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Assessing the statistical differences in academic writing skills across disciplines in higher education

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ABSTRACT

Writing different forms of text at different levels for responding satisfactorily to issues in the academic community is important. Thus, this paper examines the statistical differences between tertiary students' academic writing skills in different disciplines and at three different levels. We use a quantitative approach and descriptive design to extract and analyse data comprising students' essays from four departments of a public university in Ghana. We analyse the data using descriptive statistics and ANOVA in SPSS. The results show that there is a significant difference between students' academic writing skills across levels within a discipline. On the contrary, there is no significant difference between students' academic writing skills across departments. We successfully generated corpus data and analysed the same statistically which is not common in the English as a second language learning context, thereby contributing greatly to the academic environment. This paper also focused on the students' general vocabulary knowledge as a crucial factor in their academic writing skills.

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1. Introduction

The role of English has become unmeasurable in Ghana and elsewhere. It is the medium of instruction at all educational levels in Ghana. Despite the immense role of English in Ghanaian schools, some students have limited knowledge of English for academic writing purposes at the tertiary level (Lei et al., 2021). Studies such as Bailley (2014) and Lei et al. (2021) reveal that at the tertiary level (colleges of education and universities) students' have the inability to demonstrate vocabulary knowledge for academic text production (Bailley 2014). That is students do not use vocabulary appropriately, some misappropriate the use of words and some spell words wrongly which results in poor academic writing skills. Hyland and Tse (2004) add that using academic vocabulary has become a fantasy and that teachers must help students to develop a wider range of discipline-specific writing skills for the academic community.

Academic writing is composing a clear, concise, focused essay backed by evidence for its comprehensibility (Bailley 2014). This kind of writing is based on some characteristics: writing in a formal tone and style, writing simple and concisely, and writing which does not require long sentences and complicated vocabulary but must have a unique structure full of discipline-specific vocabulary. Creating the structure of writing in academia requires that the writing should have a beginning, middle and ending, and that writing must use focused paragraphs to develop arguments (Hamp-Lyons & Heasley, 2006; Lei et al., 2021).

Hyland (2008) asserts that academic writing entails how words, style and tone are used in generating an argument in an essay. Hyland (2008) adds that writing an academic essay requires that students

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must possess and adapt to using varieties of vocabulary knowledge (thus demonstrating varieties of synonyms and antonyms) in writing different forms of texts, and responding satisfactorily to issues in the academic community. It is important to use varieties of vocabulary knowledge to aid the rhetoric, to establish connections between texts, to comment on views, and to express opinions and attitudes toward what others said or did in the academic community (Banini, 2021). Rainey and Levine (2022) identify differences in the perspective of subject area (disciplines) vocabulary in writing, arguing for collaborative academic writing skills across disciplines that would support the conceptualization of writing across disciplines. Rainey and Levine (2022) add that the role of text that forms sets of corpus in disciplinary teaching and learning must be considered for the academic writing course. The necessary role of using varieties of vocabulary in academic writing as indicated by Adika (2019) prompted the researchers to build corpora of different disciplines from students' essays as data for investigating the differences in the students' writing skills. Additionally, the different texts of corpora will enable the researchers to investigate the differences in the students writing skills at the different levels (first, second and third year university students) and in the different departments in response to Adika's (2019) recommendation for the development of appropriate vocabulary use for the disciplines for academic writing.

Furthermore, the lack of continuous practice for academic writing skills lessens the students' vocabulary knowledge development and in effect contributes to students' weak writing skills across disciplines (Blunch, 2008). Many students cannot write to respond to academic literacy issues because they fall short on explicit direction on language choice (Afful, 2005). It follows that students' weak writing skills are not limited to a specific discipline rather it is across all disciplines. However, the dearth of research on academic writing skills in the context of English speaking developing countries, particularly Ghana fails to provide empirical evidence on the similarity or difference in academic writing skills among disciplines. Adika (2019) admitted this limitation and recommended tailored research on academic writing skills using disciplines corpus. Given that there is discipline specific vocabulary knowledge which may result in differences in students' academic writing across disciplines, we argue that the general vocabulary knowledge of students will produce similar or different writing outcomes which have been overlooked in extant literature. Therefore, this paper investigates whether there is a significant difference in students' academic writing skills across selected disciplines (Law, Public Relations, Marketing and Business Administration) and the different academic years in a public university.

