Journal of Language Education and Research

Research Article

The Evaluation of the Secondary-School English Curricula According to Bloom's Revised Taxonomy

Melek Nisa DALKILIÇ *   **Dilek BÜYÜKAHISKA** **

ARTICLE INFO	ABSTRACT
	This study aims to evaluate the extent of the objectives in the Secondary-School English curriculum concerning cognitive levels in Bloom's taxonomy. This aim underlies the first question of the study. The second and third questions inquire about the comparison among the grades and the homogeneity. Along with the adoption of the qualitative method, document and content analysis were implemented to categorize the objectives. The number of the curriculum objectives was 245 from 5th to 8th graders. Three notable outcomes were reached. First, each grade substantially suggests lower-order thinking skills. Besides, understanding is the surpassing level regardless of the grades. Lastly, receptive skills were dominantly consulted in lower-order thinking levels, while higher-order thinking skills were mainly applied in productive skills. Consequently, the research concludes that the objectives in the curriculum are not sufficient enough in developing higher-order thinking skills of secondary-school students.

*Master Student, ORCID ID: https://orcid.org/0000-0001-7769-9452, Ondokuz Mayıs University, Department of English Language Teaching, nisadalkilic@gmail.com

** Assistant Professor., ORCID ID: https://orcid.org/0000-0002-4370-7626, Ondokuz Mayıs University, Department of English Language Teaching, dbuyukahiska@omu.edu.tr

Introduction

Rapid changes in modern life due to globalization influence education to a great degree because the goals of education are to meet the demands of the ever-changing world and to help people acquire citizenship. As an outcome of the developments in the world, one of the most significant shifts has been the movement from 3 Rs (reading, writing, and arithmetic) to 4Cs (critical thinking, communication, collaboration, and creativity) in reference to National Education Association-NEA (2015).

Today, 4 Cs are known as the combination of certain skills needed both in personal and professional lives in the 21st century (Pardede, 2020). These requirements of the future education systems are marked out at an international level due to their emphasis on the world's fate. According to OECD (2018), education prepare students not only for work-life but also provides necessary knowledge and skills for the new generation "to become active, responsible and engaged citizens" (p. 4). Among these needed qualifications, students are expected to use the raw data to generate new knowledge and to think beyond the given information, so knowing is just a beginning step to set sail for the original ideas. Highly connected with this idea, critical and creative thinking skills are targeted to be mastered. Therefore, developing critical thinking skills in education contributes to no less a degree. NEA (2015) clarifies the significance of critical thinking skills in the modern world. With regards to it, this skill is demanded for every student in the 21st century even though it was designated for gifted students in earlier times.

Critical thinking also has a strong connection with education as "one cannot learn well without thinking well" (NEA, p. 8). Thus, working on this skill has numerous advantages both in the social lives of people and in their academic achievements. Van Roekel (2008) remarks on the significance of training critical thinking by integrating it into different subject matters in the classrooms. However, practicing this skill is not simple, so students need to pass through systematic stages by bringing novelty at every turn. Therefore, it is required to be engaged in the schools where pre-planned programs are implemented. In this way, critical thinking could be developed more successfully.

As well as practicing within different lessons, there are significant benefits for implementing critical thinking skills in foreign language classes (Gandimathi & Zarei, 2018). First of all, students need training for this skill as a part of their curriculum in each lesson and grade. It also has numerous advantages in the context of the foreign language teaching department because diverse thought-provoking questions are expected to be asked in promoting critical thinking. These open-ended and subjective questioning lead students to speak and explain their ideas thoroughly, which in turn, gives them more options in using the target language (Pardede, 2020). However, being a critical thinker requires particular necessities, from simple to complex. These necessities were resulted in various definitions of critical thinking by scholars.

For Ennis (1993), critical thinking refers to the "reasonable reflective thinking that is focused on deciding what to believe or do." Halpern (2003) defines this term as a branch of thinking for problem-solving and making judgments. Carroll (2000) associates critical thinking with open-mindedness, modesty, and skepticism since these characteristics are

not related to dogmatic thoughts. To sum up these ideas, critical thinking requires processing information and thoughts at higher levels.

Consequently, critical thinking is a comprehensive higher-level thinking. Being able to benefit from it hinges upon dwelling on this skill properly. Since significant stages of human lives take place at the schools, promoting and integrating critical thinking into the school environment is highly crucial for growing critical thinkers. When it is supported in the schools until forming a habit, a great step towards being a more conscious and efficient society is going to be taken.

There are several methods provided by scholars to promote critical thinking in schools. Among them, Bloom's taxonomy takes the lead by being extensive and valid in the world of education. Numerous studies (Gökler, Alpay & Arı, 2012; Assaly & Smadi, 2015; Rahpeyma & Khoshnood, 2015; Kozikoğlu, 2018; Evcim & Özenici, 2019; Demirci & Gökdeniz, 2020) use Bloom's taxonomy to assess the critical thinking level of the target matter such as curriculum, exams or the coursebooks because it is one of the leading sources for evaluating critical thinking in education (Krathwohl, 2002; Amer, 2006; Bümen, 2006)

Bloom's revised taxonomy is an updated version of the original taxonomy. Bloom's scholars, Anderson and Krathwohl (2001), adapted the original taxonomy due to the developments in the world and named it after Bloom's revised taxonomy, which was displayed and clarified below with subcategories and explanations.

