

Exploring the Construct of Academic Literacy as Perceived by Iranian EAP Teachers

¹Amir Zand-Moghadam*

²Neda Khanlarzadeh

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Abstract

Despite the importance of the concept of academic literacy (AL) in EAP, there is a lack of comprehensive study to know its underlying components. The present pilot study was set out to explore the components of academic literacy of university EAP students as perceived by Iranian EAP teachers. Thus, to this end, using purposive sampling, 120 Iranian EAP instructors, teaching in ten Iranian state universities, were selected and asked to respond to the interview questions and complete a questionnaire. The questionnaire was developed through a thorough review and analysis of the related literature and the content analysis of EAP teachers' responses to the interview questions. Next, the questionnaire was distributed among the participants to be completed either electronically or through pen-and-pencil. Then, through an exploratory and a confirmatory factor analysis, nine components were extracted: (1) familiarity with different genres, (2) familiarity with academic ethics and honesty, (3) familiarity with context and contextual meaning, (4) knowledge of the four language skills, (5) critical thinking ability, (6) familiarity with target discourse community, (7) teachers' familiarity with academic literacy concept and components, (8) scientific article writing ability, and (9) familiarity with computer and technology. The result of the study can help EAP instructors, researchers, and materials developers in better understanding of the concept of AL.

Keywords: Academic Literacy, ESP, EAP, Perception

1. Introduction

As an important phenomenon in education, especially higher education Academic Literacy (AL), in general, refers to the required knowledge for students to survive and perform successfully in academic and educational contexts. To date, several studies aimed at teaching and assessing this type of literacy in different fields (Holland, 2019; Jacobs, 2007; Short, Echevarría, & Richards-Tutor, 2011; Wingate, 2018). However, as it is evidenced in the related literature, there is a lack of cohesive and comprehensive definition of the term AL at hand; meanwhile, components and competencies which are deemed crucial for one to be known as academically literate have remained controversial. For example, Spack (1997) defines the students' AL of as individuals' ability to read and write in academic contexts; on the other hand, Cummins (1984) believes that tasks such as writing an essay or reading a textbook which have been previously practiced to enhance individuals' AL are context reduced, cognitively demanding, and consequently could not be fully acquired.

But from what it appears, the concept is highly intertwined with English for Academic Purposes (EAP), as their constituents are somewhat similar. Lillis and Scott (2007) believed that EAP provides opportunity for investigating AL pedagogy and research. Or as noted by Hyland (2006), "EAP aims to cover various academic practices, such as classroom interaction, research genre, student writing, etc." (p. 1). However, Hyland and Hamp-Lyons (2002) express that traditions and sociopolitical contexts of EAP and AL are different, despite their fairly similar goal which is preparing individuals for effective education.

In today's world where research and scientific studies are increasing tremendously, learning and teaching AL has become one of the greatest concerns of academia, and a sizable body of research has focused on it, especially in Language for Specific Purposes (LSP) or English for

¹Associate Professor of Applied Linguistics, zandmoghadam.amir@gmail.com; Department of English Language & Literature, Allameh Tabataba'i University, Tehran, Iran.

²PhD Candidate of TEFL, nedakhanlarzadeh@yahoo.ca; Department of English Language & Literature, Allameh Tabataba'i University, Tehran, Iran.

Specific Purposes (ESP) students, as they constantly try to deal with "unfamiliar and frequently contradictory academic literacy practices" (Paltridge & Starfield, 2013, p. 469).

Apparently, as for any other skill and knowledge, AL can be taught to learners more efficiently, if teachers are fully aware of it. In fact, it is the EAP teacher who gets learners to become familiar with academic genres and assist them to succeed in their education or profession (Hyland, 2006). Nonetheless, as it is evidenced in the literature, previous studies have only focused on learners' related issues regarding academic literacy and failed to address teachers' awareness and perception of this concept (e.g., Belcher, 1994; Spack, 1997). Thus, this study tried to investigate AL as perceived by EAP teachers.

2. Literature Review

Over the past three decades, a considerable body of research has been carried out on AL as an important phenomenon and necessity in higher education. Lillis and Scott (2007) construe AL as a field of study which has established its knowledge base from other disciplines, such as applied linguistics, sociolinguistics, anthropology, sociocultural theories of learning, as well as new literacy and discourse studies. Lea and Street (1997), in a pioneering article, divide the research of student writing in higher education into three main models namely, study skills, academic socialization, and academic literacies. Among these models, academic literacies approach is the most comprehensive one which considers the roles of various institutional practices, power relations, and individuals' identities on students' writings. They defined AL as "reading and writing within disciplines-constitute central processes through which students learn new subjects and develop their knowledge about new areas of study" (p. 158).

