

A Comparative Study of TEFL and ET Official Standards in Terms of Bloom's Revised Cognitive Taxonomy

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Abstract

Iran's National curriculum standards represent the guiding blueprints which provide direction for instruction and assessment nationwide. Iran's state university curriculum standards were designed by the Ministry of Science, Research and Technology to provide a frame of reference and guidance for the instructional materials used and decisions made by university instructors. Using a widely accepted measure of describing cognitive processes, that is, Bloom's revised taxonomy (BRT) of educational objectives, this paper aimed at comparatively investigating Iran's B.A. state curriculum standards of Teaching English as a Foreign Language (TEFL) and English translation (ET). The standards pertaining to TEFL and ET fields were content analyzed in terms of Bloom's revised taxonomy by using a detailed checklist developed based on the respective classification of cognitive objectives. The findings showed that there were slight differences between two fields in terms of critical thinking skills and that lower-order cognitive skills were more prevalent than higher-order ones. Furthermore, English translation standards pertained to critical cognitive skills in general and evaluation and creation in particular to a larger extent. Results of this study have implications for policy makers, curriculum designers, material developers and instructors involved in language education.

Keywords: State University Standards, Educational Objectives, Bloom's Revised Taxonomy, Cognitive Domain, Higher-Order Thinking Skills

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1. Introduction

In education, objectives indicate what we want students to learn; they are “explicit formulations of the ways in which students are expected to be changed by the educative process” (Handbook, 1956, p. 26). Objectives are especially important in teaching because “teaching is an intentional and reasoned act since we always teach for some purpose, primarily to facilitate student learning” (Anderson & Krathwohl, 2001). In the past, objectives were called “aims, purposes, goals, and guiding outcomes” (Bobbitt, 1918). Today they are more likely to be referred to as “content standards or curriculum standards” (Kendall & Marzano, 1996).

Clearly articulated standards are essential to the effective design of instructional systems. Inconsistency between what is being taught and what is being learned in the class led to the setting of standards for learners and teachers. Watson (2002, p.208) defines a learning outcome as “being something that a student can do now that he could not do previously, a change in people as a result of a learning experience”. Educationalists have used “behavioral or instructional objectives” for at least four decades (Malan, 2001). McAvoy (1985) traced the use of objectives in education back to 1860 when Spencer in Britain formulated objectives according to a classification of human activities.

In 1949 Ralph Tyler supported the objectives-oriented movement by emphasizing the importance of objectives in curriculum design and teaching practices. According to Anderson and Krathwohl (2001) the most commonly used model of educational objectives is based on the work of Tyler (1949). He suggested that “the most useful form for stating objectives is to express them in terms which identify both the kind of behavior to be developed in the student and the content in which this behavior is to operate” (Anderson & Krathwohl, 2001). Bloom’s original taxonomy was published by Bloom in 1956 (Bloom, et

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al., 1956) and has been applied to education since then. The taxonomy was intended for the classification of the goals of educational systems, particularly to help teachers, administrators, professional specialists, and researchers to discuss curriculum and evaluation problems with greater precision (Bloom, 1994, p.10). The influence of Bloom's original taxonomy has been mainly on teaching (e.g., Anderson, 1994) and assessment (e.g., Anderson, 1994; Bennett, 2001), however influence on standards and syllabi may also have occurred (Sosniak, 1994b). Sultana (2001) used Bloom's taxonomy to evaluate the lesson objectives of 67 instructors in Kentucky to understand the extent to which they develop higher-order thinking skills in their pupils. The results revealed that 41.3% of the objectives were at the 'knowledge' level, and merely 3.2% of the objectives were at the 'evaluation' the highest level in Bloom's taxonomy.

Akinde (2015) conducted a pilot study on the learning outcomes of two groups of students, who were taught a research course for seven weeks using Socratic and didactic instruction methods. After 7 weeks, the students were tested. The test was categorized based on Bloom's taxonomy. The results showed that there was no difference in the learning outcomes of two groups. Analysis of students' papers and projects showed a difference in the degree of creativity. Karns, Burton, and Martin (1993) studied teachers' manuals using content analysis. They wanted to determine if the questions in the manual really measured the course objectives. The results showed that though most learning objectives were related to the first three levels of Blooms taxonomy, the other three high levels were not addressed at all. Ibrahim (1998) in Iraq examined 6th-grade history book questions based on Bloom's taxonomy. Out of the 87 questions, 72% pertained to knowledge. 25.4% were related to comprehension and 2.2% to evaluation. Razmjoo and Kazempourfard (2012) analyzed the activities of three units of four Interchange course books using

Bloom's Revised Taxonomy. They used a coding scheme to codify, categorize and examine the activities. The results of the study showed that lower order cognitive skills were most frequent. Evaluating cognitive knowledge and understanding metacognitive knowledge were ignored.

