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Language assessment through Bloom's Taxonomy

Dinçay Köksal [a], Ömer Gökhan Ulum [b]*

[a] *Çanakkale Onsekiz Mart University, Çanakkale 17020, Turkey*
[b] *Çanakkale Onsekiz Mart University, Çanakkale 17020, Turkey*

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Abstract

Benjamin Bloom's taxonomy of educational objectives plays a crucial role in developing assessments that measure higher and lower level cognitive skills. Since it is important to assess how well students master the information within the levels of the taxonomy, the present study first presents the higher and lower levels of Bloom's taxonomy and then seeks to investigate whether the exam questions of General English courses are based on both higher and lower order thinking levels. This study was carried out through qualitative methods of data collection. The findings of the study suggested that the analyzed exam papers lacked the higher level cognitive skills contained in Bloom's Taxonomy. Based on the findings, some assumptions have been made with the aim of suggesting how the exam papers which are being written or will be written should refer to Bloom's taxonomy.

Keywords: Bloom's Taxonomy; language assessment; exam questions; assessment

1. Introduction

Assessment is one of the most required parts of the education process in which students' learning is measured by diverse procedures. Besides, though these procedures signify enhancement, various issues related to learning assessment go on keeping unresolved (Veeravagu, Muthusamy, Marimuthu & Michael, 2010). Since the excellence of educational programs is based on the evaluation practice, exams play a significant role in learning for acting as one of the dimensions of evaluation. While providing suitable exam questions at schools, composing the proper ones may be a problematic issue. In other words, choosing the right question is obviously the most difficult part of forming the exam paper, in addition to being the most time taking activity (Paul, Naik & Pawar, 2014). An exam paper is a traditional way of assessment− being the common choice of teachers evaluating the learners' degree of success in a particular lesson in which the necessary cognitive ability of students is determined through the exam scores. That's to say, the questions presented on a paper determine whether the examination manages assessing the learners' performance or not. A good assessment requires an exam paper that covers different cognitive levels to accommodate diverse capabilities of learners (Jones,

* Corresponding author. Tel.: +90-531-791-2434
E-mail address: omergokhanulum@gmail.com

Harland, Reid & Bartlett, 2009). Within this issue, the matter is to promote functional assessment tools to measure students' both learning and critical thinking skills according to the six stages of the taxonomy, while most of the assessments only cover calling up the memorized data. In such assessments, the questions simply refer to the first step of the taxonomy, though Bloom's taxonomy is composed of six steps in total: three steps in low order and three steps in high order cognitive skills (Eber & Parker, 2007). Bloom's Taxonomy addresses the arrangement of learning aims in the education process that educators appoint for learners. The cognitive domain within Bloom's taxonomy which is set to confirm a student's cognitive level (Haris & Omar, 2015) is the core of classifying statements according to what is expected from students to learn at the end of the instructional activities (Krathwohl, 2002). As an assessment practice, the employment of Bloom's Taxonomy yields important information for instructors. The taxonomy causes instructors to be more conscious of the content and the process which they teach and assess, as well as indicating disparities between what is taught and what is assessed. Further, it can perform as a guide to evolve and expand the learning and assessment activities by supplying a concrete consciousness of the content and process− an instructor defines as essential in the development of learners' cognition (Kastberg, 2003, p. 405).

While the American Heritage Dictionary of the English Language (2016) refers to cognition as "the mental process of knowing, including aspects such as awareness, perception, reasoning, and judgment, or that which comes to be known, as through perception, reasoning, or intuition; knowledge", the cognitive domain addresses the knowledge and development of intellectual skills (Bloom, 1956). As we have already mentioned, this domain is grouped under six subsequent thinking levels: the first three levels which refer to the lower order thinking skills include remembering, understanding, and applying, while the next three levels refer to the higher-order thinking skills that contain analyzing, evaluating, and creating (Orey, 2010). Bloom's taxonomy is hierarchical and each step is presented at the upper steps as well. So, we can see the lower level at the higher level as well. For instance, someone in the analyzing step can also function in remembering, understanding, and applying steps (Konza, 2011). The following figure by Robyn (2014) clarifies the classification of Bloom's taxonomy in which the levels are given step by step in an ascending order from down to top.