The outcome of this paper provides evidence for the blending of style and tone in general and specific vocabulary knowledge for academic writing. It further highlights the navigation of disciplinary knowledge of writing into academic writing skills. We employ corpus data from students' essay and analyse the data using descriptive statistics and ANOVA. The subsequent sections capture the literature review and hypotheses, methods, results, discussion, conclusion and implications.

2. Literature review and hypotheses

2.1. Concept of academic writing skills

Academic writing skills refer to one's ability to write a clear, concise, focused essay backed by evidence for its comprehensibility (Bailley 2014). Acquiring academic writing skills require knowledge of the genres, one of which is vocabulary. It follows that academic writing is based on some characteristics like using both formal and discipline vocabulary to show official writing tone and style (Bailley 2014). It is necessary to avoid the use of jargons, clichés, and contracted forms of words in academic writing. Additionally, it is essential to write simple and brief sentences and not necessarily long sentences that contain complicated vocabulary (Bailley 2014). The sentences must be organized properly into three good paragraphs: beginning, middle, and ending (Lei et al., 2021). Bailley (2014) mentions that there are short essays and long essays in writing. For the short essays, he reveals that these are the students' class essays and end-of-term or semester essays but for the long essays, he regarded these as project works, dissertations and theses. For the purpose of this essay, the short essays are considered.

Largely, tertiary students' essays have a standard form as headings, structure and contents as its structure. The structure is full of arguments and words are used in building the argument. The arguments in the essays are generated using different dimensions of vocabulary (discipline vocabulary and formal

vocabulary) to respond to arguments in academic writing. Hyland (2008) refers to the situation where writers typically use vocabulary to respond to arguments in academic essays as building the rhetoric. Thus, for students to be able to write academic essay, they might have acquired knowledge of different vocabulary, adapt to using varieties of word knowledge in writing different forms of texts, and respond satisfactorily to issues in the academic community. It is also essential for students to demonstrate good knowledge of words (thus varying words syntactically, semantically and synonymously) to aid rhetoric, and to establish connections between texts so as to adequately critique what others wrote (Banini, 2021).

2.2. Vocabulary knowledge and academic writing skills

The linguistic impact of academic writing often depends on how students use forms of words to create connections between their own claims and the claims of others using the knowledge of vocabulary (Hyland, 1999; Hunston & Thompson, 2000). The unsatisfactory use of academic vocabulary and formal vocabulary in the students' assignments and end-of-semester essays shows that the student has unhealthy dimensions (students lack knowledge of collocation, spelling, syntactic and semantic roles of words in an essay) of vocabulary knowledge for writing. It also shows that the student lacks evidence of knowing different surfaces of academic vocabulary, and that the student has shown under-preparedness of devouring academic vocabulary and formal vocabulary knowledge in academic writing. Writing academic essays necessitates mastering a wide range of skills such as argumentation, reporting, hedging, boosting, referencing, critical reasoning, intensive reading and others, (Dang, 2018; Dang & Webb, 2014; Qian, 2002). Research by Banini (2021), Alasmary (2019), and Dang (2018) show that there are several means of developing academic writing skills in every discipline and in the four disciplines' writing performances.

Additionally, the ability to develop academic writing skills requires constant practice and innovation in the process of writing. Alasmary (2019) submits that Ghanaian students do not write to conform to using a variety of vocabulary appropriately in writing at the tertiary level. The criticisms about the students' academic writing skills generate several arguments. For instance, lecturers cannot monitor the students to practice sufficient writing due to the large number of students in the lecture halls (Bowker, 2007; Yankson, 2007). Likewise, the incompetence among students to compose academic essays is attributed to a lack of literacy skills among the students (Afful, 2007; Asemanyi, 2015; Yankson, 2007). Yemeh (2007) also reveals that most university students are unable to write effectively. Thus, academic literacy skills are in crisis in that many students have insufficient literacy skills (Asemanyi, 2015).

The first attribute is that tertiary students' ability to use a large vocabulary to compose academic essays is minimal. Second, the students show an inability to write to demonstrate that he or she knows the effective meaning of words. Third, the students are unable to use words to collocate and they fail to show academic achievement in the use of varieties of word. All these attributes are due to a lack of continuous practice for academic writing skills and vocabulary knowledge development. The students demonstrate negligence of responding to academic writing skills in written texts (Blunch, 2008). Afful (2005) notes that at the tertiary level, students fall short of directions on selecting appropriate word choice for writing when he studied students' introductory essays of discipline specifics in both Sociology and English. Afful (2005) considers students' inability to write academic language properly for the right context as the student's inability to write in accordance with academic writing practices. He further explains that students in tertiary institutions in Ghana lack numerous writing skills including word knowledge, so they do not function well in the academic community. The idea of the plentiful literacy skills in academic writing is why Afful (2005, p. 141) posits 'the term "academic literacy" itself conjures all the multifaceted sets of complex skills such as listening, reading, speaking, writing, using vocabulary and grammar that are required for a person to function effectively' in the academic community. It follows that the academic literacy problems show the copious but unstable view that calls for a thorough investigation.

The argument reveals that the academic community is in a crisis of literacy difficulties. For example, scholars such as Asemanyi (2015), Amua-Sekyi and Nti (2015) are of the view that vocabulary knowledge is the greatest challenge for students' inability to write. In furtherance, reports indicate that vocabulary underpins progress from one level to the other, and it impacts the attainment of academic achievement.

Asemanyi (2015) underscores this when she studied first-year university students' writings at the University of Education, Winneba, in Ghana, and mentions that the inappropriate use of the knowledge of the genres of academic literacy in the students' assignments and end-of-semester essays shows that the university students lack academic writing skills.

Amua-Sekyi and Nti (2015) also indicate that teachers are increasingly recording writing deficiency among their students after examining reports in some colleges of education in Ghana. Yemeh (2007) investigated first-year students' class assignments and end-of-semester examinations in which he found that most first-year university students taking Communication Skills course (a course meant to equip the students with academic writing skills) are unable to use vocabulary knowledge meaningfully. Yemeh (2007) confirmed that the students do not write effectively to communicate their intended meaning due to weak vocabulary knowledge.

The foregoing empirical review suggests that due to the weak vocabulary knowledge among Ghanaian students, they are unable to write academically well. Thus, their academic writing achievements or performances are more likely to be the same across disciplines. While this likelihood might be true, it is not statistically or empirically proven to provide tailored recommendations to improve students' writing skills based on their specific or general vocabulary knowledge. Hence, we set out to test the following null hypotheses:

H1: There is no significant difference between students' academic writing skills across levels within a discipline.

H2: There is no significant difference between students' academic writing skills across departments

3. Methods

3.1. Approach

We employed a quantitative approach because it is suitable for conducting a study that aims to use numeric data to run statistical analysis to establish relationship or difference between variables (Saunders et al., 2009). Given that this paper tests the significant difference between students' academic writing skills at different levels across departments, this approach is appropriate. Further, this approach allows us to gather, analyse, and interpret numerical data from texts to explain students' academic writing skills based on levels and departments (Gay et al., 2009).

3.2 Design and data

We used descriptive design which is most suitably employed to describe a phenomenon in broader or specific terms (Saunders et al., 2009), because it provides a detailed picture of events, people, or circumstances (Siedlecki, 2020). This design is widely used in Applied Linguistics study to generate, clean and analyse data from language texts (students' essays). In this design, the parameters identified in the corpus necessitate the art of collecting and analysing the data through a quantitative approach. Thus, this design has helped us to describe the significant differences in students' academic writing skills across disciplines.

We utilised 3000 texts from examination transcripts of 3,000 students in four departments (Law, Public Relations, Marketing and Business Administration) of a public university in Ghana. The departments were purposively selected to get the departments learn scholarly writing and are exposed to general vocabulary knowledge that would improve their writing skills. Thus, for a department to qualify for selection, students in that department might have studied scholarly writing, academic writing, or communication skills as a core subject in level 100 (ie first year) and they were in level 200 (ie second year), level 300 (ie third year), and level 400 (ie fourth year). On the other hand, we employed stratified random sampling method to select the texts. In this sampling process, the total number of texts was divided into manageable groups of hundreds for each year group. The manageable sample was carried out over a period of four years. Since the study is computational, the manageable groups of four were partitioned into sub-groups of twelve. Then the samples were taken from each stratum proportionately. The

variant reduction is carefully repeated to avoid overlapping until the estimated number of texts was chosen.

Due to the text size, 300 texts were selected from each department's level except the law students who have 100 texts for each level. The law students have larger copious writing and so their texts contained more number of words than the other departments. So, to get equal gigabytes of writing from all the disciplines, 100 texts were selected from the law department which matched the 300 texts from each other departments. An essay is chosen per transcript for building a set of corpora for the investigation. The corpora include: Public Relations, Marketing and Business Administration. Each corpus contains three (3) sub-corpora, making a total of twelve (12) sets of corpora. The 3 sub-corpora are Level 200, Level 300 and Level 400. The number of words for the sub-corpora of Law are 286,136 (Level 200), 376,277 (Level 300), and 337,587 (Level 400). The number of words for the sub-corpora of Public Relations are 237,960 (Level 200), 427,041 (Level 300), and 473,486 (Level 400). The number of words for the sub-corpora of Marketing are 342,711 (Level 200), 283,706 (Level 300), and 373,583 (Level 400). The number of words for the sub-corpora of Business Administration are 338,702 (Level 200), 341,079 (Level 300), and 324,897 (Level 400).

3.3. Data analysis

We analysed the extracted numeric data of the tokens, words and sentences using SPSS software. First, we imputed the data into the SPSS. Then, we conducted descriptive analysis and analysis of variance (ANOVA) to establish the significant difference between students' academic writing skills across levels within a discipline and departments.

4. Results

4.1. Difference in academic writing skills across levels

Table 1 presents the descriptive outcomes for the test of the significant variances in the selected disciplines' writing skills across the levels. Tokens, words and sentences in the texts were used to assess the students' academic writing skills level. In all, thirty-six (36) sets of tokens, words, and sentences were observed. The mean scores show the average academic writing skills in each level, while the standard shows the spread of the values around the mean in the distribution or the extent of variations. In addition to Table 1, the mean plot is presented to show the trend in academic writing skills across the levels (Figure 1). Across the levels, the minimum tokens, words and sentences in the texts are recorded in Public Relations level 200 and the maximum is recorded in the same Public Relations department at level 400. The highest academic writing skills level for the students is found in Law and Public Relations departments. Figure 1 illustrates the differences in the academic writing skills across the levels. The

Table 1. Descriptive statistics for departments/levels.

Departments/Levels	Mean	Std. Deviation	Min	Max
Law	*333,333.33*	*4,3035.72*	*275,843*	*389,343*
Law 200	282,586.00	5842.33	275,843	286,136
Law 300	381,276.00	7052.62	376,277	389,343
Law 400	336,138.00	1391.15	334,813	337,587
Marketing	*333,333.33*	*40,920.89*	*276,750*	*373,583*
Marketing 200	346,043.67	4498.82	342,711	351,161
Marketing 300	281,155.67	3831.21	276,750	283,706
Marketing 400	372,800.67	749.50	372,089	373,583
Public Relations	*381,152.67*	*94,998.47*	*237,960*	*473,486*
Public Relations 200	257,990.00	24,998.01	237,960	286,005
Public Relations 300	423,624.00	6018.28	416,675	427,156
Public Relations 400	461,844.00	14,553.25	445,528	473,486
Business Administration	*335,108.78*	*8062.32*	*322,939*	*342,486*
Business Administration 200	339,779.00	2360.58	338,149	342,486
Business Administration 300	341,002.33	293.60	340,678	341,250
Business Administration 400	324,545.00	1462.13	322,939	325,799
Total	**345,732.03**	**57,571.02**	**237,960**	**473,486**

Authors' computation (2023).

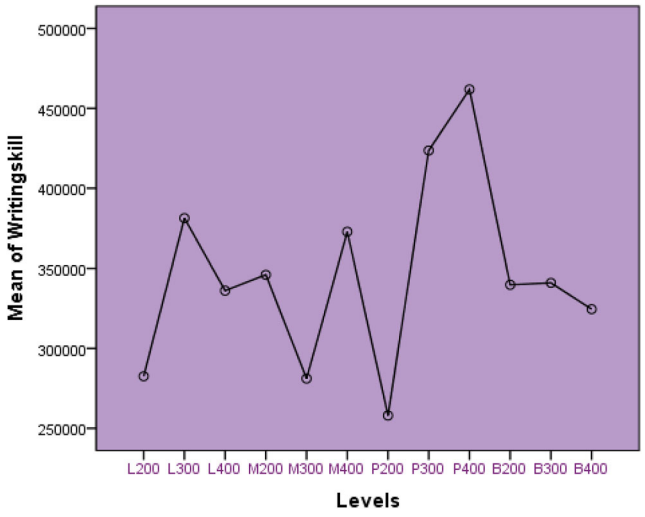

Figure 1. Means Plots (Levels).

Table 2. Homogeneity and Robust Tests (levels).

Homogeneity of Variances				Robust Tests of Equality of Means				
Levene Statistic	df1	df2	Sig		Statistic[a]	df1	df2	Sig
6.517	11	24	0.000	Welch	383.678	11	8.963	0.000
				a. Asymptotically F distributed.				

Authors' computation (2023).

Table 3. ANOVA (levels).

	Sum of Squares	df	Mean Square	*F*	Sig
Between Groups	114,000,799,388.306	11	10,363,709,035.301	124.116	0.000
Within Groups	2,004,002,088.667	24	8,350,0087.028		
Total	116,004,801,476.972	35			

Authors' computation (2023).

distance between the plots is wide, indicating graphically that differences exist between the means of the levels across the disciplines. The means plots affirm the ANOVA results and also indicate the trends in academic writing skills in terms of progressing or declining in the general vocabulary knowledge of writing. Among the four disciplines, the Public Relations discipline has demonstrated consistent progress: from level 200 to level 400. In both Law and Business Administration disciplines, students' academic writing skills in level 300 is higher than level 200 but lower in level 400. However, in the Marketing discipline, students' writing skills lower in level 300 but higher in level 400.

Table 2 shows the test of homogeneity of variance to determine the fitness of the ANOVA model. Since the Levene Statistic (6.517) is less than the significance level of 0.05, it can be concluded that the homogeneity assumption is violated. To correct this, the Robust Tests of Equality of Means was conducted using Welch (Table 2). The Welch statistic indicates that the model is now a good fit and so the ANOVA results can be accepted.

Table 3 reports the ANOVA result for the test of H1. Since the significance value of the Between Groups is below 0.05, the ANOVA is statistically significant. It means that there is a significant difference in the disciplines' writing skills across the levels. It further suggests that the general vocabulary knowledge used across the levels in the four selected disciplines is statistically different. Since the ANOVA is significant, H1 is rejected.

4.2. Differences in academic writing skills across departments

Table 1 also presents the descriptive results for the test of the significant differences in academic writing skills across departments. Across the departments, the minimum academic writing skills level is recorded

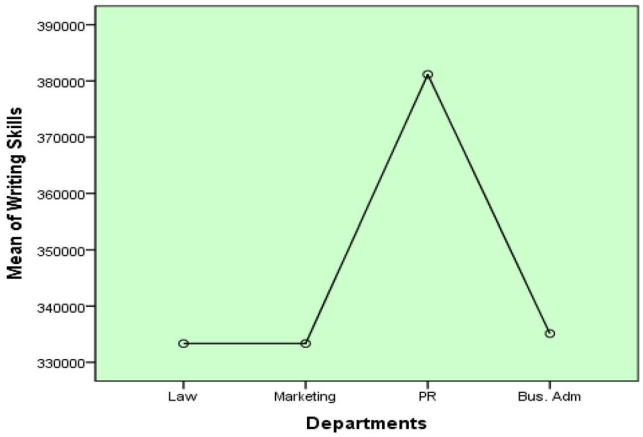

Figure 2. Means Plots (Departments).

Table 4. Homogeneity and Robust Tests (departments).

Homogeneity of Variances				Robust Tests of Equality of Means				
Levene Statistic	df1	df2	Sig		Statistic[a]	df1	df2	Sig
15.075	3	32	0.000	Welch	0.652	3	13.996	0.595
				a. Asymptotically F distributed.				

Authors' computation (2023).

Table 5. ANOVA (departments).

	Sum of Squares	df	Mean Square	*F*	Sig
Between Groups	15,074,373,129.417	3	5,024,791,043.139	1.593	0.210
Within Groups	100,930,428,347.556	32	3,154,075,885.861		
Total	116,004,801,476.972	27			

Authors' computation (2023).

in the Public Relations department and the maximum is recorded in the same department. The mean scores depict the average academic writing skills in each department, whereas the standard shows the extent of variations. Additionally, Figure 2 presents the trend in the students' academic writing skills across the four departments. The distance between the plots is not widespread, indicating graphically that differences do not exist between the means of the departments. The means plots affirm the ANOVA results and also show no significant trend in the academic writing skills regarding progressing or declining in the general vocabulary knowledge of writing by students. Among the four departments, the Public Relations department demonstrates the highest academic writing skills and both the Law and Marketing departments show the least academic writing skills, implying that Business Administration is modest.

Table 4 below shows the test of homogeneity of variance which confirms the fitness of the ANOVA model. The Levene Statistic (15.075) is below the significance level of 0.05, therefore the homogeneity assumption is violated. To correct this, the Robust Tests of Equality of Means was conducted using Welch (Table 4). The Welch statistic indicates that the model is now a good fit and so the ANOVA results can be accepted.

Table 5 depicts the ANOVA result for the test of H2. The significance value of the Between Groups is more than 0.05, indicating that the ANOVA is not statistically significant. Hence, there is no significant difference in the disciplines' academic writing skills across the departments. It implies that there are no significant differences in the tokens, words and sentences used by the students across the four departments. Since the ANOVA is not significant, H2 cannot be rejected.

5. Discussion

The results above show that there are significant differences in the levels of the disciplines writing but there is no significant difference in the disciplines' writing. Among the levels 200, 300 and 400 in law,

the level 200 students show a strong strength in their writing as indicated on the graph. This might be because of the entry level of their grade points from senior high schools. It may also be because some of the level 200 students in law have entered the university with bachelor's degrees from other disciplines. These students who entered with first degree have been equipped with academic writing skills in their previous studies, so they are conscious of what they write at the early stages. In level 300, the graph shows an improvement in the law students writing skills. The margin of improvement as indicated by the graph is high meaning the students have acquired and demonstrated additional writing skills. More so, the vocabulary that appear in students essays indicated the selection of clear and concise writing skills. Level 400 law students' writing is about half of what those in level 300 demonstrated. Law students produced rippling writing strength. They demonstrated good writing skills in levels 200 than their counterparts in the other disciplines. Their performance at level 200 shows exposure they might have received in academic writing skills before entering the law discipline. The academic writing skills of the Law students might have changed completely in level 300 and 400.

Marketing students made some progress, but their highest level of writing is the starting point for the Public Relation students. This is might be due to too much use of the disciplines jargon in their texts, though they also study academic writing and are perusing academic courses in marketing. For example, an extract from text indicates the use of jargons.

> The **strategic decision areas**: the **strategic decision areas under this section** involve determining a **market strategy, financial strategy, location strategy, organizational structure and human resource strategy** and information system strategy. Based on these strategies, whenever there is a major environment change, the **current strategies must be re-examined**. For instance when Covid19 hit the nation and the country was on lock down some retail shops started using **delivery services to satisfy their customers** and some also moved to ecommerce to be able to serve their customers whiles the nation was on lock down.

Marketing students in level 200 show a high writing skills level, but those in level 300 demonstrate a low writing skills level. Meanwhile, Marketing students in level 400 show strong writing skills. It implies that those in level 300 might lack reinforcement from the academic writing community. These students might have also found their environment more business-like than academic contexts because they spent much time on business related events than spending time with academic activities like reading and writing. However, their academic writing skills may improve in level 400 because it is required to write a dissertation.

Regarding the Public Relations students, in level 200 the students demonstrated weak writing strength. The corpora data shows that they use fewer words, few phrases and simple sentences. Halliday (2011) submits that the concepts of academic writing include the smooth flow of information between words, phrases, sentences, and paragraphs. The corpora strength of Public Relation may be a contributing factor to weak their writing strength in level 200. This is the reason Flowerdew (2020) posits that the concepts that one is expected to use in academic literacy are numerous. He describes the literacy event as an attempt to handle the structure and the patterns of activity in writing which are linked to using broader genre knowledge such as vocabulary: word phrases and sentence patterns in the writing.

In level 300, there is a great improvement in the students' academic writing skills. This shows that the students might have been exposed to more academic writing through a lot of reading assignments given the nature of courses they offer. This finding is consistent with the findings of Pradani (2021) and Viera and Viera (2016) that reading improves vocabulary knowledge, which in turn, improves the cognitive strength for academic writing skills. The students in level 400 recorded higher writing skills level than those in level 300. This may be due to the fact that by level 400, these students are exposed to speech writing, composing public speech and technical writing. These courses might be the reason why these groups of students have been experiencing growth in their writing skills. There are elements of formality in the students' vocabulary which is expected to have shared vocabulary use and meaning with academic essays. This confirms the 'Mathew's Effect' that those with some level of word richness continue to build word strength for writing and those with poor knowledge may progress and regress as their writing progresses (Stanovich, 1986).

Business Administration students' academic writing skill is not very different from Marketing students writing. They have very low writing skills in level 200. This group of students made very little progress in level 300. This may be because they have been exposed to some academic writing. Those in level 400 exhibited lower writing skills compared to their level 300 counterparts. This may be attributed to a lack of

reading. Reading is essential for developing good writing skills. Venkat and Naidoo (2012) and Viera (2017) agree that when someone reads widely, they can learn about different writing styles, improve their vocabulary knowledge and develop their writing skills. If students have the chance of acquiring a lot of vocabulary, have the chance to understand the grammar of the vocabulary and form varied sentence structures with the vocabulary to improve upon writing, their academic writing skills will improve. Since these students do not write continuously, they have poor knowledge of vocabulary, which mainly becomes an intimidating factor on their writing skills. These confirm Hyland's (2015) assumption that people in their various disciplines turn to struggle with academic writing skills due to insufficient writing practices.

6. Conclusion and implications

The analyses indicate that though there is a significant difference among the disciplines' levels of academic writing skills, there is no significant difference among the totality of various tertiary disciplines' writing. In the end, all the disciplines' vocabulary knowledge makes their academic writing skills not encouraging for the academic discourse community. Students in these categories need some special attention apart from learning grammar and structure of academic essays in their academic writing courses. These students must receive remedial teaching that will help them find a balance between their academic writing skills and their professional writing skills. Another important thing that could help ease the struggle is that students who enter the university with very good pass must receive constant support to maintain their writing skills. This paper also offers insights into the extent to which students' progress from writing in levels 200, 300 and 400. Hence, we suggest a more controlled logical flow of writing and learning constantly to practise writing skills, which will influence the development of the students' writing skills.

This paper has made significant contributions to the academic environment. However, we focused on the students' general vocabulary knowledge, which may be influenced by their specific vocabulary knowledge. A future study should assess the specific vocabulary knowledge of the students to see whether their inconsistent performance in the general vocabulary knowledge is because of the field-specific jargons.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Ivy Jones-Mensah is an applied linguist whose research interest is in corpus linguistics, academic writing, and English and literacy education. She holds a PhD in Applied Linguistics from the University of Education, Winneba, Ghana and an MPhil in Applied Linguistics from the same University. Ivy also holds an MA in Teaching Communication Skills from the University of Cape Coast, and an MA in Teaching English as a Second Language from the University of Ghana. She teaches English Language and Communication Skills at the University of Professional Studies, Accra, and she is an associate editor of the University Journal.

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