There are various ranges of skills which were claimed to underlie individuals' AL. For Paltridge and Starfield (2013), the main features of academic literacy include individual's ability to switch practices and genres according to different contextual features and settings as well as the skill of controlling the meanings and identities which are shaped during these processes. Moreover, the association of AL with different discourse communities was noted in previous studies (e.g.), as it has been claimed that in order to achieve AL and consequently academic success, one needs to accept the cultures and identities of the specific communities that he/she wishes to be a member of (Ivanič, 1998). This connection was more or less highlighted by other researchers as well (Geisler, 1994, 2013; Koutsantoni, 2006; Murray & Nallaya, 2016). Koutsantoni (2006), for instance, note the relationship of AL with individuals' knowledge of thesis writing in their own specific discipline. Wingate (2015) show this relationship more vividly in his definition of AL as "the ability to communicate competently in an academic discourse community" (p. 6).

So far, most of the AL studies either focused on writing ability of students, rather than reading, listening, and speaking skills, or considered the writing skill as one of the main components (Abasi & Graves, 2008; Blanton, 1994; Defazio, Jones, Tennant, & Hook, 2012; Fouché, van Dyk, & Butler, 2017; Geisler, 2013; Lea & Street, 1998; Patterson & Weideman, 2013a; Weideman & Patterson, 2016). For example, as suggested by Lillis and Scott (2007), AL is highly bounded by individual's knowledge of academic writing or their performance to meet university writings' criteria. This writing skill includes paragraph organizations; rhetorical, genre, and discourse practices as well as the ability of article and dissertation writings. The reason for this primacy was believed to be the written nature of assessments in universities, especially high-stakes ones (Lillis & Scott, 2007). Spack's (1997) interpretation of AL was students' ability in reading and writing academic or university contexts. Similarly, Ferenz (2005) accentuating the writing skill, also focused on the subcomponents of writing, such as "knowledge of the linguistic, textual, social, and cultural features" especially in academic context as well as "discipline-specific knowledge of English" (p. 340).

However, for other researchers, the scopes of AL go beyond merely writing ability or reading and include other ranges of competences (e.g., Braine, 2002; Morrell & Duncan-Andrade, 2002). For instance, Wilson, Devereaux, Machen Horarik, and Trimmingham-Jack (2004) note the interplay of critical thinking and AL and considered critical thinking in reading as a manifestation of AL.

Intersegmental Committee of the Academic Senates (ICAS, 2002), as a group of academic senate leaders in the University of California, also declared the necessity of critical thinking as well as knowledge of academic genres accompanied by four main skills of language for academically literate students. Recently, Eaton, Long, and Morris (2017) note the importance of critical thinking as well and announced the ability of finding, reading, and critically evaluating texts in conjunction with communicating about the related studies as the main features of AL in the social sciences.

In line with the claims of ICAS, the importance of academic genre studies was echoed in Cheng's (2008b) study. He explored the relationship of genre analysis and AL tasks, and concluded that genre analysis activities, such as analysis of different sections of scientific articles can improve learners' AL. Moreover, van der Slik and Weideman (2008) included different ranges of abilities, such as "scrambled texts, knowledge of academic vocabulary, interpreting graphs and visual information, text types, understanding texts, text editing, and writing in their tests that targeted undergraduate students' academic literacy levels" (p. 3). Similarly, Cliffs (2015) in the analysis of The National Benchmark Test in Academic Literacy, reported the importance of several competencies, namely

knowledge and understanding of syntactic structures that are fundamental, knowledge of vocabulary considered fundamental to higher education, the ability of identify meaning of a word from a specific context, understanding the nature of different discourse structure as well as logical development, understanding and using various communicative purposes, and also acting based on sociolinguistic contextual factors in academic settings (pp. 4-5).

Several studies also focused on various factors which affect or improve the level of nonnative English speaking learners' AL Ferenz (2005) explored the effect of using social networks by PhD and MA students on their AL development and proved that individuals' acquisition of L2 AL and disciplinary communication enhanced as a result of socialization and using social networks. Rose, Rose, Farrington, and Page (2008) studied the effects of new scaffolding academic literacy approach, which enables students to read high-level academic texts and employ the acquired knowledge from reading in their writing production, on undergraduate ESP/EAP students' literacy development. Moreover, recently, Schwenger (2018) analyzed the effectiveness of new course-specific approach of teaching academic literacy-*Literacy + Numeracy Intervention Process*-as well as research methodology in the context of New Zealand and further reported their success.

The new standards for university students which implicate the language and literacy demands of the new world seem challenging to students, especially to those who are acquiring English as a foreign language and do not possess a good command of it (Bunch, 2013). Therefore, it can be concluded that EFL learners can use comprehensive courses in which such issues are explained. Cummins, as cited in Warschauer, Grant, Del Real, and Rousseau (2004), notes that developing academic language in nonnative English-speaking learners comes through instruction which might take five to seven years. In line with the Cummin's statement, Abasi and Graves (2008) in their study reported that disciplinary professors also acknowledged the importance of teaching AL practices to EFL students. Meanwhile, it has to be mentioned that appropriate inculcating of students for such knowledge would not be conceived without teachers being competent enough in this area. Therefore, as highlighted by Bunch (2013), investigating teachers' knowledge and considering issues related to their training is highly crucial, since it prepares them for helping English learners to meet literacy standards of new educational world. As it was previously mentioned by Short and Fitzsimmons (2007), lack of educated teachers and teacher training programs are amongst the major challenges in developing academic literacy in students.