Figure 1. The Comparison between Bloom's Original and Revised Taxonomy
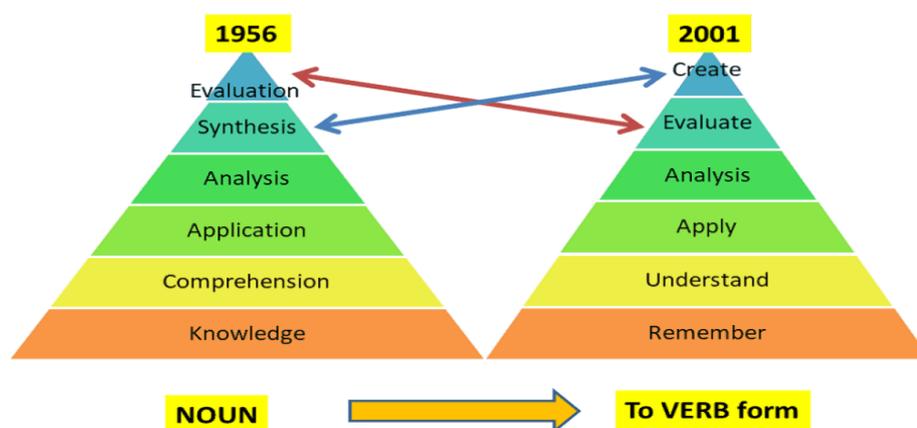
Even though containing knowledge and cognitive dimension in the revised taxonomy was different than the original one, only the cognitive process dimension is considered in the current study. This is the one that is similar to the original taxonomy with small changes such as using verb versions instead of nouns. Besides, the last two steps in the higher-order thinking levels are relocated by renaming the last step as 'create'. In this way, producing new ideas is considered the last step of achieving critical thinking.

As mentioned above, the cognitive process dimension is a directly adapted version due to the need for proper expressions for the objectives (Krathwohl, 2002). Thus, the

categories mostly resemble each other. In the well-known book 'A Taxonomy for Learning, Teaching, and Assessing', which was written by Bloom's scholars, Anderson and Krathwohl (2001) clarify the detailed content and requirements of each cognitive level. According to them, remembering as the first step of cognitive processing deals with recalling one's background knowledge in the subject matter. The first step in achieving critical thinking also has two sub-headings called recognizing and recalling. Both of them facilitate retrieving information in one's long-term memory. The understanding level is about making sense of the information that was learned. By interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining, learners may construct their meaning on the subject. In that way, they comprehend the target topic. The applying is related to using the information in new ways apart from the way of the first time experiencing it. It includes executing and implementing under this category. Analyzing is the starter of higher-order thinking. Following this step, learners build on their higher levels in the way of achieving critical thinking. It is concerned about breaking the whole into its' relevant parts and making sense of between them. Differentiating, organizing, and attributing are components of the analyzing level. The evaluating was the last step of Bloom's original taxonomy. However, it was replaced as the fifth step. Making judgments and justifying decisions according to given criteria are significant requirements of this level. In order to achieve this, learners may practice checking and critiquing activities. The highest level in the cognitive process is the creating level. At this point, learners need to put all the information and ideas until this point to create something new and original. When the learners achieve it, they are considered as practitioners of critical thinking in the subject matter. Creating has sub-categories as generating, planning, and producing.

As well as the importance of critical thinking, the curriculum is a crucial source because it is a starting point for each educational program. Establishing a comprehensive curriculum ensures numerous ways as long as the duration of the program. Bümen (2006) states that objectives have fundamental roles in managing a coherent unity in education. Thus, the content and the core meaning affect the entire program. As well as many linguistic features, current issues need to be included in the curriculum explicitly. The adaptation of critical thinking in the curriculum and objectives could be achieved as one of the 21st-century issues. Anderson (2002) affirms that Bloom's taxonomy could be utilized to assess the critical thinking levels of the target curriculum regardless of the grades or the subject matters. Therefore, it is both useful and beneficial to examine the curriculum from critical thinking perspectives to preview the current situation of the target educational systems.

Considering all the essential aspects mentioned above, this study aims to evaluate English curricula in Secondary Schools to reveal the critical thinking levels of the objectives.

Research questions

1. To what extent do the English curriculum of Secondary-Schools reflect the cognitive levels of Bloom's Revised Taxonomy?

2. Are there any differences among 5th, 6th, 7th, and 8th graders in terms of having lower or higher-level objectives?
3. Are there any significant differences among the language skills in representing Bloom's taxonomy?