Most studies conducted in Iran were interested in evaluating English textbooks using blooms taxonomy, such as Gordani (2010) who discovered different types of learning objectives in Iranian English textbooks in guidance school in terms of Bloom's taxonomy. Using Bloom's taxonomy of learning objectives, Riazi and Mosallanejad (2010) studied the kinds of learning objectives in pre-university and senior high school English textbooks in Iran using Bloom's taxonomy of educational objectives. The researchers conclude that the most prevalent learning objectives in the textbooks were lower-order cognitive skills. To the best of the researchers' knowledge, the evaluation of higher-order thinking skills in curriculum standards using Anderson and Krathwohl's (2001) cognitive taxonomy has been left largely untouched in Iran. Therefore, this paper is arguably a pioneering work which aims to probe into the thinking skills in curriculum standards in terms of Anderson and Krathwohl's (2001) taxonomy of educational objectives.

2. Taxonomies of the Cognitive Domain

Various taxonomies have been developed for classifying learning targets. Despite its age, the Taxonomy of Educational Objectives, Handbook I: Cognitive Domain (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956) is still used in many curricula and teaching materials. In 1956, a group of educational psychologists directed by Benjamin Bloom developed a categorization of levels of intellectual behavior important in learning (Malan, 2001). Three domains of educational activity including: cognitive (knowledge), affective (attitude) and

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psychomotor (skills) were identified in Blooms committee. Within the cognitive domain Bloom identified a hierarchy of six levels from the simple recall of facts to the higher order thinking skills. The six levels were labeled as: Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation. Building upon Bloom's work Anderson and Krathwohl revised the original taxonomy which recognizes the importance of interaction between the content taught and the thought process used to demonstrate learning (Malan, 2001). These levels were used in the formulation and evaluation of objectives and the development of criteria to determine whether learners have actually achieved acceptable standards compared to the desired learning outcomes (Malan, 2001).

Anderson and Krathwohl (2001) revised the original Taxonomy developed by Bloom and introduced a two-dimensional framework including: the knowledge dimension and the cognitive process dimension. They changed the names of the levels from nouns to verbs; the nouns and verbs, form separate dimensions, the noun providing the basis for the knowledge dimension and the verb forming the basis for the cognitive process dimension. The cognitive process dimension comprises four main categories, with a total of 19 sub-categories, which includes: Remember, Understand, Apply, Analyze, Evaluate, and Create; furthermore, they reversed the order of the highest two levels. The new Knowledge dimension contains four instead of three main categories. Three of them include the subcategories of Knowledge in the original framework including: Factual knowledge, Conceptual knowledge and Procedural knowledge. A fourth, and new category, Metacognitive Knowledge, provides a distinction that was not widely recognized at the time the original scheme was developed (Krathwohl, 2002). In combination, the Knowledge and Cognitive Process dimensions form a Taxonomy Table. The continuum underlying the cognitive process dimension is assumed to be cognitive

complexity; that is, understand is believed to be more cognitively complex than remember, and so on (Krathwohl, 2002). The categories of the knowledge dimension are ordered from concrete to abstract. According to Krathwohl a statement of objective contains a verb and a noun. The verb generally describes the intended cognitive process. The noun generally describes the knowledge students are expected to acquire or construct. Verbs are categorized by domains of learning and various hierarchies. One of the most frequent uses of the taxonomy has been to classify curricular objectives in order to show the breadth, or lack of breadth, of the objectives across the spectrum of categories (Krathwohl, 2002).

Recently, Marzano and Kendall (2007), similar to Anderson and Krathwohl (2001), have distinguished knowledge from types of thinking. They identified three domains of knowledge: Information, Mental Procedures, and Psychomotor Procedures. Their thinking processes form a hierarchy of levels including: Retrieval, Comprehension, Analysis, Knowledge Utilization, Metacognition, and Self-System Thinking. Furthermore, the cognitive demands of many accountability tests are analyzed with Webb's (2002) Depth of Knowledge levels. Webb introduced four levels to categorize the cognitive processes required to do various cognitive activities: Recall and Reproduction, Skill and Concept, Strategic Thinking, and Extended Thinking.