It can be claimed that one of the main aims of the EAP course and teachers is to assist EFL/ESL learners in learning English for pursuing their studies and research (Hyland, 2006). In order for learners to be competent in this respect, they must have a good command of AL. However, despite its great importance, there is paucity of research regarding AL and its underlying constructs. Most of the conducted studies, whether case studies or survey research, mainly focused on the acquisitional aspects of AL and failed to consider teacher-related issues (e.g., Belcher, 1994; Riazi,

1997; Warschauer, Grant, Del Real, & Rousseau, 2004), such as their perception, awareness, or personal knowledge of the concept (except for Bunch, 2013). Teachers as one of the main sources of information in EFL context mostly act as models for their students and play a critical role in enhancing learners' competencies. Moreover, as the people who are familiar with both content and target language and have the experience of working with students, EAP teachers are assumed to have a broad view of individuals' academic needs in EAP classes; thus, delving into their perceptions regarding AL could help us understand the concept better as the majority of the conducted studies fell short of illustrating various underlying constituents of AL. Considering the mentioned gaps, the present study aimed at investigating EAP teachers' perception of AL to present a uniform definition of it through exploring its underlying constructs. Aligned with this notion, the following research questions were formulated:

Research Question One: How do Iranian EAP teachers perceive academic literacy?

Research Question Two: What are the components of AL as perceived by Iranian EAP teachers?

3. Methodology

3.1. Participants

The participants of this study were 120 Iranian EAP instructors (both males and females) who were selected via purposeful sampling. They all had the experience of teaching EAP courses in ten state universities of Iran. A group of the teachers were from applied linguistics or language-related disciplines who were teaching EAP to non-English students and the other group involved teachers who majored in different fields of Humanities such as law, psychology, economics, management, etc. and were teaching EAP to students of their own field. It is important to note that 10 of the instructors (5 from applied linguistics and 5 from other disciplines) participated in interview phase of the study and the rest of the participants took part in completing the questionnaire. They were all MA holders (N=3) or PhD holders (N=7) of the field of English language teaching and had at least three years of EAP teaching experience. Due to nature of this study, stratified purposeful sampling was employed, which attempts to ensure that all required subgroups for the sake of comparisons were represented. 110 EAP teachers participated in the questionnaire completion phase (Applied Linguistics = 44, Law = 23, Psychology = 20, Political Sciences =13; Management = 10). Although the exact number of participants required for questionnaire completion is a controversial issue, with estimates ranging from 3 to 20 subjects per item (Gorsuch, 2003; Pett, Lackey, & Sullivan, 2003; Tabachnick & Fidell, 2013; Thompson, 2004), about 3 participants were devoted to each questionnaire item in this study.

3.2. Instruments

The instruments used in this study were a questionnaire as well as an interview. The ten interview questions were inspired by the literature on AL which were developed by the researchers and checked and modified by an expert. The result of the interview sessions and teachers' comments on AL prompted the researchers in developing the questionnaire items. The questionnaire had two main sections: the first section of the questionnaire focused on demographic information of the teachers, such as their age, major, academic degree, gender, experience, etc.; the second part of the questionnaire was designed to investigate EAP teachers' perception of AL and its different subparts. It needs to be noted that the questionnaire items were developed based on a 5-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree). The questionnaire was comprised of 36 statements which denoted various opinions regarding the conception of AL as well as its main components. The average time for participants to fill out the questionnaire items was 15 minutes. Moreover, to avoid any misunderstanding, Persian translation of the questionnaire was provided for the participants.

3.3. Data Collection Procedure

As it was mentioned above, the questionnaire and interview were employed as the instruments for data elicitation. First, the interviews were conducted with ten EAP teachers from different fields in

Humanities to elicit their opinion and perception of the concept of AL. Individual's responses to the interview questions were then content analyzed and the main themes of their perceptions of AL were extracted. It should also be mentioned that the interview questions were inspired by the related literature on the topic. The collected data from the interview sessions as well as the results of the previous related studies led to the development of the questionnaire items. The items of the questionnaire were sent to three researchers, who were expert on the topic, for their professional opinion on the appropriateness of the items. Subsequently, for the sake of convenience in data collection, the questionnaire was distributed among 110 participants both electronically (in an online survey website: www.cafepardazesh.com) and in face-to-face sessions. The participants were selected based on their willingness to contribute to this research.

4. Results

The present study explored Iranian EAP teachers' perception of the concept of AL. In order to address this issue, this study completed three separate analyses. The first part was coding of interviewees' utterances for the purpose of extracting the main themes and developing the questionnaire items (Blaxter, Hughes, & Tight, 2006). Then, the participants' responses to the questionnaire were subjected to exploratory factor analysis by SPSS. Through exploratory factor analysis, the main components of AL were found and a model was formed. At last, the model was tested by confirmatory factor analysis in LISREL software in order to confirm the relation of each factor with its related items.