Literature review

Studies conducted in English language teaching

The revised version of Bloom's taxonomy is utilized in many different studies of education. Various areas such as curriculum, coursebook, or exam evaluation are touched upon to reflect on the current situation of critical thinking in education. There are some studies trying to determine the critical thinking degree of the English curriculum by using Bloom's revised taxonomy.

In the study of Gökler et al. (2012), the factors such as curriculum objectives, SBS questions, and written examination questions were included in terms of critical thinking. The data is obtained through document analysis and evaluated by considering Bloom's revised taxonomy. Not only the curriculum objectives but also SBS and written examination questions resulted in lower levels of critical thinking. In other ways, the remembering, understanding, and applying levels were dominant throughout the data.

Kozikoğlu (2018) aimed to assess the relationship between the TEOG exam and the English language curriculum of 8th graders by concentrating on critical thinking levels. Considering the TEOG exam, only the remembering and understanding levels were promoted. The rest of the levels were not even referred, so the national exam was dominant on lower-order thinking skills. On the other hand, the distribution of the levels was heterogeneous in the English curriculum of 8th graders. The applying level was preferred in more than half of the objectives. Understanding, analyzing, and creating levels followed the application with the frequency of 19,10, and 7. Remembering and evaluating were the least repeated objectives. Therefore, an alignment was not found between the national exam and the English curriculum.

Another similar study was conducted by Demirci and Gökdeniz (2020). Their purpose was quite similar to the previous study, so they examined the relationship between TEOG questions and curriculum objectives. 158 teachers were surveyed to express their ideas on the issue. Then, TEOG exam questions and the objectives in the curriculum were classified with document analysis. These processes resulted in the deficiency of higher-order thinking levels both in the exam and the curriculum. The levels of remembering, understanding, and applying were attained, whereas analyzing, evaluating, and creating levels did not exist. Regarding TEOG exam questions, only one question out of 40 related to the analyzing level as higher-order thinking.

Studies conducted in other disciplines in Turkey

Since critical thinking is one of the current trends in education, the curricula in various disciplines were evaluated in Turkey to reflect on the critical thinking levels supported in the curriculum. In the following section, the evaluation of curriculum in

different subjects was expressed to present the current situation of Turkey in terms of critical thinking levels.

French is one of the optional foreign languages in high schools in Turkey. As a result, Karagül and Oral (2020) evaluated the curriculum of A1.1 and A1.2 of the French curriculum considering the critical thinking levels. To do so, Bloom's revised taxonomy was used in the coding. Both curricula resulted in the redundancy of the lower levels in the cognitive process dimension and conceptual knowledge in the knowledge dimension. Besides, the skills were differentiated and analyzed separately. The understanding level outnumbered in the listening objectives, while the applying level was more common in the speaking skill objectives. Even though the analyzing level was found to be less (n=3), reading skills mostly reflected on the understanding level. The objectives of the writing skill were high in the applying level, yet only one objective was matched with the analyzing level.

Another subject taught in Turkey is social studies, so the critical thinking level of its' curriculum was conducted by Filiz and Baysal (2019). The curricula of fourth, fifth, sixth, and seventh graders were analyzed. Fourth and fifth graders' curricula were supreme in the understanding levels, while sixth and seventh graders indicated the analyzing with the understanding level. Among all the curricula, conceptual knowledge was dominant. Thus, lower levels were highlighted in the secondary schools' curricula of social studies lessons.

Filiz (2019) conducted a study to analyze secondary school curricula of Turkish lessons. The objectives of 5th, 6th, 7th, and 8th graders were categorized according to Bloom's revised taxonomy. The results in common are the frequency of the understanding and applying levels. In another way, the lower levels were dominant in all grades. Additionally, the categories of the knowledge dimension are gone through. Factual and procedural knowledge are the most repeated categories. Furthermore, meta-cognitive knowledge was not found in the 5th and 6th grades, but it was also only detected once in the 7th and 8th grades. It is evident that lower levels were preeminent in the Turkish course curriculum.

The study of Doğan and Burak (2018) investigates the curriculum objectives of the 4th grade in the domain of science regarding critical thinking. Similar to other studies, Bloom's revised taxonomy was utilized to gather the data. As comprising nearly half of the objectives, the understanding level was the dominant level in the cognitive process dimension. The applying level came after the understanding as the most frequent level found in the curriculum. The lower levels constituted 70% of the curriculum. The higher levels were not referred to sufficiently, so achieving critical thinking was unsatisfactory with the current curriculum. Besides, conceptual knowledge was the most referenced category in the knowledge dimension, with 48%. Factual and procedural knowledge were at similar rates. However, meta-cognitive knowledge was not found in any of the objectives.