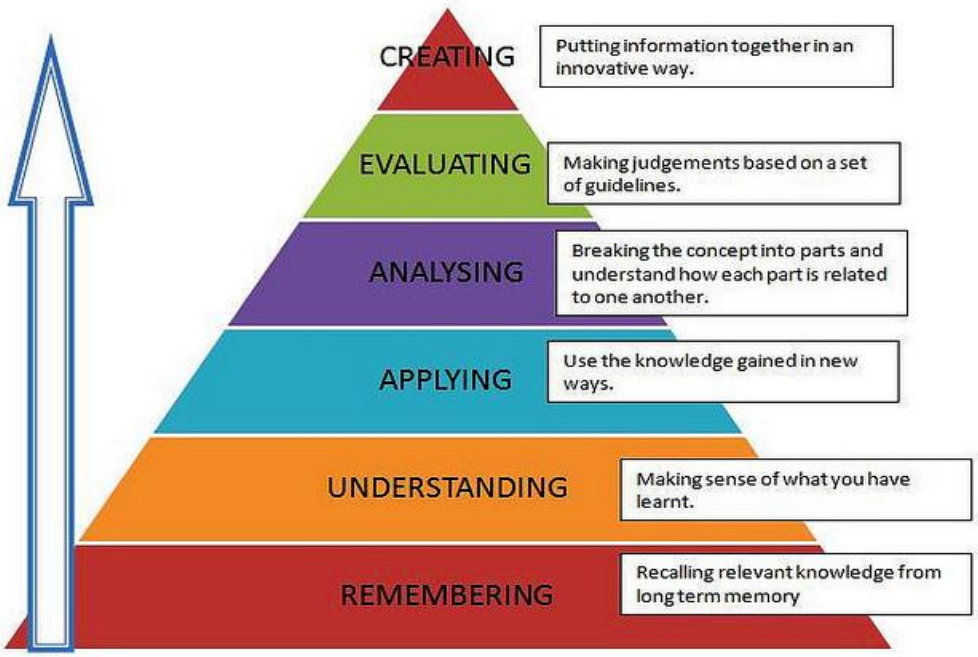

Figure 1. Blooms Taxonomy of Educational Objectives

With all these in mind, this study aims at identifying to what extent the exam questions of general English courses at universities refer to the levels of Bloom's Taxonomy. To achieve this, a group of exam papers were analyzed carefully in order to have a broad view about which steps of taxonomy, either upper or down, were employed. Question stems hinting on each level and key words exemplifying the steps of the taxonomy were utilized to conclude which levels of thinking order were available in the overall analyzed questions. This study will support the English as a Foreign Language exam questions that are being written or will be written. Nearly all exam questions are being written randomly, while few of them refer to the mentioned mental processes. In addition, one of these mental processes, the Bloom's Taxonomy, is not involved extensively in the formation of exam questions. In our case, this study hints on the university level English exam questions which include solely the lower levels thinking skills. Consequently, this research addresses a big problem which is the lack of cognitive processes in the language assessment tools.

1.1. Purpose of the Study

This study aims to investigate the cognitive levels of the exam questions used in various universities all around Turkey. That's to say, it seeks to identify whether or not there are any weaknesses or strengths of exam questions in terms of covering the lower and higher order thinking skills under Bloom's taxonomy. Therefore, we put forward the following research question:

To what extent do the exam questions for general English courses at universities cover the lower and higher order cognitive levels of Bloom's taxonomy?

1.2. Significance of the Study

This study investigates the exam questions employed at diverse universities in Turkey and aims to identify the extent of lower and higher order cognition levels of Bloom's Taxonomy in order to suggest ways which may help instructors prepare qualified exam questions. Besides, the results of the study will be of great benefit for instructors to be creative in designing or modifying exam questions according to the cognition levels of Bloom's Taxonomy, as well. Furthermore, the results of the study will contribute to all those taking part in EFL teaching. The results will also be useful for state EFL teachers, as well as those working in private sector in while preparing efficient exam questions based on the cognitive levels of Bloom's Taxonomy.