What all these cognitive taxonomies obviously have in common is that as the cognitive levels get more complex, students must progressively deal with more pieces of information and more intricate relationships among them. Since Anderson and Krathwohl's (2001) cognitive taxonomy has been designed for analyzing and developing standards, this paper seeks to examine curriculum standards in terms of the levels of this rigor taxonomy.

3. The Present Study

The purpose of this study was to evaluate B.A. official curriculum standards of TEFL and English translation fields with regard to their aims as manifested by the content. The evaluation took place with regard to the cognitive levels of learning objectives in Bloom's revised taxonomy. The study intended to investigate how the content of objective represents Bloom's revised taxonomy of educational objectives. In particular, it sought to indicate which levels of the taxonomy were more focused on in both fields.

The study, hence, intended to find answers to the following questions:

1. Which levels of the Bloom's revised taxonomy are more rampant in B.A. TEFL and ET curriculum standards?
2. How are the official curriculum standards of both fields in terms of lower-order and higher-order cognitive skills?
3. How could the learning objectives in TEFL and English translation be compared?

4. Method

This study utilized qualitative content analysis, "a research method used for the subjective interpretation of the content of texts through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p. 278). This process involved condensing raw data into categories based on valid inference and interpretation. The B.A. official curriculum standards of the specialized courses of ET and TEFL were content analyzed by the researcher in terms of Bloom's revised cognitive taxonomy. Objective statements were first simplified by ignoring certain parts and conventions of standard written Persian, leaving the noun and verb phrases

intact. The verbs in the statements describe the intended cognitive process and the nouns describe the knowledge students are expected to acquire or construct. After specifying the intended cognitive processes and types of knowledge involved in the standards of both fields, they were coded and transferred to separate checklists. Intra-rater reliability was measured by reanalyzing the standards three weeks after the initial analysis to ensure that they were placed in the correct cells in the taxonomy. The Kappa coefficient statistic proposed by Cohen (1960) was used to calculate intra-rater agreement. The values of Kappa Measure of Agreement for the TEFL and ET standards were 0.80 and 0.85 respectively with a significance level of $p < .0005$. In order to specify if there was a special pattern in the occurrence of different levels of thinking skills in general and critical thinking skills in particular in both fields, the checklists were compared and the frequency and percentage of the cognitive processes and types of knowledge involved in curriculum standards related to each of the fields were calculated.

4.1. Instrument

The checklist was constructed by the current researchers drawing on Bloom's revised taxonomy of educational objectives (see Appendix A); It consists of two sections. One section consists of the types of knowledge introduced by Anderson and Krathwohl which includes: *Factual knowledge, Conceptual knowledge, Procedural knowledge, and Metacognitive knowledge*. The other section includes the learning objectives; the six cognitive processes including: *Remember, Understand, Apply, Analyze, Evaluate, and Create* along with their sub-categories. The intersections of the knowledge and cognitive process categories would form the cells. The sub-categories in each dimension define the categories and have not been used separately. Thus the sub-categories are

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collected under each category and only the categories form cells in the taxonomy table not the sub-categories. The sub-categories are used to place a standard or assessment items more easily in one category.

4.2. TEFL and ET Curriculum Standards

Iranian higher educational system needs to provide its students with knowledge and skills necessary to cope with international competition. According to the Ministry of Science, Research, and Technology, the official curriculum should: be concept oriented; actively involve students in the course of learning; and emphasize the development of thinking and reasoning. For this reason, the government of Iran, through Ministry of Science, Research, and Technology (MSRT) is committed, by policy, to ensuring appropriate programing by universities to meet the needs of all students. In keeping with the policy, the official syllabus which translates the national curriculum into strategies for accomplishing the national goals is provided for universities. Consequently, the official syllabus provides the basis for the development of student learning and growth by specifying the standards of achievement expected of each student within the specified level. The B.A. TEFL and ET official curricula include a set of learning outcomes or standards from which universities can develop their curriculum. The learning outcomes are specific statements of what students should be able to do or know at the end of each grade or level. The TEFL program comprises 18 standards and ET 29 ones. The B.A. TEFL and English translation official curriculum standards ratified by the supreme council in 2008 and 1990 respectively were taken from the website of MSRT. The standards and the codes used for this study for the B.A. TEFL and ET are outlined in Appendix B.

