Available at jtpsol.journals.ikiu.ac.ir

Journal of Teaching Persian to Speakers of Other Languages

Exploring Bloom's Revised Taxonomy of Educational Objectives in TPSOL Textbooks

Saman Ebadi[*]

Assistant Professor, Razi University

Vida Mozafari

MA Candidate, Razi University

ABSTRACT

This study investigated the manifestation of Bloom's Revised Taxonomy (BRT) in two series of young and adult teaching Persian to Speakers of Other Languages (TPSOL) textbooks. To this end, the contents of the textbooks were analyzed based on a coding scheme. The results showed statistically significant differences between the different volumes of young learners' series and between the two series in terms of learning objectives. However, the research revealed significant differences neither between the different volumes of adult learners' series nor between the two series in terms of their emphasis on higher and lower order thinking skills. The overall results revealed lower order skills as the most represented levels in these books. The findings indicated that the analyzed textbooks would not foster critical thinking ability in learners because their content did not correspond to BRT. This study has some implications for TPSOL policy makers, materials developers, teachers, and language learners.

Keywords: textbook evaluation, BRT, TPSOL textbooks

[*] Received on: 26/12/2015 Accepted on: 21/6/2016

E-mail: samanebadi@gmail.com

1. Introduction

As a key component in most language learning programs (Richards, 2001), textbooks act as a very efficient framework and guide for teachers in achieving the objectives of the course and conducting lessons (Tok, 2010) and may be regarded by most people as the primary source of conveying knowledge to learners. Most teachers prefer to use a textbook as some kind of schedule, so they can regulate and manage the time. Learners also like to have a textbook so that they will take the course more seriously and have a sense of purposefulness. Since textbooks mainly reflect and aim at the realization of curriculum objectives, the success or failure of any educational program may depend on textbooks. Developing materials is a demanding job, and now with a variety of textbooks available on the market, it is more economical and of course reasonable to evaluate the existing ones in a systematic way against the relevant criteria. It is also important to find the most appropriate materials to the teaching situation, and adapt them when necessary.

For this purpose, there exists a wide variety of frameworks and criteria, among which BRT can prove beneficial for textbook evaluation. Hanna (2007) believes that "the new taxonomy provides a common language for educators to design and align their curricula with cognitive learning objectives" (p. 9). BRT, as a framework for classifying statements of what we expect or intend students to learn as the result of instruction, was proposed by Bloom (1956) and revised by Anderson and Krathwohl (2001). In fact, there is paucity of textbook evaluation studies in general and in language programs in specific. However, Bloom's taxonomy and more recently BRT has gained considerable attention in evaluating EFL textbooks (Amin, 2004; Askaripour, 2014; Assaly & Igbaria, 2014; Assaly & Smadi, 2015; Ayaturrochim, 2014; Birjandi & Alizadeh, 2012; Gordani, 2010; Igbaria, 2013; Razmjoo & Kazempourfard, 2012; Rezvani & Zamani, 2012; Riazi & Mosalanejad, 2010; Roohani, Taheri, & Poorzanganeh, 2014; Sadeghi & Mahdipour, 2015; Taghipoor, 2015; Zamani & Rezvani, 2015; Zareian, Davoudi, Heshmatifar, & Rahimi, 2015). However, there are just a

few studies (see e.g. Davari Ardekani & Aghaebrahimi, 2012; Ebadi, Salman, & Ebrahimi Marjal, 2015; Kheibari, 1999; Rezai & Alipur, 2013; Shahedi, 2001) that have evaluated TPSOL textbooks from perspectives other than the representation of educational objectives using Bloom's original or revised Taxonomy. Consequently, the present study as a kind of filling for the existing gap aimed at evaluating and comparing two series of young and adult's TPSOL textbooks in terms of BRT and exploring its educational objectives in their content. The rationale behind selecting this framework is "its effectiveness in curriculum development and the ways it helps language teachers and administrators" (Roohani et al., 2014, p. 52). If utilized in developing materials, BRT can act as a very efficient tool in fostering higher order thinking skills. This study can be useful to all those involved in the educational practice of foreign and especially Persian language teaching. It is worth investigating the educational objectives and the cognitive demands of the activities included in these coursebooks. This demonstrates whether these Persian language teaching textbooks represent all the educational objectives of BRT and how they can be compared in terms of their representation of higher order thinking skills. The results may help teachers that have chosen these series as their teaching materials modify their teaching procedure and materials if necessary in order to achieve higher levels of learning and thinking. This study is hoped to enhance the heed of teachers, textbook authors, and syllabus designers for the application of BRT in their practice of materials development, adaptation, and evaluation in particular, and in language teaching and learning in general. The following questions guided this study:

1. How are the levels of BRT represented in young and adult TPSOL textbooks?
2. Is there any significant difference between the different volumes of each series and the two series in terms of their representation of learning objectives?

3. Is there any significant difference between the different volumes of each series as well as the two series in terms of fulfilling the highest levels of learning, namely analyzing, evaluating, and creating?

2. Literature Review

2.1. Textbooks and Textbook Evaluation

A language textbook as a published book specially designed to help language learners to improve their linguistic and communicative abilities (Sheldon, 1987) is the commonly used teaching and learning materials for teachers and learners. In some language learning situations, the only source of the input received and language practiced by students for communication in the target language is via textbooks. Riazi (2003) regards language textbook as the second important element after the teacher in the language classroom. According to Tomlinson (2012), those in favor of a textbook view it as

> A cost-effective way of providing the learner with security, system, progress and revision, whilst at the same time saving precious time and offering teachers the resources they need to base their lessons on. It also helps administrators to achieve course credibility, timetable lessons, and standardize teaching. (p. 158)

In spite of all the extensive benefits of using textbooks that theorists enumerate, there are many others who present counter arguments. Litz (2005) believes in the serious theoretical problems, design flaws, and practical deficiencies of textbooks. Researchers such as Carrell and Korwitz (1994), Clarke and Clarke (1990), Florent and Walter (1989), Porreca (1984), and Renner (1997) have pointed out the inherent social and cultural biases of textbooks as their disadvantage. Allwright (1982) regarded textbooks as too inflexible tools that have generally reflected the pedagogic, psychological, and linguistic preferences and biases of their authors.

