

**Iranian Domestically Designed ESAP Textbooks and Students:
A Critical Thinking Perspective**

Abbas Ali Rezaee *

Associate Professor, Faculty of Foreign Languages and Literatures, University of Tehran

Yoones Taase

PhD candidate, Faculty of Foreign Languages and Literatures, University of Tehran

Zahra Alishahi

PhD candidate, Faculty of Foreign Languages and Literatures, University of Tehran

Abstract

The main purpose of this study is to investigate the reflection of critical thinking in ESAP textbooks developed by SAMT in Iran. To this end, three textbooks including English for Students of Veterinary Medicine (Medical Sciences), English for Students of Psychology (Soft Sciences) and English for Students of Civil Engineering (Hard Sciences) were analyzed based on Peterson's model to identify the frequency of different types of critical reading questions. Moreover, 153 students of these majors filled out a critical thinking questionnaire. The results showed that approximately half of the exercises reflect general reading questions not critical reading questions in ESAP textbooks. The results of Chi-Square tests showed that while there is not any significant difference between the applications of critical reading questions in the ESAP textbooks, there is a significant difference between different types of critical reading questions in ESAP textbooks. In addition, the results of the one-way ANOVA showed that there is not any significant difference between critical thinking of students of the three majors.

Key words: critical thinking, textbooks, critical reading questions, ESAP.

* Associate Professor, Department of English Language and bLiterature, Faculty of Foreign Languages and Literatures, University of Tehran, Tehran, IR Iran.

-Received on: 26/12/2016

Accepted on: 16/04/2017

Email: aarezaee@ut.ac.ir

1. Introduction

Since an ESP course is designed for a particular group of learners in a particular context (Hutchinson & Waters, 1987), the materials are directly related to specialized fields. According to Tomlinson (2012), materials can include textbooks, audio-visual aids, computer mediated resources, real objects, or performance. The importance of ESP textbooks has been highlighted in ESP literature. According to Dudley-Evans and St John (1998) books and materials are of a pivotal role in every learning situation and provide teachers and learners with a source of language, motivation and stimulation, a learning support and reference. Hutchinson and Waters (1987) define six objectives for ESP materials including a stimulus for learning, organizing teaching and learning process, embodying a view of the nature of language and learning, reflecting the nature of the learning task, broadening the basis of teacher training, and providing models of correct and appropriate language use.

The main focus of all ESAP textbooks published by 'The Organization for Researching and Composing University Textbooks in Humanities' is reading comprehension. The aim of reading is not to read a text in order to understand unknown words in sentence level but to get the writer's intended meaning. In other words, "reading is not merely a receptive process of picking up information from the page in a word-by-word manner" (Grabe, 1991, p. 1). According to Waters (2006), recent trends in reading comprehension have highlighted the role of problem-solving techniques evidently enabling students to identify, clarify, evaluate and solve confusions in reading which partly denotes critical thinking ability. Liaw (2007) defines critical thinking as something which "involves the use of information, experience, and world knowledge in ways which allow to seek alternatives, make inferences, pose questions, and solve problems, thereby signaling understanding in a variety of complex ways" (p. 51). Regarding the increasing importance of critical thinking in reading and the established role of textbooks, the present study is an attempt to answer the following research questions:

1. Do Iranian EASP textbooks reflect critical thinking?
2. Is there any significant difference between the three ESAP textbooks and the representation of critical thinking?
3. Is there any significant difference between the types of critical reading questions and EASP textbooks?
4. Does field of study have any significant impact on critical thinking of Iranian ESAP students?

