Journal of Language and Translation
Volume 9, Number 4, Winter 2019, (pp.135-150)

Contribution of Academic Vocabulary and Academic Self-Concept to Academic Listening Comprehension of Undergraduate Students of Engineering

Mahboubeh Taghizadeh[1*], Bahareh Safavi[2]
[1,2] Department of Foreign Languages, Iran University of Science and Technology, Tehran, Iran

Received: 10 June, 2019 Accepted: 30 December, 2019

Abstract
The purpose of this study was to determine the contribution of academic vocabulary knowledge and academic listening self-concept to the academic listening comprehension of Iranian Engineering students. The participants of this study were 147 undergraduate students at the Iran University of Science and Technology. A revised version of the academic self-concept questionnaire developed by Liu and Wang (2005), an academic vocabulary test by Schmitt, Schmitt, and Clapham (2001), and a sample of IELTS academic listening test were the instruments of this study. The results of the data analysis revealed that academic vocabulary knowledge and academic self-concept both contributed to the learners' academic listening comprehension. The results also showed that the contribution of academic vocabulary knowledge to academic listening comprehension was higher than that of academic listening self-concept, indicating that the academic vocabulary knowledge was the significant contributor to academic listening comprehension. This study recommended that EGAP instructors make students aware of the importance of academic listening and help them improve their academic self-concept and vocabulary knowledge.

Keywords: Academic listening; Academic self-concept; Academic vocabulary

INTRODUCTION

Considering the globalization of English language, particularly in the academic contexts, an increasing number of students tend to study English language as the medium of instruction at the university level (Herath, 2012). Miller (2014) argued that the key skill in the use of English as a lingua franca in the higher education is academic listening. Among the four skills of English language, academic listening skill is crucial for the success of university students (Qutub, 2012; Miller, 2014; Moradi, 2013; Wolvin & Coakley, 2000). According to Benson (1989) academic listening improves learning in academic lectures, tutorials, and seminars. In addition, students can perform various tasks in an academic listening course, such as lecture comprehension, academic seminars, academic debates among classmates, and receiving advice from professors (Aryadoust, Goh, & Kim, 2012). Among academic listening tasks, there has been an increasing interest in lecture comprehension. Many researchers (e.g., Arnold, 2000; Dudley-Evans, 1994; Gruba, 2004; Huang & Finn, 2009;

*Corresponding Author's Email: mah_taghizadeh@iust.ac.ir

Jordan, 2002; Littlemore, 2001; Manal Qutub, 2012) have found sources of problems in lecture comprehension. Huang and Finn (2009) elaborated that most of the students' problems in lecture comprehension originate from the insufficient English performance and difficulties in comprehending and remembering the content. Jordan (2002) highlights three main sources of problem in lecture comprehension including (a) interpreting (i.e., understanding what has been said); (b) comprehending (i.e., identifying the main and subsidiary points); and (c) taking notes (i.e., writing down the important points quickly, briefly, and clearly).

Academic listening compromises a complex set of procedures, from interpreting multimodal input to making a discourse representation and evaluating comprehension, all of which have specific difficulties for ESL and EFL student (Taylor & Geranpayeh, 2011). Some researchers (e.g. Buck, 2001; Imhof & Janusik, 2006) have considered academic listening as a multidivisible trait, which includes a number of interrelated subskills. For instance, Powers (1986) suggested nine academic listening micro-skills classified into three categories: (a) vocabulary knowledge and understanding major points and themes, (b) understanding relationships between information, and (c) ability to take notes and retrieve information from them.

A number of researchers (e.g., Dudley-Evans & Johns, 1981; Huang & Finn, 2009; Littlemore, 2001) have reported that academic listening performance and knowledge of language forms and vocabulary are highly interrelated. Both of these sources of knowledge have an effective role in perception and parsing of spoken input. It is argued that academic listening comprehension is highly dependent upon knowledge of expressions in the academic speech (Paltridge & Starfield, 2012).

Another source of knowledge which is important for academic listening is knowledge of discourse as listeners should understand the ways of unfolding the speech in a predictable manner. It is proved that if students understand the discourse structure of lectures, they may be successful in lecture comprehension process (Tauroza & Allison, 1994; Young, 1994). Furthermore, Eslami and Eslami-Rasekh (2007) found that discourse signaling can develop academic listeners' comprehension and recall. Moreover, in the process of academic listening comprehension, knowledge of the structure of genres facilitates listening comprehension and recall (Wolff, 1989). Additionally, Paltridge and Starfield (2012) considered pragmatic knowledge as the third type of knowledge that is necessary for all second language listeners.