Riazi and Mosalanejad (2010) believe that the proponents of textbooks see textbooks as useful for general purposes, while the opponents consider the shortcomings of textbooks for specific purposes. In spite of these

stated and other unstated beliefs of textbooks' opponents (Allwright, 1982; Carrell & Korwitz, 1994; Clarke & Clarke, 1990; Florent & Walter, 1989; Litz, 2005; Porreca, 1984; Prabhu, 1989; Renner, 1997; Richards & Renandya, 2002; Swales, 1980), one cannot deny the fact that textbooks still maintain extensive popularity in language learning programs and thus the necessity of evaluating and analyzing them is incontrovertible. Textbook evaluation can enable teachers to adopt textbooks suitable to their teaching situation, or adapt the adopted ones in the required ways. Theorists have different views about this process, its significance as well as its classifications. For instance, Tomlinson (1996) considers process of materials evaluation as a way of developing our understanding of the ways in which it works so contributing to both acquisition theory and pedagogic practices. According to Razmjoo and Raissi (2010), textbook evaluation "serves the dual purpose of making student teachers aware of important features to look for in textbooks while familiarizing them with a wide range of published language instruction materials" (P. 113). The most comprehensive classification proposed for the type of textbook evaluation studies is seemingly Cunningsworth (1995) and Ellis' (1997). They suggest conducting material evaluation at three stages: predictive or pre-use evaluation to examine the future or potential performance of a textbook; in-use evaluation to examine material that is at the present time being used; and retrospective, post-use, or reflective evaluation of a textbook that examines textbooks after they have been used in a specific institution or situation.

Tomlinson (2003) distinguishes evaluation from analysis. He states that an evaluation may include or follow an analysis, but the objectives and procedures are not the same. He believes that an evaluation focuses on the users of the materials and judges their influences. He considers an evaluation as essentially subjective, no matter how structured, criterion referenced and rigorous it is and an analysis as an objective process that focuses on the materials (Tomlinson, 2003). An analysis "asks questions about what the materials contain, what they aim to achieve and what they ask learners to do" (Tomlinson, 1999, p. 10, cited in Tomlinson 2003, p. 16).

Therefore, this particular study is an analysis type in which attempt is made to find the educational objectives of BRT in two series of textbooks in a very objective way without focusing on their users. This study is also a kind of post-use evaluation dealing with textbooks that have been widely used for TPSOL both in Iran and abroad. Hopefully the results will be useful for policy makers, those who have a hand in writing materials, teachers and of course language learners.

2.2. The Theoretical Framework of the Study

The present study used the revised version of Bloom's taxonomy as its theoretical framework which is one of the most famous and commonly used taxonomies in the field of education and offers a fundamental model of thinking skills. It was originally intended for offering all educators a method to classify and talk about educational objectives (Bloom, Englehart, Furst, Hill & Krathwohl, 1956). BRT (Anderson & Krathwohl, 2001) is, as the name indicates, a revision and a development of Bloom's original taxonomy (Bloom et al., 1956).

The original taxonomy becomes two-dimensional in the revised version and the products of thinking (i.e. various forms of knowledge) are added. The taxonomy has classified thinking according to six cognitive levels which increase in the complexity and level of abstractness. The Cognitive Process Dimension's six levels include *remember, understand, apply, analyze, evaluate,* and *create*. The four types of knowledge in the knowledge dimension of the revised taxonomy are *factual, conceptual, procedural,* and *metacognitive*. Coleman (2013) states that "as one moves from factual knowledge to metacognitive knowledge, knowledge structures become increasingly abstract and difficult to work with" (p.354). Due to its two-dimensional organization, BRT gives a clearer picture of the educational objectives and causes less confusion.

2.3. Textbook Evaluation Studies Based on Bloom's Original and Revised Taxonomy

Amin's (2004) study revealed higher levels of cognitive complexity in general Persian courses but lower levels of cognitive processes in general English courses at Shiraz University. Gordani (2010) indicated a mere concentration of all the items on the lower levels of cognitive skills in Iranian guidance school English textbooks. However, the results showed a statistically significant difference between the textbooks in their inclusion of the cognitive skills. Riazi and Mosalnejad (2010) found that in Iran's three high school textbooks lower-order thinking skills were the most prevalent cognitive skills. In addition, higher-order thinking skills even with considerably higher frequencies in the preuniversity textbook were predominated by the lower order cognitive skills. The researchers found a significant difference between the learning objectives in the four textbooks.

Birjandi and Alizadeh (2012) investigated the inclusion of critical thinking skills in three series of English textbooks, namely, Top Notch, Interchange, and English File series. The results indicated that in the lower order thinking skills the three books ranked almost the same. However, for the rest of the skills, although the inclusion was low and weak, Top Notch specially ranked first, English Files second and Interchange third. Razmjoo, and Kazempourfard (2012) discovered inequality of the distribution of the codes or learning levels and a lack of systematicity in the frequency pattern of the occurrence of higher order thinking skills and lower order thinking skills in Interchange series. The three lower levels outnumbered the three higher ones in these textbooks. The results of Rezvani and Zamani's (2012) investigation indicated a focus of most activities on categories *remember, understand* and *analyze* and only a small proportion's emphasis on the highest thinking skill or *create*. Creative thinking skills were discovered with the greatest emphasis on in the literary translation textbook among the analyzed translation textbooks.

Igbaria's (2013) analysis revealed a considerable attention to comprehension in the Horizons textbook. Among the higher levels of

thinking, the analysis level appeared more than the other two levels of synthesis and evaluation. Assaly and Igbaria (2014) evaluated Master Class textbook and found that that the cognitive level of activities was not varied. The findings also indicated that about one third of the total number of activities in the six units encouraged students to make use of analysis, synthesis, and evaluation. Roohani et al. (2014) found a significant difference between the frequencies of lower and higher order cognitive processes with the significant prevalence of the lower order categories in Four Corners 2 and 3. The researchers did not find statistically significant differences between the two textbooks in terms of the cognitive domains. Askaripour's (2014) evaluation indicated lower order thinking skills as more prevalent skills in the new version of Top Notch series. Moreover, he found no consistent pattern in terms of distribution of learning objectives in the series. The results revealed a significant difference among the textbooks in their inclusion of different levels of learning objectives. The weak presence of metacognitive knowledge was reported as another considerable finding of the study. Assaly and Smadi (2015) indicated the dominance of the cognitive level of comprehension in Master Class. Surprisingly, about 40% of the textbook's questions emphasized higher order thinking skills.

Taghipoor's (2015) investigation revealed comprehension as receiving the most attention and evaluation the least attention in empirical science textbook of the sixth grade. The maximum attention to the components of Bloom's cognitive domains has been in the texts of the textbook. Sadeghi and Mahdipour's (2015) analysis revealed that the lower order cognitive skills were more prevalently used than the higher order ones in Iran Language Institute textbooks. Overall, there did not existed a statistically significant difference between the series in terms of cognitive categories. Zamani and Rezvani (2015) analyzed three SAMT English textbooks including linguistics, language testing, and methodology. The results of their study revealed that lower order thinking skills were more frequently targeted and represented than higher order ones in all the textbooks. However, they found a considerable difference in the language

testing among the three textbooks in terms of its manifestation of higher order thinking skills. Zareian et al.'s (2015) exploration showed that in both of the two analyzed ESP textbooks the frequencies of the lower order skills were more significant. There was not, however, a significant difference between the textbooks in terms of the six levels of cognitive domain.

