

The Examination of Alignment Between National Assessment and English Curriculum Objectives Using Revised Bloom's Taxonomy

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Bloom's taxonomy for the classification of the objectives in cognitive domain was developed in mid 1950s and this taxonomy was revised by a group with Anderson and Krathwohl by making some changes and revisions. The purpose of this research was to evaluate the objectives of 8th grade English curriculum and TEOG exam questions (national assessment exam) according to Revised Bloom's Taxonomy. This was a descriptive study using qualitative research method. English curriculum and TEOG exam questions were gathered from the website of Ministry of National Education (MONE). The data were obtained by document analysis technique. In the analysis of data, two-dimensional chart was used based on the classification in Revised Bloom's Taxonomy. And, frequency and percentage were used in presentation of the data. The results of the study showed that in 8th grade English curriculum more than half of the objectives are at the "apply" level and half of the objectives are intended for applying procedural knowledge. There is not any objective including metacognitive knowledge. 23% of the objectives are intended for higher order thinking skills such as analyze, evaluate and create level. However, it was found that most of the English course questions in TEOG exam were designed at lower order thinking skills such as "remember" and "understand" level. There are no alignments between objectives of English curriculum and English course questions in TEOG exam. So, alignment between curriculum objectives and assessment is suggested.

Introduction

Education contributes to a process of changing behaviors (Tyler, 1949) mainly through training of individuals in society. It is therefore one of the elements necessary for the development of society (Eke, 2015). The basic elements of an education system are teacher, students and curriculum (Gözütok, 2003). In the literature, different researchers provide different definitions of curriculum. Bobbitt (1918) defined the curriculum as the list of activities that children and young people have to experience by developing their ability; Saylor, Alexander & Lewis (1981) defined it as the plan that presents a variety of learning opportunities to the individuals to be trained; Taba (1962) defined it as the plan for learning; Ertürk (2013) defined it as the formation of valid learning experiences, Demirel (2012) defined it as formation of learning experiences provided to the learners by planned activities in and outside of the school; Varış (1978) defined it as all educational activities in a school or educational institution. In accordance with these definitions, curriculum can be defined as the formation of learning experiences including in and out of school activities. Tyler (1949) stated that the curriculum consists of three elements: objectives, learning experiences and evaluation. On the other hand, Taba (1962) stated that there are four basic elements of the curriculum: objectives, content, learning experiences and evaluation.

In the first studies concerning curriculum development, objectives formed the basis for curriculum planning (Saylor & Alexander & Lewis, 1981). The desired behaviors aimed to be gained by the individuals are determined with the objectives within the curriculum (Eke, 2015). Educational objectives are focused on how to change feelings, thoughts and actions of the students. Expressing objectives of the school or instruction in a clear way is very important to avoid wasting time and resources in education.

These educational objectives serve as criteria for selecting materials, designing the content, development of the educational process, preparation of tests and exams (Ertürk, 2013; Tyler, 1949; Varış, 1978). In this aspect, the objectives are considered as a key element in the implementation of instructional activities in a planned way. Therefore, objectives reflecting the knowledge and skills that are expected to be gained by the students are of great importance. Some educators have attempted to classify learning objectives. Within these initiatives, the classification of Bloom and his colleagues has been widely accepted (Gezer, Şahin, Sünkür, & Meral, 2014).

Bloom's taxonomy for cognitive domain

In 1956, Bloom's Taxonomy was published with a book under the name of *"Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook I: Cognitive Domain "* written by Bloom and his colleagues (Bloom, 1956). Original taxonomy developed by Bloom and his colleagues is ranked from simple to complex, from the abstract to the concrete. Taxonomy consists of six levels and one level is prerequisite for the next levels (Bloom, 1956; Krathwohl, 2002). In other words, the taxonomy is organized in a hierarchical system of thinking skills from lower to higher and the higher levels contain all the cognitive skills in lower levels. The six thinking levels in the taxonomy are presented as below (Duc, 2008):

1. **Knowledge:** Remembering prior knowledge such as definitions, terms or principles.
2. **Comprehension:** Understanding the meanings of prior knowledge, explaining them in their own words or giving examples.
3. **Application:** Using prior knowledge in a new context such as solving a problem, answering a question, or performing a task.

4. **Analysis:** Examining the relationship between parts or breaking a piece of materials into its parts.
5. **Synthesis:** Forming a new, unique pattern or structure.
6. **Evaluation:** Reaching a judgment or conclusion by using a set of criteria (Duc, 2008).

