Kastamonu Education Journal, 2023, Vol. 31, No:1, 87-96
doi: 10.24106/kefdergi.1246431

| Research Article / Araştırma Makalesi|

Evaluation of Primary School Teachers' Questioning Skills Regarding Teaching Geography Subjects According to Revised Bloom's Taxonomy

İlkokul Öğretmenlerinin Coğrafya Konularının Öğretimine İlişkin Soru Sorma Becerilerinin Yenilenmiş Bloom Taksonomisine Göre Değerlendirilmesi

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Keywords

1. Finding location and direction
2. Questioning skills
3. Teacher
4. Revised Bloom's Taxonomy

Anahtar Kelimeler

1. Yer ve yön bulma
2. Soru sorma becerisi
3. Öğretmen
4. Yenilenmiş Bloom taksonomisi

Received/Başvuru Tarihi
03.04.2022

Accepted / Kabul Tarihi
28.10.2022

Abstract

Purpose: The main purpose of geography teaching in primary school is to give students a geographical identity, to introduce and make sense of the local and global environment. Qualifying questions and geographical inquiry skills play an essential role in achieving the goals as mentioned above of geography. The purpose of this research is to determine the level of primary school teachers' questioning skills for teaching place and way-finding gains in terms of Revised Bloom's Taxonomy. The revised Bloom Taxonomy consists of six categories: knowledge, comprehension, application, analysis, synthesis, and evaluation.

Design/Methodology/Approach: The research was carried out based on the document analysis pattern, one of the qualitative research methods, by following per the purpose of the study. The research was carried out with 32 primary school teachers working in public schools in different provinces of Turkey in the 2020-2021 academic year. To collect data in the research, the "Questioning Skill Form about Finding Place and Way-finding Gains" was used. A total of 426 questions prepared by the teachers were analyzed by descriptive analysis in terms of the cognitive process dimension of the Revised Bloom Taxonomy.

Findings: In line with the data obtained and the analyzes made, determined that the questions prepared by the teachers for the location acquisitions were at a low cognitive level. In addition, determined that the questions prepared by the teachers were mainly for the steps of understanding, remembering, and applying, respectively.

Highlights: Within the scope of the results obtained, suggestions are offered for primary school teachers' tendency to create more questions about high-level cognitive areas in the teaching of place and direction, which is a functional subject, and for further research.

Öz

Çalışmanın amacı: İlkokulda coğrafya öğretiminin temel amacı, öğrencilere coğrafi kimlik kazandırmak, yerel ve küresel çevreyi tanıtmak ve anlamlandırmaktır. Coğrafyanın sözü edilen amaçlarına ulaşmasında nitelikli sorular, coğrafi sorgulama ve mekânı algılama becerisi önemli rol oynamaktadır. Bu araştırmanın amacı ise ilkokul öğretmenlerinin yer ve yön bulma kazanımlarının öğretimine yönelik soru sorma becerilerine sahip olma düzeylerinin Yenilenmiş Bloom Taksonomisi açısından belirlenmesidir. Yenilenmiş Bloom Taksonomisi bilgi, kavrama, uygulama, analiz, sentez ve değerlendirme olmak üzere altı kategoriden oluşmaktadır.

Materyal ve Yöntem: Araştırma, çalışmanın amacına uygun olarak nitel araştırma yöntemlerinden doküman incelemesi deseni temel alınarak gerçekleştirilmiştir. Araştırma, 2020-2021 eğitim öğretim yılında Türkiye'nin farklı illerindeki resmi okullarda görev yapan 32 ilkokul öğretmeni ile gerçekleştirilmiştir. Araştırmada veri toplamak amacıyla "Yer ve Yön Bulma Kazanımlarına İlişkin Soru Sorma Becerisi Formu" kullanılmıştır. Öğretmenler tarafından hazırlanan toplam 426 soru Yenilenmiş Bloom Taksonomisinin bilişsel süreç boyutu açısından düzeyleri betimsel analiz ile çözümlenmiştir.