According to what was depicted in the review of literature, to the best of researchers' knowledge, there is no study of TPSOL textbooks evaluation based on Bloom's taxonomy or its revision. So the current study investigated two series of young and adult TPSOL textbooks in terms of BRT's educational objectives.

3. Method

3.1. Instrumentation

Two series of TPSOL textbooks were analyzed in the current study. They were chosen since they are widely taught in Persian language centers in Iran and other countries. One series includes the five volumes of Farsi Biyamuzim (Let's Learn Persian) which are mainly intended for young Persian learners. These series were primarily published by Ministry of Education in 2001 and reprinted later by Madreseh publication in 2004. Each book includes thirty lessons. However, from the five volumes of the series, the researchers had access only to the first three volumes.

The other series are four volumes of Amoozeshe Zaban O Farhange Iran (AZOFA) which are intended for teaching the four language skills simultaneously from the very beginning and preparing adult learners for meeting their communicative needs. They include elementary to advanced levels. This series was published by Dabirkhaneh-ye Shora-ye Gostaresh-e Zaban Farsi of Tehran in 2011. Each book consists of sixteen lessons.

The instrument for conducting the current research is a coding scheme developed by Razmjoo and Kazempourfard (2012) for analyzing Interchange textbook series. The researchers developed this coding scheme after studying carefully the definitions and the key verbs of each category of BRT. Besides, this coding scheme was preferred for the present study since it was developed

based on the revised version of Bloom's taxonomy that incorporates both the knowledge and cognitive process dimensions.

Table 1

The Coding Scheme Developed Based on BRT Adopted from Razmjoo and Kazempourfard (2012)

The Knowledge Dimension	The Cognitive Process Dimension					
	A. Remember	B. Understand	C. Apply	D. Analyze	E. Evaluate	F. Create
1.Factual Knowledge	A1	B1	C1			
2.Conceptual Knowledge	A2	B2	C2	D0	E0	F0
3.Procedural Knowledge	A3	B3	C3			
4.Metacognitive Knowledge	A4	B4	C4	D4	E4	F4

With regard to the coding scheme, two kinds of reliability analysis were needed to be obtained in this study, namely, inter-coder and intra-coder reliability. For the purpose of the inter-coder reliability, three MA students of TEFL at Razi University codified six lessons, about 9.8% of the whole data. To determine the inter-coder reliability, correlational analysis in the SPSS, version 19 was used which revealed the agreement between the average of the coders' coding attempts and that of the researchers as 94.2% based on KALPHA test. To ensure intra-coder reliability, the same amount of data was coded twice by the researchers in a two-week time span and the degree of consistency in the two coding attempts was found to be 98%.

3.2. Data Collection

The data for this study were exercises and activities that constitute the building blocks of the total content of Farsi Biamuzim series and also the main and most emphasized parts of the content of AZOFA series following the same or similar pattern in each textbook. As for practicality reason, about one third of each textbook was randomly selected for analysis and the findings were generalized to other units.

3.3. Data Analysis

For conducting the present study, the researchers used a mixed-methods design which means that it is both qualitative and quantitative. The present study is a Qualitative Content Analysis that is considered as a mixed-methods approach. Categories are assigned to text in the qualitative step, then many text passages are worked through and frequencies of categories are analyzed in the quantitative step (Mayring, 2014).

All the exercises and activities were first codified as the qualitative part of the research and then in the quantitative part, the frequencies and percentages of occurrence of each individual code were estimated. Because this study was mostly in terms of frequencies, a Chi-Square was run to estimate the significance of differences between the frequencies of different levels of thinking within and between the textbooks based on Bloom's revised taxonomy.

To help clarify the codification process some examples are provided that are classified in terms of the cognitive processes and types of knowledge. The first activity is exercise 4 taken from book one of AZOFA series, lesson one, page 6, which simply requires learners to join short forms to full forms of Persian alphabet:

Exercise 4. Join short forms to full forms:

نـ	تـ	یـ	هـ	بـ	مـ
م	ه	ب	ت	ن	ی

The verb join pertains to the cognitive category remembering. For doing this exercise, students do not have to do anything special except remembering some already learned spelling forms of Persian letters. They donot need to understand, apply, analyze, evaluate or create anything. Neither do they have to remember a structure or a procedure. So this exercise was coded as A1 (Remember Factual knowledge) not A2 or A3.

As another example, the following exercise is taken from book three of AZOFA series, lesson thirteen, page 179:

تمرین ۳. با استفاده ازکلمات داده شده، متن زیر را کامل کنید:

شیرینی، ظهور، کمال، شکست، اخلاق، دست، رسمی، نثر، زمان، زنده

پس از ..... ایران، مسلمانان عرب مدت دو قرن بر این کشور حکومت کردند و زبان عربی زبان ..... ایرانیان شد. اما ایرانیان به استقلال ..... یافتند و زبان فارسی را ..... کردند. ادبیات فارسی از همین ..... شکل گرفت و با ..... بزرگانی مانند فردوسی، سعدی و حافظ به اوج ..... رسید. موضوعات ادبیات فارسی حماسه، عرفان، دین، ..... و زندگی است که با ..... بسیار به صورت نظم و ..... بیان گردیده است.

Here learners are required to complete the text with the given words. So they need to grasp the meaning of the whole text as well as every individual word in order to be able to decide which word matches each blank space. This activity was coded as B1 (understand Factual Knowledge).

۱. زمان جمله‌های زیر را به گذشته تبدیل کنید.

الف: الآن سرم درد می‌کند.

ب: باید ظرف‌ها را بشویی و اتاق را جارو بزنی.

پ: دانش‌آموزان جواب‌ها را نمی‌دانند.

ت: الآن نمی‌توانم نامه‌ها را پست کنم.

The above exercise, taken from book two of Farsi Biamuzim series, lesson thirty, page 212, was codified as C2 (Apply Conceptual Knowledge) because here the learners need to apply a previously learned structure of Persian language in order to change the given sentences to past tense form. In fact, learners are required to remember what they have already learned, understand the new statements, and finally apply the already mastered structure to the present situation.

