

<https://doi.org/10.17323/jle.2023.16113>

The Relationship between Perception and Knowledge of Academic Vocabulary among EFL and EMI University Students

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ABSTRACT

Background: Academic vocabulary is considered an essential component in the English language courses in higher education establishments. A number of studies have illustrated that the use of academic words in students' work alone cannot always promise high grades, since students' opinion about the importance of academic words can also have an influence on their knowledge and use.

Purpose: The research aims to determine the relationship between the vocabulary level of learners and their beliefs about the importance of academic words at the tertiary level.

Methods: For this study, the first and third-year students (N=440) in two Uzbek universities completed a beliefs questionnaire to rate their perceptions of the significance of academic words in improving reading, writing, speaking, and listening skills in academia. The participants were also administered a vocabulary knowledge test to estimate their receptive dimension.

Results: The findings demonstrate that EMI students scored higher on the vocabulary test than EFL students and show that students' perceptions of the significance of academic words changed in all four skills from the first to third year of study.

Conclusion: The article explores trends that emerged in the data and raises awareness for EAP teachers concerning the assumptions about students' needs for vocabulary development based on learners' perceptions and knowledge.

KEYWORDS

academic vocabulary, higher education institution, vocabulary knowledge test, students' perceptions, receptive dimension

INTRODUCTION

Vocabulary as an important component of a language has always been recognized in English language education. Teaching academic vocabulary in higher educational establishments has been investigated broadly. Teachers of English for Academic Purposes find it challenging to make a decision about words that should be focused on "during valuable class and independent study time" (Coxhead, 2000, p. 213).

A growing body of research focuses on the investigation of receptive and productive knowledge of academic vocabulary (El-Dakhs, 2015; Köse & Yuksel, 2013; Malmström, Pecorari & Shaw, 2018). Only a limited number of them investigate the extent of the importance of academic

words in different aspects of teaching and learning (Choo et al., 2017). Studies have also been conducted on vocabulary knowledge of English as Second/Foreign Language (ESL/EFL) (Csomay & Prades, 2018; Teng, 2017) and English for Academic Purposes (EAP) (Coxhead, 2012; Crossman, 2018). However, studies on the relationship between the perception and the knowledge of the academic vocabulary among the students studying in English as a Foreign Language and English-medium of instructions (EMI) are very limited.

A number of studies have also supported the importance of students' beliefs and perceptions in language learning and in particular vocabulary (Choo et al., 2017). Given the significance of academic words and due to the scarcity of studies on Eng-

Citation: Makovskaya L., & Juraeva I. (2023). The relationship between the perception and knowledge of academic vocabulary among EFL and EMI university students. *Journal of Language and Education*, 9(2), 133-145. <https://doi.org/10.17323/jle.2023.16113>

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Received: October 8, 2022

Accepted: June 15, 2023

Published: June 30, 2023



lish language learners perception and knowledge of English vocabulary in Uzbekistan and in Central Asia, the purpose of this article is to focus on discussing the relationship between the students' receptive knowledge of academic words and their perceptions of the importance of academic vocabulary for their tertiary studies. It also investigates the differences and similarities between the learners' beliefs and knowledge in two Uzbek universities. The findings will help identify the needs for the development of academic vocabulary knowledge among the university students and as such can be beneficial for the English language instructors and material designers.

Academic Vocabulary

Academic vocabulary (AV) is an important constituent of academic studies in the curricular of higher institutions, and it is supportive in studies at higher institutions (Coxhead, 2012). Nation defined AV as words frequently used in academic texts which are "not so common in the non-academic text" (2001, p.189). AV includes words used in academic texts that serve to attain a high efficacy of the academic message. The knowledge of academic words plays an essential role in understanding written texts, and is also central to the academic success of both native and EFL students (Gardner & Davies, 2013). Studies also show that students understand how important academic vocabulary is (Choo et al., 2017; Coxhead, 2000; Csomay & Prades, 2018). In the study conducted by Choo et al. (2017), participants presume the knowledge of academic vocabulary as important for the development of the four language skills. Some other studies show a relationship between the use of academic words and the effectiveness of producing writing tasks (Brun-Mercer & Zimmerman, 2015; Csomay & Prades, 2018). It is noted that students are aware of what audience they are addressing and "its impact on their choice" of the academic words in their writings (Coxhead, 2012).

Academic vocabulary has been researched in the field of English for Academic Purposes (EAP) and English for Specific Purposes (ESP). Studies on AV represent a growing field, and many have focused on the use of academic words by students both receptively and productively. AV has been an important concept in the studies of Xue and Nation (1984), Coxhead (2000), Gardner and Davies (2013), and Browne, Culligan, and Phillips (2013) who have developed specific lists of the words frequently encountered in academic texts. The usage of AV has been the subject of several recent papers (Coxhead, 2012; Cribb & Wang, 2021; Csomay, 2020; El-Dakhs, 2015; Masrai & Milton, 2018; Qian, 2002; Teng, 2016). There is a growing body of literature that recognizes the importance of AV for university-level students and specifically the knowledge of academic words has been described as crucial in "high-stakes writing and assessment" (Coxhead, 2012, p. 137). The presence and correct usage of AV impact the academic performance of the learner. San-to's research (1988) has shown that "errors in vocabulary

use are "seriously unacceptable" (cited in Coxhead, 2012, p. 137). Csomay and Prades prove that there is a "significant relationship between academic vocabulary use and essay scores in some text-types" (2018, p. 107). Different teaching instructions and the level of preparedness of the students for tertiary studies have a high impact on their overall academic performance. Some studies show a low correlation between the coverage of academic vocabulary and the overall score in some language respects (Paribakht & Webb, 2016).