Some specific skills are found to be necessary for effective academic listening comprehension: vocabulary knowledge (Dudley-Evans & Johns, 1981; Huang & Finn, 2009; Littlemore, 2001), self-efficacy (Graham, 2011), and English language abilities and confidence (Huang, 2005). Among these effective variables, there has been a great deal of interest in self-concept, self-efficacy, and self-esteem (Choi, 2005; Liu, 2008; Meshkat & Hosseini, 2015; Piran, 2014; Stern, 1995). Regarding academic self-concept as one of the personal features in the academic setting, some researchers (e.g., Elkhafaifi, 2005; Golchi, 2012; Kassem, 2015; Serraj & Noordin, 2013) have argued that academic self-concept influences listening comprehension. Self-concept, one of the features related to personal characteristics, has been studied by many scholars (e.g., Delgado , Inglés, & Garcia-Fernández, 2013; Fuentes , Garcia, Gracia, & Lila, 2011; Palacios, Esnaola, Rodríguez-Fernández, & Ortiz de Barrón, 2015). Researchers in both educational and developmental psychology have considered self-concept as a central element in shaping personality (Delgado et al., 2013), a crucial indicator of satisfaction with life (Palacios et al., 2015), and closely related to psychosocial adjustment in adolescence (Fuentes et al., 2011). In the literature, the term self-concept is used to refer to a group of ideas and attitudes an individual has about himself/herself. According to Mwamwenda (1989), self-concept is a person's way of perceiving himself/herself and may be either positive or negative.

A number of researchers (e.g., Bong & Skaalvik, 2003; Bracken , 2009; Marsh, 2007; Mercer, 2011) have attempted to define academic self-concept. According to Mercer (2011), academic self-concept is the self-perception of competence and the evaluative judgments in the academic setting. Academic self-concept has an important role in educational psychology. Herbert W Marsh, Trautwein, Lüdtke, Köller, and Baumert (2006) stated that academic self-concept is an individual self-evaluation with respect to specific academic context. Bong and Skaalvik (2003) similarly argued that learners evaluate their learning skill and abilities according to their opinions about themselves in an academic setting, and their perception of themselves equals to academic self-concept. According to Bong and Skaalvik (2003), people's knowledge and perception of academic skills is obtained based on past experiences and interactions with the environment. Moreover, Lu, Walsh, White, and Shield (2017) noted that higher rate of academic self-concept leads to a satisfactory self-perception of learning experiences. Thus, people with high academic self-concept are often found to be more co-operative, popular, and persistent in an academic field.

Another variable which has received increasing attention in the literature on learning and teaching English for academic purpose is academic vocabulary (Hyland & Tse, 2007; Tajino, Dalsky, & Yosuke, 2009). Some studies (e.g., Afshari & Tavakoli, 2016; Townsend & Collins, 2009) have found that knowledge of academic vocabulary is compulsory for students in an academic atmosphere. Academic vocabulary items are the words students encounter when they read informational texts (Baumann & Graves, 2010). Considering the role of teachers and students, Chamot and O'Malley (1994) stated that teachers and students use academic vocabulary to acquire a new language, impart new information, describe abstract ideas, and develop students' conceptual understanding. Zwiers (2008) defined academic vocabulary as "the set of words, grammar, and organizational strategies used to describe complex ideas, higher-order thinking processes, and abstract concepts" (p. 18). Considering academic vocabulary as a component of academic language, Nagy and Townsend (2012) argued that the capacity to read and understand texts from different content areas or disciplines is closely associated with students' vocabulary knowledge.

Given the importance of vocabulary knowledge in the academic field, Nation (2001) stated that one of the most challenging tasks for EFL learners is learning vocabulary, since if learners possess limited knowledge of words, they may experience failure in their professional and academic settings. In other words, sufficient knowledge of academic vocabulary is the key element in understanding core concepts of academic subjects (Harmon, Wood, & Hedrick, 2008). Friedberg, Mitchell, and Brook (2017) argued that if students want to read independently and join to meaningful discussions in the classroom, they must learn academic words, which are used in the academic domains. In addition, low levels of academic vocabulary knowledge can result in low communication skills in a work or academic environment (Nushi & Jenabzadeh, 2016). As a consequence of inappropriate communication skill in the academic domain, students' productivity and creativity can also be decreased (Kaur & Hegelheimer, 2005).

Considering the predictors of academic listening, it has been found that self-efficacy (Graham, 2011), English abilities and confidence (Huang, 2005), general language proficiency (Y. Wang & Treffers-Daller, 2017) concentration (Wolfgramm, Suter, & Göksel, 2016), vocabulary knowledge (Teng, 2016; Stæhr, 2009; Chiang, 2018; Atas, 2018; Wang, 2015), and self-concept (Wolfgramm et al, 2016) contributed to academic listening comprehension. From among the predictors of academic listening comprehension, this study considered academic vocabulary knowledge and academic listening self-concept. Generally, there is a plethora of research proving the contribution of vocabulary knowledge and self-concept to listening

comprehension (e.g., Mehrpour & Rahimi, 2010; Meshkat & Hosseini, 2015; Stæhr, 2009; Tabrizi & Saeidi, 2015; Wolfgramm et al., 2016). However, far too little attention has been paid to EFL academic listening comprehension and its predictors; therefore, this study aimed to investigate the contribution of academic vocabulary knowledge and academic self-concept to academic listening ability of Engineering students. The following research questions were addressed in this study:

1. To what extent do academic vocabulary and academic self-concept correlate to academic listening comprehension?
2. To what extent do academic vocabulary and academic self-concept contribute to performance in academic listening comprehension?

METHOD

Participants

This study was conducted with 147 Iranian undergraduate students majoring in different fields at the Iran University of Science and Technology (IUST). The participants were 106 male and 41 female students between the ages of 18 and 23. The participants' majors were Civil Engineering (n=18), Industrial Engineering (n=11), Computer Engineering (n=16), Material Engineering (n=15), Railway Engineering (n=29), Chemical Engineering (n=11), Electrical Engineering (n=20), Architectural Engineering (n=5), and Mechanical Engineering (n=22).