1.3. Limitations of the Study

Language education, or just education in a broader term, should refer to the distinct cognitive demands of Bloom's Taxonomy to supply learners with the proficiency to carry out tasks at any cognitive grade (Almerico & Baker, 2004; Assaly & Smadi, 2015). Within this study, we employed Bloom's Taxonomy in order to analyze the exam questions being used at a number of universities according to the cognitive domain. Yet, our study is limited to the EFL exam questions used at specific universities. The data collected in the study did not represent the contents of other institutions such as colleges or high schools, or even the secondary schools.

2. Methodology

The procedure of the current study is based on a descriptive content analysis design which describes the occurrence of the steps covered in both high and low order cognitive levels of Bloom's

Taxonomy. In other words, the cognitive levels of Bloom's Taxonomy were employed while categorizing the exam questions utilized at university level. The analyzed exam questions were utilized and prepared by the lecturers appointed in the testing offices of the universities. The samples of exam questions are presented after each table below. Firstly, with the aim of finding a solution to the research problem *To what extent do the exam questions for General English Courses at universities cover the lower and higher order cognition levels of Bloom's taxonomy?*, question stems based on each cognitive steps and key words referring to the cognitive levels of Bloom's Taxonomy were employed to diagnose which levels of thinking order were included in the overall analyzed exam questions. In the study, frequencies, percentages, and samples of exam questions were given based upon a qualitative research design. Since Bloom's Taxonomy is a very useful way of assessing both learning activities and teaching materials (as cited in Zareian, Davoudi, Heshmatifar, & Rahimi, 2015), in order to go into depth while identifying the exam questions− in terms of the cognitive thinking level extent of the questions, we applied a descriptive analysis method through collecting, listing, and analyzing the questions according to low order thinking skills: knowledge, comprehension, and application, and high order thinking skills: analysis, synthesis, and evaluation as they are classified in Bloom's Taxonomy. In order to make the data more manageable, we presented it in tables. In each table, we supplied raw frequencies as well as the percentage of each cognitive step. To sum up, we employed Bloom's Taxonomy as the theoretical framework of the study and tabulated the findings accordingly. Furthermore, through a qualitative research design, we formed a semi-structured interview about applying Bloom's Taxonomy in teaching and assessment processes and directed it to a number of instructors.

3. Data Analysis and Results

This descriptive analysis contained groups of questions based on the levels of Bloom's taxonomy with frequencies and percentages. All the data of this descriptive analysis were given as frequencies and percentages with sample exam questions exemplifying the cognitive levels of Bloom's Taxonomy. The following tables and the question samples bring a light in terms of the above mentioned aspects.

3.1. Bloom's Taxonomy in Exam Questions

This group of taxonomy consists of lower and higher order levels categorized into knowledge, comprehension, application, analysis, synthesis, and evaluation with frequencies and related percentages. In Table 1, we observe frequencies of cognitive levels employed in exam questions.

Table 1. Frequencies and Percentages of the Six Levels of the Cognitive Domain in Bloom's Taxonomy in the Exam Questions

	Level of questions	Frequencies	Percentages
	Knowledge	4225	81.7%
Low	Comprehension	946	18.3%
Order	Application	0	0%
	Analysis	0	0%
High	Syntheses	0	0%
Order	Evaluation	0	0%
	Total	5171	100%
	Chi-Square (Asymp. Sig)	0.000	0.000

As it can be seen in the Table 1, the exam questions include only knowledge and comprehension levels of Bloom's taxonomy. That's to say, according to Table 1, the exam questions are based on the lower order cognition levels of Bloom's taxonomy while they lack the higher order cognition levels. The percentage of knowledge level contained in the exam questions is 81.7% while it is 18.3% for the comprehension level. It is also clear from Table 1 that even between the percentages of knowledge and comprehension levels, there is a high gap. Sample excerpts from the data are illustrated below:

- How many satellite channels are there? (Lower level, knowledge step)
- Do you have to cook your own breakfast? (Lower level, knowledge step)
- How much does a basic room cost per night? (Lower level, knowledge step)
- What is the main idea of the conversation? (Lower level, comprehension step)
- We can infer from the passage that the writer … (Lower level, comprehension step)
- It can be inferred from the passage that Diana … (Lower level, comprehension)

3.2. Bloom's Taxonomy in Grammar and Vocabulary Exam Questions

In this group of taxonomy, 2 levels were observed to occur, being knowledge and comprehension levels out of application, analysis, synthesis, and evaluation levels. Each level is presented with frequencies and related percentages.