5. Results of the Study

The ET and TEFL standards yielded mixed results concerning cognitive skills and knowledge types. It seems that some standards address higher levels of thinking, while others mostly address lower-level knowledge material. After the analysis and categorization of the curriculum standards in the taxonomy checklist, the following results were obtained.

5.1. B.A. TEFL Standards

Table 1 presents the percentage of the cognitive levels and knowledge types within TEFL curriculum standards. According to the Table, the most frequent cognitive process and type of knowledge was Remember (55%) and conceptual knowledge (75%). Only 5% of the standards were devoted to higher-order thinking skills which include the three highest levels of the taxonomy, i.e., Analyze, Evaluate and Create.

Table 1. *Percentage of Educational Objectives in TEFL Curriculum Standards*

Cognitive processes		Types of knowledge		
Remember	55%	} 95%	Factual Knowledge	20%
Understand	40%		Conceptual knowledge	75%
Apply	0		Procedural knowledge	5%
Analyze	5%	} 5%	Metacognitive knowledge	0
Evaluate	0			
Create	0			

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Figure 1 represents the cell values of knowledge coverage categories by cognitive demand. TEFL standards emphasized conceptual knowledge at the Remember (40%) and Understand (30%) levels to the largest extent.

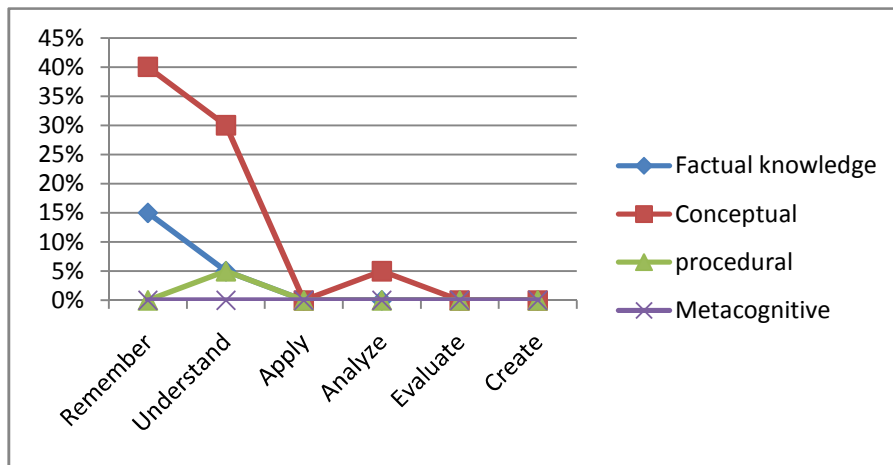


Figure 1. TEFL Knowledge Coverage Categories by Cognitive Demand

Three cognitive processes including Apply, Evaluate, and Create were totally ignored; in addition, metacognitive knowledge was neglected.

5.2. ET Curriculum Standards

The percentages of educational objectives within ET curriculum standards are summarized in Table 2. According to the table the most frequent cognitive process and type of knowledge is Understand (41.5%) and Conceptual knowledge (55.2%). It is apparent that ET standards emphasized higher-order thinking skills (20.6%) more than the TEFL standards (5%).

Table 2. Percentage of the Learning Objectives Pertaining to English Translation

Cognitive processes		Types of knowledge		
Remember	34.5%	} 79.4%	Factual Knowledge	44.8%
Understand	41.5%		Conceptual knowledge	55.2%
Apply	3.4%		Procedural knowledge	0
Analyze	10.3%	} 20.6%	Metacognitive knowledge	0
Evaluate	3.4%			
Create	6.9%			

Procedural and metacognitive knowledge were completely overlooked. The cell proportion values of knowledge coverage categories by cognitive demand are shown in Figure 2.

According to Figure 2, ET standards were concerned with Remembering factual knowledge (24.1%), and Understanding conceptual knowledge (31.1%) to the largest extent. Metacognitive knowledge and procedural knowledge were totally absent at all cognitive levels. After conceptual knowledge (55.2%), factual knowledge (44.8%) received the highest attention. In contrast to the TEFL standards, the two highest cognitive levels Evaluate (3.4%) and Create (6.9%) were recognized in the translation standards.