Bulgular: Elde edilen veriler ve yapılan analizler doğrultusunda, öğretmenlerin yer yön kazanımlarına yönelik hazırladıkları soruların düşük bilişsel düzeyde olduğu tespit edilmiştir. Ayrıca öğretmenler tarafından hazırlanan soruların sırasıyla en fazla anlama, hatırlama ve uygulama basamaklarına yönelik olduğu belirlenmiştir.

Önemli Vurgular: Elde edilen sonuçlar kapsamında ilkokul öğretmenlerinin, işlevsel bir konu olan yer ve yön konusunun öğretiminde üst düzey bilişsel alanlara yönelik daha fazla soru oluşturma eğiliminde olmalarına ve sonraki araştırmalara yönelik öneriler sunulmaktadır.

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Citation/Alıntı: Demirbaş, İ. & Demir, F.B. (2023). Evaluation of Primary School Teachers' Questioning Skills Regarding Teaching Geography Subjects According to Revised Bloom's Taxonomy, *Kastamonu Education Journal, 31*(1), 87-96. doi: 10.24106/kefdergi.1246431

INTRODUCTION

Education is a process that covers many elements and complements real life. The educational program included in the educational process consists of four essential elements: goals, content, learning-teaching strategies, measurement, and evaluation. Although dynamic relationships exist between these items, changing one thing also affects other items. In this context, the objectives item is essential in being a starting point for different things. The taxonomies, which emerged in the 1950s and 1960s in the determination of targets, attracted attention worldwide and became an indispensable element (Bümen, 2006).

Taxonomy, which plays an essential role in the development of curricula, is the gradual ordering of desired behaviors or achievements from simple to complex, from easy to difficult, from concrete to abstract, and to be interconnected (Sönmez, 2004). In this context, researchers made classifications. The most widely accepted of these classifications is the taxonomy of the cognitive learning field developed by Bloom in 1956. Bloom's Taxonomy has a hierarchical order and progresses from low mental levels to high mental levels (Birgin, 2016). Bloom's Taxonomy comprises six categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. These categories aimed to classify the education programs of teachers, administrators, experts, and researchers, questions about assessment and evaluation, and education system objectives (Amer, 2006). Bloom's Taxonomy has been revised due to the differentiation of education-teaching approaches within the framework of developing and changing conditions, enabling educators to refocus on the original taxonomy and the need to combine current information about development and learning psychology, teaching methods and techniques, measurement and evaluation with this taxonomy. Due to the reasons mentioned above, the Bloom Taxonomy was renewed in 2001 by the working group chaired by Anderson and Krathwohl (Bümen, 2006; Önlen, Tatan & İbret, 2020; Tutkun, Demirtaş, Arslan & Gür Erdoğan, 2015).

When the changes in the revised classification are examined, there has been a transition from one dimension to two dimensions: "Knowledge Dimension" and "Cognitive Process Dimension." In the knowledge dimension, “Factual Knowledge” (Basic elements that need to be known, discipline/solving problems), “Conceptual Knowledge” (Relationships that enable the essential elements in a large structure to work together), “Procedural Knowledge” (How to do something, questioning methods, skills, techniques, criteria for using methods), "Metacognitive Knowledge" (Metacognitive knowledge and awareness and knowledge of one's cognition). The categories in the cognitive process dimension are preserved as six categories, as in the original number of categories. However, the instructional objectives (categories) are formulated from nouns to verb forms (remembering, understanding, applying, analyzing, evaluating, and creating). In addition, three categories were renamed (Knowledge: Recall; Comprehension: Understanding; Synthesis: Creation), and the order of two categories (Synthesis/evaluation by creation) was changed (Amer, 2006; Krathwohl, 2002). The Revised Bloom Taxonomy, which was put forward after the changes, is shown in Appendix 1. In the revised taxonomy, the expression of targets becomes essential.