Materials

Three instruments were used in this study. The first instrument was a sample of IELTS listening test, which was adopted from *Academic IELTS 11*, developed by Cambridge University Press. The purpose of administering the test was to measure participants' academic listening proficiency. The test included a variety of tasks such as a multiple-choice, a map diagram labeling, note completion, and a summary completion. The test contained four sections with each about a specific topic including a telephone conversation between two people about a reservation of a public room, a tour guide lecturing about a farm, a conversation between two students about an article, and a lecture on ocean biodiversity.

The second instrument of this study was an academic vocabulary test, which was extracted from Vocabulary Levels Test (version 2) by Schmitt et al. (2001). The version 2 of this test consisted of five separate sections representing four levels of word frequency and one level of academic words. Each level of Vocabulary Levels Test had 30 items, with each consisting of three definitions on the right and six synonyms on the left. The last part of this test measured the academic vocabulary knowledge of language learners in this study.

A revised version of the academic self-concept scale developed by Liu and Wang (2005) was also used in this study. Academic self-concept questionnaire consisted of 20 items on a five point Likert scale ranging from 'strongly agree=5' to 'strongly disagree=1', in which students were asked to determine their level on academic confidence and academic effort. This questionnaire contained two categories: (a) academic confidence (items: 1, 3, 5, 7, 9, 11, 13, 15, 17, & 19) and (b) academic effort (items: 2, 4, 6, 8, 10, 12, 14, 16, 18, & 20). Liu and Wang (2005) introduced academic confidence and academic effort as the endogenous variables to the general academic self-concept. The academic confidence subscale measured students' perceptions of their academic skill, while the academic effort subscale was used to measure students' commitment to involvement and interest in an academic situation.

Research Design

In order to map the contribution of academic self-concept and academic vocabulary to academic listening, a descriptive and correlational research design was implemented. In this study, the predictability of the dependent variable by the independent variables was computed. The independent variables were academic vocabulary knowledge and academic self-concept,

while academic listening comprehension served as the dependent variable. Nonprobability convenient or availability sampling was chosen in this research. In other words, the researchers did not choose the participants randomly and had to administer the questionnaire and tests to some undergraduate students attending the academic listening classes offered in the Department of Foreign Languages at IUST.

Procedure

This study took place during the first semester of the 2017 academic year. The data were collected in five classes of the academic listening courses offered at the IUST. *Academic Listening* by Taghizadeh and Vaezi (2016) was taught in these academic listening courses. All the participants received the required information before administering the instruments.

In order to measure the learners' academic listening comprehension, a sample of academic IELTS listening test was administered. This test contained four sections and took 30 minutes for the learners to complete. They listened to five tasks, which were played once. The researchers considered one point for each item, so the total score for the academic IELTS listening test was 40. After that, learners answered the academic vocabulary test by Schmitt et al. (2001). They were required to choose the right word that went with each item. Again, the researchers determined one point for each item, and the total score of the academic vocabulary test was 30.

In order to measure academic listening self-concept, the academic self-concept questionnaire developed by Liu and Wang (2005) was modified by the researchers. For instance, the term 'course' in the items 4, 10, 14, 15 and 20 referring to a general course was replaced with 'academic listening task' or 'academic listening course'. In addition, the term 'school work' in item 3 was replaced with 'listening tasks'. In item 9, the term 'studies' was substituted with 'academic listening tasks', and finally the term 'lecture' in item 16 was substituted with 'listening course'. Among all 20 items, items 1, 2, 6 and 13 remained untouched. In order for students to fully comprehend the items in the academic self-concept questionnaire, the questionnaire was translated into Persian by the researchers. The translated version of the questionnaire was piloted and then revised before the administration. Then, the learners were asked to complete the questionnaire and consider their self-concept in the academic listening course. It was a five-point Likert scale ranging from 'strongly agree=5' to 'strongly disagree=1'.

In order to measure the construct validity of the academic self-concept questionnaire, factor analysis was conducted. First, the suitability of the data for factor analysis was assessed. The correlation between the items of the questionnaire was checked, and the correlation coefficients above .3 were observed for all items. Then, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Barlett's Test of Sphericity were calculated. KMO value was .847, and the Bartlett's Test of Sphericity value was significant (p=.000). In order to condense the variance in a correlation matrix in factor analysis, eigenvalues were used. Using Kaiser's criterion, components with eigenvalue of 1 or more were considered, and only the first five components reported eigenvalues above 1 (5.750, 2.665, 1.330, 1.160, 1.062), explaining a total of 0.53 percent of variance. Figure 1 demonstrates the components which were extracted by Kaiser's criterion. Often, using the Kaiser criterion, too many components are extracted, so it is suggested to look at the scree plot, too (Pallant, 2013). Looking for a change in the shape of the plot, the researchers could obtain only two components above the elbow in the scree plot. Components 1 (5.75) and 2 (2.66) captured much more variance than the remaining components.