As stated above, the lowest level of the taxonomy is knowledge. Each ascending level of the taxonomy contains the lower levels. That is to say, learners must comprehend the knowledge before they can apply it in a new situation. Knowledge and comprehension are often defined as lower-order thinking skills and the others are considered as higher-order or critical thinking skills (Munzenmaier & Rubin, 2013). Although, Bloom's taxonomy is still widely accepted, there have been various criticisms of the taxonomy. One of the criticisms is that evaluation level isn't more complex than synthesis level (Amer, 2006). Researchers stated that synthesis level is more difficult and complex than evaluation level. For example, Senemoğlu (2013) stated that an individual can evaluate a novel (evaluation), but he/she cannot write a unique novel (synthesis). Another criticism is against the hierarchical order of the taxonomy which states that each lower level is a prerequisite for the achievement of next higher levels (Ari, 2011).

Although Bloom's original taxonomy is still widely used by teachers and educators, the taxonomy's revised version was published in 2001 to update the original taxonomy (Munzenmaier & Rubin, 2013). There are two reasons for the revision. First, it is intended to attract attention of the educators to the taxonomy again. Besides being considered as a historical document, the taxonomy should be seen as an important source in terms of providing the solution to many problems relating to the learning and

evaluation process. The other reason is that the alterations occurred in the world since 1956 have changed thoughts and practices in education; in this sense, there is a need to combine innovations in education with Bloom's Taxonomy (Anderson et al, 2001; Cited in: Gökler, Aypay, & Ari, 2012)

Revised Bloom's taxonomy for cognitive domain

Although there were many alternatives to the original taxonomy developed by various researchers, the revision "*A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*," proposed by Lorin Anderson and his collaborators in 2001 has been widely accepted. Bloom's student, Anderson and one of his principal collaborators, David Krathwohl also took part in the original taxonomy. Rather than replacement of the original taxonomy, they defined the revised taxonomy as a continuation of the original taxonomy (Munzenmaier & Rubin, 2013).

Revised Bloom's Taxonomy is two-dimensional consisting of knowledge dimension (factual, conceptual, procedural, metacognitive) and cognitive process dimension (remembering, understanding, applying, analyzing, evaluating, creating) (Forehand, 2010). Ranked from the most concrete to the most abstract, the knowledge dimension includes four categories of knowledge that are presented below (Munzenmaier & Rubin, 2013):

1. ***Factual knowledge:*** Knowledge of basic facts, details, concepts, terminology, or elements in an area of study.
2. ***Conceptual knowledge:*** Knowledge of classifications, principles, generalizations, theories or models in an area of study.
3. ***Procedural knowledge:*** Knowledge of methods of inquiry, specific skills, algorithms or techniques that help learners to do something in a specific area of

study.

4. ***Metacognitive knowledge:*** One's being aware of his/her own thinking or personal growth and be able to monitor and regulate self's cognitive processes (Munzenmaier & Rubin, 2013).

The revised taxonomy consists of six thinking levels ranked from simple to more complex. But there are some revisions compared to Bloom's original taxonomy. Unlike the original one, three of the levels (knowledge, comprehension and synthesis) were renamed and the order of two highest levels (synthesis and evaluation) was interchanged. The names of the categories in the original taxonomy were changed to verb form (gerunds) and they were named as "cognitive processes dimension". And, the hierarchical order in the original taxonomy was removed in revised taxonomy (Anderson et al, 2001). Revised taxonomy was organized as two-dimensional chart in which knowledge dimension places in the vertical axis and the cognitive process dimension places in the horizontal axis. So, objectives are classified and formed at intersections of the knowledge dimension and cognitive process dimension in the taxonomy chart (Amer, 2006).

TEOG exam

Examination of Transition from Basic Education to Secondary Education (Temel Eğitimden Ortaöğretime Geçiş Sınavı [TEOG] in Turkish) has been implemented by Ministry of National Education (MONE) since 2013-2014 academic year. TEOG exam was administered to only 8th grade students in 2013-2014, 2014-2015 and 2015-2016 academic year. This exam consists of six core courses that are Turkish, Mathematics, Science, Religion and ethics, Turkish Republic Revolution History and Kemalism and foreign language. In each course, 20 multiple choice questions are

asked. TEOG exam is administered two times a year, in November and April.