In addition, using the taxonomy table allows educators to learn what can be done by noticing the empty (not filled) cells in the table (Bümen, 2006). In this context, it can say that the Revised Bloom Taxonomy is a vital planning, measurement, and evaluation tool based on the constructivist approach (Birgin, 2016). Curricula based on a constructivist approach provide alternative assessment and evaluation methods that measure high-level thinking skills (Arseven, Şimşek & Güden, 2016). First, it is essential to teach students to think to develop higher-order thinking skills. In this context, questions are essential elements of a process that enables and activates thinking and requires expression. Because seeking answers to questions requires mental processing (Erdoğan, 2017; Şanlı & Pınar, 2017). Therefore, we should create a question of different types to enable higher-order thinking skills. Skills within the scope of creating, asking, and answering questions play an important role in creating a research-based learning environment. It is also essential in raising inquisitive individuals.

The questions asked by the teachers determine to what extent the students have achieved the targeted achievements. In this sense, the question is the most excellent assistant of teachers in the learning and teaching process. In addition, it can say that it is one of the essential tools that enable students to assume the role of a tiny scientist and to be cognitively active in the course process (Çakıcı, Ürek & Dinçer, 2012; Çalışkan, 2011). On the other hand, asking the right questions in the learning process is more important than giving the correct answers (Yavuz, 2020). When teachers ask appropriate and practical questions, the learning process will start by itself. In addition, the essential element in gaining cognitive behaviors is the questions asked. Teachers must ask students questions at different levels (starting the lesson, developing, etc.).

In measuring student achievement, teachers should ask qualified and quality questions that can measure learning at different levels. In this sense, qualified and quality questions play an important role in ensuring the active participation of students in the lesson, keeping the interaction and communication active between teacher-student and student-student, and facilitating the learning of the subjects covered by students (Çalışkan, 2011; Doğru, 2022; Koç, Sönmez & Çiftçi, 2013). The effects of meaningful, remarkable, and arousing questions about the subject are excellent for the course to pass in a quality process. Especially for primary school students who are at the age of learning by asking, the answers given by the teachers during the lesson are essential in terms of their cognitive development. To complement this process, teachers should also ask qualified and high-quality questions their students. Geography teaching within the scope of various courses in primary school should be developed with questions and skills that require students to examine the local and global environment (Catling, 2001).

Geography education in primary school is carried out in life studies and social studies courses. The geography acquisitions in these courses aim to present information and facts about the world, provide students with positive attitudes and behaviors toward their environment, and provide them with cognitive skills (Demirbaş & Demir, 2018). In addition, geography teaching given in the

primary school age ensures that the students gain identity, perceive, recognize and make sense of their environment (Alaz, 2009). Thus, geographical development, sense of place, awareness of the world, positive attitudes, and values are developed in students. While informing students about people, places, and environments, they are provided with a more thoughtful and positive approach to these elements (Catling, 2001). In this context, I can teach geography in primary school by gaining geographical knowledge, geographical inquiry and spatial perception skills.

First, the correct answer to the questions in the geographical query depends on the correct and reliable geographical information. Geographical information is a place's physical and human geographic characteristics. Geographical inquiry skill, defined as the evaluation of events and objects in the world from a geographical perspective, has an important place in geography teaching. In this context, teachers should encourage students to be interested in the geographical events and objects around them by highlighting their curiosity. In addition, they should ensure that they systematically research the answers to these questions by asking geographical questions about these elements. When geographic inquiry becomes a habit by primary school students, it will become effective in the educational process. It will be beneficial in producing solutions to the geographical problems they may encounter after education. The ability to perceive space is a prerequisite for finding a place and direction. Students need to acquire the skill of perceiving the place in terms of being able to determine a location, find a place and direction, adapt to the environment, comprehend the geographical information about the place and use geographical questioning skills in their daily lives (Demirci, 2006; Doğru, 2022; Safi, 2010).