Kablan, Baran, and Hazer (2013) carried out a study on critical thinking in the field of mathematics. The objectives in the sixth to 8th graders' curriculum were examined with the help of Bloom's revised taxonomy. The cognitive levels highlighted in the objectives were coded according to the cognitive levels: remembering, understanding, applying,

analyzing, evaluating, and creating. The findings of the overall study inferred that almost half of the objectives in three of the grades promote the understanding level the most. The applying level reveals quite similar findings by including 38.1% of the overall objectives. On the other hand, remembering, which is one of the lower levels, was not found in any of the objectives. The higher levels were sightly referred to and supported in the curriculum. When it comes to the grade levels separately, the 6th and 8th graders' curricula were dominant in the understanding level while the 7th graders' curriculum mostly supported the applying level in the cognitive domain.

Methodology

Research design and publication ethics

The current study was conducted in order to examine the Secondary-School curriculum from the perspective of critical thinking, so the degree to which the curriculum represents critical thinking was evaluated by employing Bloom's revised taxonomy. Each grade in the Secondary-School was included in the research. Thus, the curricula of the 5th, 6th, 7th, and 8th graders were taken into account.

Data collection and analysis

The documents were reached in the Monitoring and Evaluating System of Curriculum, so they are official references presented by the Ministry of Education in Turkey. Since the curriculum is a kind of document, a qualitative method was determined initially. In accordance with the data and the method, document analysis was employed as the data was composed of written documents. Two hundred forty-five objectives were obtained in total. The number of objectives ranges from one grade to another. For instance, 5th grade has the least number of objectives with a frequency of 52. However, 8th grade comes first by having 70 objectives at all. 6th and 7th grades are quite similar as they involve in 60 and 63 objectives.

Procedure

Following the collection of the objectives, the data were coded and categorized considering the cognitive levels of Bloom's revised taxonomy. Each objective was matched up with one of the cognitive levels of remembering, understanding, applying, analyzing, evaluating, and creating. The frequency and percentages of the results were tabulated. The results were also compared among the grades whether they all were resulted in similar degrees or not. Besides, the findings were analyzed considering four language skills.

Achieving reliability and validity in qualitative studies is significant due to the subjective nature of this method. However, the value of the qualitative method gets higher when these points are considered (Yıldırım & Şimşek, 2018). Within this point of view, the current study aimed to reach a reliable and valid evaluation. In order to attain validity, the processes and the stages of the study were clearly represented in this section. Besides, some coding samples were supplied to reflect on and exemplify the findings in the results section. On the other hand, reliability is about consistency with different coders (Kirk &

Miller, 1986; as cited in Thyer, 2010). To do so, the reliability formula was adopted from Miles and Huberman (1994). This formula (number of agreements/ number of agreements + disagreements) embodies more than one coder and necessitates similar findings among them. Two coders were included in the coding, and it resulted in 84%, so the current study is regarded as reliable as the limit for a reliable outcome is 70.

Results

Adopting the qualitative method for the current study led to the utilization of document and content analysis because the curriculum as a kind of document was being examined. First of all, some coding samples from the curriculum were provided below in order to increase the validity of the research.

Table 1. Samples of the Curriculum Coding

Cognitive levels	Statements of the Objectives Extracted from the Curriculum
Remember	*Students will be able to name the common illnesses in a simple way.* (5th grade)
	*Students will be able to **pick up** specific information from short oral texts about weather conditions and emotions.* (6th grade)
Understand	*Students will be able to **describe** people doing different actions.* (6th Grade)
	*Students will be able to **understand** simple texts about festivals around the world.* (5th Grade)
Apply	*Students will be able to **state their preferences.** (7th Grade)*
	*Students will be able to **talk** about their holidays.* (6th Grade)
Analyze	*Students will be able to **write simple pieces to compare** people.* (7th Grade)
	*Students will be able to **make simple comparisons** between different tourist attractions. (8th Grade)*
Evaluate	No objective was found in this cognitive level.
Create	*Students will be able to **design a brochure**, advertisement, or a postcard about their favorite tourist attraction(s).* (8th Grade)
	*Students will be able to **write short and simple poems/stories** about their feelings and responsibilities.* (8th Grade)

In accordance with the coding, the findings were demonstrated in another table below. In this table, several dimensions were included. Firstly, the frequency of the cognitive levels in the curriculum objectives was categorized within the grades in the secondary school. Moreover, the percentages were presented to have coherence among the grades since they have variety in the number of the objectives. Therefore, this table clarifies the findings of each grade separately. The relationship between the four skills and cognitive levels was also interpreted following the explanation of each grade.

Table 2. Frequency and Percentages of the Coding According to the Cognitive Levels

Levels / Grades		Remember	Understand	Apply	Analyze	Evaluate	Create
5th Grade	Frequency	7	30	15	-	-	-
	Percentage	(13%)	(58%)	(29%)			
6th Grade	Frequency	15	22	19	3	-	1
	Percentage	(25%)	(36%)	(32%)	(5%)		(2%)
7th Grade	Frequency	12	27	19	2	-	3
	Percentage	(19%)	(43%)	(30)	(3%)		(5%)
8th Grade	Frequency	9	29	22	7	-	3
	Percentage	(13%)	(42%)	(31%)	(10%)		(4%)
Total	Frequency	43	108	75	12	-	7
	Percentage	17%	44%	31%	5%		3%

The first research question delivers general findings derived from the curriculum, so it is related to the overall coding of the objective statements according to Bloom's taxonomy. The results of each grade level's coding were clarified below.

