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TEACHERS' VIEWS AND EXPERIENCES ON SKILL-BASED QUESTIONS ¹

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Abstract

This study was conducted to determine teachers' views and experiences on skill-based questions. It is known that skill-based questions used in central examinations for the transition to high schools in Türkiye are also utilized by secondary school teachers in their lessons. It was therefore considered important to examine teachers' experience-based views on using skill-based questions, integrating them into lessons, and the challenges they encounter. The study employed a phenomenological design, and semi-structured interviews were conducted with 34 secondary school teachers. The data were analysed by content analysis. Accordingly, it was concluded that teachers came more prepared to integrate the questions into the lesson, that the use of these questions supported students' cognitive development, and that in the affective dimension, they sometimes revealed low motivation and feelings of inadequacy. At the same time, it was concluded that teachers had difficulty in solving these questions from time to time, their lesson time was insufficient, and they had difficulty in breaking students' prejudices about the questions. According to the research results, it is recommended to provide more auxiliary resource

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support to schools and teachers so that skill-based questions can be used easily by teachers. Course hours should be updated or extra question solving hours should be determined.

Key Words: Skill, Skill-Based Question, Secondary School, Teachers Views

Beceri Temelli Sorulara İlişkin Öğretmen Görüşleri ve Deneyimleri

Öz

Bu çalışma, öğretmenlerin beceri temelli sorulara ilişkin görüş ve deneyimlerini belirlemek amacıyla yürütülmüştür. Türkiye’de liselere geçişte yapılan merkezi sınavlarda tercih edilen beceri temelli soruların, ortaokul öğretmenleri tarafından derslerinde kullanıldığı bilinmektedir. Buna göre öğretmenlerin deneyimleri doğrultusunda, beceri temelli soruları kullanma, derslerine entegre etme ve bu soruları kullanmada yaşanan sorunlar hakkındaki görüşleri önemli görülmüştür. Araştırma fenomenolojik desene göre tasarlanmıştır ve 34 ortaokul öğretmeni ile görüşmeler yapılmıştır. Veriler içerik analizi ile çözümlenmiştir. Buna göre öğretmenlerin beceri temelli soruları derse entegre etmek için derslere daha fazla hazırlıklı geldikleri, bu soruların kullanımının öğrencileri bilişsel olarak beslediği, duyuşsal boyutta ise öğrencilerin zaman zaman düşük motivasyon ve yetersizlik duyguları ortaya koydukları sonuçlarına ulaşılmıştır. Aynı zamanda öğretmenlerin bu soruları çözmekte bazen zorlandıkları, ders sürelerinin yetersiz olduğu ve öğrencilerinin sorulara ilişkin önyargılarını kırmada zorluk çektikleri sonucuna ulaşılmıştır. Araştırma sonuçlarına göre, beceri temelli soruların öğretmenler tarafından rahatlıkla kullanılabilmesi için okullara ve öğretmenlere daha fazla yardımcı kaynak desteği sağlanması; ders saatlerinin güncellenmesi veya ek soru çözme saatlerinin belirlenmesi önerilmiştir.

Anahtar Kelimeler: Beceri, Beceri Temelli Soru, Ortaokul, Öğretmen Görüşü.

INTRODUCTION

In the conditions of the 21st century, the minimum responsibility of educational services should be the transfer of knowledge. More important than the transfer of knowledge is the ability to interpret and make sense of the given information in the mind, to distinguish which of the given information is important and which is not, and to relate the given information to everyday life (Harari, 2018). In this context, it should be measured how much learners learn the concepts related to the courses in routine school practices as well as which skills they acquire in the courses. In the current period, expectations from students are changing. While students are asked to think logically, critically, creatively and holistically, it can

be stated that there is an orientation from knowledge to skills in the 21st century world. In schools, in accordance with the principle of functionality, it is important to emphasise life skills that will be useful for learners in daily life and thus to raise individuals who can cope with change. In the process of providing students with the desired skills, change is tried to be made through central exams in Türkiye, which carries out an exam-oriented system. For this purpose, changes have been made to measure students' reasoning and analysis skills, especially in the central exams taken in the transition to high school level, and differences in the types of questions used in these exams are aimed. Question patterns that facilitate the development of critical thinking, higher-order thinking and analytical skills in students, thereby equipping them with the ability to solve problems encountered in daily life, are designated as "skill-based questions" (Uzun, 2021).

Skill Based Questions

Skill-based questions are known as questions that are used to measure high-level cognitive skills that help students achieve the targeted outcomes. Skill-based questions are not knowledge-oriented but are enriched with visuals and stories that require interpretation and thinking. In Türkiye, exams such as LGS, OKS, SBS, and TEOG are administered for transition to high school. While student selection was made by asking more knowledge-based questions, today, students are placed in high schools with skill-based questions. It can be stated that there may be social, cultural and economic reasons behind the changes in the exams and the change in the content of the questions, as well as the results of international exams such as PISA, TIMSS, PIRLS (Erden, 2020). Türkiye participates in international large-scale assessment programs such as PISA, TIMSS, and PIRLS to evaluate students' academic performance at the global level. These exams, which measure student achievement at the international level, are exams that provide data on the adequacy of countries' own education systems and policies and show students' levels in areas such as science, mathematics and reading (Sarier, 2021).