The first step of teaching geography in primary school can be arousing students' curiosity. In this context, the questions asked by primary school teachers to students should be of a quality that can give them a different perspective. These questions lead to students' formation and development of scientific inquiry and geographical inquiry skills. For this reason, it is essential to prepare the questions asked in taxonomy to achieve quality and a standard (Topçu, 2017). Therefore, we can use the Revised Bloom Taxonomy in deciding the level of the questions used while the acquisitions related to finding the place and way-finding in the life studies and social studies lessons in primary school are given to the students. In addition, the classification of the questions asked for these gains that are planned to be gained should be done following the mental development of the students. The levels of the prepared questions according to the Revised Bloom Taxonomy should be known by the teachers (Gündüz, 2009).

In the research, it is understood that the teachers prepare questions without considering the level of course outcomes and the Revised Bloom Taxonomy (Şanlı & Pınar, 2017, p. 958). For this reason, for a question to be included in the education process effectively for students and teachers, it is necessary to consider specific criteria and to have knowledge about measurement and evaluation (Topçu, 2017). The teachers need to prepare the questions they prepared by considering the Renewed Bloom Taxonomy in terms of developing high-level thinking skills such as problem-solving, research, and critical and creative thinking (Uymaz & Caliskan, 2019). Researching the revised Bloom Taxonomy in different classes and courses is necessary for our education system (Bümen, 2006). In this context, it is essential to analyze the teachers' questions to understand the students' mental processes and determine their learning levels. In addition, analyzing the questions is also essential in determining the level of asking teachers questions (Çalışkan, 2011, p. 122).

According to the Revised Bloom Taxonomy, there are limited studies on the evaluation of questioning skills on geography topics in the literature. For example, geography lesson was written exam questions (Arseven, Şimşek, & Güden, 2016); The questions in the 9th-grade geography textbook and various geography exam questions (Geçit & Yarar, 2010) and the 9th and 10th-grade geography curriculum outcomes (İlhan & Gülersoy, 2019; Sözcü & Aydınözü, 2019) were evaluated according to the Revised Bloom Taxonomy. When the studies are examined, it is seen that there is a need for a qualitative study to evaluate the level of questioning skills of primary school teachers about geography. At the same time, there is a need to determine the levels of written exam questions at the secondary education level. Unlike other studies, this research is considered necessary in analyzing the levels of questions according to the Revised Bloom Taxonomy and determining the levels of questions asked by primary school teachers in teaching location and direction subjects in particular. In addition, it is thought that the research will also benefit the measurement and evaluation research in geography teaching in primary school.

This research aims to determine the cognitive levels measured by the questions by analyzing primary school teachers' ability to ask questions about geography acquisitions in terms of Revised Bloom's Taxonomy. Within the framework of this purpose, "Which cognitive process dimension level of the Revised Bloom Taxonomy is included in the questions asked by the teachers about the subjects of finding a place and way-finding?" search for an answer to the question.

METHOD

Research Model

The research is analyzed according to the Revised Bloom Taxonomy of the questions asked by primary school teachers about the acquisition of place and direction from geography subjects within the scope of life studies and social studies courses. Since it is a study that determines the cognitive process dimension of the questions, it features document analysis from qualitative research methods. Because document review is a research method that enables the examination of written and visual materials containing information about the phenomenon or facts that are intended to be investigated, according to a particular system (Yıldırım & Şimşek, 2016), the research documents consist of forms in which teachers should write questions about each acquisition.

Study Group of The Research

The research study group consists of 32 primary school teachers working in public schools in various provinces of Turkey by using easily accessible case sampling, one of the purposive sampling methods. In this sense, easily accessible case sampling provides an opportunity to speed and practice the research and to select participants who are close to the researcher and easy to reach (Yıldırım & Şimşek, 2016). Demographic information of the teachers participating in the research is given in Table 1.