In the 5th grade's coding, none of the higher levels were found in the objectives, so the analyzing, evaluating, and creating levels were not attained. When it comes to lower levels, the understanding took the majority by having 58%, and the applying followed it with 29%. Remembering was the least practiced level among the levels by covering seven objectives, resulting in 13%.

The findings of the levels according to four skills show that writing skill was not included in the 5th grade's curriculum. The reading and listening levels resulted in similar findings. Both levels were high in the 'understanding' level while slightly reflecting on the 'remembering' level. Besides, the speaking skill covered all of the lower levels. Here, the 'applying' levels take the attention by being covered only in the speaking skill.

6th grade's curriculum represented each cognitive level except the evaluating. However, the analyzing and creating levels comprised the minority of the objectives by having only 7% altogether. On the contrary, lower levels took the biggest proportion. The understanding attributed this with 36% and applying with 32%. The remembering was not so different from these lower levels.

Four of the skills were represented in the 6th grade's curriculum. Receptive skills mostly demonstrate the remembering and understanding levels. This result is quite similar to 5th grade's coding. Speaking skills covered the majority of the curriculum, and the frequency of the applying level is also apparent in this skill. Writing, on the other hand, begins in this grade. Even though having a few objectives, higher levels were practiced in this skill. The coding of the 7th grade's curriculum is not distinctive from the previous grades. Lower levels attract the attention by covering 92% of all the objectives. At the

same time, the analyzing and creating levels are slightly included with 8%. Within the higher levels, evaluating was not supported.
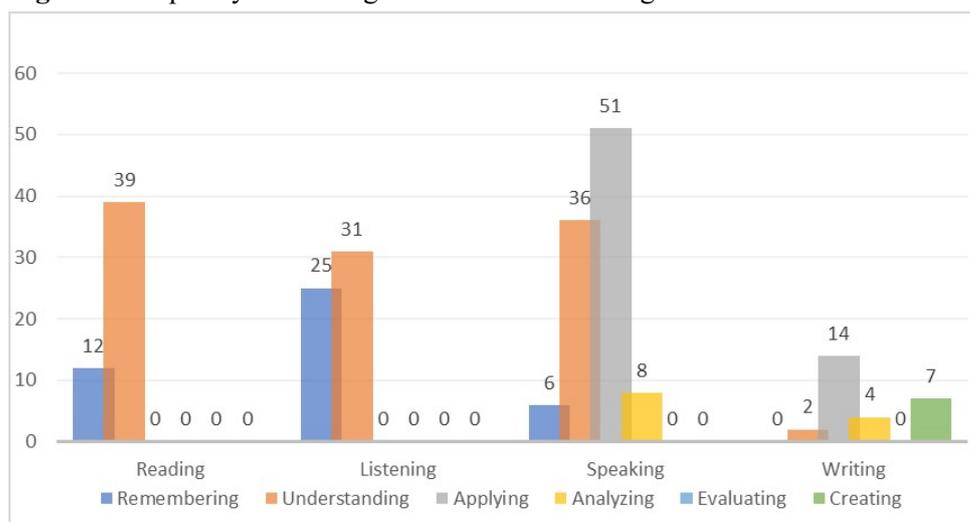
Not surprisingly, reading and listening skills develop the remembering and understanding levels. Covering 26 objectives, speaking skill is dominant in the applying level. At the same time, the frequency of the understanding level was closer to applying by having only three fewer objectives. Besides, writing skill stands out by comprising nearly all of the levels despite their less frequency. At this point, the remembering and evaluating levels were missing.

In the 8ᵗʰ grade's curriculum, the numerical data shows that the proportion of the higher levels are 14% altogether. This result is higher than the rest of the grades. Even though this is not a homogeneous distribution, it is clear that the frequency of higher levels gets more as the grade levels get higher. Likewise, the distribution of lower levels proceeds in the order of understanding, applying, and remembering.

Respectively, receptive skills only promote remembering and understanding in the lower levels. Speaking skill includes different dimensions such as understanding, applying, and analyzing. The lowest level is applying in the writing skill, so students were asked to use the information in different ways. Then, they were asked to practice analyzing and creating at the higher levels.

When it comes to the second research question, it intends to compare the grades regarding reflecting lower or higher levels. This question may also be answered by examining Table 2. One of the most remarkable results for this question is the finding of the 5ᵗʰ grade's coding because none of the objectives belongs to the higher grades so it ends up with 100% in the lower level. Even though each curriculum in the secondary school predominantly comprises lower levels, the percentage of the higher levels increases as the grades get higher. Therefore, the higher levels have 4% in the 6ᵗʰ grade, 5% in the 7ᵗʰ, and 10% in the 8ᵗʰ grade. Considering the cognitive levels, the remembering and applying levels have generalizable outcomes. The remembering level and its' frequency are inversely proportional, so the number of the remembering level decreases as the grade gets closer to the 8ᵗʰ grade. On the contrary, the applying level is directly proportional. Thus, the applying level is encountered more as the grade advances, so the 8ᵗʰ graders have more objectives to achieve the third cognitive level.