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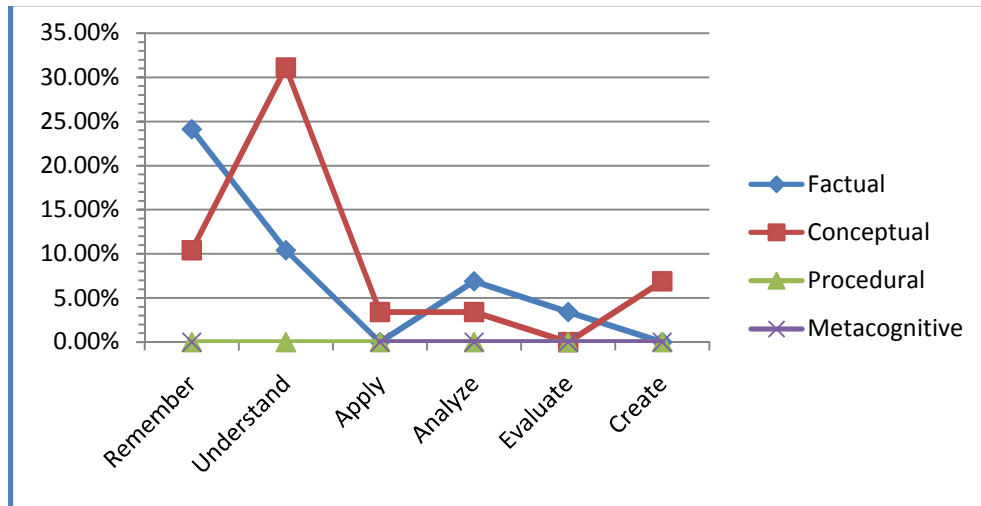


Figure 2. ET Knowledge Coverage Categories by Cognitive Demand

Alike the TEFL field, the most frequent learning objective is “Remembering factual and conceptual knowledge”. They include knowledge of terminology and specific details and elements, classifications and categories, principles and generalizations as well as theories, models, and structures. For instance, the following is a standard taken from the linguistic course.

- Students should be acquainted with the concepts in linguistics (phonology, syntax, semantics, discourse analysis, and applied linguistics)

This standard involves a low level of thinking. The students need to have a teacher instruct them the basic elements in linguistics as well as the interrelationships among those elements to be acquainted with a discipline or solve problems in it. After remember, most of the standards in both fields have focused on the cognitive process “Understand”. This level of thinking is when students demonstrate understanding and comprehension of what’s been taught. This type of thinking includes inferring, comparing, classifying, exemplifying and explaining. The following example is taken from the translation courses.

Students:

- should be able to translate economic texts from English into Persian and vice versa.
- should be able to compare and contrast English and Persian literary texts.

“Interpreting” as one of the components of Understand, is a face of life for translation fields, since the main concern of this field is to involve students to convert information from one representational form to another such as paraphrasing and translating texts from English into Persian and vice versa. “Comparing”, another subclass of understand which is concerned with finding correspondence between elements in a message is involved in translation course standards to some extent, where learners are required to detect similarities and differences between English and Persian texts.

The category “Analyze” receives the second place of frequency after “Understand”. The class of analyze requires learners to break materials into constituent parts and to determine how the parts are related to one another and the overall structure. This category involves differentiating, organizing and attributing. In “Differentiating” students have to discriminate relevant from irrelevant information. Concerning “Organizing”, students should build systematic and coherent connections among pieces of information for example standards relating to oral translation courses requires students to build coherent connections between the information presented from the recordings in order to generate complex coherent statements. “Attributing” pertains to the ability to ascertain the point of view and the intentions underlying a message as in reading comprehension courses in which students have to deconstruct the text in order to determine the intentions of the author.

The analyses showed that the cognitive process “Apply” has been neglected. This process which requires the use of procedures to perform exercises or solve problems, incorporates two subclasses of executing when the

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task is an exercise that is familiar to the students and implementing when the task is a problem and is unfamiliar.

It is commonly believed that translation process is a complex thinking process (Dimitrova, 2005; Neubert, 1991; Shreve & Koby, 2003). If students are to translate proficiently, they should learn how to think efficiently when translating. The results show that the highest two cognitive levels of “Evaluating” and “Creating” are not in focal attention in the ET standard. Evaluating involves students to make judgments based on criteria and standards. The subdivisions include “Checking” which involves testing for internal inconsistencies or fallacies in a product which is observed in some of the ET standards where students are required to detect fallacies within translated texts such as the example given below:

- Students should check the accuracy of Persian equivalence of English prefixes, suffixes and roots.