Table 1. Demographic information on the study group

Gender	**n**
Female	26
Male	6
Age	**n**
20-25	1
26-30	7
31-40	12
41 years and older	12
Education status	**n**
Associate Degree	3
Undergraduate	27
Graduate	2
Professional experience	**n**
1-5	5
6-10	7
11-15	10
15 years and above	10

As seen in Table 1, 26 of the teachers are female, and 6 are male. One of the teachers is between 20-25 years old, 7 of them are between 26-30 years old, 12 of them are between 31-40 years old, 12 of them are 41 years old and older. Three of the teachers have an associate degrees, 27 undergraduate, two graduate, and 5 of them are 1-5 years, 7 of them are 6-10 years, 10 of them are 11-15 years, 10 of them are 15 years. And above professional experience.

Data Collection Tool and Data Collection

The research used “Questioning Skill Form Regarding Place and Direction Finding Outcomes” as a data collection tool. The first part of the form created by the researchers consists of the personal information of the participants, and the second part consists of the acquisitions and question writing area. In the second part of the form, teachers were asked to create at least one question regarding the acquisitions related to geography in the Life Studies (1st, 2nd, and 3rd grade) and Social Studies (4th grade) Curriculums. The achievements used in the form are given in Table 2 (MEB, 2018a, 2018b). While determining the achievements, I thought that it would be troublesome and challenging to write the questions about the achievements for all geography subjects, and only the achievements for the subject of finding a place and direction were determined in line with the expert opinions (1 geography educator, two social studies educators).

Table 2. Acquisitions used in the form

Class to Which the Achievement Belongs	**Lesson to Which the Acquisition Belongs**	**Acquisitions**
1th Class	Life science	1.2.3.Describes the location of his/his house.
1th Class	Life science	1.6.6.Observes the Sun, Moon, Earth, and stars.
2th Class	Life science	2.5.1.Shows his/her country, capital, and place of residence on the map and globe.
2th Class	Life science	2.6.8.It shows directions by observing the sun.
3th Class	Life science	3.1.5.Their sketches her class and school.
3th Class	Life science	3.2.3.Draws a sketch of the place where the house is located.
3th Class	Life science	3.6.3.Their finds directions by taking advantage of nature.
4th Class	Social studies	4.3.1.It makes inferences about the location of any place around it.

The created form aims to determine primary school teachers' ability to ask questions about location and direction determination in terms of the cognitive process dimensions of the Renewed Bloom Taxonomy. To ensure the intelligibility of the form, made a pre-application with 2 class teachers. After made the necessary corrections, collected the data online with the

prepared form. After the researchers prepared the online form, shared its link (internet connection) with the teachers. Collected the data from primary school teachers working in public schools in various provinces of Turkey in the 2020-2021 academic year. Teachers participated in the research by filling out the prepared form.

Analysis of Data

In the research, analyzed the questions written by the teachers about the achievements by examining each question statement to determine its place in the Revised Bloom Taxonomy, and analyzed its place in the cognitive process dimension with descriptive analysis. Descriptive analysis summarises and interprets of the obtained data according to predetermined themes. The descriptive analysis takes place in four stages (Yıldırım & Şimşek, 2016). The data obtained from the research were analyzed by following the steps given in Figure 1.

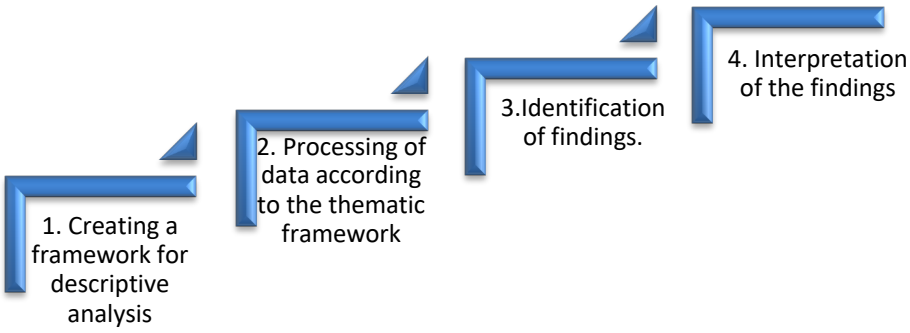

Figure 1. Stages of descriptive analysis of the data obtained from the study

The first stage of data analysis from the research created a framework for descriptive analysis. In this context, cognitive process dimensions of the revised Bloom's Taxonomy were used to analyze the data (See Appendix 1). In the second stage, the data were processed according to the thematic framework.