Coding of the document led to another classification by taking the third research question into account. This last question aims to find out the difference between four skills and the cognitive levels. In line with this question, the figure below displays the overall findings of the skills according to the cognitive levels in Bloom's taxonomy regardless of the grades. In other words, these levels were differentiated considering the four skills: reading, listening, speaking, and writing. This kind of classification is clear in terms of analyzing the relationships between the skills and the cognitive levels by adding up the total objectives in the curricula. In this way, it reflects on the relationship between the language skills and the cognitive levels in the 5th, 6th, 7th, and 8th grades.

Figure 2 Frequency of the Cognitive Levels according to Four Skills

With the first glance at the table, it is apparent that reading and listening skills solely reflect on the remembering and understanding levels. The rest of the levels were not aimed to be practiced in this skill. In another saying, receptive skills developed only the lower levels except for the applying.

The speaking skill comprised four of the levels in order from remembering to analyzing. The frequency of the objectives for applying attracted attention as it nearly doubled the number of objectives in the reading and listening skills. Besides, the applying level surpassed the other levels by covering more than half of the objectives, which was a great extent when considering the overall results. The understanding level followed as the second most practiced level in the speaking skill. The remembering and the analyzing levels were notably low. Even though it was less frequent, the analysis was mostly practiced level compared to other skills.

The distribution of the levels in the writing skill was not so divergent. Each level except the remembering and the evaluating was practiced within this skill. The findings were closer to each other when compared to the previous ones. Similar to speaking, which is also one of the productive skills, the applying level was dominant in the writing. It was striking that the creating level was only touched upon here since there was no objective supporting the highest level in the other skills. What is more, creating was the second most practiced level here, so practicing writing skills is significant in the development of critical thinking. On the other hand, the understanding level was barely included, while the analyzing level was not so different.

Discussion

This qualitative study required to document and content analysis because of curriculum analysis. Bloom's revised taxonomy was utilized in the coding step. As a result of coding and findings, notable results emerged according to the research questions. In pursuit of elucidating the results, they were compared with the other studies in the field.

The first research question concerns the degrees to which the curricula reflect on critical thinking. The findings reveal the preeminence of the lower levels. Most

surprisingly, the 5th grader's curriculum resulted in the entire reflection of the lower levels, so only remembering, understanding, and applying levels were stated in this curriculum. Not so distinctively, the rest of the grades signify the dominance of the lower levels by covering 93%, 92%, and 85% from 6th to 8th graders.

In parallel with this result, the second research question, related to differences among the grades, can be answered by consulting the previous finding. When the percentages of the lower levels were reaffirmed, they ranged from 100% in the fifth grade to 85% in the eighth grade. A decrease in the percentages implies inequality among the grades. Thus, it may be said that the proportion of the higher cognitive levels increases as the grade levels go through. However, this does not even change the dominancy of the lower levels.

Another outstanding result was in the domain of the understanding level. Based on the dominancy of the lower levels, the frequency of the understanding level attracts the attention by having more than half of the objectives in the 5th grade and covering nearly half of the objectives in the 6th, 7th and 8th grades.

When it comes to four language skills which are about the last research question, it is obvious that certain levels are associated with certain skills. Reading and listening skills only supported the remembering and understanding levels. In this way, it is highly explicit that receptive skills correlate with the lower levels, especially the first two basic levels. Apart from that, the productive skills shine out by covering various levels. In addition to lower levels, higher levels were included and practiced within the productive skills with slight additions. On the other hand, applying was the leading level both in speaking and writing skills.

These substantial results had similarities with the other studies in the literature. First of all, the situation of the curricula in the Secondary Schools in Turkey was analyzed by reflecting on the critical thinking degrees. The results of these studies were significant in terms of seeing the big picture in the Secondary-Schools as the development of critical thinking is interconnected with different branches, and they influence one another.

Aiming to reveal the critical thinking levels, the curricula from 4th to 7th graders were examined in the social studies lesson by Büyükalan and Baysal (2019). This study resulted in the dominancy of the understanding level throughout the grades. In a similar vein, the findings of the current study displayed the superiority of the understanding level. Likewise, the study of Kablan et al. (2013), which evaluated the curriculum of 6th, 7th, and 8th graders, concluded that nearly half of the objectives were covered with the understanding level. In comparison with the present study, the results are quite parallel within the given grades. As a distinctive point, the 5th grade in which the understanding level covered more than half of the objectives was not included in the field of math. Not so differently, the curriculum evaluation of the secondary school Turkish lesson (Filiz, 2019) found that the understanding and applying levels were preeminent. The second most practiced level in this study was also the applying level. Lastly, Doğan and Burak (2018) analyzed 4th grade's curriculum in terms of critical thinking in the field of science. Seventy percent of the objectives belonged to the lower levels. Although both science and the English lesson resemble having lower levels, the current study revealed redundancy of the lower levels compared to the field of science. To sum up, the present study seems to be

consistent with the research in the other branches in secondary schools. It can be concluded that the different lessons' curriculum objectives in secondary school fail to develop critical thinking.