In “Critiquing”, a product is judged based on externally imposed criteria. Finally the highest level “Create”, essential for creative thinking requires students to make a new product by mentally reorganizing the elements into a pattern or structure not present before. An example of this kind can be:

- Students should be able to translate literary texts and poetry from English into Persian and vice versa.

With regard to the types of knowledge, attention to “Conceptual knowledge” is significant. This type of knowledge embraces knowledge of classifications, principles, generalizations, theories, models and structures. In many translation courses students need to become familiar with principles and theories of translation. “Procedural knowledge” concerned with the knowledge of skills, techniques and methods are of little concern in the field, however; some ET standards where students should get different techniques for

translating English texts into Persian made use of this knowledge. “Metacognitive knowledge” which encompasses self-knowledge and strategic knowledge was totally ignored.

5.3. Comparison of TEFL and ET Standards in Terms of Critical Thinking Skills

If we classify the six levels of the revised taxonomy into “lower” and “higher” order cognitive processes, then we can restate the information as demonstrated in Table 3 below. The higher-order thinking skills refer to the top end of Bloom’s revised taxonomy including “analyze, evaluate and create” which take thinking to higher levels than memorizing and recalling information.

Table 3. Higher and Lower-Order Thinking Skills in TEFL and ET Curriculum Standards

Textbooks	Lower-order thinking skills	Higher-order thinking skills
ET	23 (79.4%)	6 (20.6%)
TEFL	19 (95%)	2 (5%)
Average	21 (87.2%)	49 (12.8%)

As indicated in Table 3; attention in official curriculum standards of both fields is mostly focused on lower-order cognitive skills with the average frequency of 87.2%. This means that ‘remember’, and ‘understand’ are the most prevalent cognitive processes in the curriculum standards. It is worth pointing out that, ET curriculum standards encompass considerable amount of higher-order cognitive skills (20.6%); in contrast to standards associated with the field of TEFL (5%). Attention to lower-order cognitive skills is considerable in TEFL by allocating 95% of its standards to lower-order

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cognitive skills. The study shows similar results to previous studies conducted on learning objective such as Karns, Burton, and Martin (1993) study as well as Sultana (2001). Lower-order cognitive thinking skills are more frequently occurred in the official standards than higher-order thinking skill.

6. Conclusion

The overall findings of this study demonstrated that the most common learning objectives in B.A. TEFL and English translation curriculum standards in Iran were lower-order cognitive skills, that is, remember and understand. Among the six levels of the revised taxonomy of cognitive domain, “Remember and Understand” were the most dominant in both programs. We can thus conclude that based on the results of this study, the main objectives of the curriculum standards were the development of lower-order cognitive skills. This comes as no surprise when in the educational system of Iran, the main emphasis is conventionally put on knowledge acquisition through rote learning and memorization for the most part, rather than knowledge construction through the involvement of higher-levels of cognitive skills such as evaluate and create. As regards the fostering of higher order cognitive skills and as far as the curriculum standards are concerned it is suggested that the objective statements as guiding blueprints be critically evaluated and continually revised. The revisions should involve retaining the strengths while addressing the weaknesses. They ought to be based on insights solicited from all parties of interest including scholars with relevant specialization, instructors, and learners.

The result of this study may have useful implications for, curriculum developers, teachers and researchers. First and foremost, professors are recommended to provide students with critical thinking instruction and

activities and help them to achieve their goals. Secondly, this study provides curriculum developers with some useful information that can help revise the TEFL and English translation program standards. And thirdly, the study indicates that curriculum developers should change the content of the standards by employing more critical thinking approaches.

References

- Akinde, O. A. (2015). A pilot study of students' learning outcomes using didactic and Socratic instructional methods: An assessment based on Bloom's taxonomy. *Academic Journals*, 10(21), 2821-2833.
- Anderson, R. (1994). Role of the reader's schema in comprehension, learning, and memory. In Ruddell, R., Ruddell, M., & Singer, H. (Eds.), *Theoretical models and processes of reading* (pp. 469-482). Newark, DE: International Reading Association.
- 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.
- Bennett, J. (2001). Practical work of the upper high school level: The evaluation of a new model of assessment. *International Journal of Science Education*, 23(1), 97-110.
- Bloom, B. (1994). Reflections on the Development and Use of the Taxonomy. In Anderson, L. Sosniak, L (Eds.), *Bloom's taxonomy: A forty-year retrospective* (pp.1-8). Chicago: The National Society for the Study of Education.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain. White Plains, NY: Longman.
- Bobbitt, F. (1918). *The curriculum*. Boston: Houghton Mifflin.
- Dimitrova, B. D. (2005). *Expertise and explicitation in translation process*. Amsterdam Philadelphia: John Benjamins Publishing Company.