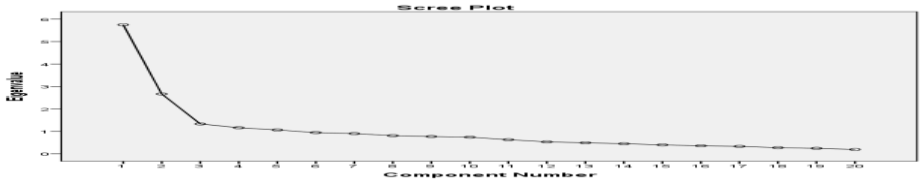

Figure 1. Scree Plot.

Data Analysis

Descriptive statistics were calculated based on the score categories suggested in the *IELTS 11*. In order to investigate students' viewpoints about each of the items of academic self-concept, descriptive statistics and chi-square test were used. Descriptive statistics and correlation analysis were also run for the categories of academic listening self-concept. To determine the extent to which academic vocabulary knowledge and academic self-concept predicted academic listening comprehension, a multiple regression analysis was conducted.

RESULTS

Learners' Level in Academic IELTS Listening Test

In order to assess the performance of learners in academic listening test, the listening section of an academic IELTS was used. In the *Academic IELTS 11*, it was suggested to interpret the learners' scores based on the three categories presented in Table 1.

Table 1.
Categories for Interpreting Learners' Scores on Academic IELTS Listening Test

0-14	15-28	29-40
Learner is unlikely to get an acceptable score under examination conditions and he/she needs to spend a lot of time improving English before taking IELTS.	Learner may get an acceptable score under examination conditions but he/she needs more practice or lessons before taking IELTS.	Learner is likely to get an acceptable score under examination conditions.

With regard to the above categories, Table 2 indicates the performance of students on the academic listening test.

Table 2 .
Undergraduate Students' Level on Academic Listening Test

Levels	*f*	%	Valid%	Cumulative%	Chi-Square	*p*
0-14	67	45.6	45.6	45.6	26.245	.000
15-28	60	40.8	40.8	86.4		
29-40	20	13.6	13.6	100.0		
Total	147	100.0	100.0			

Table 2 indicates the performance of students in the academic listening test in terms of three categories. As shown in Table 2, the highest percentage (45.6%) was related to the first category (0-14), while the lowest percentage (13.6%) was concerned with the third category (29-40). Table 2 also shows that the frequency distribution of learners' scores in these three categories was statistically significant (p=.000).

Learners' Opinions about their Academic Listening Self-Concept

In order to determine which items received more positive replies, and which ones received less positive replies, the percentage of the learners' agreement and disagreement about each item of

the questionnaire are provided in Table 3. It is important to note that in this section the combined results for the 'strongly agree' and 'agree' categories as the positive responses and 'disagree' and 'strongly disagree' categories as the negative responses are presented.

Table 3.
Students' Viewpoints about Their Academic Listening Self-Concept

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Chi-square
I can follow the lectures easily.	1.4	24.5	28.6	36.7	8.8	62.150*
I day-dream a lot in lectures.	4.8	17.7	36.1	31.3	10.2	52.830*
I am able to help my coursemates in the listening tasks.	5.4	19.0	44.9	26.5	4.1	82.966*
I often do my listening tasks without thinking.	2.7	30.6	38.1	23.8	4.8	72.422*
If I work hard, I think I can get better grades in my academic listening course.	2.7	2.7	15.6	49.7	29.3	116.23*
I pay attention to the lecturers.	0.7	7.5	24.5	53.7	13.6	127.116*
Most of my coursemates in academic listening class are smarter than I am.	14.3	28.6	38.1	15.0	4.1	52.354*
I study hard for my academic listening tests.	14.3	43.5	33.3	6.8	2.0	92.694*
My lecturers feel that I am poor in academic listening tasks.	15.6	17.7	53.1	11.6	2.0	111.061*
I am usually interested in academic listening tasks.	4.1	17.0	39.5	30.6	8.8	64.531*
I often forget what I have learned in my academic listening course.	4.8	24.5	39.5	29.3	2.0	76.367*
I will do my best to pass my academic listening course.	1.4	4.1	17.0	48.3	29.3	109.973*
I get frightened when I am asked a question by the lecturers.	8.2	15.0	32.7	29.9	14.3	33.578*
I often feel like quitting the academic listening course.	14.3	27.9	36.7	18.4	2.7	49.701*
I am good in most of academic listening tasks.	1.4	15.6	37.4	35.4	10.2	73.646*
I am always waiting for the listening course to end and go home.	4.8	12.9	26.5	32.7	23.1	36.367*
I always do poorly in academic listening tasks and tests.	18.4	32.7	29.3	18.4	1.4	43.986*
I do not give up easily when I am faced with a difficult academic listening question.	2.7	15.0	31.3	42.2	8.8	78.476*
I am able to do better than my friends in my academic listening course.	2	13.6	38.8	35.4	10.2	77.048*
I am not willing to put in more effort in my academic listening tasks.	8.8	35.4	37.4	12.2	6.1	67.388*

*p=.000

As shown in Table 3, the highest agreement was obtained by the following self-concept strategies, respectively: '*working hard, to get better grades in academic listening course*' (79%); '*doing the best to pass academic listening course*' (77.60%); '*paying attention to the lecturers*' (67.30%); '*waiting for the listening course to end and go home*' (55.80%); and '*not giving up easily when facing with a difficult academic listening question*' (51%). Table 3 also indicates that students disagreed more with the following statements, respectively: '*studying hard for academic listening tests*' (57.8%); '*doing poorly in academic listening tasks and tests*' (51.1%); '*not willing to put in more effort in their academic listening tasks*' (44.2%); and '*considering most of coursemates in academic listening class to be smarter than they are*' (42.9%).