Another significant issue concerning critical thinking emerges in the field of foreign language teaching. Numerous studies on curriculum, exam questions or coursebooks were conducted in order to reflect on the critical thinking levels of the target matters as it is a trendy and current topic in education and foreign language teaching. Some significant comparisons were made with the current study and the other studies in foreign language teaching. The evaluation made by Karagül and Oral (2020) in the field of the French language teaching department has a crucial similarity with this study from the point of connecting language skills and cognitive levels of Bloom's revised taxonomy. As a result of examining A1.1. and A1.2. coursebooks' curricula, receptive skills were associated mostly with the understanding level while the productive skills developed the applying level. This finding confirms the association between the two studies as they both resulted in the same findings considering the skills and the cognitive levels.

Kozikoğlu's (2018) research is confined to the context of the 8th grade. Therefore, the results of the 8th graders' curriculum coding were compared with that study. In this point of view, both studies are highly correlated to each other when the 8th graders' curriculum coding was considered, which was a reliable result because the understanding and applying levels were dominant in the curriculum objectives of both studies.

As a different source to be analyzed, Evcim and Özenici (2019) dealt with English Language Teaching Profession Field Exam (TPFE) in line with Bloom's taxonomy and critical thinking. In both studies, a high proportion of the objectives belongs to the lower levels. Besides, the absence of the evaluating level was correlative in the findings. However, the creating level was also missing in the TPFE exam questions, which is a distinctive feature of the current study.

There were many other studies (Gökler et al. 2012; Rahpeyma & Khoshnood, 2015; Demirci & Gökdeniz, 2020) in which the English language teaching sources such as the curriculum, exam questions, or coursebooks were examined. Each of the given research resulted in the dominancy of the lower levels. This outcome is broad since many of the studies, including the current one, ended up with this deduction. Thus, English language teaching sources or tools prepared in Turkey are insufficient in supporting critical thinking levels equally. Instead, they turn out to be considerably high in conclusion.

All in all, the current study contributed literature that justifies the findings in a great deal with the previous works both within and out of the field, considering the fact that there were quite a lot of similar findings in the given sample studies.

Suggestions for Practice

In conjunction with these findings, the curriculum developers, teachers, educators, and professionals need to keep some of the suggestions deduced in the current study to increase the number of critical citizens of the future. Therefore, increasing the number of higher levels and designing a more homogeneous curriculum is essential to develop more critical thinkers. A homogeneous curriculum does not demand the accumulation of some

cognitive levels, so each level is to be reflected in similar degrees. As well as the overall homogeneity of the cognitive levels in the curriculum, four skills should be supported equally within these cognitive levels. In other words, skills should not be matched with certain cognitive levels, as in the example of receptive skills in which only the remembering and understanding levels were promoted. Each material needs to support activities, objectives or exam questions from lower to higher levels to form a unity for critical thinking. When it comes to comparing the grades, the lower ones, especially the 5th grade, lack higher cognitive levels. However, the higher levels do not have to appear only in the higher grades. Even the primary grades are capable of practicing critical thinking. All in all, consideration and application of these points may help students develop critical thinking habits easier in their lives. As well as the students, EFL teachers may also be encouraged more when they witness the importance of critical thinking in the curriculum explicitly. That's why taking these given concrete steps in this domain of language teaching helps both citizens and the countries for future generations.

Conclusion

Due to the importance of using critical thinking abilities in the 21st century, the field of education takes the lead to prepare students as future influencers of the world. The current study contributed this in the domain of English language teaching by examining the secondary school curricula in Turkey. As there was no other study that evaluates the secondary school curricula within this perspective, the current research crucially contributes to the literature. As a result of the analysis, it was obvious that none of the grades in the secondary school curriculum promoted critical thinking accurately. In each grade, the lower levels were highly predominant. At the same time, receptive skills were related to lower levels while higher levels were only touched upon in the productive skills. Besides, it was overt that the number of objectives promoting higher levels gets more as the grade levels get higher, so 8th grade had more higher-level objectives while 5th grade had no higher cognitive level. The literature, by the way, showed that the current results were also consistent with numerous research in terms of the predominancy of the lower levels in the English curriculum, coursebooks, or exams. Even though this study shed light on the current situation of the secondary-school English curriculum objectives, some limitations inevitably came out. First of all, the scope of the study was restricted to the pre-assigned groups in the secondary school, which were 5th, 6th, 7th, and 8th grades. This group is only a part of the whole when the beginning of foreign language education in Turkey is considered. Therefore, future studies may focus on the involvement of the entire foreign education curriculum from the 2nd to 12th grades in order to broaden the scope. Besides, the objectives stated in the curriculum were taken into account, so the content analysis dealt only with these statements, and it was not checked whether the coursebooks reflect on these objectives. Thus, a comparative study between the objectives and coursebook activities could also be evaluated. Lastly, the current study is purely qualitative in nature due to the analysis of the document. Hence, it evaluated the curricula in depth. For further consideration, the views of teachers or students could also be involved. In addition to this, EFL teachers may be observed in the classroom if they come up with extra solutions to compensate for the deficiencies in the curriculum.