Studies in this field lead to the idea of the need for specific academic word lists that could be helpful for both educators and students. As a result, several lists of academic words have been developed with different purposes. A University Word List (UWL) (Xue & Nation, 1984) comprised the words analysed from among 301,800 words of Campion and Elley's word list (1971) from nineteen different university disciplines taught in New Zealand and 272,466 words from the American University Word List (Praninskas, 1972) from ten first-year university textbooks. These two lists were combined with the lists created by Lynn (1973) and Ghadessy (1979) from annotations written by EFL students (Xue & Nation, 2001).

The Academic Word List (AWL) considers the specialised occurrence, range, and frequency of words encountered frequently in academic texts, albeit in differing frequencies across several different disciplines (Coxhead, 2000, p. 221). Words in the AWL were selected from the material in the Academic Corpus, other academic texts not in the Academic Corpus, and non-academic texts. 570-word families have been identified as a result of the analysis of three different corpora. The most recent list of academic words is the Academic Vocabulary List (AVL) (Gardner & Davies, 2013), which consists of 120 million words from Corpus of Contemporary American English (COCA).

Measuring Vocabulary Knowledge

Few tests measure knowledge of academic vocabulary. Most of the existing tests assess the receptive dimension of words from the General Service List (GSL) originally developed by West in 1953 and later updated and expanded (Browne, Culligan & Phillips, 2013). They are designed for non-native speakers of English and are widely used by the language instructors for teaching and research purposes (Köse & Yuksel, 2013; Moon, 2017; Teng, 2016). For instance, the Vocabulary Size Test (VST), originally developed by Nation in 1983, and revised by Nation and Beglar in 2007, is a multiple-choice test of 140 items which measures written receptive vocabulary size from the 1st 1000 to the 14th 1000-word families of English. The authors believe that the VST helps to show what knowledge learners have as they "need to have a moderately developed idea of the meaning of the word, in order to be able to choose it from the four options" (Nation & Beglar, 2007, p. 11).

Another commonly used test is the Vocabulary Level Test (VLT) developed by Schmitt, Schmitt, and Clapham (2001). The test measures 2000, 3000, 5000, and 10000 frequency levels and, in comparison to VST, has a different format. A level test consists of ten clusters of six words with three definitions each. The researchers argue that “even a small amount of knowledge about a target word’s meaning should enable a student to make a correct response” (Schmitt et al., 2001, p. 62). Apart from having a different format, VLT has an additional section which, depending on the version, presents either the University Word List or Academic Vocabulary level items. The latter is a reviewed version and has better coverage of academic texts.

Although both VST and VLT have been used to measure the knowledge of non-native and native speakers of English of different levels (from foundation to undergraduate and postgraduate), they are mainly focused on the receptive dimension of vocabulary (Köse & Yuksel, 2013; Saud, 2023, Warnby, Malmström & Hansen, 2023). The authors of both tests agree on the fact that the items do not give an opportunity to measure the productive dimension of the target words. Taking this into account, Laufer and Goldstein (2004) made a clear distinction between passive (receptive) and active (productive) vocabulary. Having considered the principles provided by Nation and Schmitt, they developed the Computer Adaptive Test of Size and Strength (CATSS). It has a monolingual and bilingual (Hebrew-English) version, 150 items, and measures five levels (including AWL) of vocabulary with 30 items for each level. What distinguishes this test from the VLT and VST is that “each word is tested in four modalities (active recall, passive recall, active recognition, and passive recognition)”. It also gives a “more realistic picture of how well learners know the meaning of the tested items” (Laufer & Goldstein, 2004, p. 414).

Despite certain differences, Gyllstad et al. argued that such tests (VST, VLT, and CATSS) should be considered to be multiple-choice tests, since they consist of “an item stem with a target word and set of response options, typically three or more with one keyed as the acceptable answer and the remainder, the distractors, as unacceptable answers” (2015, p.279). Based on their study, the researchers suggest the learners should be administered the test(s) depending on the teaching and/or research objectives.

Since some recognized vocabulary tests might not meet all the requirements, teachers and researchers developed different items to measure both receptive and productive dimensions of academic words. The widely used passive vocabulary tasks are either Yes/No response tests (Roche & Harrington, 2013), filling-in-the-gap sentences (El-Dakhs, 2015), or checklist tests (Masrai & Milton, 2018) combining words both from GSL and AWL. The knowledge of productive vocabulary is usually tested through written assignments, such as short argumentative paragraphs (El-Dakhs, 2015) or longer written papers, such as essays (Brun-Mercer

& Zimmerman, 2015; Köse & Yuksel, 2013) or synthesis (Csomay, 2020). The researchers believe that adopting a multiple-test approach allows not only measuring the recognition (passive knowledge) but also the use of words (active knowledge) by non-native learners of English as well as giving a better understanding of learners’ vocabulary development.