Aim and importance of the study

The purpose of this research is to evaluate the objectives of 8th grade English curriculum and TEOG exam questions according to Revised Bloom's Taxonomy. This study is important because it attempted to align curriculum's objectives with evaluation activities. The results of this study will provide the data for the policy makers and curriculum developers to determine the alignment of the curriculum's objectives and evaluation system (exam questions) with the underlying educational approach and principles. In addition, this study is expected to lead English teachers and educators in understanding the objectives better, helping them to organize learning experiences and evaluation activities in accordance with the objectives.

In the literature, there are some studies concerning analysis of the objectives of different curricula according to Revised Bloom's Taxonomy. For example, in the study conducted by Özdemir, Altıok and Baki (2015), the objectives of "4th-7th grade social studies curriculum" were analyzed according to Revised Bloom's Taxonomy and the results showed that three fifths of the objectives are at "conceptual knowledge" in knowledge dimension; almost half of them (40%) are at "understand" level in cognitive process dimension. Similarly, in the study conducted by Zorluoğlu, Kızılaslan and Sözbilir (2016) in which "high school chemistry curriculum's learning outcomes" were analyzed according to Revised Bloom's Taxonomy, it was concluded that almost three fifths of the objectives (59%) are at "conceptual knowledge" in knowledge dimension; they are mostly (67%) at "understand" level in cognitive process dimension. In the study conducted by Eke (2015) in which the objectives of "physics curriculum" were analyzed

according to Revised Bloom's Taxonomy, it was concluded that there isn't a scattered distribution in both knowledge and cognitive process dimension. It was found that there are no objectives requiring "factual and metacognitive knowledge" in knowledge dimension, and there are no objectives at "remembering and evaluating" level in cognitive process dimension. Similarly, in the study conducted by Gezer, Şahin, Sünkür and Meral (2014) in which the objectives of "8th grade history of Turkish revolution and Kemalism curriculum" were analyzed according to Revised Bloom's Taxonomy, it was concluded that there isn't a scattered distribution in both knowledge and cognitive process dimension. It was found that there are no objectives requiring "procedural and metacognitive knowledge", and the objectives requiring low-level cognitive processes (33%) were less than those requiring high-level cognitive processes (67%). On the other hand, in the study conducted by Eker and Aztekin (2016) in which the objectives of "information technologies and software curriculum" were analyzed according to Revised Bloom's Taxonomy, it was concluded that almost half of the objectives (42%) are at "apply" level and there are no objectives at "evaluation" level.

In addition, there are some studies using Revised Bloom's Taxonomy in preparing questions (Duc, 2008), for developing achievement tests (Kotluk & Yayla, 2016; Tosun & Taşkesenligil, 2011), in analyzing tests or exams (Korkmaz & Ünsal, 2016; Köğce & Baki, 2009; Sönmez, Koç, & Çiftçi, 2013; Tüzel, Yılmaz, & Bal, 2013), in analyzing course books (Kuzu, 2013). There is only one study conducted by Gökler, Aypay and Arı (2012) in which the objectives of "8th grade English curriculum and SBS questions" were evaluated according to Revised Bloom's Taxonomy. In that study, it was concluded that most of the objectives and exam questions are classified under lower level cognitive processes. But English curricula in secondary education were revised in

2013-2014 academic year and revised 8th grade English curriculum has been implemented since 2015-2016 academic year. Therefore, it is thought that there is need for evaluation of 8th grade English curriculum's objectives and compare the results with TEOG questions which is an examination system for secondary school students.

Method

This is a descriptive survey study using qualitative research method. Qualitative research is a research method that follows a qualitative process in order to analyze the events and situations in a realistic and holistic manner, and uses data collection techniques such as observations, interviews and document analysis (Cresswell, 2005; Yildirim & Şimşek, 2011). Therefore, this method is thought to be proper for the purpose of this study. In this research, document analysis technique was used.

Data Source

The research data were collected from 80 objectives in 8th grade English curriculum (which has been implemented since 2015-2016 academic year) and 40 English questions of TEOG exams applied in 2015-2016 academic year (first and second semesters). The objectives in cognitive domain were included in this research, so five objectives in affective domain were excluded from the analysis. English curriculum and TEOG exam questions were gathered from the website of Ministry of National Education (MONE).