4.1. Descriptive Statistics

First, it needs to be mentioned that the results for the reliability calculation (Cronbach's Alpha) showed that the internal consistency of the survey was 0.91 proving a very high internal consistency; therefore, none of the questionnaire items was discarded as all of them showed a high degree of reliability. The overall mean of the participants' responses to the questionnaire items was seen to be 3.86, indicating that the majority of the respondents agreed with the statements of the questionnaire (Table 1) with the variance of 0.57. Great details about descriptive analysis of each item are given in Appendix 1.

Table 1: Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.865	3.427	4.391	.964	1.281	.057	36

4.2. Exploratory Factor Analysis

Before conducting a factor analysis, it is important to make sure that the data are appropriate enough. As shown in Table 2, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy proved that the sample size was large enough KMO=0.76. Moreover, the result of Bartlett's Test with $p < 0.05$ indicated that the variables correlated with each other and, hence, were suitable for factor analysis (Field, 2009).

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.760
Bartlett's Test of Sphericity	Approx. Chi-Square	2178.960
	Df	630
	Sig.	.000

Next, the communalities were checked to analyze the common variance of each variable as well as the relationship of each variable with the data. The high amount of communalities ($h^2 > 0.5$) revealed that the EFA results performed well in accounting for variance within the variables (Appendix 2). Then, the factor retention criteria were investigated. Nine factors were observed to have eigenvalues above 1.0 Kaiser's criteria, implicating that only nine variables, accounting for 68.21 % of the variance, should be considered as the main factors (Table 3).

Table 3: Total Variance Explained

Items	Initial Eigenvalues		Extraction Sums of Squared		Rotation Sums of Squared	
	Total %	of Cumulative	Total % of Variance	Cumulative %	Total % of Variance	Cumulative %
	Variance	%				
1	9.05125	25.143	9.051	25.143	3.286	9.127
2	3.98911	36.223	3.989	11.080	3.146	17.865
3	2.6377	43.549	2.637	7.326	3.107	26.495
4	1.8585	48.709	1.858	5.160	2.827	34.348
5	1.6694	53.346	1.669	4.637	2.827	42.199
6	1.5924	57.768	1.592	4.422	2.690	49.672
7	1.5204	61.991	1.520	4.223	2.627	56.969
8	1.3733	65.806	1.373	3.814	2.557	64.070
9	1.0833	68.813	1.083	3.007	1.708	68.813

Extraction Method: Principal Component Analysis

Finally, the analysis of factor structure of the developed questionnaire was conducted through SPSS software to explore empirical supports for each factor of AL as perceived by EAP teachers and to identify and remove inappropriate items. First, a principal component analysis was run on the 36 items of the questionnaire to determine the number of the factors. After reassuring the assumptions of factor analysis, factor loadings of the items were investigated. As shown in Table 4 below, factor loadings of 0.5 or greater on the obliquely rotated factor matrix were considered significant and 9 factors were found. It should be noted that although factor loading values of items 29 and 32 were lower than 0.5, because of the purpose of the study and the theoretical considerations, the small differences were ignored.

Table 4: Rotated Factor Loadings for EAP Teachers' Perception of AL

	Component								
	1	2	3	4	5	6	7	8	9
1. I know what academic literacy is and to what it refers to.									.702
2. I understand whether my students have any understanding of academic literacy or not.									.761
3. Academic literacy is one of the important factors that I always consider in my evaluations of ESP/EAP students' understanding and performance.									.752
4. Academic literacy is only limited to mastering four main skills of English (listening, speaking, reading, writing).					.582				
5. Academic literacy also involves the ability to communicate successfully.					.785				
6. Academic literacy is limited to only one or two of the main four skills (e.g., reading and writing).					.772				
7. Lack of academic literacy in EFL/ESL students (students whose mother tongue is other than English) leads to plagiarism and other types of academic dishonesty.				.613					
8. Academically literate students are able to read, write, listen and speak English effectively in academic settings.					.516				
9. Academically literate students need to read English text (papers, articles, etc.), write what they need in English and listen to and talk with those who speak English.					.698				
10. Academically literate students are able to analyze and evaluate texts critically.					.568				
11. Academically literate students should not accept everything in texts without reflecting upon it.					.701				
12. It is unreasonable to expect academically literate ESP/EAP students to have critical thinking ability because of their poor general English proficiency.					.746				
13. Academically literate students are expected to be able to criticize what they listen to.					.753				