First of all, examined the expressions of the questions prepared by the teachers for the achievements discussed within the scope of the determined framework. In this context, which categories of "remembering, understanding, applying, analyzing, evaluating, and creating" were appropriate within the scope of the "Cognitive Process Dimension" of the revised taxonomy were evaluated. A total of 426 questions were analyzed and classified according to the revised Bloom's taxonomy. The third stage of descriptive analysis is the identification of the findings. At this stage, information and cognitive process dimensions of each question examined according to taxonomy were determined, and frequency (f) and percentage (%) rates were given and included in the relevant tables. The sample questions prepared by the teachers regarding the data obtained from the examinations are included. While quoting the sample questions, the teachers (T-1) were coded as "T-Number." The final stage has been passed with the interpretation of the findings. At this stage, interpretations and explanations were made for the findings.

Validity and reliability of analysis of data

To ensure the internal validity of the data obtained from the research, the teachers wrote expert opinions and examples of questions. The researchers wrote the external validity of the study by describing all stages of the research process and the data obtained in detail.

To ensure the internal reliability of the data analysis, researcher triangulation was used. Accordingly, data classification was made by a different researcher (Patton, 2014) and, in addition, calculated the reliability formula "[Reliability = Consensus / (Agreement + Disagreement) x 100]" proposed by Miles and Huberman (1994) for qualitative data analysis. Accordingly, “Reliability = 79%” was determined, and the data analysis was accepted as reliable when the result was over 70% (Miles & Huberman, 1994). On the other hand, external reliability was provided by confirming the results obtained by the researchers with the data obtained.

FINDINGS and COMMENTS

In this section, the findings obtained from the analysis of the questions prepared by primary school teachers through descriptive analysis are included. In the study, examined the taxonomy of the questions asked by the teachers, frequency and percentage distribution according to the cognitive process dimension and the result is given in Table 3:

Table 3. Frequency and percentage distribution of the questions asked by primary school teachers according to the cognitive levels of the revised bloom taxonomy

Cognitive Process Dimension	Frequency (f)	Percentile (%)
Remember	152	35,7
Understand	193	45,3
Apply	80	18,8
Analyze	1	0,2
Evaluate	-	-
Create	-	-
Total	426	100

When Table 3 is examined, it is seen that 35.7% of the questions asked by the teachers are at the remembering level, 45.3% at the comprehension level, 18.8% at the application level, and 0.2% at the analysis level. It observed that teachers asked very few questions at the level of analysis, which is one of the higher cognitive levels, and did not ask questions at the level of evaluation and creation.

In the study, examined the questions asked by the teachers according to the renewed Bloom Taxonomy, and the results of the cognitive level of the questions regarding the achievements are given in Table 4:

Table 4. Distribution of questions asked by primary school teachers according to achievements and revised bloom taxonomy

	Cognitive Domain Levels						
Gains	Remember	Understand	Apply	Analyze	Evaluate	Create	Total
Describes the location of her/his house.	21	24	9				54
Observes the Sun, Moon, Earth and stars.	24	21	1				46
Shows her/his country, capital and place of residence on the map and globe.	23	21	7				51
Shows directions by observing the sun.	22	23	10	1			56
She draws a sketch of her/his class and school.	11	26	20				57
Draws a sketch of the place where the house is located.	7	28	21				56
Their finds directions by taking advantage of nature.	22	27	8				57
Makes inferences about the location of any place around it.	22	23	4				49
Total	152	193	80	1			426