Data Collection Tool

Document analysis technique was used for data collection in this research. Documents are an important source of information in qualitative researches (Cresswell, 2005, p.219). Document analysis allows the researchers to analyze the written documents according to certain criteria (Yildirim &

Şimşek, 2011) and to present the research data based on the categories (Merriam, 2013). In order to analyze the documents (objectives in the curriculum and questions in TEOG exam) included in this study, a two-dimensional chart was used based on the classification in Revised Bloom's Taxonomy which is presented in Table 1.

Analysis of Data

In the analysis of data, two-dimensional chart was used based on the classification in Revised Bloom's Taxonomy. The objectives and exam questions were examined and placed into two-dimensional chart by two researchers who graduated from English Language Department and had post-graduate education in the division of Curriculum and Instruction. The analysis process was conducted in three steps. In the first step, two researchers classified the objectives and questions separately. Then, the classifications where the researchers had consensus were fully accepted; the ones where there were differences in opinions among the researchers were discussed and revised in the second step. The correspondence between two raters (inter-rater reliability) was calculated by using the formula ($\text{reliability} = \frac{\text{number of agreements}}{\text{total number of agreements} + \text{disagreements}}$) suggested by Miles and Huberman (1994) in order to enable internal consistency in the study. As a result, it was concluded that inter-rater correspondence between two raters was found 76%. This is quite acceptable because inter-rater agreement is considered to be sufficient above 70% (Miles & Huberman, 1994). A sample of classification of the objectives and questions is presented in Table 2.

In the third step, the classification made by two researchers was presented to another expert for the expert opinion. In accordance with the suggestions and opinions of the expert, the final version of the classification was obtained. In addition, descriptive statistics such as frequencies and

percentages were used by using SPSS-18 program in the presentation of the data.

Table 1: Two-dimensional chart in Revised Bloom's Taxonomy

<i>Knowledge Dimension</i>	<i>Cognitive Process Dimension</i>					
	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
Factual knowledge						
Conceptual knowledge						
Procedural knowledge						
Metacognitive knowledge						

Table 2. A Sample of Classification in This Research

Objective	Knowledge Dimension	Cognitive Process Dimension					
		Remember	Understand	Apply	Analyze	Evaluate	Create
Students will be able to make excuses, accept and refuse offers by using a series of phrases and simple sentences.	Factual						
	Conceptual						
	Procedural			X			
	Metacognitive						

Results

In this research, objectives of 8th grade English curriculum and TEOG exam questions in 2015- 2016 academic year were analyzed based on Revised Bloom's Taxonomy. The distribution of the objectives in 8th grade English curriculum based on Revised Bloom's Taxonomy is presented in Table 3.

According to Table 3, in 8th grade English curriculum, it is seen that there isn't a scattered distribution in cognitive process dimension. That is to say, more than half of the objectives (51%; 41 out of 80 objectives) are at "apply" level. Concerning lower-order thinking skills, two objectives (3%) are at "remember" level, 19 objectives (23%) are at "understand" level. Concerning higher-order or critical thinking skills, it is seen that ten objectives (13%) are at "analyze" level, seven objectives (9%) are at "create" level and only one objective is at "evaluate" level. Concerning knowledge dimension, it is seen that most of the objectives (71%; 56 out of 80 objectives) include procedural knowledge. Furthermore, 18 objectives (22%) include conceptual knowledge, 6 objectives (7%) include factual knowledge and it is seen that there is not any objective including metacognitive knowledge.

In Table 3, it is seen that half of the objectives (50%) are intended for applying procedural knowledge. Seven of the objectives (9%) are intended for creating procedural knowledge, six of the objectives (8%) for analyzing procedural knowledge, two of the objectives (3%) for understanding procedural knowledge. On the other hand, it is seen that twelve of the objectives (15%) are intended for understanding conceptual knowledge, four of the objectives (5%) for analyzing conceptual knowledge., one of the objectives (1%) for remembering and applying conceptual knowledge. And, it is seen that five of the objectives (6%) are intended for understanding factual knowledge, one of the objectives (1%) for remembering factual knowledge. The

Table 3: The distribution of the objectives in English curriculum based on Revised Bloom's Taxonomy

		Knowledge Dimension									
Cognitive Dimension	Process	Factual		Conceptual		Procedural		Metacognitive		Total	
		f	%	f	%	f	%	f	%	f	%
Remember		1	1	1	1					2	3
Understand		5	6	12	15	2	3			19	23
Apply				1	1	40	50			41	51
Analyze				4	5	6	8			10	13
Evaluate						1	1			1	1
Create						7	9			7	9
Total		6	7	18	22	56	71			80	100

distribution of TEOG exam questions based on Revised Bloom's Taxonomy is presented in Table 4:

According to Table 4, in English course questions of TEOG exam, it is seen that there isn't a scattered distribution in cognitive process dimension, as well. That is to say, most of the questions (68%) are at "remember" level and the others (32%) are at "understand" level. There is not any question concerning "apply", "analyze", "evaluate" and "create" level. Concerning knowledge dimension, it is seen that most of the questions (73%) include factual knowledge and the others (27%) include conceptual knowledge. It is seen that there is not any question including procedural and metacognitive knowledge.