14. Academically literate are familiar with the specific genre of their discipline.	.652
15. Academically literate students are able to differentiate among different types of texts (e.g. narrative, descriptive, report etc.).	.667
16. Academically literate students know that each text type has its own specific linguistic and social characteristics.	.671
17. Academically literate students know which grammatical structures as well as vocabulary items are frequently used in their disciplines.	.789
18. Academically literate students know that the genre of their classroom talk is different from the genre of articles, books, etc.	.712
19. Academically literate students need to know the dominant conventions and rules of their fields and community of practice.	.751
20. Academically literate students are able to easily communicate with other members of their field and discipline.	.753
21. Academically literate students have some shared or common goals with other people of their fields.	.639
22. Academically literate students have some shared knowledge about their discipline with their professors, classmate, etc.	.734
23. Academically literate students are familiar with the concept of plagiarism.	.720
24. Academically literate students always refer the source of information when using it in their projects and papers.	.722
25. Academically literate students try to consider academic ethics in academic settings.	.789
26. Academically literate students are familiar with different parts of academic papers and articles.	.686
27. Academically literate students are able to write a scientific article.	.736
28. Academically literate students are expected to have the knowledge of differentiating between different sections of a paper.	.590
29. Academically literate students are not expected to write an article, just the ability of reading them will suffice.	.493
30. It is important for academically literate students to work with computer.	.566
31. Academically literate students are familiar with necessary computer programs such as Microsoft Office, Media players, etc.	.770
32. Academically literate students know how to search for new information on the internet.	.426
33. Academically literate know that each context requires its own linguistic and communicative devices to express their goals.	.845
34. Academically literate students know that each word may have different meanings in different contexts.	.848
35. Academically literate students know which meaning of a vocabulary item is the most suitable one in the target context.	.818
36. Academically literate students know that they need to speak or write differently in different situations and contexts with different people.	.613

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

All the factors were identifiable based on the literature of the field, results of the interview with EAP instructors, and the researchers' intentions. The first factor which was related to items 14-18 of the questionnaire is accounting for *the necessity of EAP students' familiarity with different genres*. The second factor was extracted from items 7, 24, 25, and 25, which implicates *the necessity of EAP students' knowledge of academic ethics and honesty*. Factor 3 was loaded by the last four items, showing *the necessity of EAP students' familiarity with context and the importance of context in*

understanding meaning. Factor 4 was seen to be related to items 4, 5, 6, 8, and 9, associating with *the importance of the four main skills of language* in academic literacy. Factor 5 loaded on items 10, 11, 12, and 13 which are about the *critical thinking ability of EAP students*. Factor 6 was observed to be associated with items 19, 20, 21, and 22, which concerns *individuals' discourse community* or, in this case, their professional community. Factor 7 was related to the first three items of the questionnaire, which is not about the concept of AL, but *EAP teachers' familiarity with AL*. Factor 8 was loaded by items 26, 27, 28, and 29, which is about *the ability of EAP students in writing scientific articles*. And finally, factor 9 was seen to be related to items 31, 32 and 33, depicting *the importance of students' familiarity with computer and technology*.

4.3. Confirmatory Factor Analysis

After conducting an exploratory factor analysis, a confirmatory factor analysis was also run. First, a measurement model based on the result of exploratory factor analysis was developed to confirm whether the presumed factors were measured by the questionnaire items in the expected way. Using LISREL software, the fitness of the model was evaluated. Figures 1 and 2 below depict the model with its significant levels and factor loadings. Moreover, Appendices 3 and 4 indicate the value of significant levels and factor loading for each variable.