4. Results and Discussion

4.1. Results

The results obtained from the analysis, codification, and computation of various learning objectives of BRT as manifested in the young and adult learners' TPSOL textbooks are summarized in the following tables:

Table 1
Learning Objectives in Young Learners' Textbooks

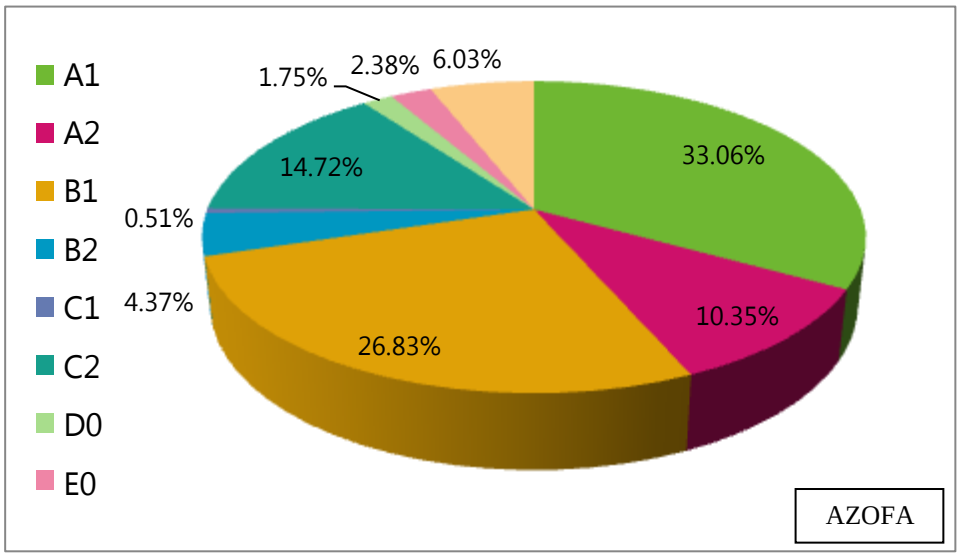
Learning objectives	Codes	Farsi Biamuzim Book one Total:160	Farsi Biamuzim Book two Total:171	Farsi Biamuzim Book three Total:145	Average
	A1	108	89	74	
Remember		67.5%	52.05%	51%	56.85%
	A2	0	3	1	
		0%	1.75%	0.68%	0.81%
	B1	9	20	20	
		5.62%	11.7%	13.8%	10.37%
Understand	B2	0	5	0	
		0%	2.92%	0%	0.97%
	B3	1	3	10	
		0.63%	1.75%	6.89%	3.09%
	C1	3	0	0	
		1.88%	0%	0%	0.63%
Apply	C2	13	18	6	
		8.12%	10.53%	4.14%	7.6%
	C3	16	12	9	
		10%	7.02%	6.27%	7.76%
Analyze	D0	0	6	12	
		0%	3.51%	8.27%	3.93%
Evaluate	E0	4	2	1	
		2.5%	1.17%	0.68%	1.45%
Create	F0	6	13	12	
		3.75%	7.6%	8.27%	6.54%

Table 2

Learning objectives in Adult Learners' Textbooks

Learning objectives	Codes	AZOFA, Book one Total:84	AZOFA Book two Total:99	AZOFA Book three Total:101	AZOFA Book four Total:95	Average
	A1	34	27	29	34	
Remember		40.48%	27.27%	28.72%	35.8%	33.06%
	A2	10	14	7	8	
		11.9%	14.15%	6.93%	8.42%	10.35%
	B1	21	25	30	26	
Understand		25%	25.25%	29.7%	27.37%	26.83%
	B2	1	6	5	5	
		1.19%	6.06%	4.95%	5.26%	4.37%
Apply	C1	0	0	1	1	
		0%	0%	0.99%	1.05%	0.51%
	C2	12	20	14	10	
		14.29%	20.20%	13.86%	10.53%	14.72%
Analyze	D0	0	0	6	1	
		0%	0%	5.94%	1.05%	1.75%
Evaluate	E0	2	1	3	3	
		2.38%	1.01%	2.97%	3.15%	2.38%
Create	F0	4	6	6	7	
		4.76%	6.06%	5.94%	7.37%	6.03%

The following figure gives a clearer picture of the distribution of existing learning objectives in these textbooks:



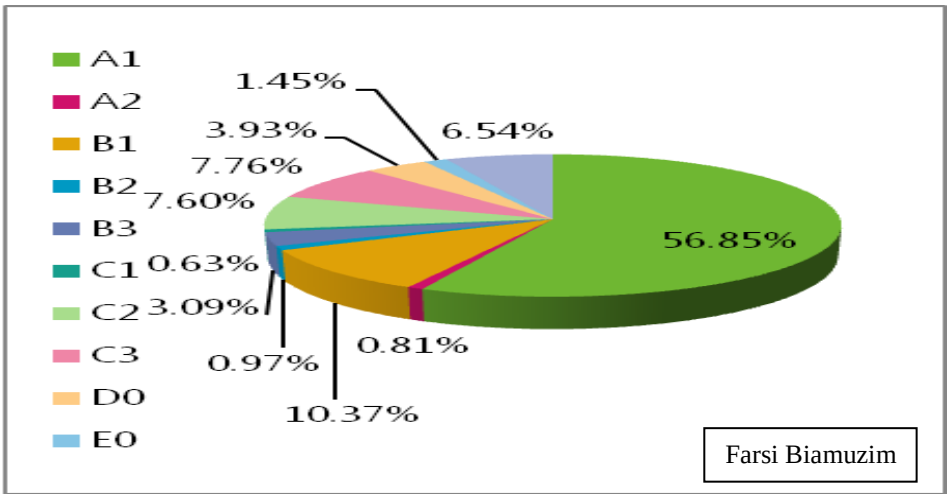


Figure 1. Average of different learning objectives in Farsi Biamuzim and AZOFA series

Regarding the consideration of lower and higher order cognitive skills of BRT in these series of textbooks, the following results were obtained.

Table 3
Lower and Higher Order Cognitive Skills in Farsi Biamuzim and AZOFA Textbooks

Learning Objectives		Lower Order Cognitive Skills	Higher Order Cognitive Skills
Farsi Biamuzim, book one	Frequency	150	10
Total:160	Percentage	93.75%	6.25%
Farsi Biamuzim, book two	Frequency	150	21
Total:171	Percentage	87.71%	12.29%
Farsi Biamuzim, book three	Frequency	120	25
Total:145	Percentage	82.76%	17.24%
Average	Frequency	420	56
Total: 476	Percentage	88.07%	11.93%
AZOFA, book one	Frequency	78	6
Total:84	Percentage	92.86%	7.14%
AZOFA, book two	Frequency	92	7
Total:99	Percentage	92.93%	7.07%
AZOFA, book three	Frequency	86	15
Total:101	Percentage	85.15%	14.85%
AZOFA, book four	Frequency	84	11
Total:95	Percentage	88.42%	11.58%
Average	Frequency	340	39
Total: 379	Percentage	89.84%	10.16%