When Table 4 is examined, the teachers asked questions addressing 426 cognitive levels related to eight acquisitions. “Describes the location of your house.” It is seen that 21 of the questions prepared for the learning outcome are at the level of "remembering," 24 of them at "understanding," and 9 of them at the level of "application." “Observe the Sun, the Moon, the Earth, and the stars.” It was determined that 24 of the questions prepared for the learning outcome were at the level of "remembering, and 21 of them were at the level of "understanding" and "application." “Shows his country, capital and place of residence on the map and globe.” While 23 of the questions prepared for the learning outcome were at the level of "remembering," 21 of them were at the level of "understanding," 7 of them were at the level of "application." “By observing the Sun, he shows directions.” It is seen that 22 of the questions prepared for the learning outcome are at the "remembering" level, 23 at the "understanding" level, ten at the "application" level and one question at the "analysis" level. “She draws sketches of her class and school.” It was determined that 11 of the questions prepared for the learning outcome were at the level of "remembering," 26 of them were at the level of "understanding," and 20 questions were at the level of "application." “Sketches of where the house is located.” It was determined that 7 of the questions prepared for the learning outcome were at the level of "remembering, 28 at the level of "understanding," and 21 at the level of "application." “Finding directions by taking advantage of nature.” While 22 of the questions prepared for the learning outcome are at the "remembering" level and 27 at the "understanding" level, it is seen that eight questions are at the "application" level. “It makes inferences about the location of any place around it.” Of the questions prepared for the learning outcome, asked 22 at the level of "remembering, 23 at the level of "understanding," and four at the level of "practice." It determined that among the questions asked by the teachers, asked only one question at the "analysis" level, and asked no questions at the "evaluation" and "creation" levels, which are among the higher cognitive levels.

The questions asked by the teachers in the research were analyzed considering the Revised Bloom Taxonomy and placed in the appropriate category. Randomly selected examples of questions prepared by teachers according to cognitive levels are given below:

Examples of questions in the remembering level:

"Can you describe your house to your friends without using an address?" (T1)

"If we stretch our right hand in the direction of the rising sun, which direction will we face?" (T16)

"Which structures are located in the east and north of our school?" (T16)

"What do we see when we look at the day/night sky?" (T32)

Examples of questions at the comprehension level:

"Observe the sunset and tell us the direction of our school and what is happening to its north." (T3)

"Where is our country in the world model?" (T12)

"According to the sketch, what is east of Ayşe's house?" (T18)

"Draw a map and write down the city, country, and capital you live on." (T18)

"Write by describing the most used way-finding methods." (T28)

Examples of questions at the application level:

"Sketch of the floor where our classroom is located by using the floor plan on each floor of our school." (T2)

"Sketch where you live." (T2)

"Write the Sun, Moon, and Earth in order of magnitude and draw their shape." (T14)

"Sketch your house and indicate which road you can take to school closest to you." (T24)

Examples of questions in the analysis level:

"Observe the shape of the Moon for 15 days and draw it in your notebook." (T3)

When the sample questions asked by the above teachers to the students are examined, it is seen that the questions are general knowledge level/simple, and they ask simple questions related to remembering and understanding.

CONCLUSION, DISCUSSION, and RECOMMENDATIONS

This study evaluated the questions asked by primary school teachers about the acquisition of place and way-finding from geography subjects according to the revised Bloom Taxonomy. The teachers prepared the questions. It has been determined that almost all of the questions asked by the teachers are at the level of remembering, understanding, and application (lower cognitive level) (See Table 3). It determined that it asked only one question at the analysis, evaluation, and creation level (high-level cognitive level), and this question was at the analysis level (See Table 3). This situation shows that the questions prepared by the teachers do not include the metacognitive level. Therefore, when the distribution of question generation among the achievements is examined according to the levels of the teachers in the cognitive process dimension of the taxonomy, it is seen that the questions they prepare are mainly at a low level. According to the revised Bloom Taxonomy, when the studies in the literature are examined, the questions in the lower steps are used at higher rates (Çepni, Ayvacı, & Keleş, 2001; Dindar & Demir, 2006; Erdoğan, 2017; Geçit & Yarar, 2010; Işık Mercan, 2019; Köğce & Baki). , 2009; Yıldız, 2015; Şanlı & Pınar, 2017). However, teaching aims to acquire skills that increase knowledge transfer. The effective transfer of learned information is related to the application, analysis, evaluation, and creation steps rather than the remembering and understanding steps of the cognitive process dimension (İlhan & Gülersoy, 2019). In today's information age, it is impossible to qualify students who can read and memorize, write or express this information when asked to be successful. Students who can establish a cause-effect relationship, interpret information, question what they read, and use the information they have acquired daily are considered successful (Arseven, Şimşek, & Güden, 2016).