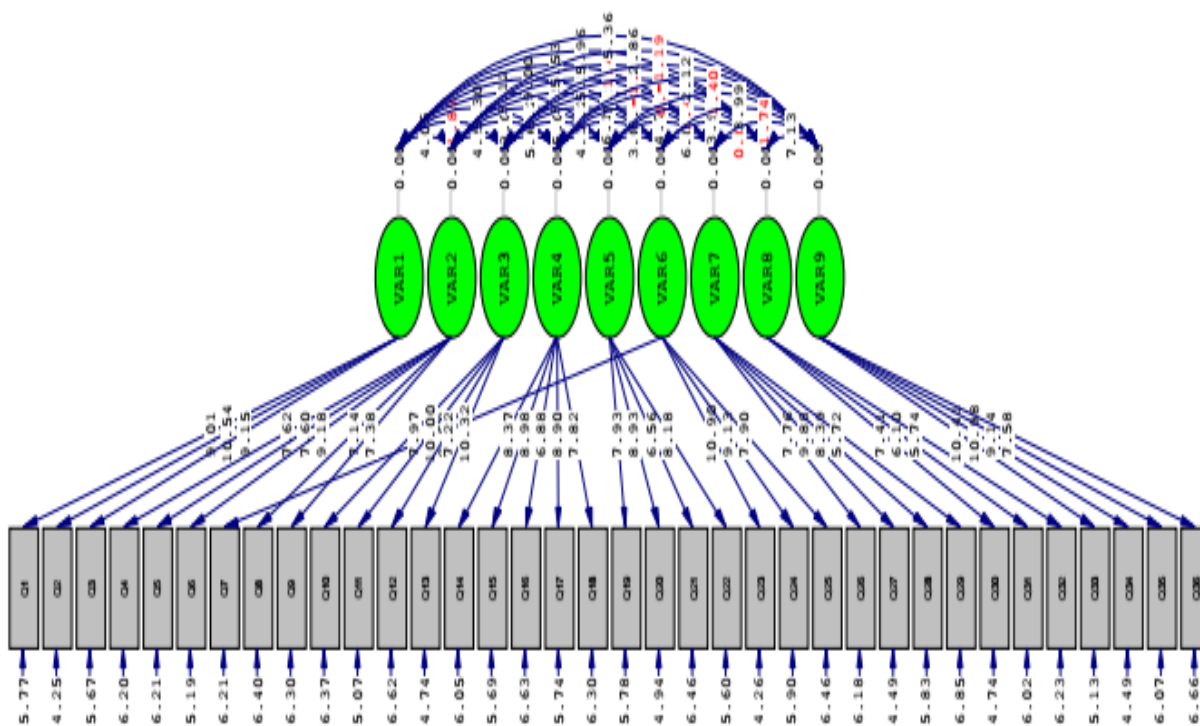


Figure 1: Significant Level of Each Item and Factor

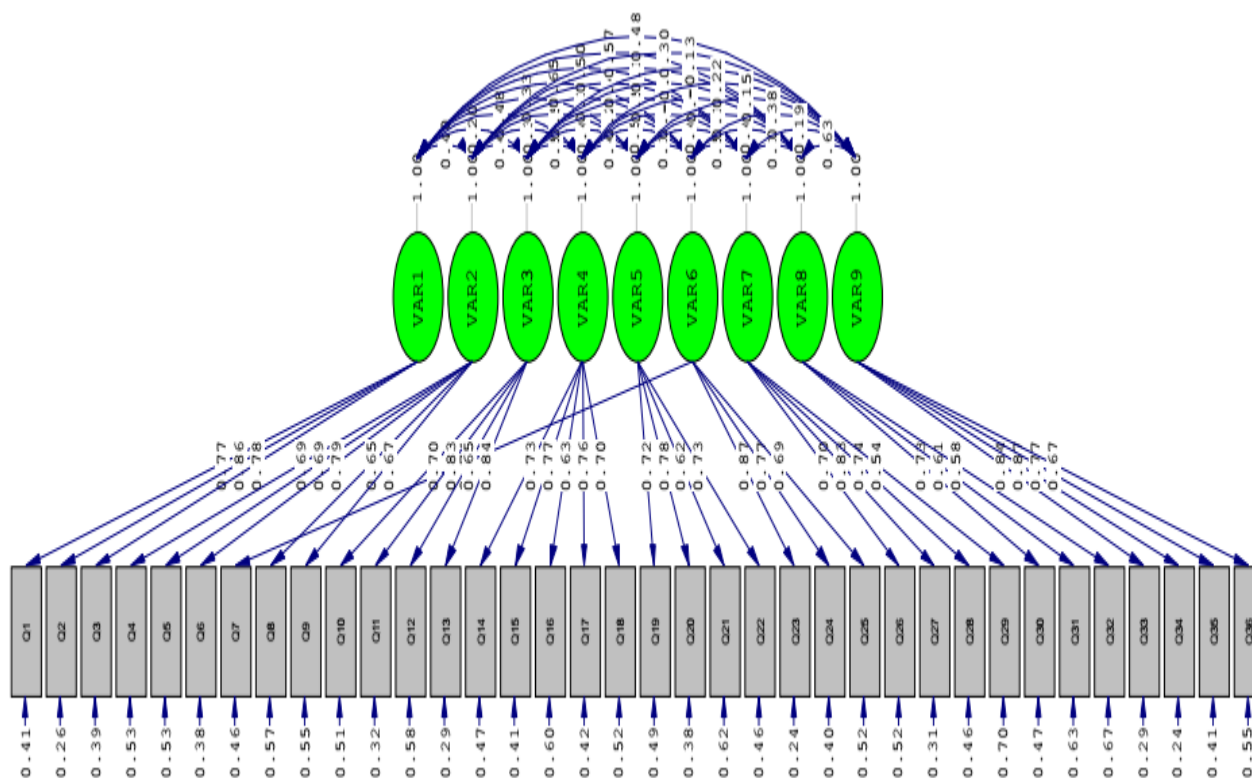


Figure 2: Factor Loading of Each Item and Factor

Table 5 below shows that the model fits the data very well. Since the ratio of chi-square and degree of freedom is less than 2, ($\chi^2 / df < 2$), it is considered as a good fit. Moreover, since $p < .05$, the model, including the nine factors of AL which have been explained in the exploratory factor analysis, is confirmed.

Table 5: Goodness-of-fit indexes for the AL model

Chi-Square	Df	P-value	RMSEA
981.26	558	0.0000	0.083

5. Discussion

The current study aimed at investigating the process of developing and validating a questionnaire on EAP students' AL whilst finding the main components of the concept from the perspective of EAP teachers. Through conducting exploratory factor analysis, nine factors were found. Additionally, a model was designed based on the result of the factor analysis and that was further confirmed by confirmatory factor analysis. The extracted factors are: (1) familiarity with different genres, (2) familiarity with academic ethics and honesty, (3) familiarity with context and contextual meaning, (4) knowledge of the four language skills, (5) possessing critical thinking ability, (6) familiarity with target discourse community, (7) teachers' familiarity with academic literacy concept and components, (8) scientific article writing ability, and (9) familiarity with computer and technology. It should be stressed that the seventh factor is not one of the components of academic literacy; it is actually the teachers' perception of their awareness of AL.