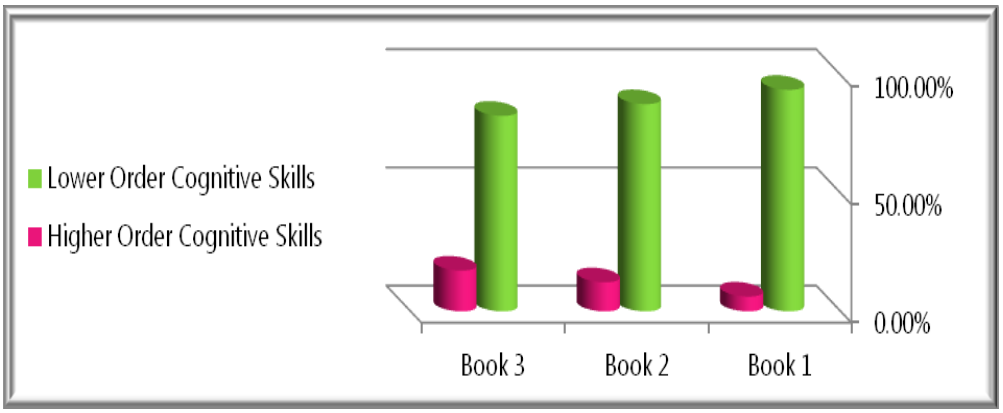


Figure 2. The consideration of higher and lower cognitive skills in the three volumes of Farsi Biamuzim series

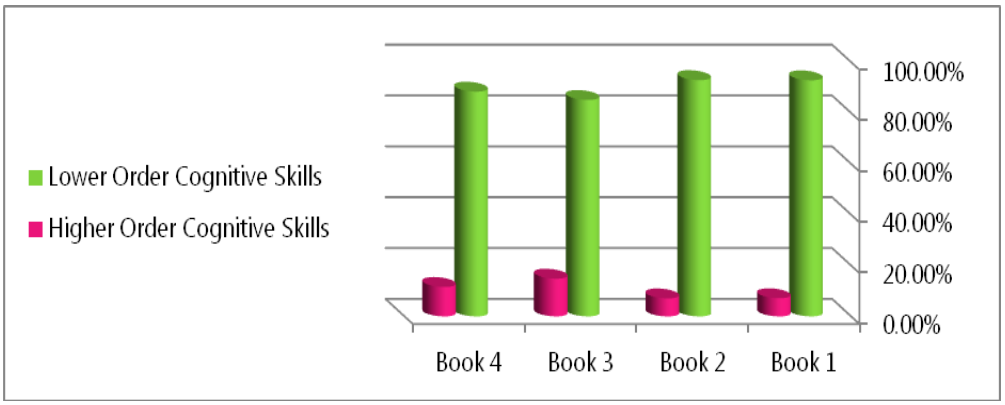


Figure 3. The consideration of higher and lower cognitive skills in the four volumes of AZOFA series

To give a clearer illustration of the difference between the two series, consider the following figure:

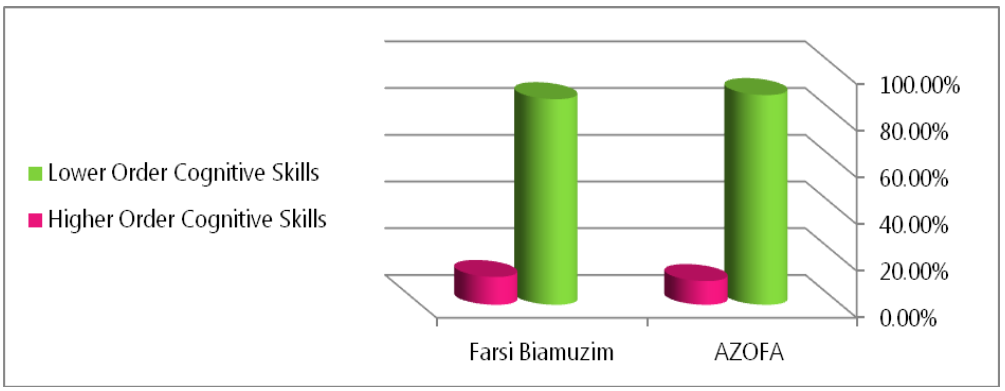


Figure 4. The distribution of higher and lower order cognitive skills in young and adult textbooks

The following figure depicts the difference between the distribution of various learning objectives in the young and adult TPSOL textbooks:

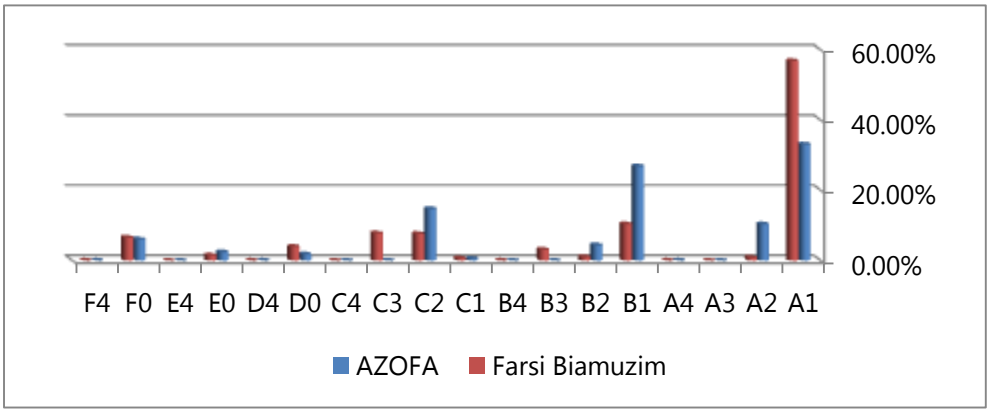


Figure 5. The distribution of learning objectives in young and adult TPSOL textbooks

As the data used in this study is categorical, we are dealing with non-parametric type of data. Therefore, Chi-square test as a nonparametric test was run in order to see how the different books of each series and also how the two different series could be compared in terms of the levels of BRT. The results of the Chi-square tests as shown in the two tables below are obtained for the separate volumes of both series.

Table 4
Chi-square Test for Farsi Biamuzim Series in Terms of Learning Objectives

Test Statistics			
	F1	F2	F3
Chi-Square	*451.600*[a]	*357.713*[a]	251.186[a]
Df	7	9	8
Asymp. Sig.	.000	.000	.000

Table 5
Chi-square Test for AZOFA Series in Terms of Learning Objectives

Test Statistics				
	AZOFA1	AZOFA2	AZOFA3	AZOFA4
Chi-Square	71.16[a]	44.04[a]	85.50[a]	102.17[a]
Df	6	6	8	8
Asymp. Sig.	.000	.000	.000	.000

As illustrated, the result obtained from the Chi-square is significant (Sig=.000) in every volume of both series. This suggests that the distribution

of the codes or learning levels is not equal in the analyzed books. In other words, these learning objectives occur randomly and they do not follow a special pattern.