A Comparative Study of TEFL and ET Official Standards...

- Gordani, Y. (2010). An analysis of English textbooks used at Iranian guidance schools in terms of Bloom's taxonomy. *The Journal of Asia TEFL*, 7(2), 249-278.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.
- Ibrahim, F. (1998). *Curricula foundations, organizations, and Evaluation*. Cairo: Egypt Library.
- Karns, J., Burton, G., & Martin, G. (1983). Learning objectives and testing: An analysis of six principles of economic textbooks using Bloom's taxonomy. *Journal of Economic Education*, 14(3), 16-20. <http://dx.doi.org/10.1080/00220485.1983.10845021>
- Krathwohl, D. (2002). *A revision of Bloom's taxonomy: An overview. Theory in to Practice*, 41(4), 212-264.
- Malan, SPT. (2000). The 'new paradigm' of outcomes-based education in perspective. *Journal of Family Ecology and Consumer Sciences/Tydskrifvir Gesinsekologieen Verbruikerswetenskappe*, 28(1), 22-28.
- Marzona, R. J., & Kendall, J. S. (1996). *The fall and rise of Standard-based education*. Alexandria, VA: National Association of Standard Boards of Education
- McAvoy, B. R. (1985). How to choose and use educational objectives. *Medical Teacher*, 71, 27- 35.
- Neubert, A. (1991). Models of translation. In S. Tirkonnen-Condit (Eds.), *Empirical research in translation and intercultural studies* (pp. 17-26). Tübingen: Narr.
- Razmjoo, S., & Kazempourfard, E. (2012). On the representation of Bloom's Revised Taxonomy in Interchange Coursebooks. *The Journal of Teaching Language Skills (JTLS)*, 4(1), 171-204.
Retrieved from http://jtls.shirazu.ac.ir/article_336_0.html
- Riazi, A. M., & Mosalanejad, N. (2010). Evaluation of Learning Objectives in Iranian High-School and Pre-University English Textbooks Using Bloom's

- Taxonomy. *TESL-EJ: The Electronic Journal for English as a Second Language*, 13(4).
- Shreve, G. & G. S. Koby. 1997. "What's in the Black Box"? Cognitive Science and Translation Studies. In J. H. Danks, G. M. Shreve, S. B. Fountain & M. K. Mcbeath (Eds.). *Cognitive Process in Translation and Interpreting*. Thousand Oaks: Sage Publications, xi-xviii.
- Sosniak, L. A. (1994). The taxonomy, curriculum, and their relations. L. W. Anderson, & L. A. Sosniak (Eds.), *Bloom's taxonomy: A forty-year retrospective* (pp. 103-125). Ninety-third Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press.
- Sultana, Q. (2001). *Scholarly teaching—Application of Bloom's taxonomy in Kentucky's Classrooms*. Paper presented at the Third Annual Conference on Scholarship and Teaching, Bowling Green, KY. ERIC Document Reproduction Service, ED 471982.
- Tyler, R. W. (1969). *Basic principles of curriculum and instruction*. Chicago: The University of Chicago Press.
- Watson, P. (2002). The role and integration of learning outcomes into the educational process. *Active Learning in Higher Education*, 3(3), 205-219.
- Webb, N. L. (2002). Alignment study in language arts, mathematics, science and social studies of state standards and assessments for four states. Washington, DC: Council of Chief State School Officers.

Appendix A

Checklist Incorporating the Taxonomy of Educational Objectives

Cognitive processes	Types of Knowledge			
	Factual knowledge	Conceptual knowledge	Procedural knowledge	Metacognitive knowledge
<i>Remember</i>				
1- Recognizing pieces of information				
2- Recalling previous information				
<i>Understand</i>				
1- Interpreting pieces of information				
2- Exemplifying, stating specific examples of a general concept				
3- Classifying information in to certain categories				
4- Summarizing an abstract or general theme				
5- Inferring and finding a pattern within a series of instances.				
6- Comparing and detecting the similarities and differences.				
7- Explaining and constructing a cause and effect model				
<i>Apply</i>				
1- Executing and carrying out procedures on a familiar task				