The first factor represents the necessity of EAP students' understanding of various genres. The importance of knowing different genres, especially academic genre, and the ability to distinguish them was previously mentioned in the literature. Hyland (2006) stress the importance of

academic genre in EAP courses and the necessity of acquiring it by EAP students. Other researchers also confirm the importance of genre and recount it as one of the important components of AL (Cheng, 2008a, 2008b; Hedgcock & Lee, 2017; Hyland, 2008; Johnson, 2008; Lea & Street, 2006; Lilis & Scott, 2007; Mort & Drury, 2012; Paré, 2014; Russell, Lea, Parker, Street, & Donahue, 2009; Tribble & Wingate, 2013; Wingate, 2012, 2014). However, many researchers also relate genre knowledge to writing skill and classify it as one of the subcomponents of writing (Hyland, 2007; Lilis & Scott, 2007; Wingate, 2012, 2014).

The issue of familiarity with different genres and its tie with the writing skill are not unrelated to the issue of discourse community the familiarity with which constitutes another component of the construct. In fact, the significant role of discourse communities, in this case, the individuals' disciplines, has been frequently mentioned in previous studies (e.g., Barton, Hamilton, & Ivanič, 2000; Fang, 2014; Geisler, 1994, 2013; Green, Dymock, & Floyd, 2017; Ivanič, 1998; McWilliams & Allan, 2014; Murray & Nallaya, 2016; Van de Poel, & Van Dyk, 2015; Wingate, 2015). For example, Koutsantoni (2006) stress the importance of writing in individuals' disciplines or Lea and Street (1989) put emphasis on students' reading and writing ability in their own field of study. Meantime, the ability of writing academic and scientific articles as well as considering ethical issues such as plagiarism were considered as two crucial aspects of writing skill and AL in general which correspond to the eighth and second factors, respectively. This is in line with Lea and Street's (1997) view regarding the significance of writing papers and dissertations in individuals' AL. Additionally, Abasi and Graves (2008) stress the significant role of plagiarism in AL of international students. Similarly, Fouché, van Dyk, and Butler (2017) underscored the importance of learning ethical issues like plagiarism in writings of students in increasing students' academic literacy. Although, majority of the above-mentioned studies put more emphasis on writing skill of the EAP students, the result of this study revealed that acquiring other skills, such as reading, speaking, and listening would be important as well.

Another extracted factor which is related to reading and writing skills concerned with critical thinking ability of students. In line with Blanton (1994), Jefferies et al. (2017) as well as Patterson and Weideman (2013b), critical thinking refers to the ability of individuals to assess and analyze what they read and synthesize what they write as necessary components of academic language and literacy. Closely related to these skills is the knowledge of context and understanding vocabulary items and structure in specific contexts, which is represented as the fifth factor. It has been widely believed in the literature that the linguistic requirements of the context should be understood by students if they wish to be successful in academic writing and achieving AL (e.g., Blanton, 1994; Paltridge & Starfield, 2013). This view is fairly in line with the popular theories and approaches of language teaching and assessment (Bachman & Palmer, 1989; Canale, 1983; Martínez-Flor, Usó-Juan, & Alcon-Soler, 2006), and it has begun to be welcomed in the field. This ability is highly intertwined with individuals' reading and writing skill as well as genre knowledge, and it has been frequently considered as one of their main subcomponents.

Finally, one of the other components of academic literacy which has been extracted in this study is concerned with computer skill of EAP students. Computer literacy and the ability of working with computer are believed to be crucial for all students, especially those who wish to continue higher education (Glicker, 2006). As a matter of fact, due to the necessities of the 21st century life and the reality of today's technological world, computer literacy is regarded as one of the essential abilities of students, and many universities have included it in their AL programs (e.g., Academic Literacy, 2017a, 2017b).

What could be realized from the above section is how interconnected the emerged factors are. Indeed, in many studies most of the emerged factors were introduced as subcomponents of one another. For example, genre and discourse community are highly related, and if one wishes to survive in a discourse community, he/she should be familiar with the discourse conventions and genre-specific features of that target community. However, it should be mentioned that it is not uncommon to extract factors which are correlated and connected to each other, as it is one of the main assumptions of factor analysis (Plonsky, 2015).

6. Conclusion and Implications

The present study has explicated the development and validation process of an AL questionnaire to explore EAP teachers' perception of the concept. As a result of the exploratory factor analysis of Iranian EAP teachers' responses to the survey, nine factors or components emerged eight of which were related to the concept of AL. As discussed in the above section, the achieved factors were quite in line with the findings of the previous research. To the best of the researchers' knowledge, the developed questionnaire can be considered as the only existing questionnaire on the components and construct of AL from EAP teachers' perspective. The questionnaire can be a beneficial instrument in exploring teachers' perception of AL and the importance of each component to them, as it can provide a clear picture of EAP teachers' understanding of the concept. However, the present investigation was just a pilot study with a limited number of participants from a limited range of disciplines; therefore, conducting a complementary research including more EAP teachers from variety of disciplines would be necessary. Moreover, it needs to be noted that the questionnaire should be used with cautious in future studies as the number and background of participants can easily affect its validity.