Table 6

Chi-Square Test for Comparing Books 1, 2, & 3 of Farsi Biamuzim Series in Terms of Their Inclusion of Educational Objectives

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	63.888[a]	20	.000
N of Valid Cases	476		

Results of the above Chi-square compared the different volumes of Farsi Biamuzim series in terms of their inclusion of educational objectives. It revealed statistically significant differences among the textbooks (^{x2} (20) = 63.888[a], n =476, p =.000), in which the value of chi-square, 63.888[a] was significant, and the p-value, .000 was less than .05 as the selected significant level of this study.

Another Chi-square test compared the four volumes of adult learners' TPSOL textbooks. It showed that the differences among different volumes of AZOFA series were not statistically significant (^{x2} (24) = 29.174[a], n =379, p =.214) since the value of chi-square, 29.174[a] was not significant, and the p-value of .214 exceeded the selected significant level for this study, that is, .05.

The next Chi-square test run for comparing AZOFA and Farsi Biamuzim series suggested that the differences between the two series of textbooks in terms of learning objectives are statistically significant (^{x2} (10) =160.764[a], n = 855, p =.000).

Two other Chi-square tests were carried out to see the differences between the frequency of the occurrence of higher and lower order thinking skills through the different volumes of both series separately. The results confirmed a statistically significant difference among books 1, 2, and 3 of Farsi Biamuzim series in terms of their emphasis on higher and lower order thinking skills (^{x2} (2) =8.921[a], n = 476, p =.012). However, the differences

among the four volumes of AZOFA series were not statistically significant (x^2 (3) =4.460[a], n = 379, p >.05).

The final Chi-square revealed that the differences between the two analyzed series of TPSOL textbooks in terms of higher and lower order thinking skills are not statistically significant (x^2 (1) =.464[a], n = 855, p >.05).

4.2. Discussion

The findings of the present study found A1, the lowest order cognitive skill in BRT as receiving the most consideration in both series especially young learners' TPSOL textbooks. The second most frequent code in both Farsi Biamuzim and AZOFA series is B1 with a higher percentage in AZOFA series. The first step necessary for getting involved in more complex thinking processes is making sense of a text's content and the ideas expressed within it. That is, understanding or comprehension though a lower level thinking skill can successfully lead learners through higher level ones. Comprehension precedes communication; therefore, the outstanding manifestation of the educational objective of comprehension in language textbooks does not signal an educational failure since they are mostly taught for communication purposes. . Understanding the literal message in a text is the prerequisite for a successful communication.

In line with the findings of the studies by Askaripour (2014), Razmjoo and Kazempourfard (2012), Riazi and Mosalanejad (2010), and Roohani et al. (2014), the findings displayed progression, though very trivial, from the lower cognitive skills to the higher ones in consistency with learners' proficiency level in young learners' textbooks. That is, there is an increase in the inclusion of higher order thinking skills in higher proficiency level textbooks. Expecting more activities demanding higher order thinking skills, i.e., engaging the learners' critical thinking in higher proficiency level books is logical. Research has also revealed a positive correlation between language proficiency and critical thinking ability (Rashid & Hashim, 2008 cited in Roohani et al., 2014). However, there is not a regular increasing pattern of AZOFA textbooks' attention to higher order thinking skills i.e. the inclusion of items demanding higher order thinking skills does not increase

regularly along with the proficiency level of the books. As Figure 3 displays, books one and three represent higher order thinking skills with a higher percentage than books two and four.

Another result obtained from the current study in line with the studies by Gordani (2010), Razmjoo and Kazempourfard (2012), and Zareian et al. (2015) was the significant differences in the frequency of occurrence of learning levels in different volumes of each series of TPSOL textbooks. This reveals the fact that different educational objectives are not used consistently in the afore-mentioned textbooks. However, this finding opposes that of Askaripour's (2014) in that Top Notch English Series demonstrated following a special pattern in its incorporation of BRT's learning objectives. It is also noteworthy that among the eighteen different learning goals of BRT only nine are incorporated in adult learners' textbooks, while eleven ones are represented in young learners. This wider inclusion can validate our claim that there is a better distribution of learning objectives in Farsi Biamuzim series. The development of this series by several authors may have contributed to its advantage and success in the incorporation of BRT's learning objectives over adult learners'. While the learning objectives C3 and B3 are manifested in young learners' textbooks, they are not included in adult textbooks at all. The shared element in these codes is procedural knowledge that indicates attention to Procedural Knowledge in young learners' textbooks but its neglect in adult learners'. Procedural knowledge is concerned with specific skills, techniques, methods, and criteria for determining when to use appropriate procedures. This can suggest the attention that authors of young learners' TPSOL textbooks have devoted to the teaching of language use in a communicative way. However, by comparing the percentages obtained for codes A2, B2, and C2 in the two different series, one can claim that focus on conceptual knowledge is more noticeable in AZOFA series. The shared element in these codes is conceptual knowledge which includes the knowledge of classifications and categories, principles and generalizations, theories, models, and structures. The heed that the author of adult learners' textbook has paid to this type of knowledge can act as evidence for his

concern with the learners' mastery of language usage that is structural and grammar rules. A further discouraging but worth-discussing finding of the current study in line with previous studies such as Razmjoo and Kazempourfard (2012) was the total absence of metacognitive knowledge. The reason behind its absence in textbooks according to Razmjoo and Kazempourfard (2012) may be the fact that as an internal cognitive activity, it is the internal question that each learner is supposed to ask oneself in answering a specific question or doing a specific exercise, so it might not have overt manifestation. Askaripour's (2014) study also displayed the weak presence of metacognitive knowledge in Top Notch English Series. However, all the levels of the cognitive process dimension are considered in both series but with different proportions.

The result of this study is in line with almost all the studies discussed in the review of literature in that lower order thinking skills were more dominant cognitive skills than higher order ones. Items that triggered the higher cognitive levels of analyzing, evaluating, and creating appeared at the percentage of 10.16% and 11.93% in AZOFA and Farsi Biamuzim series respectively, which is quite a low percentage compared with the results of the studies by Assaly and Smadi (2015) with 40%; Assay and Igbaria (2014), 34.11%; Rezvani and Zamani (2012), 43%; Riazi and Mosalanejad (2010), 25.85%; Sadeghi and Mahdipour (2015), 40.9%; Igbaria (2013), 35.96%; and Zamani and Rezvani (2015) being 28.2%. This result is very comparable to those by Razmjoo and Kazempoufard (2012) with 17.14%; Taghipoor (2015), 14.4%; Zareian et al. (2015), 10.4%; and Askaripour (2014), 10%; and merely more acceptable in comparison with those of the study by Gordani (2010) with 0% of inclusion. Perhaps the educational system of Iran's major emphasis on acquiring knowledge in the form of rote learning and memorization, rather than constructing it through higher levels of cognitive skills, as Riazi and Mosalanejad (2010) pointed out, plays a role in here too. We should not also ignore the real negative backwash effect of tests on the content of books. Such findings also indicate these textbook authors' unfamiliarity with the role of developing materials based on BRT and

incorporating its educational objectives especially those at higher levels. Furthermore, authors of foreign language teaching textbooks are probably concerned with the learners' first language so they develop materials that call for lower thinking processes that are easier to cope with. The sparse inclusion of higher levels of cognitive complexity in the analyzed textbooks of the current study can also be attributed to the learners' proficiency level. However, as Gordani (2010) explains "low proficiency level should not act as a barrier to achieve higher levels of learning objective" (p. 271).