Table 2. Frequencies and Percentages of the Six Levels of the Cognitive Domain in Bloom's Taxonomy in Grammar and Vocabulary Questions

	Grammar and Vocabulary Questions	Frequencies	Percentages
	Knowledge	2703	94.4%
Low	Comprehension	161	5.6%
Order	Application	0	0%
	Analysis	0	0%
High	Syntheses	0	0%
Order	Evaluation	0	0%
	Total	2864	100%
	Chi-Square (Asymp. Sig)	0.000	0.000

Table 2 represents that the grammar and vocabulary exam questions cover only knowledge and comprehension levels of Bloom's taxonomy. In other words, according to Table 2, the exam questions are based on the lower order cognition levels of Bloom's taxonomy, though they do not refer to the higher order cognition levels. The percentage of knowledge level contained in the exam questions is 94.4% while it is 5.6% for the comprehension level. Besides, it can be easily understood from Table 2 that the percentage of knowledge level is higher than the percentage of the comprehension level. Below are the sample excerpts exemplifying the cognitive levels:

- Circle the correct word or phrase to complete the sentence or question. (Lower level, knowledge step)
- Cross out the modal that is not possible in each sentence/question. (Lower level, knowledge step)
- Write the adverbs for the corresponding adjectives. (Lower level, knowledge step)
- Which of the followings is the best answer? (Lower level, comprehension step)

- Translate the following statements. (Lower level, comprehension step)
- Complete the second sentence so it means the same as the first. (Lower level, comprehension)

3.3. Bloom's Taxonomy in Reading Questions

Two levels that are knowledge and comprehension were observed to occur in the reading questions. Related to the levels, frequencies and percentages are illustrated in Table 3.

Table 3. Frequencies and Percentages of the Six Levels of the Cognitive Domain in Bloom's Taxonomy in Reading Questions

	Reading Questions	Frequencies	Percentages
	Knowledge	1121	74.1%
Low	Comprehension	391	25.9%
Order	Application	0	0%
	Analysis	0	0%
High	Syntheses	0	0%
Order	Evaluation	0	0%
	Total	1512	100%
	Chi-Square (Asymp. Sig)	0.000	0.000

From Table 3, we can see that the reading exam questions contain only knowledge and comprehension levels of Bloom's taxonomy. Namely, the reading exam questions are grounded on the lower order cognition levels of Bloom's taxonomy, yet no occurrence of application, analysis, syntheses, and evaluation levels were detected. Specifically, the percentage of knowledge level involved in the exam questions is 74.1% while it is 25.9% for the comprehension level. Furthermore, what is understood from the frequencies is that the knowledge level emerges highly compared to the comprehension level. Sample sentences reflecting these levels are presented below:

- Who were the first people to eat chocolate bars? (Lower level, knowledge step)
- What are four of the most common phobias? (Lower level, knowledge step)
- What two things does Ellie like most about Paris in June? (Lower level, knowledge step)
- We can infer from the text that the writer … (Lower level, comprehension step)
- The article is mainly about … (Lower level, comprehension step)
- The best title for the text is … (Lower level, comprehension)

3.4. Bloom's Taxonomy in Writing Questions

Only two levels emerged in low order cognitive domain of Bloom's Taxonomy. Pertaining levels with frequencies and percentages are presented in Table 4.

Table 4. Frequencies and Percentages of the Six Levels of the Cognitive Domain in Bloom's Taxonomy in Writing Questions

	Writing Questions	Frequencies	Percentages
	Knowledge	79	18.0%
Low	Comprehension	360	82.0%
Order	Application	0	0%
	Analysis	0	0%
High	Syntheses	0	0%
Order	Evaluation	0	0%
	Total	439	100
	Chi-Square (Asymp. Sig)	0.000	0.000