2- Implementing and selecting a procedure to perform an unfamiliar task				
Analyze				
1- Differentiating and discriminating information in terms of relevance and importance				
2- Organizing information and identifying how the elements fit together into a coherent structure				
3- Attributing, Knowing the intention underlying a message				
Evaluate				
1- Checking and testing the inconsistencies and fallacies of an operation or a product				
2- Critiquing and judging an operation based on external criteria				
Create				
1- Generating alternative solutions to a problem				
2- Planning or developing a plan to solve a problem				
3- Producing an carrying out a plan for solving a problem				

Appendix B

TEFL and ET standards and codes

Codes	TEFL Standards
a-	(<u>Linguistics</u>)
a.1	Students should be acquainted with the concepts in linguistics(phonology, syntax, semantics, discourse analysis, and applied linguistics)
b-	(<u>Contrastive and error analysis</u>)
b.1	Students should know the theories regarding this area.
b.2	Understand the strength and weaknesses of the theories.
b.3	Compare and contrast the structures of English and Persian languages.
b.4	Compare the phonetic description of both languages and give examples.
b.5	Understand and compare the cultural differences between the two languages.
c-	(<u>English teaching methodology</u>)
c.1	Recognize different learning theories
c.2	Get familiar with the process of first language acquisition andsecond language learning and their differences.
c.3	Understand the nature of language, its components and skills.
c.4	Get familiar with different teaching methodologies.
c.5	Analyze various teaching methodologies.
d-	(<u>Evaluation and testing</u>)
d.1	Identify different theories of language testing
d.2	Analyze different methods of evaluation
d.3	Identify different types of tests and there uses
e.	(<u>Principles of first language acquisition</u>)
e.1	Realize different theories of first language acquisition.
f-	(<u>Principles of second language learning</u>)
f.1	Know different second language learning theories.
f.2	Compare and contrast first and second language learning.
f.3	Identify the elements influencing language learning.

Codes	Translation Standards
a	(<u>Morphology</u>)
a.1	Know the definition of morphemes and morphs.
a.2	Know the meaning of English prefixes, suffixes and roots as well as their etymology.
a.3	Determine the Persian equivalence of English prefixes, suffixes and roots
a.4	Check the accuracy of Persian equivalence of English prefixes suffixes and roots
a.5	Analyze those morphemes which no Persian equivalent has been found.
a.6	Find Persian equivalence for those English morphemes that haven't yet had any Persian equivalences.
a.7	Find Persian equivalences for specific scientific English terminology.
a.8	Analyze the structures of synonyms and antonyms.
b	(<u>Advanced translation</u>)
b.1	Translate literary texts from English into Persian and vice versa.
b.2	Compare and contrast English and Persian literary texts.
C	(<u>A study of Islamic texts in ET</u>)
c.1	Analyze English translations of Persian Islamic texts
d-	(Translation of economic texts)
d.1	Get familiar with specific terminology used in English economic texts.
d.2	Translate economic texts from English to Persian and vice versa.
e-	(Translation of texts related to humanism)
e.1	Identify specific terminology used in English texts related to humanism.
e.2	Translate texts related to humanism from English to Persian and vice versa.
e.3	Compare and contrast English and Persian texts related to humanism.
f-	(Translation of political texts)
f.1	Get familiar with specific terminology used in English political texts.
f.2	Translate political texts from English into Persian and vice versa.
g-	(<u>Translation of Legal Correspondence and Deeds</u>)
g.1	Get familiar with specific terminology used in English legal correspondence and deeds.
g.2	Translate legal correspondence and deeds from English into Persian and vice versa.
h-	(Translation of journalistic texts)

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- h.1 Get familiar with specific terminology used in English journalistic texts.
- h.2 Translate journalistic texts from English to Persian and vice versa.
 - i- (Contrastive analysis of sentence structure (1))
 - i.1 learn concepts relating to this area
 - i.2 Learn how to compare and contrast sentence structures, morphology and phonology in Persian and English.
 - i.3 Analyze errors in Persian and English.
 - j- (Contrastive analysis of sentence structure (2))
 - j.1 Compare and contrast structures larger than sentence (paragraphs, text, discourse).
 - k- (Principles of translation)
 - k.1 Identify various principles and theories of translation and their use.
 - l- (Translation of literary texts)
 - l.1 Learn about the history and different styles in literary translation.
 - l.2 Translate literary texts and poetry from English into Persian and vice versa

Note. Iran's National Curriculum (Ministry of Science, Research, and Technology)