Although the findings demonstrated a statistically significant difference between the young and adult learners' TPSOL textbooks in terms of their representation of BRT's learning objectives, the test of significance didnot reveal a statistically significant difference between the two series in terms of their emphasis on higher order thinking skills. On the whole, it can be concluded that lower order thinking skills are the main concern of the analyzed TPSOL textbooks. Hence, none can make learners critical thinkers.

5. Conclusion and Implications

The overall findings demonstrated that the analyzed TPSOL textbooks of this study though incorporating both the lower level and the higher level thinking skills were not successful in representing all BRT learning objectives, since some were totally absent or nearly neglected. Results indicated the preponderance of lower level thinking skills in both series. Moreover, the adult TPSOL textbooks though developed for higher proficiency levels did not result in the use of more sophisticated activities and exercises demanding higher order thinking processes. In actuality, the reverse is demonstrated by the results and Farsi Biamuzim series is more representative of the educational objectives as well as higher order thinking skills altogether than the AZOFA series.

The findings of the current study imply the need for adapting some of activities and exercises in the analyzed TPSOL textbooks particularly those at advanced levels in order to engage students more in higher order thinking skills. Choosing appropriate teaching and learning materials that demand

higher levels of thinking by teachers is really significant for students to build critical thinking in them. When learners' engagement with activities and exercises tapping higher levels of thinking increases with time, their motivation will absolutely be enhanced because they will surely feel and experience their own gradual independence in communicating and mastering the target language. In this way, they will experience success and educational progress not only in the learning setting but also in their personal lives so that they can manage challenging circumstances and solve problems by promoting their critical thinking ability. Remembering the content of textbooks cannot be the actual aim of any language teaching program, but reaching higher levels of cognitive ability would be the preferred goal to be achieved at the ending of the course so that learners become autonomous and take responsibility for their own future learning experiences. The results of the present study could act as a guideline for language teachers to evaluate the textbooks and syllabuses more carefully and precisely and adopt those ones that satisfy learners' needs in terms of all the learning objectives.

Teacher training colleges and all the educational institutions are highly recommended to get familiar with BRT in order to fairly judge and develop learners' level of thinking skills. Developing teachers' thinking skills in teaching training centers can to some extent guarantee their ability in generating both high and low level activities and tasks to compensate for the absence of the proper educational objectives in the textbooks. In order to promote the content of the textbooks, textbook developers are further advised to appreciate and use the recently suggested and revised standards of teaching and testing according to research and different studies. With Persian language being increasingly popular and taught as a foreign language, it is highly recommended that Persian language textbook authors be more careful in developing materials that are consistent with the different educational frameworks and learning theories, BRT being one of which. The results of this study can raise the awareness of the Persian language teaching materials developers about the significant role that BRT plays in education and guide them through revising the existing textbooks and creating new ones in

accordance with its educational objectives. It is worth mentioning that Bloom's learning theory is based on the assumption that the six learning levels are progressive and that movement to higher levels depends on mastering the lower levels, so ranging the learning objectives from lower to higher with the increasing proficiency level of the learners is recommended. Workshops are suggested as great ways for training textbook authors as well as teachers. Authors working in groups would be absolutely more successful in developing textbooks providing a wide variety of learning objectives appropriate for the learners' proficiency level.

Overall, developing higher order thinking skills and as a result fostering learners' critical thinking ability through employing BRT should be given more priority in language teaching programs and for this instructors, educational administrators, syllabus designers, curriculum planners, textbook authors, material developers, test designers and even the learners themselves need advanced training on as well as a better understanding of the application of BRT in education. Textbooks' content, complementary materials, classroom practices, tests, the learning environment, and even the assigned homework need to be formatted in such a way that they develop in learners higher order thinking skills.

This study could be further explored through the following suggestions for further research. One study can be conducted analyzing Farsi Biamuzim and AZOFA series in terms of the taxonomy's affective and psychomotor domains. The workbooks also can be analyzed in a same or similar study.

A different study may investigate the representation of BRT in tests administered in Persian language centers teaching these TPSOL textbooks and compare the results with those obtained from the analysis of the textbooks. Another study can investigate the teachers' attention to BRT in their teaching by observing real classes in which TPSOL books are taught and find out whether Persian language teachers emphasize higher or lower order thinking skills more. Through some questionnaire that is developed based on BRT, the teachers and learners' beliefs and ideas regarding these

series can be investigated to see the representation of BRT in these books from the viewpoint of these actual employers of the materials. Further study might be evaluating the homework assigned to the students in TPSOL classes that could possibly address this question: Does the homework assignment require learners to employ lower or higher order thinking skills or is there correspondence between homework assignment and textbook contents in terms of BRT levels?

In a separate study, methods such as think-aloud or interview can be adopted in order to find out about the actual cognitive skills that learners apply when doing activities and exercises or taking a test. Regarding the emphasis on different educational objectives of BRT, further research may answer whether all the levels should be equally distributed. If not, how or what should be the proportions like? It is also possible to analyze adult and young learners' textbooks in separate studies. Another possibility could be to compare each series of these textbooks with their paired proficiency level ones currently used in the language centers with regard to their attention to educational objectives of BRT.

These two series of textbooks could be also analyzed and compared in terms of other theories or approaches to textbook evaluation such as Multiple Intelligence theory. It is also suggested to explore the representation as well as application of BRT's educational objectives in teacher training programs.

References

Allwright, R. L. (1982). What do we want teaching materials for? *ELT Journal, 36*(1), 5-18.

Amin, A. (2004). *Learning objectives in university Persian and English general language courses in terms of Bloom's taxonomy (*Unpublished Master's thesis). Shiraz University, Shiraz, Iran.

Anderson, L.W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing*: *A revision of Bloom's taxonomy of educational objectives*. New York: Longman**.**

Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). Belmont, CA: Thomson Wadsworth.

Askaripour, S. A. A. (2014). A textbook evaluation of new version (2nd edition) of Top Notch English series. *English for Specific Purposes World, 15*(44), 1-30.

Assaly, I., & Igbaria, A. K. (2014). A content analysis of the reading and listening activities in the EFL textbook of Master class. *Education Journal, 3*(2), 24-38. doi: 10.11648/j.edu.20140302.11

Assaly, I. R., & Smadi, O. M. (2015). Using Bloom's taxonomy to evaluate the cognitive levels of Master class textbook's questions. *English Language Teaching, 8*(5), 100-110. doi:10.5539/elt.v8n5p100

Birjandi, P., & Alizadeh, I. (2013). Manifestation of critical thinking skills in the English textbooks employed by language institutes in Iran. *International Journal of Research Studies in Language Learning, 2*(1), 27-38.