The knowledge and comprehension levels of Bloom's taxonomy were employed in writing exams as stated in Table 4: that is the writing exam questions address to the lower order cognition levels of Bloom's taxonomy while no emergence of higher order levels were observed. As it is clearly seen, the percentage of knowledge level contained in the exam questions is 18.0% while it is 82.0% for the comprehension level. Moreover, it can easily be understood from the frequencies is that the comprehension level emerges highly compared to the knowledge level. To cite some sample sentences from the exam questions, we present the followings:

- What are three negative effects of stress on people? (Lower level, knowledge step)
- Write the words below under the correct heading. (Lower level, knowledge step)
- Write three branches of government with the names of positions in each of the branch. (Lower level, knowledge step)
- Compare and contrast e-mail and letters. (Lower level, comprehension step)
- What do you believe are the chief reasons for students' academic failure in education? (Lower level, comprehension step)
- The advantages and disadvantages of attending a university (Lower level, comprehension)

3.5. Bloom's Taxonomy in Speaking Questions

This cognitive order of taxonomy consists of 2 levels: knowledge and comprehension. The frequencies and related percentages of both the mentioned levels and the levels with no occurrence are tabulated in Table 5.

Table 5. Frequencies and Percentages of the Six Levels of the Cognitive Domain in Bloom's Taxonomy in Speaking Questions

	Speaking Questions	Frequencies	Percentages
	Knowledge	76	82.6%
Low	Comprehension	16	17.4%
Order	Application	0	0%
	Analysis	0	0%
High	Syntheses	0	0%
Order	Evaluation	0	0%
	Total	92	100%
	Chi-Square (Asymp. Sig)	0.000	0.000

The results obtained for speaking exam questions suggest the occurrence of the knowledge and comprehension levels of Bloom's taxonomy, as pointed out in Table 5. Besides, it is easily understood that no emergence of higher order levels were seen. One can clearly see from Table 5 that the percentage of knowledge level contained in the exam questions is 82.6% while it is 17.4% for the comprehension level. Additionally, it can be observed from the frequencies that knowledge level occurs significantly more than the comprehension level. Related sample sentences from examined questions are presented below:

- Can you talk about yourself and your family? (Lower level, knowledge step)
- Talk about one of your good friends. (Lower level, knowledge step)
- Who is your best friend? (Lower level, knowledge step)
- Love or money? (Lower level, comprehension step)
- What things do boys do better than girls? (Lower level, comprehension step)
- Compare two cars/cities/books/singers. (Lower level, comprehension)

3.6. Bloom's Taxonomy in Listening Questions

Two levels of cognitive domain out of six emerged in the examined questions. The frequencies and related percentages of the detected levels are presented in Table 6.

Table 6. Frequencies and Percentages of the Six Levels of the Cognitive Domain in Bloom's Taxonomy in Listening Questions

	Listening Questions	Frequencies	Percentages
	Knowledge	247	87.3%
Low	Comprehension	36	12.7%
Order	Application	0	0%
	Analysis	0	0%
High	Syntheses	0	0%
Order	Evaluation	0	0%
	Total	283	100%
	Chi-Square (Asymp. Sig)	0.000	0.000

As can be observed from Table 6, the results obtained for listening exam questions indicate that only knowledge and comprehension levels of Bloom's taxonomy emerged, yet it is clearly understood that no emergence of higher order levels were seen. Table 6 affirms that the percentage of knowledge level contained in the exam questions is 87.3% while it is 12.7% for the comprehension level. Furthermore, knowledge level emerges notably more than the comprehension level. Sample questions representing these themes are cited below:

- Listen to the cinema recording. What is the name of the cinema? (Lower level, knowledge step)
- Listen to the cinema recording. What number should you press to speak to an operator? (Lower level, knowledge step)
- Listen to the cinema recording. Who/what is Lulu? (Lower level, knowledge step)
- Listen to the conversation. What is the main idea? (Lower level, comprehension step)

- Listen to the three minute discussion on opportunity cost. What can be inferred about the true cost of education? (Lower level, comprehension step)
- Listen to the three minute lecture on child development. What is the main idea of the lecture? (Lower level, comprehension)