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Appendix A: Descriptive Statistics of Each Item

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Q1	1102.00	5.00	4.2545	.83979	.705	
Q2	1102.00	5.00	4.2273	.79746	.636	
Q3	1102.00	5.00	4.1545	.91055	.829	
Q4	1102.00	5.00	3.7909	.80247	.644	
Q5	1102.00	5.00	3.7818	.79427	.631	
Q6	1102.00	5.00	3.8091	.82945	.688	
Q7	1102.00	5.00	3.8000	1.03870	1.079	
Q8	1102.00	5.00	4.1273	.87900	.773	
Q9	1102.00	5.00	3.9909	.91366	.835	
Q10	1102.00	5.00	3.5909	.90153	.813	
Q11	1102.00	5.00	3.4273	.92329	.852	
Q12	1102.00	5.00	3.7091	.99858	.997	
Q13	1102.00	5.00	3.6000	.93062	.866	
Q14	1102.00	5.00	3.5364	.93531	.875	
Q15	1102.00	5.00	3.6273	.92725	.860	
Q16	1102.00	5.00	3.6818	.97615	.953	
Q17	1102.00	5.00	3.5636	.98173	.964	
Q18	1102.00	5.00	3.5909	.91165	.831	
Q19	1102.00	5.00	4.1182	.99293	.986	
Q20	1102.00	5.00	3.8909	.99858	.997	
Q21	1102.00	5.00	4.3909	.85773	.736	
Q22	1102.00	5.00	4.0545	.94662	.896	
Q23	1102.00	5.00	3.8000	.97491	.950	
Q24	1102.00	5.00	3.8818	.98364	.968	
Q25	1102.00	5.00	3.7636	.92793	.861	
Q26	1102.00	5.00	3.6273	.99410	.988	
Q27	1102.00	5.00	3.7545	.92057	.847	
Q28	1102.00	5.00	3.7727	.91530	.838	
Q29	1102.00	5.00	3.5818	.93241	.869	
Q30	1102.00	5.00	3.8727	.95887	.919	
Q31	1102.00	5.00	4.0545	.90702	.823	
Q32	1102.00	5.00	4.1455	.83321	.694	
Q33	1102.00	5.00	4.1000	.97633	.953	
Q34	1102.00	5.00	4.0182	.95765	.917	
Q35	1102.00	5.00	4.0818	.98737	.975	
Q36	1102.00	5.00	3.9727	.87219	.761	
Valid N (listwise)	110					

Appendix B: Communalities

	Initial	Extraction
Q1	1.000	.694
Q2	1.000	.783
Q3	1.000	.709
Q4	1.000	.589
Q5	1.000	.772
Q6	1.000	.692
Q7	1.000	.594
Q8	1.000	.631
Q9	1.000	.731
Q10	1.000	.670
Q11	1.000	.685
Q12	1.000	.671
Q13	1.000	.733
Q14	1.000	.607
Q15	1.000	.696
Q16	1.000	.581
Q17	1.000	.743
Q18	1.000	.696
Q19	1.000	.691
Q20	1.000	.701
Q21	1.000	.563
Q22	1.000	.692
Q23	1.000	.728
Q24	1.000	.714
Q25	1.000	.707
Q26	1.000	.655
Q27	1.000	.753
Q28	1.000	.610
Q29	1.000	.606
Q30	1.000	.675
Q31	1.000	.683
Q32	1.000	.718
Q33	1.000	.813
Q34	1.000	.775
Q35	1.000	.770
Q36	1.000	.640

Extraction Method: Principal Component Analysis.

Appendix C: Significant Level Value of Each Item

Items	V1	V2	V3	V4	V5	V6	V7	V8	V9
1.	.77								
2.	.86								
3.	.78								
4.		.69							
5.		.69							
6.		.79							
7.						.74			
8.		.65							
9.		.67							
10.			.70						
11.			.83						
12.			.65						
13.			.84						
14.				.73					
15.				.77					
16.				.63					
17.				.76					
18.				.70					
19.					.72				
20.									
21.					.62				
22.					.73				
23.						.87			
24.						.77			
25.						.69			
26.							0.70		
27.							0.83		
28.							0.74		
29.							0.54		
30.								0.73	
31.								0.61	
32.								0.58	
33.									0.84
34.									0.87
35.									0.77
36.									0.67

Appendix D: Factor Loading Value of Each Item

Items	V1	V2	V3	V4	V5	V6	V7	V8	V9
1	9.0								
	1								
2	10.54								
3	9.15								
4		7.62							
5		7.60							
6		9.18							
7						8.52			
8		7.14							
9		7.38							
10			7.97						
11			10						
12			7.22						
13			10.32						
14				8.37					
15				8.98					
16				6.88					
17				8.90					
18				7.82					
19					7.9				
20					8.93				
21					6.56				
22					8.81				
23						10.90			
24						9.13			
25						7.90			
26							7.76		
27							9.88		
28							8.39		
29							5.72		
30								7.41	
31								6.10	
32								5.74	
33									10.41
34									10.98
35									9.14
36									7.58