References

Amer, A. (2006). Reflections on Bloom's revised taxonomy. *Electronic Journal of Research in Educational Psychology, 4*(1), 213-230.

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

Anderson, L. (2002). Curricular realignment: A re-examination. *Theory Into Practice, 41* (4), 255-260.

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

Bümen, N.T. (2006). Program geliştirmede bir dönüm noktası: Yenilenmiş Bloom taksonomisi. *Eğitim ve Bilim, 31*(142), 3-14.

Büyükalan Filiz, S. & Baysal, S. B. (2019). Analysis of social studies curriculum objectives according to revised Bloom taxonomy. *Inonu University Journal of the Faculty of Education, 20*(1), 234-253.

Carroll, R.T. (2000). *Becoming a critical thinker: A guide fort the new millennium*. USA: Pearson Custom Publishing.

Demirci, C. & Gökdeniz, M. (2020). TEOG sınavı İngilizce öğretim programına uygunluğu ve yenilenmiş Bloom taxonomisine göre sınıflandırılması. *Education Sciences (NWSAES)*, *15*(1), 1-10.

Doğan, Y. & Burak, D. (2018). 4. sınıf fen bilimleri dersi kazanımlarının revise edilmiş Bloom taksonomisine göre incelenmesi. *Akdeniz Eğitim Araştırmaları Dergisi*, *23*, 34-56.

Ennis, R. H. (1993). Critical thinking assessment. *Theory into Practice, 32*(3), 179-186. http://dx.doi.org/10.1080/00405849309543594

Evcim, H. & Özenici, S. (2019). Analyzing 2016 PPSE English language TPFE according To Bloom's revised taxonomy. *Disiplinlerarası Eğitim Araştırmaları Dergisi, 3*(1), 1-18.

Filiz, S.B. (2019). Ortaokul Türkçe dersi öğretim programı kazanımlarının revize edilmiş Bloom taksonomisine göre analizi. *İlköğretim Online, 18*(4), 1550-1573.

Gandimathi, A., & Zarei, N. (2018). The impact of critical thinking on learning English language. *Asian Journal of Social Science Research, 1*(2), 25-35.

Gökler, Z.S., Aypay, A., Arı, A. (2012). İlköğretim İngilizce dersi hedefleri kazanımları SBS soruları ve yazılı sınav sorularının yeni Bloom taksonomisine göre değerlendirilmesi. *Eğitimde Politika Analizi Dergisi, 1*(2), 114-133.

Halpern DF 2003. *Thought and knowledge: An introduction to critical thinking* (4th ed). Mahwah, NJ: Lawrence Erlbaum Associates, Inc. Publishers.

Kablan, Z., Baran, T. & Hazer, Ö. (2013). İlköğretim matematik 6-8 öğretim programında hedeflenen davranışların bilişsel süreçler açısından incelenmesi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 14*(1), 347-366.

Karagül, A. & Oral, B. (2020). Ortaöğretim Fransızca dersi öğretim programının A1.1 ve A1.2 dil düzeyi hedeflerinin yenilenmiş Bloom taksonomisine göre değerlendirilmesi. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi, 1*(38), 84-100.

Kozikoğlu, İ. (2018). The examination of alignment between national assessment and English curriculum objectives using Revised Bloom's Taxonomy. *Educational Research Quarterly, 41*(4), 50-77.

Krathwohl, D. (2002). A revision of Bloom's taxonomy: An overview. *Theory Into Practice, 41*(4).

Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis*. London: Sage Publication.

OECD (2018). OECD Learning Framework 2030. Retrieved from:
https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

Pardede, P. (2020). Integrating the 4Cs into EFL integrated skills learning. *JET (Journal of English Teaching)*, *6*(1), 71-85.

Rahpeyma, A. & Khoshnood, A. (2015). The analysis of learning objectives in Iranian junior high school English text books based on Bloom's revised taxonomy. *International Journal of Education & Literacy Studies, 3*(2), 44-55.

Thyer, B. (2010). *The handbook of social work research methods*. California: SAGE Publication.

Van Roekel, N. P. D. (2008). *Technology in schools: The ongoing challenge of access, adequacy and equity*. National Education Association, Washington DC.

What are the three domains of Bloom's Taxonomy [Online Image]. (2020). Educere Centre.
https://educerecentre.com/what-are-the-three-domains-of-blooms-taxonomy/

Yıldırım, A. & Şimşek, H. (2018). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayıncılık.