

Enhancing Academic Writing Vocabulary Use through Direct Corpus Consultation: Saudi English Majors' Perceptions and Experiences

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Abstract

Using corpora as a learning tool in Second Language writing has gained popularity recently. The present study aimed to explore how Saudi EFL students perceive and engage with direct corpus consultation activities in academic writing as an effective method of overcoming their vocabulary errors. Hopefully, this study will provide insights into the issue of raising awareness among both EFL university students and writing teachers about the benefits of direct corpus consultation in academic writing, as well as highlighting the potential challenges students might face. Two specific questions were addressed in the study: How do Saudi EFL students perceive direct corpus consultation as a method for overcoming vocabulary errors in academic writing? What are the challenges that EFL students encounter when they use direct corpus consultation? Based on convenience sampling, a total of 32 Saudi female students majoring in English participated in the study. The study employed a mixed-method approach to increase the credibility of the study results. The study data were collected from a structured questionnaire based on a 6-point Likert scale and semi-structured interviews. The corpus used was the Corpus of Contemporary American English. The findings of both the quantitative and qualitative analysis revealed that the participants were positive about using direct corpus consultation to improve vocabulary and academic writing. In addition, some challenges associated with using direct corpus consultation were outlined in the study findings. The study concluded with several recommendations for future research and pedagogical implications.

Keywords: data-driven learning, direct corpus consultation, mixed-methods, Saudi English majors, academic writing, vocabulary errors, students' perceptions

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Introduction

Technology has significantly affected almost every aspect of our life, remarkably as a learning tool in EFL classes. In this respect, the use of direct corpus consultation as a technology-based learning tool in EFL writing classes has received increased attention in the last few years. The use of corpora for language learning in EFL/ESL classes is effective in several recent studies, attracting both teacher and researcher interest (Al-Gamal & Ali, 2019; Boulton, 2017; Park, 2022). Corpora are considered to be a vital source for language learners since it enables them to access authentic, various, and reliable language data and examples that cannot be found in other sources. One of the first to advocate corpus consultation for language teaching was Johns (1991), who presented the concept of "data-driven learning", in which students learn from observing and analyzing corpora. Corpora are considered to be a vital source for language learners since it enables them to access authentic, various, and reliable language data and examples that cannot be found in other sources.

Corpus consultation is considered a valuable tool in language teaching and learning for improving reading, and writing skills (Al-Gamal & Ali, 2019). It is assumed that corpus output data, which contains examples of language sentences analyzed according to their contexts and keywords, are effective for L2 language learning, specifically academic writing and vocabulary acquisition (Khorsheed, 2018; Qoura, Hassan, & Mostafa, 2018). Numerous studies in the Second Language writing area like those of Abdel-Haq (2017), Al-Howishil (2019), Al-Qahtani (2021), Sun and Hu (2020), Vyatkina (2018), and Wu (2016) have found that corpus tools assisted academic writing processes to be more reliable (with large data) and more empirical (with real language data).

Vocabulary learning is considered to be an integral element in language learning that could be improved with corpus data and corpus-based activities. According to several research studies, language teachers can help improve students' writing quality and vocabulary knowledge by providing authentic texts and examples of real-life language usage to EFL students. It has also been claimed that using corpus tools in language teaching helps students discover different vocabulary aspects such as collocation, connotation, and others (Pérez-Paredes, 2020; Yoon, 2011). Moreover, recent studies have examined students' perceptions regarding the implementation of direct corpus consultation as a teaching tool in EFL classes (Sinha, 2021; Yoon & Hirvela, 2004).

Recent studies in the Saudi context have shown, however, that the corpus approach is not widely used by EFL teachers (Al-Howishil, 2019; Alsolami & Alharbi, 2020) and that students' perceptions regarding corpus consultation have not been widely explored (Youssef, 2021) or it was limited to using one research tool either a questionnaire or semi-structured interview. For instance, Alsolami and Alharbi (2020), Lai (2015), Park (2022) applied a semi-structured interview to measure Saudi EFL learners' attitudes toward the use of corpus in writing class.

