density and diversity of academic vocabulary may be the writing genre’s ‘Introduction-Method-Results-Discussion’ structure, reflecting its social purpose with each section serving a different purpose, thus requiring different academic vocabulary.

The writing genre hence seems to have impacted the density and diversity of academic vocabulary in Alice’s writing. This result is in line with other studies, which reported differences in academic vocabulary usage across writing genres (e.g., Csomay & Prades,
Csomay and Prades (2018), for example, found that some text types produced by students displayed a considerably higher percentage of academic words than others. They argue that this provides “evidence that academic vocabulary is text type specific in student writing” (Csomay & Prades, 2018, p. 114). Their analysis showed that these differences resulted from the rhetorical purposes of different genres, which have a strong impact on the amount of academic vocabulary used in student writing. Durrant’s (2016) study, however, found that another factor has a more significant effect on the usage of academic vocabulary as his study shows that a genre is not as large a factor impacting the usage of academic vocabulary items as discipline.

Considering the effect that a writing genre seems to have on the deployment of academic vocabulary in student written production, practitioners should explicitly focus on the characteristics of the different writing genres that the students are required to produce (Nesi & Gardner, 2012). Specifically, students’ attention ought to be drawn to the genres’ social purpose and how this in turn impacts vocabulary selection to fulfil this purpose (Csomay & Prades, 2018; Durrant, 2016; Olinghouse & Wilson, 2013).

5.3 The Role of Reading Sources

Reading texts relating to the assignments’ topics were reported to be the source of all the newly acquired academic vocabulary that Alice used in her writing. However, the number of newly acquired productive academic vocabulary deployed in Alice’s written assignments was rather small (i.e. ranging between two and four, Table 2). This result highlights two important points: the important role that reading sources play in acquisition of new academic vocabulary items and their subsequent deployment in written production, and the need for explicit focus on academic vocabulary to broaden novice student writers’ repertoire of academic vocabulary.

The result relating to the importance of reading texts is consistent with findings generated by studies into the potential links between reading and writing (i.e. research into writing from sources variously referred to as textual borrowing, source-based writing, reading-to-write constructs or integrated writing tasks), which highlight that writing is not an autonomous skill, but rather allied with other skills such as reading, whereby the reading materials serve as a source of vocabulary for writers. Specifically, one of the uses of texts by writers was found to be reading for vocabulary to support language in writing (Plakans & Gebril, 2012). Another study (Leki & Carson, 1997) found that source texts provided students with vocabulary and writing style and thereby “often became scaffolding for the subsequent assignment by freeing the writer from the need to find appropriate words” (p. 56).

Practitioners thus ought to encourage and facilitate exposure to suitable academic texts and emphasise the vital role that reading plays in the writing process where reading materials can serve as a source of information as well as appropriate vocabulary (Plakans & Gebril, 2012). In particular, learners should be provided with relevant reading materials that would enable them to notice new academic vocabulary (Nation, 2001). Learners should also be provided with opportunities to work with academic texts in a classroom under teachers’ guidance. This ought to be aimed at equipping learners with relevant learning strategies,
such as identifying unfamiliar academic vocabulary and drawing learners’ attention to how these newly met vocabulary items are used in meaningful contexts. This would enable learners to select relevant vocabulary items for integration in their writing (Coxhead, 2012; Gebril & Plakans, 2016) since following a text as a model can help learners feel more confident in using academic vocabulary in their written production (Cons, 2012).

Despite the vital role of reading sources for acquisition and usage of academic vocabulary, this case study’s result relating to a small number of new productive academic vocabulary items shows that mere exposure to reading text is not sufficient for novice student writers to expand their academic vocabulary. This result is in accord with other writing researchers, who put great emphasis on the importance of instruction which should focus on expanding L2 learners’ lexical repertoire. Hinkel (2003, p. 297), for instance, emphasises that “mere exposure to academic text and reading may not be sufficient for L2 learners to attain the advanced academic proficiency essential for success in their academic endeavors”. This is in line with Storch and Tapper's (2009) study, in which they point to explicit teaching as a potential factor that may have contributed to the increase of academic vocabulary items in their students’ texts over time. Others have also called for explicit focus and instruction on effective integration of academic words in writing (e.g., Brun-Mercer & Zimmerman, 2015; Cons, 2012; Csomay & Prades, 2018).

Practitioners thus need to be aware that although reading sources play a crucial role in the acquisition and deployment of academic vocabulary in student writing, reading alone may not be sufficient for successful integration of appropriate academic vocabulary items in learner written production. Hence, sufficient time should be dedicated to explicit focus on academic vocabulary items in a classroom, which ought to involve not only introducing new academic vocabulary, but also “explicit instruction on how to effectively use academic words in writing” (Cons, 2012, p. 630) with modelling in relation to academic vocabulary usage seen as an integral part of an effective lesson (Coxhead, 2012), particularly in relation to the various genres which students are required to produce (Olinghouse & Wilson, 2013). This is particularly important given the impact of the writing genre on the function, meaning and collocational behaviour of academic words (Hyland & Tse, 2007, 2009).

6. CONCLUSION

This case study set out to investigate one novice writer’s acquisition and usage of academic vocabulary in four genres of assessed academic writing in the context of a generic international foundation programme at a UK university. The findings revealed that there was a rather small number of new academic vocabulary items deployed in each of the four written assignments. The findings also highlighted the impact of the assignment topic and the writing genre on the deployment of academic vocabulary in the one novice student’s written production reported on in this paper and underlined the vital role that reading sources play in the acquisition of new academic vocabulary items subsequently deployed in writing. Therefore, practitioners ought to explicitly focus on topic-specific vocabulary items necessary for completion of written tasks, while at the same time expanding the students’ repertoire of academic vocabulary frequently occurring in academic contexts across a range of disciplines. Novice students’ attention should also be drawn to the characteristics of the different writing genres that they are required to produce in their specific contexts and how
this impacts vocabulary selection. In addition, the important role that reading plays in the writing process should be emphasised to novice student writers, where reading texts can serve as a source of appropriate academic vocabulary and as models for integration of academic vocabulary in subsequent written production.

Despite these potentially important implications for pedagogy, several limitations of this study need to be acknowledged. First, the findings reported on in this paper are based on an exploration of one novice student’s written production. Notwithstanding the fact that this case study can be seen as representative of the wider IFP population at the selected University, caution is needed when reaching conclusions as these findings may not be generalisable across other foundation-level students’ populations at other universities or discipline-specific IFPs. Next, drawing on a pre-existing list of academic vocabulary may have resulted in an omission of other vocabulary items that Alice had acquired and deployed in her written assignments. Further, out of the 13 most common genre families of assessed academic writing produced at UK universities (Nesi & Gardner, 2012), this case study investigated four writing genres only (Exposition Essay, Discussion Essay, Problem Question, Research Report). Future research would, therefore, benefit from studies into the acquisition and deployment of academic vocabulary in a larger sample of foundation-level students’ assessed academic writing at a greater number of universities as well as on discipline-specific IFPs. The deployment of academic vocabulary in other genres of assessed academic writing produced by novice student writers could also be usefully investigated.

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