According to the results of the research, it is seen that the questions asked by primary school teachers about the acquisition of place and way-finding measure the low-level cognitive process dimension, and questions about the high-level cognitive process dimension are not asked. However, the use of geographical information, which is one of the reasons for the existence of geography, in all kinds of social and economic activities in the planning and production stages (Sözcü & Aydınözü, 2019) is related to the levels of analysis, evaluation, and creation that enable high-level thinking. In addition, the findings obtained from the research reveal that teachers do not ask questions at the upper levels of taxonomy, and they are insufficient in asking high-level questions, which is the essential element in effective questioning. In studies similar to our research, it has been revealed that teachers mostly prefer simple questions at the level of "understanding" and "remembering" and ask questions that require low-level mental processes to a large extent (Akyol, Yıldırım, Ateş, & Çetinkaya, 2013; Koray, Altunçekiç & Yaman, 2005; Ayvacı & Türkdoğan, 2010; Can, 2006; Çolak & Demircioğlu, 2010; Erdoğan, 2017; Işık Mercan, 2019; Şanlı & Pınar, 2017). In the study conducted by Uymaz and Çalışkan (2019) on the questions asked by social studies teachers in exams, it is seen that the results of the study are similar to the results of this research, as the questions are generally at the lower level of the cognitive process dimension of the taxonomy. The questions corresponding to the upper level are very few. This situation can be interpreted as the fact that the teachers did not take the Revised Bloom Taxonomy into account while preparing the questions and did not have sufficient knowledge about measurement and evaluation. In addition, it can say that teachers ask low-level cognitive questions in terms of both question preparation and high-level thinking skills and their competence to activate these skills.

Based on the findings obtained as a result of the research, we can conduct research on why teachers ask questions corresponding to the lower-level steps of the Revised Bloom Taxonomy in exams. It can suggest that primary school teachers create more questions for high-level cognitive domains in teaching the functional subject of place and direction. The Ministry of National Education should prepare high-level question samples for teachers. In-service training can be given by experts on the subject so that teachers can create high-level questions.

Statements of publication ethics

I/We hereby declare that the study has not unethical issues and that research and publication ethics have been observed carefully.

Researchers' contribution rate

The study was conducted and reported with equal collaboration of the researchers.

Ethics Committee Approval Information

Kastamonu University Social and Human Sciences Research and Publication Ethics Committee Decision No. 3/35 and 12/10/2020

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Appendix 1. Revised Bloom Taxonomy (Krathwohl, 2002; Amer, 2006)

İnformation Dimension		Cognitive Process Dimension					
		Remember	Understand	Apply	Analyze	Analyze	Analyze
A. Olgusal Bilgi	**Aa.** Terminology knowledge **Bb.** Information about specific details and elements	Retrieve relevant information from long-term memory	Determining the meaning of instructional messages	Applying or using a learned principle in a different situation	Breaking down information and identifying how the pieces relate to each other and an overall structure or purpose	Making judgments based on criteria and standards	Combining elements to form a new, coherent whole or to make an original product
		*Recognition *Recall	*Turning *Sampling *Classification *Summarizing *Do not infer *To compare *Description	* Executive * Apply	*Differentiation **Organization Attribution	*Control *Criticism	*Creation *Planning *To produce