3.7. Interview Results

As already discussed in the methodology part, we asked 29 instructors if they knew about Bloom's Taxonomy, but only 8 of them knew what Bloom's taxonomy was. Therefore, the interviews were implemented to 8 university EFL instructors who voluntarily took part in the study. According to what they declared, we understood that they all incorporated Bloom's Taxonomy into their teaching, but while 7 of them incorporated the taxonomy into their assessment, one participant declared that s/he didn't incorporate it into the assessment process. In terms of which levels of Bloom's Taxonomy they incorporate into their teaching process, two respondents declared (6) Creating, (5) Evaluating, (4) Analysing, (3) Applying, (2) Understanding, and (1) Remembering levels, one respondent declared (5) Evaluating, (4) Analysing, (3) Applying, (2) Understanding, and (1) Remembering levels, one respondent declared (4) Analysing, (3) Applying, (2) Understanding, and (1) Remembering levels, three respondents declared (3) Applying, (2) Understanding, and (1) Remembering levels, and one respondent declared only (1) Remembering level. Regarding which levels of Bloom's Taxonomy they incorporate into their assessment, two respondents declared creating level and the levels below, one respondent declared evaluating level and the levels below, four respondents declared applying level and the levels below, and one respondent declared remembering level. Looking at the levels of Bloom's Taxonomy the participants incorporate into their testing, it can be easily observed from the interview that one respondent declared creating level and the levels below, one respondent declared evaluating level and the levels below, five respondents declared applying level and the levels below, and one respondent declared remembering level and the levels below. The interview data were recorded by the interviewers. The interviewers tried to stimulate the interviewees to declare their perceptions appropriately. To present diverse views regarding using Bloom's Taxonomy in the education process, the data were recorded under each question in the semi-structured interview. The questions and some main comments of the participants were summed up and introduced below.

How do you incorporate Bloom's Taxonomy into your teaching?

- *I incorporate Bloom's Taxonomy into my lesson in many ways such as making students remember the active vocabulary during reading, apply grammar rules, and analyze writing.*
- *This semester, I asked my students to write a research paper for the 1st midterm.*
- *I cannot truly incorporate it into my teaching.*
- *While teaching grammar, I teach specific points leading students to remember it first. Later I ask them what they understand, and then they do exercises which help them apply what they learn.*
- *I try to include a variety of activities forcing the students to think and function at each level.*
- *It depends on the topic and the students; there is no one way of doing it. I generally want my students to apply what we learn in the class. They take videos, prepare projects, and have discussions in the classroom. We also organize some competitions within and among the classes.*

- *I encourage the students to make use of the levels of Bloom's taxonomy to elevate the thinking process. In a way, I help them control their own cognitive levels by means of the activities supported by Bloom's Taxonomy.*
- *The lesson plan must firstly serve the needs of students and it is based on Bloom's Taxonomy. I describe a lesson plan for certain verbs in Simple Past Tense. It aims to reach the highest level of the taxonomy; creation. Students are presented with the past forms of the verbs. Students are expected to identify and match the forms and meaning of the verbs. A reading passage can be read and the students are expected to summarize it. The activities cover the second cognitive level. The level of application includes the usage of verbs in a different fill-in -the blanks exercises. In the analyzing part, the verbs intended to be learned are used in different contexts and exercises. In the evaluation and creation, students are asked to make up their own stories using the certain verbs after the introduction of the story is given.*

How do you incorporate Bloom's Taxonomy into your assessment?

- *I attempt to incorporate it into assessment by preparing the tests and tasks based on cognitive levels of the taxonomy.*
- *Tests and assessment is done by the school, through some mini quizzes, videos taken by the students, discussions, portfolios, and presentations. The tests are formed according to such levels as remembering level through multiple choice questions, and as understanding and applying levels through open ended questions and the writing parts of the exams.*
- *I encourage the students to apply and figure out something in given situations.*
- *Generally speaking, I use Applying level questions which are given in context. The contexts are chosen as everyday speeches.*
- *Although I try hard, I find it difficult to incorporate it into my assessment.*
- *I ask them to detect a problem and make a research question. I have a look at their work one by one. They write a research paper and I give feedback.*
- *I tend to use Bloom's Taxonomy in my quizzes and presentations. I may not be using only the last stage creating since it entails a lot of time.*
- *We ask students to prepare presentations on a certain topic, make posters, and write essays. Doing all these activities requires incorporation at Bloom's Taxonomy.*

4. Suggestions

In light of the findings of the study, we suggest the following criteria to be taken into account:

1. EFL exam questions should refer to both low and high level cognitive orders.

2. Similar research ought to be conducted on the exam questions of other branches of English Language Teaching like English for Specific Purposes.

3. This kind of research ought to be conducted referring to whether the instructors both teach and assess the students according to the cognitive domains of Bloom's Taxonomy.

4. Similar research ought to be conducted on whether incorporation of Bloom's Taxonomy into teaching is parallel to the assessment of students.

5. Discussion

Although a list of assessment types are available, a written exam is the most employed tool chosen by academic institutions. A question is an element that is intertwined with the exam. Questions raised in exams play an important role to test the students' overall cognitive levels (Omar et al., 2012). Efficient exam questions should cover various difficulty levels to refer to the different capabilities of learners (Leeds, 2000; Black, Harrison, & Lee, 2003; Chin, 2004; Jones, Harland, Reid, & Bartlett, 2009). A high level question may be unfamiliar to the students as it demands an answer through reasoning, decision-making, analysis, synthesis, and critical thinking (Zoller & Tsaparlis, 1997; Ordem, 2016). Instructors who prepare exams to improve students' high order cognitive skills promote interaction between themselves and their students (Brualdi, 1998). Therefore, while adapting exam papers, they consider the nature of the relationship between low and high level questions. While low level cognitive questions increase the acquisition of the accurate knowledge and pave the way for acquiring high-cognitive skills, high level questions are practical tools for prompting thinking and improving other cognitive skills like problem solving and decision making (Freahat & Smadi, 2014).

6. Conclusion

We see a number of studies based on the classification of exam questions according to the cognitive levels of Bloom's Taxonomy (Scott, 2003; Thompson et al., 2008; Jones, Harland, Reid, & Barlett, 2009; Chang & Chung, 2009; Swart, 2010; Omar et al., 2012). However, there has not been much attempt to categorize exam questions in terms of four language skills (reading, writing, speaking, and listening). In our study, we analyzed the exam questions referring specifically to four language skills, putting a total emphasis on Bloom's Taxonomy, as well as trying to find out the perspectives of teachers on incorporating the taxonomy into the overall teaching process. In the analyzed papers, with reference to the questions assessing four language skills, we couldn't detect any question settled on the higher level thinking levels specified in Bloom's Taxonomy; however, we observed only the cognitive levels of knowledge and comprehension in the examined questions. Besides, as we detected from the study, let alone incorporating it into their assessment process, many of the instructors were even unaware of the taxonomy.

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Bloom Taksonomisi aracılığıyla dil değerlendirmesi

Öz

Bloom taksonomisi üst ve alt düzey bilişsel becerilerin ölçülmesine yarayan ölçme araçlarında görülür. Öğrencilerin taksonomi basamaklarında nasıl uzmanlaştıklarını değerlendirmek önemli olduğundan, bu çalışmada Bloom taksonomisinin üst ve alt düzey basamakları sunularak, genel İngilizce dersi sınav sorularının üst ve alt düzey bilişsel seviyelere dayanıp dayanmadığı açığa çıkarılmıştır. Bu çalışma nitel ve nicel veri toplama tekniklerine dayanmaktadır. Çalışmanın bulguları analiz edilen sınav sorularının Bloom taksonominde yer alan yüksek düzey bilişsel becerilerden yoksun olduğunu göstermiştir. Bulgular aracılığıyla yazılmakta olan ve yazılacak olan sınav sorularının Bloom taksonomisini nasıl kapsaması gerektiği konusunda varsayımlara ulaşılmıştır.

Anahtar sözcükler: Bloom Taksonomisi; dil değerlendirmesi; sınav soruları; ölçme- değerlendirme

AUTHOR BIODATA

Prof. Dinçay Köksal is the head of English Language Teaching Department at Çanakkale Onsekiz Mart University, Turkey. His research interests cover language assessment, educational research, language teaching and learning, culture and language, and foreign language education policy.

Ömer Gökhan Ulum is a PhD candidate at Çanakkale Onsekiz Mart University, Turkey. His research interests cover culture and language, applied linguistics, pragmatics, discourse analysis, and educational research.