Bloom, B., Englehart, M., Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals*. Handbook I: Cognitive Domain. New York: Longman.

Carrell, D., & Korwitz, J. (1994). Using concentrating techniques to study gender stereotyping in ELT textbooks. In J. Sunderland (Ed.), *Exploring gender: Questions and implications for English language education* (pp.31-44). Prentice Hall International.

Clarke, J., & Clark, M. (1990). Stereotyping in TESOL materials. In B. Harrison (Ed.), *Culture and the language classroom* (pp. 31-44). Hong Kong: Modern English Publications and the British Council.

Coleman, V. M. (2013). *National music education standards and adherence to Bloom's revised taxonomy (*Unpublished doctoral dissertation). Walden University, US.

Cunningsworth, A. (1995). *Choosing your course-book*. Heinemann

Davari Ardekani, N., & Aghaebrahimi, H. (2012). The authenticity of three PFL textbooks from the cohesion viewpoint. *Journal of Teaching Persian Language to Non-Persian Speakers, 1*(1), 151-168.

Ebadi, S., Salman, A. R., & Ebrahimi Marjal, B. (2015). Gender representation in the textbooks of teaching Persian to speakers of other languages. *Journal of Applied Linguistics and Language Research, 2*(4), 143-157.

Ellis, R. (1997). The empirical evaluation of language teaching materials. *ELT Journal, 51*(1), 36-42.

Florent, J., & Walter C. (1989). A better role for women in TEFL. *ELT Journal, 43*(3), *180-184.* doi:10.1093/elt/43.3.180.

Gordani, Y. (2010). An analysis of English textbook used at Iranian guidance school in terms of Bloom's taxonomy. *The Journal of Asia TEFL, 7*(2), 249-278.

Hanna, W. (2007). The new Bloom's taxonomy: Implications for music education. *Arts Education Policy Review, 108*(4), 7-16.

Igbaria, A. (2013). A content analysis of the WH-questions in the EFL textbook of Horizons. *International Educational Studies, 6*(7), 200-224. doi:10.5539/ies.v6n7p200

Kheibari, S. (1999). *Text analysis and evaluation of TPSOL coursebooks (*Unpublished Master's thesis). Shiraz University, Shiraz, Iran.

Litz, D. R. A. (2005). Textbook evaluation and ELT management: A South Korean case study. *Asian EFL Journal, 9*, 78-91.

Porreca, K. L. (1984). Sexism in current ESL textbooks. *TESOL Quarterly, 18*(4), 705-724.

Prabhu, N. S. (1989). Materials as support: Materials as constraint. *Guidelines, 11,* 66–74.

Razmjoo, S. A., & Kazempourfard, E. (2012). On the representation of Bloom's revised taxonomy in Interchange coursebooks. *The Journal of Teaching Language Skills (JTLS), 4*(1), 171-202.

Razmjoo, S. A. & Raissi, R. (2010). Evaluation of SAMT ESP textbooks for the students of medical sciences. *Asian ESP Journal, 6*(2), 107-149.

Renner, C. (1997). Women are busy, tall, and beautiful: Looking at sexism in EFL materials. Annual meeting of the teachers of English to speakers of other languages. *Orlando Fl., March,* 11-15.

Rezai, H., & Alipur, M. (2013). A study of the reading passages from "FARSI BIAMUZIM" based on Halliday's seven functions of language**.** *Journal of Persian Language Teaching to Non-Persian Speakers, 1*(2), 163-179.

Rezvani, R., & Zamani, G. (2012). Creative thinking as generative: The cognitive taxonomy to examine translation thinking in Iran's official textbooks. *The Proceedings of TELLSI, 10,* 191-205.

Riazi, A. M. (2003). Riazi, A. M. (2003). What do textbook evaluation schemes tell us? A study of the textbook evaluation schemes of three decades. In W. A. Renanda. (Ed.), *Methodology and materials design in language teaching* (pp. 52-68). Singapore: SEAMEO Regional Center.

Riazi, A. M., & Mosalanejad, N. (2010). Evaluation of learning objectives in Iranian high-school and pre-university English textbooks using Bloom's taxonomy. *The Electronic Journal for English as a Second Language, 13*(4), 1-11.

Richards, J. C. (2001). *The Role of Textbooks in a Language Program*. Cambridge , UK: Cambridge University Press.

Richards, J. C., & Renandya, W. A. (2002*). Methodology in language teaching: An anthology of current practice.* Cambridge: Cambridge University Press.

Roohani, A., Taheri, F., & Poorzanganeh, M. (2014). Evaluating Four Corners textbooks in terms of cognitive processes using bloom's revised taxonomy. *RALs, 4*(2), 51-67.

Sadeghi. B., & Mahdipour, N. (2015). Evaluating ILI advanced series through Bloom's revised taxonomy. *Science Journal (CSJ), 36*(3), 2247-2260.

Shahedi, S. (2001). *Constructing an analytical framework for the analysis of Persian language texts for foreign learners* (Unpublished master's thesis). Shiraz University, Shiraz, Iran.

Sheldon, L. E. (ed.) (1987). *ELT textbooks and materials: Problems in evaluation and development.* ELT documents 126. London: Modern English Publications and the British Council.

Swales, J. M. (1980). ESP: The textbook problem. *The ESP Journal, 1*(1), 11–23.

Taghipoor, H. (2015). Determining the emphasis on Bloom's cognitive domain in the contents of science textbook for the sixth grade. *SAUSSUREA, 3*(3), 162-175**.**

Tok, H. (2010). TEFL textbook evaluation: from teachers' perspectives. *Educational Research and Review, 5*(9), 508-517.

Tomlinson, B. (1996). New Directions in Materials development. *Arena, 11*, 24-25.

Tomlinson, B. (2003). Materials evaluation. In B. Tomlinson (Ed.), *Developing materials for language teaching* (pp. 15–36). London, UK: Continuum.

Tomlinson, B. (2012). Materials development for language learning and teaching. *Language Teaching, 45*(2), 143-179. doi:10.1017/S0261444811000528

Zamani, G., & Rezvani, R. (2015). 'HOTS' in Iran's official textbooks: Implications for material design and student learning. *Journal of Applied Linguistics and Language Research Volume, 2*(5), 138-151.

Zareian, G., Davoudi, M., Heshmatifar, Z., & Rahimi, J. (2015). An evaluation of questions in two ESP coursebooks based on Bloom's new taxonomy of cognitive learning domain. *International Journal of Education and Research, 3*(8), 313-326.