In other contexts, most studies used questionnaires for investigating students' perceptions of the corpus (Elsherbiny & Ali, 2017; Koçak, 2020; Luo & Liao, 2015; Sinha, 2021). Moreover, students' perception of these studies was a sub-theme and not the study's main focus. To fill in this research gap, the present study aimed to examine Saudi EFL university students' perceptions of using direct corpus consultation as a learning tool in overcoming vocabulary errors in academic writing classes, using both a questionnaire and semi-structured interview to gather in-depth data. This study is significant concerning its implication for EFL/ESL pedagogy that hopefully may broaden insights into the issue of raising awareness of both EFL university students and writing

teachers regarding the role of direct corpus consultation in overcoming vocabulary errors and improving academic writing performance and highlighting the potential challenges that students might encounter. The study objectives were to examine students' perceptions of using direct corpus consultation to develop their academic writing in terms of overcoming vocabulary errors and to identify difficulties students may encounter while using direct corpus consultation. Two research questions were addressed in this study:

1. What are Saudi EFL students' perceptions of using direct corpus consultation in developing their academic writing in terms of overcoming vocabulary errors?
2. What are the difficulties that EFL students face in using direct corpus consultation?

In the following sections, we review the pertinent literature, describe the research methods, present the results, discuss the main findings, and conclude with pedagogical implications and suggestions for future work.

Literature Review

Vocabulary and Academic Writing

Vocabulary is one of the critical aspects of language learning. Findings of many empirical studies have shown that mastering vocabulary is considered to be the central block in developing L2 students' writing skills (Kilic, 2019; Wu, 2016) and that students' overall vocabulary knowledge significantly predicts their writing qualities and features (Kilic, 2019). Hence, with technology development in the L2 learning setting, corpus consultation can help and aid L2 students in learning the required vocabulary for effective academic writing. According to Ying (2021), integrating technology into EFL writing classes has provided useful writing instruction for EFL teachers and helped students to solve their academic writing problems such as semantics issues, linguistics patterns, and forms related to a given topic.

Vocabulary Errors in Academic Writing

According to Bailey (2014), Writing well requires a wide vocabulary as well as proper grammar and sentence structure. Writing is a difficult skill for EFL students because when they write, they have to focus on several elements at once such as content, vocabulary, spelling, capitalization, using correct punctuation, and text organization (Al-Tamimi, 2018). In recent studies, lexical errors, such as misspellings, word choice, collocations, punctuation, and prepositions, were found to be the most frequent errors among EFL student writers when writing English essays (Ababneh, 2017; Holmberg Sjöling, 2020).

In the Saudi context Studies on EFL students' academic writing performance revealed that missing words, wrong word choices, wrong word forms, spelling, and article errors were among the most common errors (Ababneh, 2017; Al-Tamimi, 2018). In addition, research results indicated that students' inability to choose appropriate vocabulary or express their ideas adequately in writing was the primary cause of their poor writing performance.

Corpus Linguistics

Corpus Consultation in EFL/ESL Classes

Reppen (2010) has defined corpus as "a large and principled collection of naturally occurring texts (written or spoken) stored electronically" (p. 2). Hence, corpora present a body of language or refer to an enormous collection of texts and language that usually exist in everyday life and are stored in computer form (Baker, 2010). This invention has affected applied linguistics research and emphasized the significant role of corpus data analyses in supporting the language

learning process in the classroom. With the growth of computer technology, corpus linguistics has gained more attention in language studies and research. Corpus research has become an ever-growing and developing field in second-language pedagogy. Recently, many studies have adopted corpus linguistics methods and techniques in L2 research and pedagogy (e.g., Gilquin, 2021; Le Bruyn & Paquot, 2020; Youssef, 2020). Most related studies suggested that using corpus as an educational tool is beneficial for EFL students since it provided them with authentic contexts and examples (Almutairi, 2016; Boulton, 2016; Roslim, Abdullah, Aziz, Nimehchisalem, & Almuddin, 2020). Moreover, research findings revealed that integrating corpus tools in L2 teaching and learning helps develop EFL students' writing skills (Khorsheed, 2018) and improves their vocabulary knowledge (Khan, 2019; Vyatkina, 2018).

In terms of vocabulary learning, according to Nation (2001), the meaning of metalinguistic awareness is: to know the word, not only the word definition but also the word pronunciation, spelling, collocations, morphology, parts of speech, specific uses, different meanings, and related context of word usage. Thus, one of the unique aspects of using corpus is providing these additional features about the word. Teachers have recognized that a new word and its context can affect vocabulary learning (Qoura et al., 2018). When using corpora in vocabulary teaching, a list of concordance lines automatically appears on the screen from the corpus data, providing vital, valuable, and relevant information about the target word (Lee, 2018). Corpora teach students the most frequent words and expressions, with examples within corpora from spoken and written English (Abdulrahman, 2015).