1.1 Theoretical Framework of the Study

To analyze the application of critical thinking in EASP textbooks in this study, Peterson's model (2008) is used. Peterson's model presents three types of critical reading questions which assess the ability of the readers in what they

read. The first type of critical reading questions is Vocabulary-in-Context (VIC) questions which test the learners' ability to define difficult and unfamiliar words. In other words, these questions "ask you to define a specific word in the passage" (Peterson, 2008, p. 119). The second type is Literal Comprehension (LC) questions which require you to identify information that is directly stated in the passage. The last type of critical reading question is Extended Reasoning (ER). These questions "ask you to analyze, evaluate, and pull together information from the passage(s). They involve finding causes/effects, making inferences analyzing and using logical reasoning." (Peterson, 2008, p. 119). According to Peterson (2008), this type of critical reading question mainly caters for critical reading questions. The model was used by Talebinezhad and Matou (2012) to analyze EFL reading comprehension textbooks at university level under the light of critical thinking.

2. Literature Review

2.1 ESAP at Iranian Universities

Currently, English for Specific Purposes (ESP) and English for Academic Purposes (EAP) are inalienable parts of curricula in all fields of study in Iran. Although English is not the medium of classroom instruction, the students are supposed to read English textbooks, journals, and web-based sources of their own majors (Atai, 2000). Moreover, as a compulsory part of their curricula, students of all non-English fields of study should pass one to three EAP courses designed by the Ministry of Science, Research, and Technology (Atai, 2002). The main objective of these reading courses has been claimed to "bridge the gap between the learners' general English reading competence and their ability to read discipline-based courses" (Ibid, p. 269).

EAP courses in Iran were designed and implemented in 1970s along with the increasing demand for an international language for science and technology. In whole, three generations of EAP programs have been discussed in a historical sketch of ESAP curriculum development in Iran (Atai, 2002). The first generation of EAP programs was planned and implemented by joint efforts of Iranian universities and western academic centers (Atai, 2002). In 1974, University of Tehran and University of Illinois compiled five EAP textbooks in intensive reading courses to enable the learners read advanced texts. In another collaborative program, University of Tabriz and The British Council (Dudley-Evans et al, 1976) designed courses for students of medicine, pharmacy, engineering, physics, chemistry, biology, mathematics and agriculture in 1975. Published materials are mentioned as the main source of information in EAP curriculum development in this era.

In 1980s, the second generation of EAP curriculum development was supported by government to disseminate EAP instruction to all Iranian universities. In this period, the Center for Studying and Compiling University

Textbooks in the Humanities (known in Iran as SAMT) developed and published eight textbooks for students of medicine, engineering, science, social sciences, humanities, and agriculture in late 1980s (Atai, 2002). It should be noted that the “courses did not closely fit the students’ fields of specialism” (Atai, 2002, p. 23). The third generation of EAP curriculum development was an attempt toward higher levels of content specificity in terms of academic disciplines and text authenticity (Ibid). Supported by the investment of Iranian government, SAMT has published 200 textbooks for EASP courses jointly produced by ELT practitioners and content-specific instructors.

2.2 SAMT textbooks

Retrospectively describing SAMT, Farhady (2005) points out that the duties of the authorities have been complicated by increasing number of students enrolling at Iranian universities and radically opposing ideas about the concept of ESP. In effect, ESP textbooks “were inadequate, ineffective, and in some cases with obvious typographical and content-related errors below the dignity of university education” (Farhady, 2005, p. 5). The findings of ESP research and theoretical underpinnings were ignored in developing the materials to avoid “idiosyncratic treatment of ESP at universities, unsystematic presentation of the materials to the learners, and a huge amount of xeroxing” (Farhady, 2005, p. 6). Moreover, conducting needs analysis has been recommended to fundamentally redesign ESP materials development in Iran (Farhady, 1994).

However Iranian ESAP materials development has highly attracted the attention of the planners, it has not been implemented coherently and systematically (Atai, 2002). Based on intuitive hunches, materials developers have taken “a vague, subjective, and idealistic account of target reading ends of the learners and their existing ability in general English reading” (Ibid, p. 27). Moreover, a clear account of discourse analysis, genre analysis, and reading skills and strategies (Fakharzadeh, as cited in Atai, 2002) have seemingly been misplaced with a stringent uniformity and consistency in the format of textbooks. The theoretical justification for the predetermined selection, grading, and presentation of the activities in the textbooks has not been shared with ESAP practitioners as well (Atai, 2002).