Importance of AV Knowledge for Skills Development

Nation (2001) highlighted that knowledge of “academic vocabulary is a high priority goal for learners who wish to do academic study in English” (2001, p. 197). A great number of studies have been carried out to find out how important it is to learn academic words and what kind of influence this knowledge has on the development of student’s skills at the foundation and/or tertiary level (Choo et al., 2017; Csomay and Prades, 2018; Durrant, 2016; Köse & Yuksel, 2013; Malmström, Pecorari & Shaw, 2018; Saud, 2023; Teng, 2016).

Since writing is one of the most common ways to assess learners’ knowledge and skills, the use of academic words in the written production of non-native English speakers has been widely researched. Several surveys have demonstrated the significance of lexical choice for EFL/ESL learners’ university studies and their writing (Choo et al., 2017; Coxhead, 2012). Brun-Mercer and Zimmerman (2015) in their study among advanced-high students preparing to enter American Universities revealed that it is important for students to use AV in their written composition. However, most participants of the study tend to use academic words that they had already used effectively in their previous written assignments. Studies have also focused on the impact of academic vocabulary use on the students’ scores in writing tasks. The results of the research by Roche and Harrington (2013) as well as Csomay and Prades (2018), have shown that there is a significant relationship between the use of academic words and the students’ performance in writing.

In addition to writing, ESL/EFL learners need to read academic texts effectively. Therefore, several studies have examined the relationship between the knowledge of AV and students’ reading proficiency. Qian (2002) demonstrated that the size and depth of vocabulary of a candidate are powerful predictors of performance in the TOEFL reading comprehension subtest. Similarly, Moon (2017) in the study conducted on Korean students identified that a knowledge of academic vocabulary has a significant relationship with reading. In contrast, the analysis of the AV coverage in reading/ listening sections of CanTEST and overall comprehension score, undertaken among Canadian students, has shown no meaningful correlation (Paribakht & Webb, 2016).

Several studies have also examined the role of vocabulary on listening skills. Vidal (2003), in her study among first-year Spanish ESP students, found a high correlation between lecture comprehension and vocabulary proficiency. Howev-

er, the study identified that the knowledge of technical and low-frequency words in comparison to academic vocabulary was more important for understanding academic lectures. Teng (2016) in the study among EFL Chinese students also realised that depth (meaning, collocation, and lexical building) and breadth (receptive size) of vocabulary is an important predictor of successful listening comprehension. However, there is a higher correlation between the depth rather than breadth of vocabulary knowledge and understanding of the academic lectures.

In comparison to other academic skills, so far, there has been little discussion about the relationship between AV knowledge and speaking. Cribb and Wang (2021) investigated the use of academic words in the oral presentations of Chinese students. The analysis of a 5-minute speech on a stipulated topic revealed no significant correlation between the use of academic words and the utterance length and coherence of students' monologues.

The use of academic words has also been investigated in corpus-driven studies (Coxhead, Dang & Mukai, 2017; Dang, 2018; Durrant, 2016; Hyland & Tse, 2009; Khani & Tazik, 2013; Malmström, Pecorari & Shaw, 2018). Much research has focused on the coverage of AWL across a corpus of university students writing, identifying that the use of academic words is quite high in certain university disciplines (Durrant, 2016; Hyland & Tse, 2007). Malmström, Pecorari and Shaw (2018) in their study adopted a corpus of BAWE (British Academic Written English), in order to determine the academic vocabulary which students use productively. In comparison to other researchers, Dang (2018) investigated the corpus of spoken discourse, specifically the use of AV in the hard and soft sciences. Through the analysis of academic speech, the study allowed producing a Soft Science Spoken Word List of 1,964 words.

As we have seen, academic vocabulary has been the subject of different studies around the world and has focused on the knowledge of receptive and productive dimensions, the use of academic words in students' written and oral assignments, and the importance of academic words for students' academic performance.

The aim of the current study is to contribute to the growing body of research on the knowledge of academic words among EFL students, guided by the following research questions:

1. What is the receptive knowledge of the general and academic vocabulary of the EFL and EMI students in two Uzbek universities?
2. To what extent do EFL and EMI undergraduate students in two Uzbek universities consider the knowledge of academic vocabulary significant for their studies at the university?

3. What is the relationship between the EFL and EMI university students' knowledge of and beliefs about academic vocabulary?

METHOD

Participants

This study was conducted at two higher education establishments in Uzbekistan: one national, the Uzbek State World Languages University; and one international, Westminster International University in Tashkent, Uzbekistan. The former has Uzbek and Russian as the medium of instruction, whereas the latter uses English as the medium of instruction. The main field at the national university is linguistics and foreign language teaching methodology, while in the international university, the students study business administration, economics, finance, information technology, and commercial law. These two universities were chosen because the researchers had access to the target population, and also the comparison of an EMI institution to a non-EMI institution had been rarely done in other studies.

440 students participated in the study: 219 from the national university and 221 from the international university. The students were divided into two groups: freshman and junior (see Table 1), representing almost all the regions and ethnicities of Uzbekistan including Uzbek, Karakalpak, Russian, Tajik, and Korean. A small number of students at the international university were of foreign origin (China, Afghanistan, and Turkmenistan). Similarly, most of the students speak Uzbek, Karakalpak, Tajik, and/or Russian. Students at the international university have an IELTS score of a minimum of 5.5 as required. Students at the national university are admitted on the basis of scores from the Uzbek State Testing Centre university entrance exam. The entrance score requirements are equivalent to a minimum B1 level on the CEFR scale. Most students at the national university were female but the majority of the students at the international university were male (see Table 1).

Procedures

The aim of the study was to measure the level of students' academic vocabulary and identify the relationship between the students' knowledge of AV and their beliefs about the importance of AV. In order to investigate the student's perception of the value of academic vocabulary, an adapted version of Choo et al. (2017) beliefs questionnaire was administered. It consisted of twelve questions measuring four constructs using a 6-point Likert scale (1=strongly disagree to 6=strongly agree) on understanding and engagement during lectures, reading academic texts such as textbooks, journal articles, and publications; better production of writing assignments; using correct words in academic presentations; feeling more confident in speaking during classes;

Table 1*Participants of the Study*

University	Year 1	Year 3	Gender	Age	Level
Uzbek State World Languages University (EFL University)	112	107	F=170 M=47*	17-28	B1 CEFR
Westminster International University in Tashkent (EMI University)	113	108	F= 96 M=125	18-30	IELTS 5.5 (entrance requirement)

*two participants did not indicate their gender

and participating in lectures in academic settings (see Appendix A).

Two tests were administered to measure students' vocabulary levels. The Vocabulary Size Test (Nation & Beglar, 2007) was employed to measure the knowledge of words from the GSL, and the Vocabulary Levels Test (Schmitt et al., 2001) was administered to include words from the AWL (see Appendix B). Both tests are widely available and have been used in several studies on students' receptive knowledge of vocabulary (El-Dakhs, 2015; Köse & Yuksel, 2013; Masrai & Milton, 2018; Saud, 2023). Prior to checking academic words, it is recommended to identify the knowledge of the first 2000 words of the general service list since they do not belong to the academic word list (Coxhead, 2012). Therefore, both VST and VLT were employed in the current study. An analysis was performed to assess the statistical reliability of combining two parts of the vocabulary knowledge tests. The reliability coefficient of 0.781 was identified (Cronbach's α), which suggests the test items have a relatively high internal consistency.

The first twenty items (10 for the first 1000 words and 10 for the second 1000 words of GSL) of multiple-choice questions were taken from the Vocabulary Size Test. The questions provided a short sentence with the word to be defined with four options given to choose from. The participants had to circle the answer they find the most appropriate:

jump: She tried to **jump**.

- lie on top of the water
- get off the ground suddenly
- stop the car at the edge of the road
- move very fast

The Vocabulary Levels Test included ten clusters of six academic words to be matched with three definitions for an overall 30 words. The participants had to write the number of that word next to its meaning:

1 achieve

2 conceive

3 grant

4 link

5 modify

6 offset

__5__ change

__4__ connect together

__1__ finish successfully

Data collection took place over two weeks of the first semester of the academic year. Since the first-year students at both universities might not have been familiar with academic vocabulary, the participants were provided with a definition of AV, then asked to fill in the beliefs questionnaire, followed by the knowledge test. This procedure was chosen to minimise the influence of the research tools on each other. Participants took between 15-30 minutes to complete both parts.

Analytical Tools

The collected data was analysed using JASP, a program for statistical analysis. The statistical calculations were performed in line with the research questions. Descriptive statistics were used to identify the receptive knowledge of general and academic vocabulary and to measure the students' beliefs about the importance of AV. In order to answer the third research question on the relationship between knowledge and beliefs, Spearman's rho was used.

RESULTS AND DISCUSSION

Receptive Knowledge of Vocabulary

The first research question was aimed at investigating the receptive knowledge of the general and academic vocabulary of the EFL and EMI university students.

EFL University Students

The third-year students scored lower compared to the first-year students. With a maximum of 10 correct answers, both year one and year three were scored in test one and test two. The average of both tests in two levels varied by 0,5 correct answers in favour of the freshmen. The analysis of the second 1000 GSL words showed a higher level of SD when compared to the first 1000 GSL words' results. The number of academic words placed correctly was lower than performed by the third-year students. The mean of the AW test was 20.89 correct answers out of 30 for the first-year students and 18.71 for the third-year students. This also illustrates a slightly lower result for the third-year students which could be explained by the difference in admission requirements for both generations (see Table 2).

EMI University Students

Comparative analysis of the receptive vocabulary of EMI university students revealed a difference in the knowledge of the first 1000 GSL words between the first and third-year students, with the upper-level students having slightly higher results (M=9.080 and M=9.231 respectively). In contrast, the results of the second 1000 GSL vocabulary were similar for students at both levels. However, the mean score was lower than that for the first 1000 (see Table 3). As for the AV knowledge, there was a considerable difference at one

point between the results of the first and third-year students (M=23.91, and M=24.91 respectively).

Students at both Universities

Comparative analysis of the results of the vocabulary knowledge test shows that the participants from both universities have a good knowledge (M=8.9 and 8.7, n=10) of the first 1000 words of GSL (see Table 4), with the international university students scoring only slightly higher than the national university students (First year M=8.723 and 9.080; Third year M=8.206 and 9.231 respectively). As for the second 1000 words of GSL (n=10), the mean score is lower for both universities (First year M=6.866 and 7.540; Third year M=6.290 and 7.556 respectively).

Also, as shown in Table 4, the mean score of AV knowledge (n=30) of the first-year students (M=22.19) is almost one point higher than the third-year students (M=21.82). Notably, the international university students scored significantly higher than the national university students (First year M=20.45 and 23.91; Third year M=18.71 and 24.91 respectively).

Overall, (n=50) there is a slight difference between the first and third-year students (M=38.29 and 37.47), but, again, a significant difference between the first-year students from the national (M=36.04) and international universities

Table 2

Descriptive Statistics for GSL and AWL (EFL Students)

Words	Year of study	N (valid)	M	SD	Min	Max
First 1000	first	112	8.723	1.435	1	10
GSL	third	106	8.283	1.706	3	10
Second 1000	first	112	6.866	1.492	1	10
GSL	third	106	6.349	1.937	1	10
Academic words	first	112	20.45	4.891	3	29
	third	107	18.71	6.326	2	30

Table 3

Descriptive Statistics for GSL and AWL (EMI Students)

Words	Year of study	N (valid)	M	SD	Min	Max
First 1000	first	113	9.080	1.036	4	10
GSL	third	108	9.231	1.107	3	10
Second 1000	first	113	7.540	1.433	4	10
GSL	third	108	7.556	1.349	4	10
Academic words	first	113	23.91	3.741	13	30
	third	108	24.91	4.552	7	30

Table 4*Vocabulary Knowledge Test*

	First 1000		Second 1000		Academic words		Total score	
	M	SD	M	SD	M	SD	M	SD
First-year students	8.902	1.260	7.204	1.498	22.19	4.676	38.29	6.486
EFL University (N=112)	8.723	1.435	6.866	1.492	20.45	4.891	36.04	6.950
EMI University (N=113)	9.080	1.036	7.540	1.433	23.91	3.741	40.53	5.111
Third-year students	8.721	1.619	6.926	1.828	21.82	6.311	37.47	8.828
EFL University (N=107)	8.206	1.877	6.290	2.023	18.71	6.326	33.21	9.185
EMI University (N=108)	9.231	1.107	7.556	1.349	24.91	4.552	41.69	6.008
All students (N=440)	8.814	1.448	7.068	1.671	22.01	5.532	37.89	7.722

(M=40.53) with similar patterns for the third-year students of national (M=33.21) and international university (M=41.69).

The findings of the vocabulary test showed that both EFL and EMI undergraduate students had similar knowledge of the first 1000 GSL words. This can be explained by the fact that the requirements of both educational institutions are quite high. Therefore prospective students spend several years studying grammar and vocabulary of the English language. In contrast, the knowledge of the second 1000 GSL words between the students of the national and international universities drops significantly and differs between the levels and universities. This could be explained by the fact that the EFL university learners undergo their studies in their native language (Uzbek or Russian) and only English lessons are conducted in English, whereas, at the EMI institution, the students study all their subjects in English. The findings are not compatible with the results of the study conducted by El-Dakhs (2015), who found quite a low level of vocabulary competence among first-year Arab EFL students and a much higher level of receptive vocabulary knowledge among second and fourth-level students.

As for academic vocabulary, the results of the study revealed a significant difference between the knowledge of EFL and EMI students. One of the reasons to explain this difference between the first-year learners of both institutions might be entrance requirements. The EFL university students are expected to have at least a B1 level of CEFR upon graduating from the secondary educational institutions, and also pass an entrance test, consisting of grammar, vocabulary, and reading items. The students at the EMI University are required to have at least 5.5 Band in IELTS with no less than 5.0 in the writing section. This means they should have some knowledge of academic words while preparing for the different sections of the exam.

The results of the study revealed that the academic vocabulary knowledge among the third-year students at both uni-

versities differs significantly. This might be explained by the exposure to the learning materials, i.e., Uzbek/Russian in the EFL University and mostly English in the EMI University. Another possible explanation is that most students in both higher education institutions apply the knowledge obtained before entering university and increase the number of terms specific to the field of study rather than academic words. Similar results were observed in the study of Köse and Yuksel (2013), who identified an increase in the size of vocabulary knowledge from the first to the second year of studies, but a decrease in the third year of studies among Turkish students. In his investigation, Saud (2023) also observed heterogeneous results in the AV knowledge among master's degree students in Nepal. This can be explained by the influence of previous studies at the bachelor's level and students' reluctance in learning new academic words. However, the findings of the current study are not in line with the study of El-Dakhs (2015) that identified high results of AWL among upper-level students in comparison to first-year students.

Overall, the findings of the study show that the receptive dimension of the GSL and AWL is generally high among the Uzbek students of both EFL and EMI universities, since the majority of the learners scored much higher than the average. Only a few showed quite low performances in the vocabulary knowledge test.

Students' Beliefs about AV

The second research question was aimed at identifying the perception of the students concerning the importance of academic vocabulary for the EFL and EMI university students' skills. The beliefs questionnaire used a Likert scale (1=strongly disagree to 6=strongly agree), in order to identify students' perceptions of the importance of academic vocabulary in their tertiary studies. Regarding the role of AV for all aspects of listening, the findings showed interesting results. The beliefs of the participants from both EFL and EMI institutions with regard to the significance of academic words for listen-

ing decreased from the first to the third year. The students at both universities considered AV to be significant for other skills' development.

EFL University Students

Students' beliefs about the importance of AV vary at two levels. The upper trend can be seen at year one students in all four skills (see Table 5). Both the first and third-year students agree that AV is very important for their reading (5.219 and 4.838 respectively). However, they have different views about the significance of academic words for their listening comprehension. Year one students agree and strongly agree ($\mu=4.844$) about the importance of AV while the participants from year three only slightly agree ($\mu=4.290$). The majority of the first-year students believe that a knowledge of academic words is important for their writing assignment ($\mu=5,016$), and they agree and strongly agree that the knowledge of these words is critical when they use them in writing ($\mu=5,209$). Third-year students do not show similar results concerning all four writing aspects while they agree on the significance of academic vocabulary in their writing ($\mu=4,953$). Third-year participants agree about the importance of AV for producing effective sentences ($\mu= 4,642$).

EMI University Students

Statistical analysis of the EMI university students' beliefs about the importance of AV knowledge for skills development revealed no major differences between the levels (see Table 6). The mean scores showed that both groups of students believe the knowledge of academic words is least important for lecture comprehension ($\mu=4.599$ and $\mu=4.407$ respectively). Students at both levels believe that knowledge of AV is slightly more important for effective communication than understanding the lectures at the university (First year $\mu= 4.767$ and Third year $\mu= 4.699$). In comparison to speaking and listening skills, the knowledge of academic words is indicated as the most significant for the development of reading and writing skills.

Students at both Universities

Overall, participants of both universities agree that academic vocabulary is important for their studies, but the significance of AV for each skill varies (see Table 7). The participants viewed AV as most important for reading ($\mu=5.045$) and

Table 5

EFL Students' Perceptions

Skills	Year of study	N (valid)	M (μ)	SD
Speaking	first	111	4.922	1.093
	third	106	4.570	1.125
Listening	first	112	4.844	1.1445
	third	105	4.290	1.281
Reading	first	112	5.219	0.890
	third	106	4.838	0.749
Writing	first	110	5,016	0.9459
	third	107	4,804	0.9812

Table 6

EMI Students' Perceptions

Skills	Year of study	N (valid)	M (μ)	SD
Speaking	first	112	4.767	1.128
	third	108	4.699	1.065
Listening	first	111	4.599	1.222
	third	107	4.407	1.266
Reading	first	112	5.085	0.934
	third	108	5.034	0.968
Writing	first	113	5.177	0.947
	third	107	5.218	0.868

writing ($\mu=5.056$). Interestingly, students' perceived importance of AV decreased from the first year (Listening $\mu=4.733$; Speaking $\mu= 4.844$; Writing $\mu=5.099$; Reading $\mu=5.149$) to the third year (Listening $\mu=4.349$; Speaking $\mu= 4.635$; Reading $\mu= 4.938$; Writing $\mu=5.012$) for all skills.

Most EFL first-year students found AV significant. However, the number decreased noticeably by the third year when they slightly agreed with it. In order to be specific, EFL students of both years agreed with more importance of AV for understanding lectures, rather than when being engaged during them. A probable reason for this could be the large number of students during the lectures. Thus students are not

exposed to discussions, and it could be a result of teaching styles when a teacher-centred approach is dominating in the class. Also, students may be finding academic content challenging during their lectures that make their understanding difficult. With regard to EMI institution students, the findings do not demonstrate a considerable difference between the levels. However, it can be observed that the responses vary from the years of the study indicating the decreased pattern among year three students. This might be explained by the fact that all the lectures are available to the EMI students on the learning management system. This means that there is an opportunity to watch/listen to the video lecture any time they want or need. In their first year of study, the students

Table 7
Beliefs Questionnaire Results

Skill	Sub-skills	M (SD)			μ		
		Year 1 students (N=225)	Year 3 students (N=215)	All students (N=440)	Year 1 students	Year 3 students	All students
Listening	understanding lectures	4.897 (1.01)	4.432 (1.30)	4.67 (1.18)	4.733	4.349	4.545
	being engaged in lectures	4.568 (1.25)	4.265 (1.27)	4.42 (1.27)			
Speaking	using words in speaking	5.022 (.99)	4.840 (1.06)	4.934 (1.03)	4.844	4.635	4.743
	being confident in speaking	4.821 (1.14)	4.730 (1.11)	4.777 (1.13)			
	communicating effectively	4.691 (1.14)	4.335 (1.21)	4.517 (1.19)			
Reading	understanding reading material	5.289 (.81)	5.047 (.93)	5.17 (.88)	5.149	4.938	5.045
	being confident in reading	5.018 (.94)	4.874 (1.05)	4.948 (.9975)			
	reading effectively	5.141 (.92)	4.893 (1.02)	5.018 (.98)			
Writing	using words in writing	5.336 (.87)	5.151 (1.01)	5.246 (.94)	5.099	5.012	5.056
	being confident in writing essays	5.094 (.98)	5.061 (.96)	5.078 (.97)			
	writing effective sentences	5.032 (.96)	4.835 (.99)	4.935 (.98)			
	producing better writing	4.932 (.98)	5.000 (.96)	4.966 (.97)			

do not use these opportunities, but they access the electronic system more often when they become upper-level students.

The importance of academic vocabulary for the development of speaking was perceived differently by EFL and EMI students. The first-year students at the national university found AV to be vital. This differs significantly from the beliefs of the third-year learners of the same higher educational institution. EMI students of both levels did not consider academic words important for the speaking activities at the university. Such insignificance of the use of academic words for effective communication in both universities can be ascribed to the possibility of being prepared for oral presentations. Based on the findings, Cribb and Wang (2021) explained that there is no direct relationship between the use of academic words and coherence and length of presentations among Chinese third-year students. In contrast, Choo et al. (2017) in their research found that the knowledge and use of AWL are beneficial for Malaysian university students' effective communication.

Participants in the current study found the knowledge of academic words to be significant for the improvement of reading skills. Overall, there is a slight difference between the first and third-year students of the EFL university and almost no difference among the students of the EMI university. The first-year learners of both HE institutions believe that knowledge of AV is important for understanding academic materials and being effective in reading. However, the beliefs of the third-year students are not consistent. They find it more important to understand the meaning rather than to be confident in reading. Warnby, Malmström and Hansen (2023) explain that apart from vocabulary knowledge, students'

reading proficiency might be conditional on different factors including strategies used for reading or subject knowledge. Therefore, students' perception of the important of AV and reading ability can vary among the levels of study and learning contexts.

The findings suggested that knowledge of academic words was considered to be the most significant for the development of writing skills in both universities. However, the level of importance varies among the levels and universities. Students at both levels in the EMI institution believe that it is very important to use AV in their writing and to produce better writing. This might be explained by the fact that all the written assignments are produced in English and the use of academic words is one part of the assessment criteria. Academic words are perceived slightly less important by the first-year students at the national university, while AV was found to be unimportant for the development of writing by the third-year students. A possible reason for such a difference in the perceptions of academic words among the EFL and EMI students might be dissimilar written tasks and requirements set by the university subjects.

Relationship between Knowledge and Beliefs of AV

The final research question was aimed at exploring the relationship between the students' knowledge and beliefs of academic vocabulary. Since the data was not normally distributed, for the analysis of these findings, Spearman's rho was applied. In order to identify the statistical significance of the relationship between the knowledge and beliefs of academic words, each sub-skill of the four main language skills

Table 8

Relationship between Beliefs and Knowledge

Skill	Spearman's rho	p-value
understanding lectures	-0.006	0.894
being engaged in lectures	-0.068	0.156
using words in speaking	-0.015	0.758
being confident in speaking	-0.039	0.415
communicating effectively	-0.008	0.872
understanding reading material	0.151**	0.001
being confident in reading	0.108*	0.023
reading effectively	0.050	0.297
using words in writing	0.251***	< .001
being confident in writing essays	0.105*	0.028
writing effective sentences	0.090	0.060
producing better writing	0.165***	< .001

Note. Significant at * $p < .05$, ** $p < .01$, *** $p < .001$

(speaking, reading, writing, and listening) was analysed separately (see Table 8).

The Spearman's rho results indicated that there is a statistically significant correlation between the knowledge of academic words and being confident in reading ($r_s = .108$ $p < .05$) and understanding the reading material ($r_s = .151$ $p < .001$). Analysis indicated the most significant relationship between the AV knowledge and using the words in writing and producing better writing ($r_s = .251$ $p < .001$ and $r_s = .165$ $p < .001$ respectively). A significantly negative correlation was found between the knowledge of academic words and being confident in speaking ($r_s = -.039$), and being engaged in lectures ($r_s = -.068$).

The beliefs questionnaire revealed that students at both universities consider the knowledge of academic vocabulary to be vital for developing their reading skills. The finding supported the results of earlier findings on the critical role of AV for reading. Moon's research (2017) found that vocabulary size and vocabulary knowledge might have a vital role in reading. However, the findings also showed a decrease in the beliefs for both universities' students. While the beliefs of EFL students vary significantly, the results of EMI University show slight changes across the years. Specifically, both year one and year three EMI students believe that the knowledge of academic words will help them to understand reading material. On the other hand, the results fell from the first to the third year for EFL university students. One possible explanation may be a continued exposure to reading material in English in EMI University. This is different for EFL students due to the introduction of different disciplines during the consequent years of studies which require reading materials in Uzbek and Russian languages. The other reason behind this result could be probably explained by students' motivation to prepare quickly for their exams. During this time students usually limit themselves to skimming and scanning material without focusing on difficult and unknown vocabulary. By doing this they generally ignore challenging academic words and try to only grasp the gist of the reading material.

Although there is a slight difference between the perceptions of EFL and EMI students, a positive correlation was found between the use of AWL and students' written production. These findings are consistent with the results of Coxhead (2012) and Choo et al. (2017), whose studies revealed that university students deem it important to use appropriate academic words to express their ideas in writing. As the studies clearly indicate that there is a relationship between the uses of academic words in writing and students' performance (Brun-Mercer & Zimmerman, 2015; Csomay & Prades, 2018; Roche & Harrington, 2013). This implies the potential to develop students' vocabulary knowledge for better academic achievements. In order to ensure application of AV in students' writing, Csomay (2020) has suggested explicit teaching of academic words to non-native speakers of Eng-

lish, since they are not exposed to the target language on a regular basis in their learning contexts.

The current study aimed at investigating the relationship between students' beliefs about the importance of academic words and the knowledge of students of one national and one international university. The findings of the present study revealed that perceptions of the importance of academic vocabulary for the development of language skills among the levels of EFL and EMI universities vary.

Limitations and Further Research

The current study has a number of limitations that should be noted. First, the study investigated the beliefs and knowledge of the students of EFL and EMI universities, enrolled in different disciplines, so the requirements for academic vocabulary may also vary. It is also important to mention that year-one EFL university students had slightly higher admission requirements in comparison to third-year students. Therefore, it will be relevant to further explore the knowledge of academic words among EFL first-year students when they become third-year students. Thirdly, although the study sample comprises 440 participants, the study was conducted only in two Uzbek universities. In order to ensure better generalization, a larger sample should be sought in other universities of Uzbekistan and Central Asia. In addition, further studies might assess the knowledge of academic vocabulary among the ESP students at the universities in the region. Fourthly, the present study aimed at examining receptive knowledge of vocabulary. More research is needed on both receptive and productive vocabulary as it might give a better insight into the students' knowledge. Finally, the current study was limited to two vocabulary knowledge tests (Nation & Beglar, 2007; Schmitt et al., 2001). It would be beneficial to examine the students' knowledge through other test items (e.g., gap-fill sentences or cloze tests), which might provide a slightly different perspective. Future research can also be conducted to investigate the relationship between the students' beliefs about the importance of academic words and their productive knowledge (e.g., through the written and/or oral assignments at the universities).

CONCLUSION

The aim of the research study was to identify the correlation between the EFL and EMI students' beliefs about AV and the receptive knowledge of general and academic vocabulary in Uzbekistan. The findings of the vocabulary knowledge tests revealed that the students of the international institution scored higher in the vocabulary knowledge test in comparison to the students of the national university. Overall, the students at both universities achieved high results in the first 1000 of GSL. However, the receptive knowledge of the second 1000 of GSL words was lower among the students at both universities. Analysis of the belief's questionnaire in-

icated that the learners of both national and international universities consider the knowledge of academic words to be more important for the development of reading and writing skills in comparison to listening and speaking skills.

Based on the findings, one of the major implications of the current study is that English language teachers should identify the learning goals and provide explicit academic vocabulary teaching for the EFL and EMI university students. Since the receptive knowledge of the second 1000 of GSL is much lower than the first 1000 of GSL among the students of the national and international universities, another implication is for the English teachers to consider including more material, such as academic articles and lectures, containing higher level words. EAP teachers can also advise on general and academic vocabulary activities that students could do, in order to improve their knowledge of vocabulary. This study shed light on students' perception and knowledge of general and academic vocabulary. The present study contributes to the existing knowledge on the importance of academic vocabulary for tertiary studies, and the findings confirm students' needs for vocabulary development. The results might not be conclusive and further research is recommended, in order to investigate the students' productive vocabulary and academic performance.

ACKNOWLEDGEMENTS

We would like to thank Dr. Gena R. Bennett, who supported and guided us through the process of doing the current research study. We would also like to provide our gratitude

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to Dr. Mandana Arfa-Kaboodvand and journal reviewers who provided their valuable feedback to improve the quality of our research paper.

FUNDING

This research study has become possible owing to the participation of both researchers in the joint project, Scholarly Research and Publication for ELT in Uzbekistan, organized by the Embassy of the United States of America in Uzbekistan and Uzbekistan Scientific Practical Innovation Center.

DECLARATION OF COMPETING INTEREST

None declared.

AUTHORS' CONTRIBUTION

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