Though many recent studies have stated that corpus consultation can be very effective and useful in an EFL\ESL writing class (Khan, 2019; Khorsheed, 2018; Ying, 2021; Yoon & Jo, 2014), students may face some difficulties while using corpus consultation. One of the main problems is time-consuming (Yoon & Hirvela, 2004), therefore, teachers should allow enough amount of time for students. Researchers have also highlighted that students with low language proficiency may have difficulty using corpus consultation due to the overwhelming output of corpora (Al-Howishil, 2019; Luo & Liao, 2015; Yoon & Hirvela, 2004). Thus, it is claimed that corpus is suitable only for high-level and low-level students with many concordance examples that appear too many and are not practical (Elsherbini & Ali, 2017). Besides, teachers should be trained on how to design suitable corpus-based activities to help students get exposed to a broader framework of how corpora are used in English teaching. Online corpora are available for anybody, and EFL instructors and researchers should make sure they are available at their institutions (Qilichevna, 2020).

Types of Corpus Consultation in Language Classroom

Generally, there are two ways of adopting corpus consultation in language classrooms: indirect corpus consultation and direct corpus consultation (Yoon & Jo, 2014). First, indirect corpus consultation refers to situations in which corpora are used to provide material about "what to teach and how to teach it" (Römer, 2011, p. 206). This consultation type allows EFL/ESL teachers to create different materials for language teaching that can be used to design new syllabuses (Römer, 2010). Accordingly, through using ready-made tasks and activities collected and organized by their teachers, students collect corpus data indirectly (Boulton, 2017).

Second, direct corpus consultation involves introducing corpus tools to learners so they can search and discover word meanings and grammar rules directly (Almutairi, 2016). Through this type, students engage in corpus-based activities and use corpora directly to search and explore different language patterns (Luo, 2016; Sun & Hu, 2020). In addition, students can use the targeted

corpus to search for and find related rules while looking for a specific point. However, they may face some difficulties initially with the massive number of examples that may be insignificant. Direct corpus consultation seems to be the dominant paradigm in earlier studies (Smith, 2020). Searching corpus directly and analysing corpus results, such as lexical and grammatical patterns and frequency rather than depending on designed examples in isolated texts, is more logical and practical for L2 learners in developing their linguistic features (Boulton, 2017). Therefore, the direct corpus consultation type was applied in the present study, where students searched directly for certain vocabulary features on the corpus website.

Empirical Research on Corpus Consultation and Students' Perceptions

A study conducted by Yoon and Hirvela (2004) studied ESL students' experience with using corpus tools in L2 writing. Findings indicated that the student's overall attitude toward using corpus was positive, and they believed that corpus tools and techniques had improved their writing ability. Based on their study findings, Yoon and Hirvela concluded that if learners spent more time practicing corpus, their attitude would be more positive. Another study by Balunda (2010) investigated students' perceptions of using Data-driven learning (DDL) to teach academic vocabulary. The study sample included ESL students at one of the largest universities in the United States. Findings revealed that students perceived corpus and DDL as unique and different ways to teach academic vocabulary. Tekin, Trainer and Soruç (2016) have investigated 26 ESL students' perceptions of using corpus tools and activities at a university in Turkey. Findings indicated that students found corpus tools and activities useful, easy, funny, practical, and innovative, but complex.

Students' perceptions of using online dictionaries versus corpus consultation to correct their writing errors were investigated in a questionnaire-based study by Luo and Liao (2015). Findings showed that learners have a positive attitude regarding using corpus in writing class. Some difficulties were mentioned, including the need for more time and some examples from the corpus search tool may be confusing. Another recent study was carried out by Paker & Ergül Özcan, 2017 who studied 34 intermediate-level students to identify students' attitudes regarding corpus-based vocabulary activities. Findings showed that students held positive attitudes toward using corpus-based activities.

A recent study by Oktavianti, Triyoga & Prayogi (2022) explored EFL students' perceptions towards corpus use for teaching English. The participants were 31 students from English Education Department in Yogyakarta, Indonesia. The findings revealed that the majority of students viewed corpus positively and considered corpus application for language teaching to be beneficial and necessary. However, the students encounter corpus difficulties because they are unfamiliar with corpus technology and corpus output.