Many studies have been conducted on ESAP textbooks developed by SAMT mostly delineating critical findings. According to Baleghizadeh and Rahimi (2011), a systematic evaluation of ESP textbooks is not usually carried out ignoring students’ needs in developing the materials. Investigating the ESP textbook for the students of Engineering, Eslami-Rasekh (2010) states that a systematic needs analysis has been neglected. Tajeddin (2005) evaluated ESP textbooks in terms of linguistic input, linguistic output and their relationship. He found that SAMT textbooks lack an integrated approach or lesson plan not following any specific purpose for improving the translation and reading

comprehension of students. The content and skill coverage of ESP textbook for medical students were analyzed by Rahimi (2008) and it was shown that there is a compatibility of reading and writing with the curriculum. English for the Students of Medicine (ESM) (II) and Medical Terminology were compared by Maleki and Kazemi (2012) to investigate teachers' and students' attitudes toward these textbooks. The results showed that both groups of participants significantly preferred Medical Terminology in terms of layout and design, activities, language type, subject and content.

2.3 Critical Thinking

Critical thinking has been studied for nearly 100 years (Fisher 2011) and scholars have defined the concept from various perspectives. Philips and Bond (2004) believe that critical thinking involves active thinking about the process of thinking itself. Browne and Keeley (2007) define critical thinking as a set of interwoven questions and the ability of the person to query and answer them in their appropriate time. Paul and Elder (2006) represent critical thinking as an art which aims to improve thinking by analyzing and evaluating it. Paul and Elder (2007) also realized critical thinking as a developing state. They represent six stages for critical thinking and believe reaching the last stage, i.e., the master thinker, takes long term processing rather than happening overnight.

One of the main goals of educational system is to equip the learners with the ability to look at the issues using a new perspective from different angles. Critical thinking is indispensable in all aspects of one's personal and academic life (Ennis, 2003). Inspiring students to look beyond what is commonly observable can be achieved by enhancing their critical thinking skills (Zhang, 2009). The role of critical thinking in today's education is so vital that it results in a shift in education. As Lipman (1984) correctly asserts, there is a shift from learning mere facts to acquiring the process of thinking in education. This makes the goal of learning to teach learners how to think for themselves.

There have been some studies on critical thinking in the realm of education and language learning (e.g. Eftekhari, Sotudenama & Mardani, 2016, Khatib, 2012; Jones & Haydon, 2012; Talebinezhad & Matou, 2012; Nosratian & Zaker, 2014). In addition, textbooks have been analyzed based on critical thinking. Talebinazhad and Matou (2012) investigated the extent to which critical reading questions are supported in EFL reading comprehension textbooks at university level. They found that critical thinking has been considered highly within the objectives of the questions. However, the present study investigates how critical thinking is represented in the ESAP English textbooks of three majors at university level and if there is any difference between the students of these majors in terms of critical thinking.

3. Methodology

3.1 Participants

The participants of this study were 153 EAP, male and female, students passing ESP courses at University of Tehran. They participated voluntarily from three different majors including Veterinary Medicine, Psychology and Civil Engineering. They were all BA and BS students within the range of 19-25 years old. To consider a stronger side for the homogeneity of the participants, their scores in their general English proficiency section of the standard nationwide Iranian University Entrance Examination was elicited and those below 50% were excluded from the study. In addition, the participants' scores in General English course passed prior to ESP course were considered and the data of those below 15 (ranging from 0-20) were not taken into account in data analysis. It should be noted that convenience and availability was the rationale behind the sampling.

3.2 Corpus

Three textbooks corresponding to different majors including English for Students of Veterinary Medicine (medical sciences), English for Students of Psychology (humanities) and English for Students of Civil Engineering (hard sciences) developed by SAMT were taken to be analyzed under the light of Peterson's (2008) model. All the three textbooks were of the third generation of SAMT textbooks. Having a paper back and 245 pages, English for Students of Veterinary Medicine includes 20 lessons. The paper back English for the Students of Psychology has 21 lessons and 279 pages. Finally, English for Students of Civil Engineering included 20 lessons and 264 pages. It should be noted that each lesson in the three textbooks is composed of three sections namely Reading comprehension, Further Reading, and Translation Activities respectively.

In analyzing the textbooks, the reading comprehension questions and the reflection of different types of critical reading questions were the most important considerations. To this aim, the frequency of occurrence of all critical reading questions based on Peterson's model of each unit was counted. At the end, the total number of different types of questions throughout each textbook was summed up. The exercises not including critical reading questions were regarded as general reading questions.

3.3 Instruments

3.3.1 Critical Thinking Questionnaire

The instrument used in this study was the Critical Thinking Questionnaire (Honey, 2000) evaluating the principal skills of comprehension, analysis and evaluation. It encompasses 30 items on a five Likert scale for measuring note-taking, summarizing, questioning, paraphrasing, researching, inferencing,

discussing, classifying and outlining, comparing and contrasting, distinguishing, synthesizing, inductive and deductive reasoning abilities of learners. In this study, the Persian version of the questionnaire validated in Iran by Naeini (2005) was employed. In a study of critical thinking ability of Iranian EFL learner by Nosratian and Zaker (2014), Cronbach alpha reliability was estimated to be 0.79 while in this study, Cronbach alpha was found to be 0.82.

4. Results and Discussion

To answer the first research question on the reflection of critical thinking in ESAP textbooks, descriptive statistics were done. As shown in table 1, in English for Students of Veterinary Medicine, 735 (43.20%) of the whole items in exercises and activities reflected general reading questions followed by extended reasoning questions (20.57%), literal comprehension questions (18.51%) and vocabulary in context (17.69%) respectively. In English for students of Civil Engineering, general reading comprehension questions were also found predominantly (45.25%). Regarding critical reading questions in this textbook, extended reasoning was reflected in 422 cases to account for 20.98% of total items followed by literal comprehension (20.88%) and vocabulary in context (12.87%). Like the other textbooks, general reading questions were found to be the most widely-used type in English for Students of Psychology to account for 48.61% of all cases. Literal comprehension questions were the most frequently-used type of critical reading questions in this textbook (19.14%) followed by extended reasoning (17.58%) and vocabulary in context.

Table 1

Frequency and percent of critical reading questions in ESAP textbooks

<i>ESAP textbooks</i>	<i>Vocabulary in Context</i>	<i>Literal Comprehension</i>	<i>Extended Reasoning</i>	<i>General</i>	<i>Total</i>
English for the Students of Veterinary Medicine	301 (17.69%)	315 (18.51%)	350 (20.57%)	735 (43.20%)	1701 (100%)
English for the students of Civil engineering	259 (12.87%)	420 (20.88%)	422 (20.98%)	910 (45.25%)	2011 (100%)
English for the students of Psychology	366 (14.65%)	478 (19.14%)	439 (17.58%)	1214 (48.61%)	2497 (100%)

To address the second research question, a Chi-Square test for goodness of fit was run. As shown in table 2, there was not any significant difference

54 Iranian Domestically Designed ESAP Textbooks ...

between the frequency of critical reading questions in the three ESAP textbooks ($X^2 = 5.834$, $P > .05$).

Table 2

Chi-Square Test for the representation of critical thinking in textbooks

	Count
Chi-Square	5.834 ^a
df	2
Asymp. Sig.	.054

A Chi-Square test for independence was also run to probe any significant difference between different types of critical reading questions in ESAP textbooks. As shown in table 3, there was a significant difference between the frequency of different types of critical reading questions in the three ESAP textbooks ($X^2 = 19.205$, $P < .05$).

Table 3

Chi-Square Test for different types of critical reading questions in ESAP textbooks

Value	<i>f</i>	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.205 ^a	.001
Likelihood Ratio	19.484	.001
Linear-by-Linear Association	.006	.937
N of Valid Cases	3350	

As shown in Table 4, 28% to 39.5% of critical reading questions were vocabulary in context while 26.% to 39.4% were literal comprehension and 28.9% to 36.3% of the critical reading questions were extended reasoning.

Table 4

Crosstabulation for critical reading questions in ESAP textbooks

		CRITICAL READING QUESTIONS			Total
		VIC	LC	ER	
Textbook medicine	Count	301	315	350	966
	% within CRITICAL READING QUESTIONS	32.5%	26.0%	28.9%	28.8%
Hard sciences	Count	259	420	422	1101
	% within CRITICAL READING QUESTIONS	28.0%	34.6%	34.8%	32.9%
Soft sciences	Count	366	478	439	1283
	% within CRITICAL READING QUESTIONS	39.5%	39.4%	36.3%	38.3%
Total	Count	926	1213	1211	3350
	% within CRITICAL READING QUESTIONS	100.0%	100.0%	100.0%	100.0%

To address the fourth research question, a one-way ANOVA was run to investigate whether there is any significant difference among the critical thinking performances of the students doing various fields of study. Checking the homogeneity of variance through Levine test ($P=.468>.05$), it was shown that there is not any significant difference in level of critical thinking among students of three majors ($F=2.952$, $P>.05$). (Table 5).

Table 5
One-Way ANOVA for critical thinking by major

	Sum of Squares	df	F	Sig.
Between Groups	1062.079	2	2.952	.055
Within Groups	26982.561	150		
Total		28044.641		

5. Conclusions and Implications

The role and importance of textbooks in language teaching have been highlighted extensively. According to Hutchinson and Torres (1994, p. 315), “the textbook is an almost universal element of teaching and no teaching-learning situation, it seems, is complete until it has its relevant textbook”. Sheldon (1988) emphasizes the role of textbooks as the invisible heart of any ELT program. Celce-Murcia (2000) believes that careful selection of textbooks may alleviate the teachers’ effort in making choices, considering alternatives, and planning for learner needs (Celce-Murcia, 2000). In spite of their advantages, textbooks can lead to learning failure when writers rely on their intuition in producing the materials for the intended users and the textbooks lack the qualities of being creative and imaginative.

Annually a large number of Iranian students at university level have to pass the compulsory ESAP course. It is widely acknowledged that these courses are mainly concerned with reading skills while neglecting other language skills (Atai, 2002; Akbari & Tahririan, 2009; Mazdayasna & Tahririan, 2008; Ziahosseiny, 2005). The overall purpose of these courses has been stated “to enable the students to study their specific academic reference materials and textbooks to get familiar with scientific and technological advances in their field of study” (Soleimani 2005, p.216). The dissatisfaction of practitioners with EAP courses in Iran has been grounded on neglecting learners’ needs and overemphasizing vocabulary and syntax (Amiryousefi & Ketabi, 2011), discouraging communication and disintegrating extra-linguistic perspectives (Eslami, 2005) and weakness of materials design (Tayebipour, 2005). Another reason can be underestimation of critical thinking in ESAP textbooks.

As stated earlier the present study was an attempt to investigate the application of critical thinking in ESAP textbooks developed by SAMT Organization currently being used as the main medium of classroom

instruction for students of Veterinary Medicine, Psychology, and Civil Engineering. The frequency of occurrence of three types of critical reading questions including vocabulary in context (VIC), literal comprehension (LC) and extended reasoning (ER) were counted by the present researchers. Moreover, 153 students of the three majors filled in a critical thinking questionnaire.

The frequency count of all reading comprehension questions showed that the majority of questions in the three textbooks catered for general reading questions; that is, 43.20% of questions in English for Students of Veterinary Medicine, 45.25 % in English for Students of Civil Engineering, and 48.61% of the questions in English for Students of Psychology tapped general reading questions. However, the sum of the three kinds of critical reading questions slightly exceeded general reading questions, it should be noted that mainly extended reasoning questions lead to critical thinking (Peterson, 2008). This type of questions were not found abundantly in the textbooks. The result of this part of the present study is not in agreement with the study by Talebinejad and Matou (2012) who found a highly-frequent use of critical reading questions in reading comprehension university textbooks because nearly half of the items in exercises and activities presented general reading questions instead of critical reading questions. Moreover, a great proportion of critical reading questions were literal comprehension and vocabulary in context not extended reasoning questions which mainly reflect critical thinking.

The results of this study also showed that there is not any significant difference among the three textbooks in terms of critical reading questions. Since medical sciences and hard sciences deal mostly with established scientific facts, it is justifiable not to show any significant difference in terms of critical reading questions. However, soft sciences and humanities textbooks can take the advantage of using higher rates of critical reading question. One reason for the lack of difference in the occurrence of critical reading questions among the three textbooks can be the unanimously rigid format of the lessons determined by SAMT. Moreover, a significant difference was found among the three types of critical reading questions. However, it should be mentioned that extended reasoning questions which include most of the critical reading questions (Peterson, 2008) were the second most frequently used type of critical reading questions. Finally, it was found that field of study did not have any significant impact on critical thinking ability of Iranian ESAP students. So, it can be recommended that a more generous incorporation of critical thinking in Iranian ESAP textbooks is needed. This finding is not supported by Aliakbari and Sadeghdaghighi (2011) who found a significant effect of different fields of study (engineering, humanities and basic sciences) on critical thinking ability of Iranian ESAP students.

It is acknowledged that “reading is not merely a receptive process of picking up information from the page in a word-by-word manner” (Grabe,

1991, p. 1) but it is an active process of comprehension to further develop and clarify the interpretation of the text (Phan, 2006). According to McNamara (2007), Reading Thinking as a well-established approach can be used in (EAP) classes to improve “students’ comprehension and self-monitoring skills through an apprenticeship model of learning” (p. 425). In this approach, instead of dealing with structural and lexico-grammatical aspects of the text, both the EAP teacher and learners embark on an instructional dialogue about the text to construct their understanding and comprehension through employing an amalgam of reading strategies such as predicting, questioning, summarizing, and clarifying which are critical in nature. Such an approach can be regarded by Iranian ESAP instructors in ESAP classes to provide opportunities for Iranian learners to improve their critical reading skills and compensate for the mediocre representation of critical thinking in the textbooks.

Teachers can play an unalienable role to incorporate critical thinking skills in ESAP classes since they have been claimed to be “agents for change in a world in desperate need of change: change from competition to cooperation, from powerlessness to empowerment, from conflict to resolution, from prejudice to understanding” (Brown, 2001, p. 445) as well as a valid predictor of learners’ academic performance and achievement (King, 2003). Having a conscious focus on critical thinking, they can raise ESAP learners’ awareness of critical reading and scaffold them to ameliorate their acquisition of critical reading skills. Moreover, ESAP teachers can actively seek learners’ ideas about the topic of lessons, their organization, exercises and activities or invite them to identify the type of critical reading questions. ESAP instructors can also teach critical reading skills and strategies as well as different types of critical reading questions. Peterson’s (2008) model used as the framework of this study can be used as a model in ESAP classrooms.

The present study investigated only the third generation of SAMT textbooks. In addition to considering other textbooks and majors, further research can also consider the first and second generation of SAMT textbooks which are still used at the university level to see if any improvement has been made in the representation of critical reading skills in the three generations of textbooks. This study considered the critical thinking of ESAP learners and their textbooks but future studies can consider critical thinking level of EASP instructors and materials developers. The relationship between critical thinking and reading strategies of ESAP learners and the representation of these variables in their textbooks can be regarded as an attempt of further research.

References

- Akbari, Z., & Tahririan, M. H. (2009). Vocabulary learning strategies in an ESP context: The case of Para/medical English in Iran. *The Asian EFL Journal Quarterly*, 11(1), 39-61.
- Aliakbari, M., & Sadeghdaghighi, A. (2011). Investigation of the relationship between gender, field of study, and critical thinking skill: The case of Iranian students. *Proceedings of the 16th Conference of Pan-Pacific Association of Applied Linguistics*, 301-310.
- Amiryousefi, M., & Ketabi, S. (2011). Anti-textbook arguments revisited: A case study from Iran. *Procedia - Social and Behavioral Sciences*, 15, 215-220.
- Atai, M. R. (2000). *ESP revisited: A reappraisal study of discipline-based EAP programs in Iran*. Unpublished PhD dissertation, University of Isfahan, Isfahan, Iran.
- Atai, M. R. (2002). ESAP curriculum planning in Iran: An incoherent educational experience. *Special Issue of the Journal of Faculty of Letters and Humanities*, 9(3), 17- 34.
- Atai, M. R., & Shoja, L. (2011). A triangulated study of academic language needs of Iranian students of computer engineering: Are the courses on track? *RELC Journal*, 42(3), 305-323.
- Baleghizadeh, S., & Rahimi, A. H. (2011). Evaluation of an ESP textbook for the students of sociology. *Journal of Language Teaching and Research*, 2(5), 1009-1014.
- Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy (2nd ed.)*. San Francisco, CA: Longman.
- Browne, M. N., & Keeley, S. M. (2007). *Asking the right questions: To critical thinking*. New Jersey: Pearson Education.
- Celce-Murcia, M. (2000). *Discourse and context in language teaching*. Cambridge: Cambridge University Press.
- Dudley-Evans, T., Shettleworth, C. C., & Philips, M. K. (1976). The ESP materials for the University of Aderbagan, Tabriz, Iran.
- Dudley-Evans, T., & St. John, M. J. (1998). *Developments in English for specific purposes: A multi-disciplinary approach*. Cambridge: Cambridge University Press.
- Eftekhari, M., E, Sotoudehnama, & Marandi, S. (2016) Computer-aided argument mapping in an EFL setting: does technology precede traditional paper and pencil approach in developing critical thinking? *Educational Technology Research and Development*, 1-19.
- Ennis, R. H. (2003). Critical thinking assessment. In Fasko, *Critical thinking and reasoning: Current research, theory, and practice*.
- Eslami R. Z. (2005). The relevance and sociocultural significance of pragmatics for ESAP. In Kiany, G.R., & Khayyamdar, M., proceedings

- of the First National ESP/EAP Conference, (1). Paper presented at the First National ESP/EAP Conference, Iran, Tehran: SAMT.
- Eslami-Rasekh, Z. R. (2010). Teachers voice vs. students voice: A needs analysis approach to English for academic purposes (EAP) in Iran. *English Language Teaching*, 3(1), 2-11.
- Farhady, H. (1994). On the specificity of purpose in ESP. Proceedings of the 2nd conference on theoretical and applied linguistics. Tehran: Allame Tabataba'e University.
- Farhady, H. (2005). Reflections on and directions for ESP materials development in SAMT. *Paper presented in the First National ESP/EAP Conference*, Tehran, Iran.
- Jones, P., & Haydon, D. (2012). *Putting it into practice: Developing student critical thinking skills in teacher education: The models, methods, experience and results*. Charlotte, NC, USA: IAP - Information Age Publishing, Inc
- Grabe, W. (1991). Current development in second language reading research. *TESOL Quarterly*, 25 (3), 375-406.
- Hutchinson, T., & E. Torres. (1994). The textbook as agent of change. *ELT Journal*, 48(4), 315-328.
- Hutchinson, T., & Waters, A. (1987). *English for specific purposes: A learning-centered approach*. Cambridge: Cambridge University Press.
- Khatib, M. (2012). Critical thinking skills through literary and non-literary texts in English classes. *International Journal of Linguistics*, 4(4), 563-580.
- Liaw, M. (2007). Content-based reading and writing for critical thinking skills in an EFL context. *English Teaching and Learning*, 31(2), 45-87.
- Lipman, M. (1984). The cultivation of reasoning through philosophy. *Educational Leadership*, 42(1), 51-56.
- Maleki, A., Kazemi, M. (2012). The Evaluation and comparison of two most widely used textbooks for teaching English to the Iranian students of medicine. *The Iranian EFL Journal*, 8(3), 70-93.
- Mazdayasna, G. Tahririan, M. H. (2008). Developing a profile of the ESP needs of Iranian students: The case of students of nursing and midwifery. *Journal of English for Academic Purposes* 7, 277-289.
- McNamara, D. S. (2007). *Reading comprehension strategies: Theories, interventions, and technologies*. New York, NY: Routledge.
- Naeini, A. (2005). *The relationship between collaborative learning and critical thinking of Iranian EFL learners*. Unpublished Master Thesis, Islamic Azad University of Science and Research Campus, Tehran, Iran.

- Nosratinia, M. Zaker, A. (2014). Metacognitive attributes and liberated progress: The association among second-language learners' critical thinking, creativity, and autonomy. *SAGE Open*. 1-10.
- Peterson S. (2008). *Master critical thinking for the SAT*. Author.
- Paul, R., Elder, L. (2006). *Critical thinking: Tools for taking charge of your learning and your life* (2nd ed.). NJ: Pearson Prentice Hall.
- Paul, R., Elder, L. (2007). The thinker's guide to how to write a paragraph. Foundation for CriticalThinking. Available at: [http://www. Critical thinking. org/files/SAM_Analytic_Think2007b.pdf](http://www.Criticalthinking.org/files/SAM_Analytic_Think2007b.pdf)
- Phan, N. (2006). Effective reading. *Asian EFL Journal*, 15(1), 83-111.
- Phillips, V., & Bond, C. (2004). Undergraduates' experiences of critical thinking. *Higher Education Research and Development*, 23(3), 277-85.
- Rahimy, R. (2008). ESP, an evaluation of available textbooks: Medical terminology. Retrieved from http://www.esp-world.info/Articles_17/PDF/Ramin_Rahimy.pdf.
- Sheldon, L. (1988). Evaluating ELT textbooks and materials. *ELT Journal*, 42(2), 237-246.
- Soleimani, H. (2005). EAP in Iran: drawbacks of SAMT EAP textbooks. In Kiany, G.R., & Khayyamdar, M., proceedings of the First National ESP/EAP Conference, (3). Paper presented at the First National ESP/EAP Conference, Iran (216-229).Tehran: SAMT.
- Tajeddin, Z. (2005). English for business communication. Paper presented in the First National ESP/EAP Conference, Tehran, Iran.
- Talebinejad, M. R., & Matou, Z. (2012). EFL reading comprehension textbooks at university level: A critical thinking perspective. *Theory and Practice in Language Studies*, 2, 1746-175
- Tayebipour, F. (2005). The role of TEFL instructors vs. Specific-field instructors in ESP/EAP teaching. In Kiany, G.R., & Khayyamdar, M., proceedings of the First National ESP/EAP Conference, (1). Paper presented at the First National ESP/EAP Conference, Iran (219-234).Tehran: SAMT.
- Tomlinson, B. (2012). Materials development for language learning and teaching. *Language Teaching: Surveys and Studies*, 45(2) 143–179.
- Tomlinson, B. (2008). *English language learning materials: A Critical review*. London: Continuum.
- Waters, A. (2006). Thinking and language learning. *ELT Journal*, 60(4), 237-319.
- Zhang, L. F. (2009). From conceptions of effective teachers to styles of teaching: Implications for higher education. *Learning and Individual Differences*, 19, 113-118.
- Ziahosseiny, S. M. (2005). A psycholinguistic approach to ESP/EAP material design. In Kiany, G.R., & Khayyamdar, M., proceedings of the First

National ESP/EAP Conference, (1). Paper presented at the First National ESP/EAP Conference, Iran (157168). Tehran: SAMT.