Categories of Academic Self-Concept Questionnaire

The descriptive statistics and correlation analysis for the categories of academic listening self-concept are provided in Table 4. In order to examine the relationship between the categories of academic self-concept, a correlation analysis was performed.

Table 4.

Correlation Analysis and Descriptive Statistics of the Categories of Academic Self-Concept (N=147)

Categories	Correlation coefficients		Min	Max	M	SD
	Academic Confidence	Academic Effort				
Academic Confidence	-	.218**	2.40	4.00	3.11	.28
Academic Effort	-	-	2.50	4.20	3.19	.30

Note: ** p < .05 (2-tailed)

As indicated in Table 4, the correlation between the 'academic confidence' and 'academic effort' categories were significantly positive and low. Table 4 also shows that *academic effort* category (*M*= 3.19) appeared more frequently than *academic confidence* category (*M*=3.11) in the learners' responses and received the higher mean score. Table 4 also shows that the responses to the *academic confidence* were more homogeneous (*SD*= .28), whereas the responses to the *academic effort* category were more heterogeneous (*SD*= .30).

The Contribution of Academic Vocabulary Knowledge and Academic Self-concept to Academic Listening Comprehension

Multiple regression was used to determine the extent to which academic vocabulary knowledge and academic self-concept could predict academic listening comprehension. Preliminary analyses were initially conducted to ensure that no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity was observed. The tables below show the results of the descriptive statistics and multiple regression analysis.

Table 5.

Descriptive Statistics of the Learners' Performance on Academic Listening Test, Academic Vocabulary Test and Academic Self-concept Questionnaire (N=147)

	Min	Max	M	SD
Academic Vocabulary	0	30	20.62	6.414
Academic Listening	0	35	16.03	9.484
Academic Self-Concept	-	-	3.15	.231

As Table 5 indicates, the mean score of the academic vocabulary test, IELTS academic listening test, and academic self-concept were 20.62, 16.03, and .23, respectively. The maximum possible score for the academic listening and academic vocabulary tests were 40 and 30, respectively. Table 5 also shows that the responses to the academic self-concept were the most homogeneous (*SD*= .23), whereas the responses to the academic listening test were the most heterogeneous (*SD*= 9.48).

Table 6.
Summary of Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.653	.426	.418	7.236

As Table 6 indicates, academic vocabulary knowledge and academic self-concept both contributed to the model explaining 42.6 percent of the variance in the academic listening comprehension. To assess the statistical significance of this result, ANOVA was conducted. The result is shown in Table 7.

Table 7.
ANOVA Results

Model		Sum of Squares	df	Mean Square	F	p
1	Regression	5591.947	2	2795.973	53.398	.000
	Residual	7539.945	144	52.361		
	Total	13131.891	146			

As shown in Table 7, the contribution of predictors (i.e., academic self-concept and academic vocabulary knowledge) was statistically significant, producing $R^2 = 0.426$, F (2, 144) = 53.398, p = .000. To investigate the relative contribution of each of the predictors to academic listening comprehension, the coefficients of them were calculated. Table 8 presents the results.

Table 8.
Contribution of Academic Vocabulary Knowledge and Academic Self-Concept to Academic Listening Comprehension

Model	Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	ar-tial	art	Tolerance	IF
(Constant)	3.35	8.36		40	68	-13.18	19.89					
Vocabulary Score	964	.093	.65	0.31	00	.779	1.14	.65	65	65	.99	.00
Self-Concept	.28	2.59	.056	880	380	7.40	2.84	.03	07	05	.99	.00

As indicated in Table 8, the contribution of academic vocabulary knowledge to academic listening comprehension was 65%, while the contribution of academic self-concept was 5%. In addition, academic vocabulary knowledge had a higher beta value (beta=65, p = .000) than academic self-concept (beta= .05, p = .380), indicating that in this study academic vocabulary knowledge was the significant contributor to the academic listening comprehension.

DISCUSSION AND LIMITATIONS

In this study the result of regression analysis revealed that 65% of the variance in the results of academic listening test could be explained by the variance in the academic vocabulary scores. One possible explanation for the strong relationship between academic vocabulary knowledge and academic listening is that if the learner's knowledge of academic vocabulary is satisfactory, he/she can also understand a great percentage of lexical items in any spoken text. This result supported the findings of Stæhr (2009) who found that vocabulary knowledge could predict half of the variance in the listening scores.

The correlation between academic vocabulary and academic listening comprehension in this study was lower than that in Afshari and Tavakoli (2017), Teng (2016), and Atas (2018), while it was higher than that in Wang (2015) and Chiang (2018). The contradictory result in this regard might be related to various listening tests used: TOEFL Test in Afshari and Tavakoli (2017), IELTS listening test in Wang (2015) and Teng (2016), TOEIC in Chiang (2018), and Cambridge Certificate of Proficiency in English in Atas (2018).

Students' academic self-concept was desirable but the correlation between academic self-concept and academic listening comprehension was low. In this study, academic self-concept explained much less variance in listening comprehension (5%) than in Wolfgramm et al.'s (2016) study. This difference may be explained by applying various tests, language, or participants.