In Table 4, it is seen that most of the questions (68%) are intended for remembering factual knowledge. Furthermore, two of the questions (5%) are intended for understanding factual knowledge and 11 of the questions are intended for understanding conceptual knowledge.

Conclusion, Discussion and Suggestions

In this study, it was concluded that in 8th grade English curriculum more than half of the objectives are at "apply" level and half of the objectives are intended for applying procedural knowledge. Similarly, in the study conducted by Gökler, Aypay & Arı (2012), it was found that almost half of the objectives in English curriculum were intended for applying procedural knowledge. "Apply" level involves carrying out or using a procedure to perform a task (exercise or a problem) in a given situation and it is closely linked with procedural knowledge (Anderson et al, 2001, p. 77). Academic success is not related to what students can remember, but related to what students can do with their background knowledge (Jideani & Jideani, 2012). In apply level, the individual transfers his/her existing knowledge to a new situation or problem. Students have a deeper

Table 4: The distribution of TEOG exam questions based on Revised Bloom's Taxonomy

		Knowledge Dimension									
		Factual		Conceptual		Procedural		Metacognitive		Total	
Cognitive Dimension	Process	f	%	f	%	f	%	f	%	f	%
Remember		27	68							27	68
Understand		2	5	11	27					13	32
Apply											
Analyze											
Evaluate											
Create											
Total		29	73	11	27					40	100

understanding and learn skills more easily when they transfer their knowledge to new and complex situations (National Research Council, 2001). And, procedural knowledge includes knowing how to do something and involves methods, techniques and skills (Anderson et al, 2001, p. 52). In English language learning, it is important to apply and use the knowledge within new contexts especially in productive skills such as speaking and writing. So, it is an expected result that objectives are mostly intended for applying procedural knowledge.

Concerning the objectives of 8th grade English curriculum, it is seen that 8th grade students are mostly expected to apply the sentences, grammatical rules and structures learned in English course. It was found that there isn't a scattered distribution in cognitive process dimension. Only 23% of the objectives are intended for higher order or critical thinking skills such as analyze, evaluate and create level. This result supports findings of similar studies in the literature concerning various curricula such as Science Education (Bıkmaz, 2002), English (Gökler, Aypay, & Arı, 2012), Mathematics (Bekdemir & Selim, 2008; Kablan, Baran, & Hazer, 2013), Physics (Eke, 2015), Information Technology and Software (Eker & Aztekin, 2016). On the other hand, only in one study conducted by Gezer, Şahin, Sünkür, and Meral (2014), it was found that most of the objectives in History of Turkish Revolution and Kemalism curriculum were intended for higher order thinking skills. So, it can be concluded that curricula in the schools are deprived of opportunities for students to develop higher order cognitive skills and the students are often taught at lower order thinking skills.

Unlike lower order thinking skills, higher-order thinking skills are more generalizable cognitive processes and involve all types of knowledge, so higher order cognitive processes (analyze, evaluate and create) can be used to

facilitate learning in lower order cognitive processes (Anderson et al., 2001). Although educators want to develop students' higher order thinking skills that require deeper understanding and cognitive processes such as critical, analytic and creative thinking, evaluative judgments, researches show that objectives in many curricula mostly focus on the lower levels of the taxonomy such as remember and understand (Adams, 2015). As students confront with many complex problems every day in the twenty-first century, schools should prepare students for these complexities by enabling them a curriculum that provides a wide range of cognitive processes (Hess, Jones, Carlock, & Walkup, 2009). In this respect, the objectives are considered as the most fundamental element in the execution of the teaching activities in a purposeful and planned manner. It is therefore important that the objectives reflect the knowledge and skills that are expected to be gained by the students (Gezer et al, 2014).