In the Saudi context, Al-Howishil (2019) has explored students' perceptions of using direct corpus consultation as a learning instrument in EFL classes. The participants were 53 Saudi Female students and English majors. The British National Corpus (BNC) was the tool of direct corpus consultation. The study results indicated an overall improvement in students' performance and LA knowledge, and students have shown a positive attitude about using direct corpus consultation in English language classes. Another study by Alsolami and Alharbi (2020) investigated Saudi EFL learners' perception of using corpus activity in an academic writing class as a pedagogical approach. a semi-structured interview was conducted to investigate students' perceptions. The findings showed that students positively integrated the corpus approach in academic writing

classes. The participants reported four positive aspects of using corpus activities: improving self-confidence among EFL student writers, offering various authentic inputs, and promoting language awareness.

A recent study by Youssef and Omar (2020) explored the effect of using corpus-based approach on vocabulary teaching. The sample consists of 54 Saudi students. The sample was assigned into two groups, the control (N= 29) and the experimental (N=25). Tools include pre-post vocabulary tests, students' and teachers' questionnaires. The findings proved that students in the experimental group held positive attitudes regarding using corpus-based approach in vocabulary classes and most of them stated that they have benefited from using it. In another recent study, Youssef (2021) explored Saudi EFL learners' perceptions of using corpus activities to teach English vocabulary. Learners highly value the benefits of corpus activities in vocabulary lessons, according to the study findings. Moreover, learners reported encountering some challenges when using corpus, including difficulty analyzing corpus concordance lines, low language proficiency, and unfamiliar vocabulary.

Overall, previous studies revealed that using corpus consultation in EFL/ESL writing classes has positively improved students' performance and most students hold a positive attitude regarding the implementation of corpus consultation. However, most of the previously mentioned studies examine students' perceptions regarding corpus consultation as a sub-theme and not as the main theme. Moreover, to explore students' perceptions most previous studies used one tool either a questionnaire or semi-structured interview and focused mainly on students' perceptions, not the difficulties that face students while using corpus consultation. As a result, an additional investigation was needed to identify students' challenges and difficulties, and to implement more effective methods for corpus consultation. Hopefully, the present study will fill in this gap and provide an authentic, well-designed study that aims to investigate the perceptions of Saudi EFL students with regard to direct corpus consultation, mainly in relation to overcoming their common vocabulary errors in academic writing. Also, it highlights the difficulties that EFL students face in using direct corpus consultation and suggested solutions. The present study is significant because it involves both quantitative (quantitative data) and qualitative (qualitative data) methods to obtain in-depth data analysis.

Methods

The study utilized the one-group pre-/post-tests quasi-experimental design. The study employed a mixed-method approach, quantitative (questionnaire) and qualitative (interviews). To answer the research questions the study lasted for nine weeks.

Participants

Based on convenience sampling, 32 Saudi Female undergraduate students majoring in English (level five) participated in the study in the second semester of the academic year 2020/2021. They were all enrolled in the same writing class taught by the researcher at the same Saudi public university. The average age of participants was 22 years ($SD = 1.72$). All of them have agreed that they like to search the internet to support their English-language learning and use online dictionaries and other resources in English Writing courses. Since participants are in level five, their English proficiency level will be intermediate to advanced, which is suitable for using direct corpus consultation.

Research Instruments

Questionnaire

A structured questionnaire based on a 6-point Likert scale was administered at the end of the study to investigate students' perceptions toward using direct corpus consultation in developing academic vocabulary knowledge and overcoming common vocabulary errors. The study questionnaire was adopted from Yoon and Hirvela's (2004) and Yoon's (2005) questionnaires with some modifications to make it suitable for the study's main purpose. For example, the researcher added items about students' perceptions of implementing direct corpus consultation activities in EFL vocabulary learning.

The questionnaire contained 43 items, divided into two main sections. The first section focused on the student's background and demographic information (11 items). Students' perspectives on four main areas are assessed in the second section of the questionnaire (34 items), which is divided into four parts: the effectiveness of corpus consultation in overcoming vocabulary errors in academic writing (part one, 11 items), the effectiveness of the direct corpus consultation activities they participated in (part two, four items), the difficulties encountered during corpus consultation (part three, eight items), and the effectiveness of corpus as a language learning tool as a whole (part four, 11 items). A six-point Likert scale was used to score the responses (strongly disagree = 1, strongly agree = 6). To ensure the questionnaire's face validity, the first version of the questionnaire was submitted to four assistant professors and the questionnaire was modified based on their comments. Following that, Cronbach's Alpha Coefficient was used to measure the questionnaire's reliability. The reliability test indicated that the questionnaire has relatively high internal consistency ($\alpha = 0.888$).