Findings revealed that learners did not show a high level of performance in academic listening comprehension; however, the performance of students in academic vocabulary test was better than their performance in the academic listening test. It can be related to the fact that Iranian university course designers and EAP instructors focus on language structure, vocabulary, reading comprehension, and translation skills (Nowrouzi, Tam, Zareian, & Nimehchisalem, 2015) so it is not surprising that the participants of this study were found to be weak in the academic listening skills. It could also be noted that the traditional listening teaching model (Serraj & Noordin, 2013), lack of motivation and interest among learners (Tabrizi & Saeidi, 2015), using inappropriate teaching practices and approaches, ineffective instructional activities and strategies (Atasheneh & Izadi, 2012) and lack of effective listening strategies and functional knowledge of language use (Birjandi & Azad, 2014) could lead to this result.

This study was limited to the role of academic vocabulary knowledge and academic self-concept in the academic listening ability, and other variables including types of academic listening task, academic listening strategies and the role of discourse markers were not taken in to account.

CONCLUTION

Given the findings of this study and other similar ones such as Afshari and Tavakoli (2017), Jensen (2003), Teng (2016), Atas (2018), Wang (2015), and Chiang (2018), academic vocabulary knowledge could be considered as a significant predictor of academic listening comprehension. Thus, it can be stated that academic listening comprehension can be improved if learners have high level of academic vocabulary knowledge. This, improving vocabulary knowledge and academic self-concept should be taken into account in academic listening classes, which can be achieved through maximizing opportunities for learning vocabulary (Wang & Treffers-Daller, 2016), providing more guidance (Stæhr, 2008) and helping students to realize the importance of academic vocabulary knowledge for their academic listening proficiency (Wang, 2015)

Regarding academic self-concept as the second independent variable in this study, it was found that self-concept can have an impact on academic listening comprehension. It is thus recommended that EGAP instructors consider academic self-concept as a motivating factor to improve academic listening comprehension. In addition, academic counselors can provide students with sufficient educational support to de-

velop their self-concept and listening achievement. Moreover, materials developers can include academic vocabulary and academic listening tasks and strategies for improving academic self-concept in the EGAP courses.

A further study could assess larger samples from more diverse populations, such as medical or humanities students. Future researchers can conduct interview with learners and provide a clearer picture of academic listening comprehension, academic vocabulary knowledge, and academic self-concept. More information on academic self-concept in academic listening would help to establish a greater degree of accuracy on this matter. Therefore, more work will need to be done to determine learners' level of academic self-concept in the academic listening and the extent to which interventions in the academic listening class can improve it.

References

Afshari, S., & Tavakoli, M. (2017). The relationship between depth and breadth of vocabulary knowledge and Iranian EFL learners' listening comprehension. *International Journal, 6*(3), 13-24.

Arnold, J. (2000). Seeing through listening comprehension exam anxiety. *TESOL quarterly, 34*(4), 777-786.

Aryadoust, V., Goh, C. C., & Kim, L. O. (2012). Developing and validating an academic listening questionnaire. *Psychological Test and Assessment Modeling, 54*(3), 227-256.

Atas, U. (2018). The Role of Receptive Vocabulary Knowledge in Advanced EFL Listening Comprehension. *TESL-EJ, 21*(4), 1-12.

Atasheneh, N., & Izadi, A. (2012). The Role of Teachers in Reducing/Increasing Listening Comprehension Test Anxiety: A Case of Iranian EFL Learners. *English Language Teaching, 5*(3), 178-187.

Baumann, J. F., & Graves, M. F. (2010). What is academic vocabulary? *Journal of Adolescent & Adult Literacy, 54*(1), 4-12.

Benson, M. J. (1989). The academic listening task: A case study. *TESOL quarterly, 23*(3), 421-445.

Birjandi, P., & Azad, M. (2014). A comparative exploration on the effectiveness of different approaches to dynamic assessment of listening comprehension in the context of Iran. *International Journal of Language Learning and Applied Linguistics World, 5*(1), 419-440.

Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational psychology review, 15*(1), 1-40.

Bracken, B. A. (2009). Positive self-concepts *Handbook of positive psychology in schools* (pp. 107-124): Routledge.

Buck, G. (2001). *Assessing listening*. England, Cambridge: Cambridge University Press.

Chamot, A. U., & O'Malley, J. M. (1994). Language learner and learning strategies. In N. C. Ellise (Ed.), *Implicit and explicit learning of languages* (pp. 371-392). London: Academic Press.

Chiang, H.-H. (2018). English Vocabulary Size as a Predictor of TOEIC Listening and Reading Achievement among EFL Students in Taiwan. *Theory and Practice in Language Studies, 8*(2), 203-212.

Choi, N. (2005). Self- efficacy and self- concept as predictors of college students' academic performance. *Psychology in the Schools, 42*(2), 197-205.

Delgado, B., Inglés, C. J., & García-Fernández, J. M. (2013). Social anxiety and self-concept in adolescence. *Journal of Psychodidactics, 18*(1), 179-195.

Dudley-Evans, A., & Johns, T. F. (1981). A team teaching approach to lecture comprehension for overseas students *The teaching of listening comprehension* (pp. 30-46). London: British Council.