The English curriculum revised in 2013-2014 academic year and implemented during the 2015-2016 academic year, it is aimed for the students to have critical, creative and problem-solving skills that are the basis for communicative competence. They are expected to develop their own unique culture in the process of learning to understand international languages (Ministry of National Education, 2013a). These skills or expectations require higher order cognitive processes. Considering the objectives of 8th grade English curriculum, it can be said that the objectives do not totally reflect the knowledge and skills that are expected to be gained by the students.

Concerning knowledge dimension in English curriculum, it was found that most of the objectives include procedural knowledge and there are no objectives requiring metacognitive knowledge. Similarly, it was found that there is not any objective including metacognitive knowledge in the

study conducted by Gezer et al (2014) and it was found that there is only one objective including metacognitive knowledge in the study conducted by Gökler, Aypay & Arı (2012). Metacognitive knowledge is the knowledge about cognition and awareness of one's own cognition (Anderson et al, 2001, p. 55). In order to ensure the learning to be achieved at the desired level, it is important to develop metacognitive skills that enable the individual to control his/her own learning processes. An individual with advanced metacognitive skills draws attention to the learning unit, distinguishes between important and unimportant information, knows which strategies should be used for keeping information in short-term memory, storing it in long-term memory and retrieving it when it is needed and evaluates whether he/she has learned or not (Altındağ, 2008). In English curriculum, it is expected the students to monitor their own progress and cognition (Ministry of National Education, 2013a). However, it is seen that there are no objectives requiring metacognitive knowledge. So, it can be said that 8th grade English curriculum has deficiencies in terms of developing learners who can plan, monitor and evaluate their own cognition and cognitive processes.

In this study, English course questions in TEOG exam (national assessment exam) were also analyzed according to Revised Bloom's Taxonomy. It was found that most of the questions (68%) are at "remember" level and the others (32%) are at "understand" level. There are no questions relating to "apply", "analyze", "evaluate" and "create" level. And, there are no questions relating to procedural and metacognitive knowledge. In similar studies (Akpınar, 2003; Ayvacı & Türkdöğün, 2010; Çevik, 2010; Çolak, 2008; Duc, 2008; Dursun & Aydın-Parım, 2014; Gökler, Aypay & Arı, 2012; Koray & Yaman, 2002; Özcan & Oluk, 2007; Sesli, 2007) conducted in various disciplines, it was found that most of the questions in the assessment tools

or examinations were designed at lower order thinking skills such as "remember" and "understand" level leaving a large gap on higher order thinking skills such as "apply", "analyze", "evaluate" and "create". Although half of the objectives in English curriculum are intended for applying procedural knowledge and 23% of the objectives are intended for higher order thinking skills (analyze, evaluate, create level), there are no questions to test them in TEOG examination. Therefore, it can be said that there is not alignment between national assessment questions and English curriculum objectives, and this result contradicts with the explanation about TEOG exam made by Ministry of National Education (2013b) that is "The aim of this examination is to monitor and evaluate the implementation of the curricula and the student achievements in an objective way".

For an effective learning, there should be alignment among the components of the curriculum in which the objectives, learning experiences and evaluation (assessment) complement and support each other (Tyler, 1949; Valsraj & Lygo-Baker 2006). In this study, it was found a gap between objectives and assessment; because objectives involve mostly apply level and partially higher order thinking skills (analyze, create and evaluate), but assessment focus on lower order thinking skills such as remember and understand. So, it can be suggested that assessment should provide students opportunities for improving higher order thinking skills and this can also be achieved with qualified multiple choice questions (Bush, Daddysman, & Charnigo, 2014).

Retention is required but is not enough for an effective learning, so there should be transfer of knowledge (Anderson et al, 2001). If learning experiences in the classroom focus on higher order thinking skills but the students are tested only on remember and understand the knowledge, they may think that they do not need to learn at high level. On the other hand, if learning experiences in the

classroom focus on lower order thinking skills but the students are tested on higher order thinking skills, they may fail in examinations (Crowe, Dirks, & Wenderoth, 2008). Therefore, aligned teaching and assessment is important and both of them should enable students to move from retention to transfer of knowledge (Jideani & Jideani, 2012). In accordance with the results of this study, suggestions concerning English curriculum and national assessment exam (TEOG) are presented below:

1. Effective learning take places when teaching and assessment activities are aligned. So, there should be alignment between objectives and assessment.
2. Both assessment and objectives should address all levels of taxonomy. In other words, instead of focusing on lower order thinking skills, they should provide a wide range of cognitive processes including especially higher order thinking skills.

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