Semi-structured Interview

To gain a comprehensive understanding of participants' experience with direct corpus consultation, fifteen randomly selected participants participated in a semi-structured interview. The interview questions focused on identifying the main difficulties students faced while using direct corpus consultation, exploring their recommendations concerning the future effective use of corpus consultation in learning vocabulary, and gaining an overall picture of their personal experience with corpus consultation experience and whether they benefitted from it. Five assistant professors reviewed and approved the interview protocol. Next, the interview questions were piloted on a sample of students other than the research sample. The results indicated that the interview questions were clear and appropriate.

Research Procedures

The study lasted for nine weeks, throughout the second semester of the academic year 2020-2021. The course was online due to the global pandemic (COVID-19). First, the researcher reviewed the previous literature and studies in corpus consultation in second language teaching, ESL academic writing, and common vocabulary errors in writing. The study sample was assigned to one quasi-experimental group. The study intervention lasted for one semester (three months). During this intervention, students were trained on using corpus consultation in developing their academic writing using Corpus of Contemporary American English (COCA). After the intervention, the researcher applied a questionnaire to investigate students' perceptions of using direct corpus consultation. Also, a semi-structured interview was used to explore the common difficulties that English majors face in using corpus consultation and their recommendation for more effective use of corpus consultation in writing classes and learning vocabulary.

The questionnaire was administered online via google forms during the class lecture time. And the researcher was available during the class to explain the questionnaire format and different parts to students and answer their questions. Afterwards, the semi-structured interview was administered online via the Telegram app during students' free time. Each call lasted for 12-15 minutes, and though the interview was conducted in English, students were allowed to switch to Arabic whenever they wanted to elaborate on their thoughts and feelings. The participant's responses to the interview were recorded after their permission and later transcribed for data analysis.

Results

Results Related to the First Research Question

Questionnaire Result

Responses to the four parts of the second section of the questionnaire were analyzed quantitatively using the Statistical Package for Social Sciences (SPSS) Version 28.0; the results were as follows:

The Questionnaire Results Concerning the Effectiveness of Using Direct Corpus Consultation

The first part (11 items) focused on the effectiveness of using Corpus consultation in overcoming vocabulary errors in academic writing. The mean, standard deviation, and rank of each item are presented in table one (See Appendix A).

According to table one, the students reported an overall positive perspective on the effectiveness of corpus consultation in overcoming vocabulary errors. Most students ($m = 5.38$; $SD = 0.79$) agreed that corpus consultation helped them to learn different collocations. The majority ($m = 5.22$; $SD = 1.12$) also agreed that corpus consultation helped them understand vocabulary items' meanings. Students also reported that it helps them the most in learning connotation ($m = 5.03$; $SD = 1.17$), spelling ($m = 4.94$; $SD = 1.13$), and word form ($m = 4.88$; $SD = 1.12$).

The Questionnaire Results Concerning Students' Perspectives on the Direct Corpus Consultation Activities

The second part (four items) focused on exploring students' perception of direct corpus consultation activities that they engaged in. The mean, standard deviation, and rank of each item are presented in table two.

Table 2. Part Two: Direct corpus consultation activities

Items	Mean	St. Deviation	Rank
12. The activities had clear and simple instructions on the corpus website.	5.28	1.14	4
13. The activities guided me to practice different search options on the Corpus of Contemporary American English (COCA) website.	5.44	1.10	1
14. The activities assisted me in understanding the corpus research results.	5.28	1.02	3
15. The activities facilitated the process of searching the corpus.	5.28	0.88	2

Results in table two show an overall positive perspective toward the effectiveness of direct corpus consultation activities. Most students ($m = 5.44$; $SD = 1.10$) agreed that corpus consultation activities have guided them to practice different search options on the Corpus of Contemporary American English (COCA) website. The majority also agreed that direct corpus consultation activities facilitated the process of searching the corpus ($m = 5.28$; $SD = 0.88$), assisted them in understanding the corpus research results ($m = 5.28$; $SD = 1.02$), and had clear and simple instructions to apply on the corpus website ($m = 5.28$; $SD = 1.14$).

The Questionnaire Results Regarding Difficulties Encountered in Using Direct Corpus Consultation

The third part (eight items) focused on exploring the difficulties that the students encountered in using direct corpus consultation. The mean, standard deviation, and rank of each item are presented in table three.

Table 3. Part Three: Difficulties using direct corpus consultation

Items	Mean	St. Deviation	Rank
16. The interface of the Corpus of Contemporary American English (COCA) was confusing and puzzling.	3.44	1.54	3
17. I had difficulty in analyzing the corpus search results due to the too many sentences that the search gives (the concordance output).	3.47	1.54	1
18. I had difficulty interpreting the concordance output due to new words.	3.03	1.55	7
19. I had difficulty interpreting the concordance output due to the complexity of the given sentences.	2.94	1.58	8
20. I had difficulty interpreting the concordance output due to segregated/isolated sentences.	3.28	1.63	5
21. I have some difficulty in using the corpus due to the time and effort spent on analyzing the data.	3.44	1.62	2
22. I have some difficulty in using the corpus due to limited access to computer/Internet.	3.38	1.49	4
23. Limited training and practice made it difficult for me to use corpus consultation effectively.	3.06	1.64	6

The result in table three indicates that some students ($m = 3.47$; $SD = 1.54$) had difficulty in analyzing the corpus search results due to the too many sentences that the search gives. Students also reported having trouble in using the corpus due to the amount of effort and time required for the analysis ($m = 3.44$; $SD = 1.62$), confusion about the concordance output due to new words ($m = 3.03$; $SD = 1.55$), and difficulty in interpreting the concordance output due to the complexity of the given sentences ($m = 2.94$; $SD = 1.58$).

The Questionnaire Results Concerning Students' Perspectives towards Using Corpus

The fourth part (11 items) focused on investigating students' perspectives on using corpus as a language learning tool. The mean, standard deviation, and rank of each item are presented in table six.

Table 4. *Part Four: Perspectives towards using corpus*

Items	Mean	St. Deviation	Rank
24. The Corpus of Contemporary American English (COCA) was easy to use.	4.75	1.43	6
25. I understand the purpose of using corpus consultation in this writing course.	5.16	1.24	2
26. When I search for information in the corpus, I usually get the information that I need.	5.22	0.83	1
27. I tried to consult the corpus for other linguistic problems that I encountered in essay writing.	4.31	1.61	11
28. I consult the corpus when writing papers for other courses too.	4.31	1.53	10
29. Overall, the corpus is a very useful resource for improving my English writing.	5.06	1.21	4
30. I will keep on consulting the corpus to enrich my vocabulary knowledge in the future.	4.72	1.59	8
31. If I had had the chance to learn how to use corpus consultation tools earlier, I would have been better in using more advanced academic vocabulary in my writing.	5.16	1.16	3
32. I believe that the corpus should be introduced in all ESL writing courses.	4.91	1.14	5
33. I recommend corpus consultation to other EFL students.	4.72	1.17	7
34. I want to learn more about using corpus consultation.	4.69	1.44	9

Table four shows that most students agreed that when they search for information in the corpus, they usually get the information they need ($m = 5.22$; $SD = 0.38$) and that they understand the purpose of using corpus consultation in writing ($m = 5.16$; $SD = 1.24$). Many students ($m = 4.75$; $SD = 1.43$) agreed that the Corpus of Contemporary American English (COCA) was easy to use. Students agreed that they wanted to learn more about corpus consultation ($m = 4.69$; $SD = 1.44$), that they would continue to consult the corpus to enrich their vocabulary knowledge in the future ($m = 4.72$; $SD = 1.59$), that they would recommend corpus consultation to other EFL students ($m = 4.72$; $SD = 1.17$), and that corpus should be taught in all ESL writing courses ($m = 4.91$; $SD =$

1.14).

Results of the Semi-structured Interview

To obtain an in-depth analysis of corpus difficulties and students' evaluation of and personal views on using direct corpus consultation, the researcher administered a semi-structured interview at the end of the study. The analysis of the interview data resulted in the following three themes.

Corpus Consultation Benefits and Challenges

Regarding the advantages of using direct corpus consultation, all students (100%) reported that engaging in corpus consultation tasks was an excellent experience that enriched their vocabulary knowledge and improved their academic writing quality. Besides, most students mentioned that they have to keep using corpus consultation in the future even after the course has ended with other classes. One student stated: "I will keep using it because it is helpful and give me more options for word search with example, and how to use it in different contexts". Most students (87%) agreed that corpus consultation helped them improve their writing performance by improving their vocabulary use and overcoming their common vocabulary errors. They also viewed that corpus has saved their time; they find all the information they look for in one website. One of the students reported: "I was searching for a website that can show me the small differences between words" Additionally, some students (47%) reported that they have already started to use corpus in other courses.

On the other hand, some students (53%) reported that they have encountered problems using direct corpus consultation and the COCA website, especially with website registration, limited search numbers, and other technical issues. For example, one student said: "I faced difficulty at the beginning when I signed up with my account to COCA" Another problem was the internet connection. Students needed a fast connection to avoid slow searches and sudden website stops. Furthermore, some students (26%) mentioned that the corpus output was complex, and the concordance lines were difficult to understand. As one student said, "The examples, sometimes are very long" Some students (20%) also complained about time; they reported that corpus searches need more time to find answers. One student mentioned: "Time is the main problem, we needed more time".

Corpus Consultation and Overcoming Vocabulary Errors

It was unanimously agreed by all students (100%) that direct corpus consultation reduced all four types of vocabulary errors: collocation, connotation, word form, and spelling. They also stated that their writing quality was improved. For example, with collocation errors, most students (80%) were impressed how corpus offers them many options for word collocation which helped them to write accurately. One student said: "Yes, corpus helps me much with collocations more than dictionaries." Another added: "I learnt new collocations and how to use them". In terms of connotation, Students reported that their vocabulary became more academic, and they gained better vocabulary knowledge. "Corpus helps me choose more academic words" one student reported.

In addition, many students (74%) added that corpus consultation had enhanced their word form knowledge; one student said: "[it is] very helpful with word form" Finally, students stressed that spelling errors had been reduced after direct corpus consultation; one student said: "It helped me a lot with spelling mistakes." Furthermore, according to students' responses, collocation errors were the ones that improved the most among the four-vocabulary aspects (collocation,

connotation, word form, and spelling), then connotation, spelling, and the last one is word form.
Suggestions for Effective Integration of Corpus Consultation in EFL Classes

Most students (87%) were optimistic about the potential use of direct corpus consultation in EFL classes in terms of learning new academic vocabulary, writing correct sentences, and improving overall writing performance. For example, one student mentioned: "it is a good reference for English learners when they write essays". Another student added, "[It is] recommended for EFL students, it will improve their vocabulary". However, some students (53%) believed that corpus consultation will be helpful only with advanced learners more than beginners because they need to understand the searching techniques very well. For example, one student said, "corpus is not [recommended for] beginners, they should start with using online dictionaries first.". Other students believed that corpus could be used by students of all proficiency levels if teachers provided them with tasks appropriate for their level. Most students (87 %) recommended integrating corpus as a learning tool in all EFL writing courses because; they wished that someone had introduced this tool earlier in levels one or two, which would have saved their time and improved their academic writing quality. One student said: "I regret that I did not know about it earlier".

The questionnaire's overall results have revealed a positive attitude toward using direct corpus consultation as a learning tool in EFL writing classes to improve their vocabulary knowledge and overcome their errors. First, findings indicated a generally positive attitude regarding the effectiveness of direct corpus consultation in developing their academic vocabulary and writing quality. Second, almost all students agreed that COCA direct corpus consultation has reduced vocabulary errors. In addition, the interview findings present that most students stated that direct corpus consultation has enriched their vocabulary knowledge, improved their academic writing and reduced their vocabulary errors. Also, students agreed that direct corpus consultation reduced all four types of vocabulary errors: collocation, connotation, word form, and spelling and they recommended introducing corpus consultation to EFL classes at early stages.

Discussion

Results of the first part of the questionnaire showed an overall positive perception regarding the effectiveness of direct corpus consultation in overcoming vocabulary errors. This result is similar to Abdel-Haq and Ali's (2017), Koçak (2020), Oktavianti et al., (2022), Sinha (2021) findings, which showed that students agreed that the corpus has helped them use a wide range of vocabulary in essay writing and reduced spelling errors. Thus, the second part of the questionnaire indicated an overall positive perspective toward the effectiveness of direct corpus consultation activities. This finding is consistent with other studies (such as Paker & Ergül Özcan, 2017; Koçak, 2020; Youssef & Omar ,2020), which revealed that supporting corpus-based activities have effectively improved students' performance and reduced corpus difficulties. The third part of the questionnaire revealed that students face some difficulties with direct corpus consultation such as analyzing the corpus results, amount of effort and time and difficulty in interpreting the concordance output. This finding is similar to some related studies (Al-Howishil, 2019; Elsherbini & Ali, 2017; Luo & Liao, 2015; Oktavianti et al., 2022; Sinha, 2021; Yoon Hirvela, 2004), which assured that the amount of time and the effort needed to search and analyze the concordance lines were among the main challenges that EFL students face in using corpus consultation. The last part of the questionnaire showed that most students agreed that they usually get the information they need with corpus consultation and that they understand the purpose of

using corpus consultation in writing. This finding is consistent with those of Abdel-Haq and Ali (2017) and Youssef & Omar (2020), who have found that students found the corpus to be a valuable resource when learning EFL writing.

The findings of the interview stated that most students found that direct corpus consultation has enriched their vocabulary knowledge and improved their academic writing quality. This is similar to Abdel-Haq and Ali's (2017), Alsolami and Alharbi's (2020) and Lai (2015) findings, which emphasized the effectiveness of corpus in improving EFL students' writing skills. However, some students mentioned that they have encountered problems in using direct corpus consultation as website registration, limited search numbers, and other technical issues. This finding echoes the findings of other related studies (Al-Howishil, 2019; Elsherbini & Ali, 2017; Luo, 2016; Oktavianti et al., 2022; Paker & Ergül Özcan, 2017; Park, 2022), which found that technical issues, corpus cut-off sentences, and time constraints are the major challenges students face with corpus. Moreover, all students agreed that direct corpus consultation reduced all four types of vocabulary errors: collocation, connotation, word form, and spelling and that corpus consultation enhanced their vocabulary knowledge. This finding is similar to Elsherbini and Ali's (2017), Paker and Ergül Özcan's (2017), and Al-Qahtani's (2021) findings which have confirmed that corpus had improved students' lexical features and helped them reduce writing errors and learn new vocabularies. Finally, many students indicated that they are optimistic about the potential use of direct corpus consultation in EFL classes and recommended integrating corpus as a learning tool in all EFL writing courses. This finding is in line with the findings of other related studies including Elsherbini and Ali (2017), Lai (2015), Oktavianti et al., (2022), Paker and Ergül Özcan (2017), Yoon and Hirvela (2004), and Yoon (2008), which recommended using corpus in other courses, not only in writing classes. Considering these results, we can assume that direct corpus consultation could be a valuable resource for EFL learners with appropriate training and tutorial support.

However, due to some limitations of the study, the findings cannot be generalized. These limitations include the limited number of participants and the focus on four main types of vocabulary errors (collocation, connotation, word form, and spelling). Additionally, the study was limited to a short duration, one semester.

Conclusion

This study examined Saudi EFL students' perceptions of using direct corpus consultation in developing their academic writing by overcoming vocabulary errors and identifying the difficulties they face when using it. Most students held a positive attitude towards the experience; they reported that it was a new motivating experience that increased self-learning. While some faced some difficulties such as more time to search and analyze the corpus output and other technical issues. Subsequently, it is recommended that corpora implementation should be introduced to EFL classes at early stages as an essential learning tool, especially in the Saudi setting, to support the Saudi 2030 vision, which encourages self-learning. Teachers should vary the corpus consultation types and tasks to meet students' learning preferences. Further research is recommended to include a larger research sample of males and females from different study majors and to explore how EFL students perceive direct corpus consultation as a tool to develop other EFL skills.

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Appendices

Appendix A

Table 1: Part One: The effectiveness of using direct corpus consultation

Table 1. Part One: The effectiveness of using direct corpus consultation

Items	Mean	St. Deviation	Rank
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1. Corpus consultation helped me to overcome my vocabulary errors in academic writing.	4.87	1.15	8
2. Corpus consultation helped me to understand the meaning of vocabulary items.	5.22	1.12	2
3. Corpus consultation helped me to comprehend the semantic function of vocabulary items.	4.75	1.04	9
4. Corpus consultation helped me to overcome spelling errors in academic writing.	4.94	1.13	6
5. Corpus consultation helped me to distinguish different forms (parts of speech) of vocabulary	4.88	1.12	7
6. Corpus consultation helped me to learn different collocations (compound words) of vocabulary items.	5.38	0.79	1
7. Corpus consultation helped me to learn more about connotation (word choice) of vocabulary items.	5.03	1.17	4
8. Corpus consultation helped me to recognize various usages of each vocabulary item in different contexts.	4.75	1.01	10
9. Corpus consultation provided me with various instances of using each vocabulary item.	4.53	1.13	11
10. Direct Corpus consultation showed me how native speakers tend to use different vocabulary items.	5.03	0.99	5
11. Corpus consultation helped me to learn new academic vocabulary coincidentally.	5.03	1.09	3