Dudley-Evans, T. (1994). Variations in the discourse patterns favoured by different disciplines and their pedagogical implications *Academic listening: Research perspectives* (pp. 146-158). New York: Cambridge University Press.

Elkhafaifi, H. (2005). Listening comprehension and anxiety in the Arabic language classroom. *The modern language journal, 89*(2), 206-220.

Eslami, Z. R., & Eslami-Rasekh, A. (2007). Discourse markers in academic lectures. *Asian EFL Journal, 9*(1), 22-38.

Friedberg, C., Mitchell, A., & Brook, E. (2017). Understanding academic language and its connection to school success. *The Education Digest, 82*(6), 58-62.

Fuentes, M. C., García, J., Gracia, E., & Lila, M. (2011). Self-concept and psychosocial adjustment in adolescence. *Psicothema, 23*(1), 7-12.

Golchi, M. M. (2012). Listening anxiety and its relationship with listening strategy use and listening comprehension among Iranian IELTS learners. *International Journal of English Linguistics, 2*(4), 115.

Graham, S. (2011). Self-efficacy and academic listening. *Journal of English for Academic Purposes, 10*(2), 113-117.

Gruba, P. (2004). Understanding digitized second language videotext. *Computer Assisted Language Learning, 17*(1), 51-82.

Harmon, J., Wood, K., & Hedrick, W. (2008). Vocabulary instruction in middle and secondary content classrooms: Understandings and direction from research. In A. E. F. S. J. Samuels (Ed.), *What research has to say about vocabulary instruction* (pp. 150-181). Newark: International Reading Association.

Herath, S. (2012). Facilitating academic listening comprehension in the Sri Lankan context: From theory to practice. *Journal of Humanities & Social Sciences, 7*(8), 27-42.

Huang, J. (2005). Challenges of academic listening in English: Reports by Chinese students. *College student journal, 39*(3), 553-570.

Huang, J., & Finn, A. (2009). Academic listening tests for ESOL students: Availability, concerns, and solutions. *International Journal of Applied Educational Studies, 6*(1), 46-55.

Hyland, K., & Tse, P. (2007). Is there an "academic vocabulary"? *TESOL quarterly, 41*(2), 235-253.

Imhof, M., & Janusik, L. A. (2006). Development and validation of the Imhof-Janusik Listening Concepts Inventory to measure listening conceptualization differences between cultures. *Journal of Intercultural Communication Research, 35*(2), 79-98.

Jensen, L. S. (2003). Investigating the Relationship between Vocabulary Knowledge and Listening Comprehension in English as a Foreign Language *Studies in second language acquisition* (pp. 79-107). Copenhagen: Copenhagen working papers in Language for Specific purpose.

Jordan, R. (2002). The growth of EAP in Britain. *Journal of English for Academic Purposes, 1*(1), 69-78.

Kassem, H. M. (2015). The Relationship between Listening Strategies Used by Egyptian EFL College Sophomores and Their Listening Comprehension and Self-Efficacy. *English Language Teaching, 8*(2), 153-169.

Kaur, J., & Hegelheimer, V. (2005). ESL students' use of concordance in the transfer of academic word knowledge: An exploratory study. *Computer Assisted Language Learning, 18*(4), 287-310.

Littlemore, J. (2001). The use of metaphor in university lectures and the problems that it causes for overseas students. *Teaching in higher education, 6*(3), 333-349.

Liu, & Wang, C. K. J. (2005). Academic self-concept: A cross-sectional study of grade and gender differences in a Singapore secondary school. *Asia Pacific Education Review, 6*(1), 20-27.

Liu, H.-J. (2008). The relationship between EFL student academic self-concept and language performance. *Feng Chia Journal of Humanities and Social Sciences, 17*, 165-184.

Lu, M., Walsh, K., White, S., & Shield, P. (2017). The associations between perceived maternal psychological control and academic performance and academic self-concept in Chinese

adolescents: The mediating role of basic psychological needs. *Journal of Child and Family Studies, 26*(5), 1285-1297.

Marsh, H. W. (2007). *Self-concept theory, measurement and research into practice: The role of self-concept in educational psychology*. Leicester, UK: British Psychological Society Vernon-Wall Lecture.

Marsh, H. W., Trautwein, U., Lüdtke, O., Köller, O., & Baumert, J. (2006). Academic Self- Concept, interest, grades, and standardized test scores: Reciprocal effects models of causal ordering. *Child development, 76*(2), 397-416.

Mehrpour, S., & Rahimi, M. (2010). The impact of general and specific vocabulary knowledge on reading and listening comprehension: A case of Iranian EFL learners. *System, 38*(2), 292-300.

Mercer, S. (2011). Language learner self-concept: Complexity, continuity and change. *System, 39*(3), 335-346.

Meshkat, M., & Hosseini, S. M. (2015). The relationship between academic self-concept and academic achievement in English and general subjects of the students of high school. *International Journal of Language and Applied Linguistics, 1*(1), 1-6.

Miller, L. (2014). Academic listening in a second language context: An Asian perspective. *The Asian Journal of Applied Linguistics, 1*(1), 64-75.

Moradi, K. (2013). The impact of listening strategy instruction on academic lecture comprehension: A case of Iranian EFL learners. *Procedia-Social and Behavioral Sciences, 70*(1), 406-416.

Mwamwenda, T. S. (1989). *Educational psychology: An African perspective*. Durban: Butterworths.

Nagy, W., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly, 47*(1), 91-108.

Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Nowrouzi, S., Tam, S. S., Zareian, G., & Nimehchisalem, V. (2015). Iranian EFL students' listening comprehension problems. *Theory and Practice in Language Studies, 5*(2), 263-269.

Nushi, M., & Jenabzadeh, H. (2016). Teaching and learning academic vocabulary. *California Linguistic Notes, 40*(2), 51-70.

Palacios, E. G., Echaniz, I. E., Fernández, A. R., & De Barrón, I. C. O. (2015). Personal self-concept and satisfaction with life in adolescence, youth and adulthood. *Psicothema, 27*(1), 52-58.

Pallant, J. (2013). *SPSS survival manual* (Vol. 4). New York: McGraw-Hill Education (UK).

Paltridge, B., & Starfield, S. (2012). *The handbook of English for specific purposes*. United States: John Wiley & Sons.

Piran, N. A. (2014). The relationship between self-concept, self-efficacy, self-esteem and reading comprehension achievement: Evidence from Iranian EFL learners. *International Journal of Social Sciences & Education, 5*(1), 58-66.

Powers, D. E. (1986). Academic demands related to listening skills. *Language testing, 3*(1), 1-38.

Qutub, M. (2012). Academic listening tasks for ESL students: Difficulties and implications. *Arab World English Journal, 3*(2), 31-47.

Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language testing, 18*(1), 55-88.

Serraj, S., & Noordin, N. B. (2013). Relationship among Iranian EFL Students' Foreign Language Anxiety, Foreign Language Listening Anxiety and Their Listening Comprehension. *English Language Teaching, 6*(5), 1-12.

Stæhr, L. S. (2008). Vocabulary size and the skills of listening, reading and writing. *Language Learning Journal, 36*(2), 139-152.

Stæhr, L. S. (2009). Vocabulary knowledge and advanced listening comprehension in English as a foreign language. *Studies in second language acquisition, 31*(4), 577-607.

Stern, D. N. (1995). Self/other differentiation in the domain of intimate socio-affective interaction: Some considerations *Advances in Psychology* (Vol. 112, pp. 419-429): Elsevier.

Tabrizi, H. M., & Saeidi, M. (2015). The relationship among Iranian EFL learners' self-efficacy, autonomy and listening comprehension ability. *English Language Teaching, 8*(12), 158.

Tajino, A., Dalsky, D., & YOSUKE, S. (2009). Academic vocabulary reconsidered: An EAP curriculum-design perspective. *Journal of Teaching English as a Foreign Language and Literature, 1*(4), 3-21.

Tauroza, S., & Allison, D. (1994). Expectation-driven understanding in information systems lecture comprehension. *Academic listening: Research perspectives*, 35-54.

Taylor, L., & Geranpayeh, A. (2011). Assessing listening for academic purposes: Defining and operationalising the test construct. *Journal of English for Academic Purposes, 10*(2), 89-101.

Teng, F. (2016). An In-depth Investigation into the Relationship between Vocabulary Knowledge and Academic Listening Comprehension. *TESL-EJ, 20*(2), 1-17.

Townsend, D., & Collins, P. (2009). Academic vocabulary and middle school English learners: An intervention study. *Reading and Writing, 22*(9), 993-1019.

Wang. (2015). An Empirical Study on the Role of Vocabulary Knowledge in EFL Listening Comprehension. *Theory and Practice in Language Studies, 5*(5), 989-995.

Wang, Y., & Treffers-Daller, J. (2017). Explaining listening comprehension among L2 learners of English: The contribution of general language proficiency, vocabulary knowledge and metacognitive awareness. *System, 65*, 139-150.

Wolff, D. (1989). Identification of text-type as a strategic device in L2 comprehension. In H. W. D. M. Raupach (Ed.), *Interlingual processes* (Vol. 1, pp. 137-150). Tubingen: Gunter Nann.

Wolfgramm, C., Suter, N., & Göksel, E. (2016). Examining the role of concentration, vocabulary and self-concept in listening and reading comprehension. *International Journal of Listening, 30*(1-2), 25-46.

Wolvin, A. D., & Coakley, C. G. (2000). Listening education in the 21st century. *International Journal of Listening, 14*(1), 143-152.

Young, L. (1994). University lectures–macro-structure and micro-features. *Academic listening: Research perspectives*, 159-176.

Zwiers, J. (2008). *Building academic language: Essential practices for content classrooms, Grades 5-12*. San Francisco: John Wiley & Sons.

Biodata

Dr Mahboubeh Taghizadeh is an Assistant professor in TEFL at the Iran University of Science and Technology. She holds a PhD in TEFL from University of Tehran, an MA in TEFL from Iran University of Science and Technology, and a BA in English Language and Literature from Az-Zahra University. She has published in some national and international journals. She has also presented some papers at international conferences. Some of her current interests include Teacher Education, ESP, and CALL.
Email: mah_taghizadeh@iust.ac.ir

Ms Bahareh Safavi holds an MA in Teaching English as a Foreign Language from Iran University of Science and Technology. She is interested in teaching English and its related fields, and her areas of research include academic listening and psycholinguistics.
Email: baharesafavi69@gmail.com