In order to ensure the success of students in national and international examinations, it is imperative to align the questions that are preferred in the central exams administered at the national level with those in international examinations. Central examinations represent a pivotal component within the Turkish National Education System, serving as a primary metric for assessment and evaluation. In Türkiye today, the question styles of the central exam (LGS) that students have to take for admission to high schools have been revised according to the new approach (Ministry of National Education [MoNE], 2018).

In this context, the Ministry of National Education's General Directorate of Measurement, Evaluation and Examination Services publishes study questions under the name of "skill-based questions" on its website, which are freely accessible to students. Thus, students were provided with access to examples of this question type.

Skill-based questions which are known as questions that allow students to develop their critical thinking, higher-order thinking and analysing skills by narrating the problems they encounter in daily life (Uzun, 2021), are also called new generation questions. It is known that these questions cause anxiety in students from time to time and students experience difficulties in solving these questions. In their study, Akdemir and Akdemir (2022) examined the relationship between secondary school students' mathematics anxiety levels and their success levels in new generation questions. Their findings revealed that as mathematics anxiety increases, success in solving skill-based questions decreases. Erden (2020), on the other hand, focused on the opinions of Turkish, mathematics and science teachers on skill-based questions; it was stated that teachers emphasised the incompatibility of course outcomes and questions and complained about the insufficiency of the resources available to them. In their study, Biber et al. (2018) stated that the use of this question type would contribute to raising students who are far from rote memorisation, who can interpret and use information, but it increases the level of anxiety in students and parents and causes loss of motivation. However, there are different studies in the literature in which both teachers' and students' opinions about the high school transition exam using skill-based questions were consulted (Bulut & Yılmaz, 2020; Calp & Alpkaya, 2021; Kablan & Bozkuş, 2021; Karakaya et al., 2020).

This study aims to examine teachers' views and experiences regarding skill-based questions. Accordingly, the questions sought to be answered in the research are as follows:

What are teachers' views and experiences regarding:

- their experiences of preparing lessons using skill-based questions,
- the inclusion of skill-based questions in classroom practices,
- their experiences of using skill-based questions and its influence on their professional development,
- their perceptions and experiences regarding the impact of skill-based questions on students, and
- the challenges they experience when using skill-based questions?

METHOD

Research Design

This study employed a qualitative research method. This approach involves examining the subject in question and interpreting the problem situation in its environment without altering it (Guba & Lincoln, 1994; Klenke, 2016). This study employed a qualitative research design known as phenomenological design. Smith and Eatough (2007) define the phenomenological design as a design that tries to concretise feelings, thoughts, perceptions and experiences about a particular situation and to reveal the meaning underlying these experiences. Phenomonological design is a design used to deal with phenomena and events that are aware of but cannot be interpreted in depth. This study aims to explore teachers' views and experiences regarding skill-based questions; therefore, a phenomenological design was considered the most appropriate approach.

Ethics Statement

Ethical approval for this study was granted by the Social Sciences and Humanities Research Ethics Committee of Fırat University on June 10, 2024 (Meeting and Decision No. 2024/12/1). All participants were provided with an informed consent form, and participation in the study was entirely voluntary.

Study Group

In this study, convenience sampling was used. Convenience sampling is employed when alternative sampling methods are not viable (Yıldırım & Şimşek, 2018). In the context of convenience sampling, the researcher determines a sufficient number of items from among those available for the process as a sample. This sampling method is also referred to as chance, random or accidental sampling (Singleton & Straits, 2005). Convenience sampling is based on items that are completely available, quick and easy to reach in terms of providing speed and practicality to the research. It is the most preferred strategy in qualitative research (Patton, 2005). In this context, in accordance with the convenience sampling, the study group was selected among teachers working in different branches and working in the city where the researchers work. This study was conducted in a city in the Eastern region of Türkiye with a total of 34 teachers (17 female and 17 male) who volunteered to participate in the research in the 2023-2024 academic year.

Table 1

Demographic information on teachers

Variables		f
Gender	Female	17
	Male	17
Teaching Experience	1-5 years	16
	6-10 years	8
	11-15 years	9
	16-20 years	1
	Science	10
Subject Areas	Maths	8
	Social Sciences	5
	Turkish	11

An analysis of the demographic characteristics of the participants indicates that 17 teachers were male and 17 were female. In terms of years of teaching experience, 16 teachers had 1–5 years, eight had 6–10 years, nine had 11–15 years, and one had 16–20 years of experience. It was also observed that the teachers represented different subject areas.

Data Collection Tools

In qualitative research, the collection of data is typically carried out through the use of various techniques, including observation, interviews and document analysis. In this particular instance, the researchers opted for a semi-structured interview form as a data collection tool. Interview technique is known as a widely used technique in qualitative research method. Open-ended questions were preferred in the data collection process in order to encourage the participants to think in accordance with the purpose of qualitative studies. Interviews help to define, understand and describe the situation (Büyüköztürk et al., 2018). In the course of developing the semi-structured interview form, the literature was subjected to a thorough review, with particular attention paid to the sub-problems of the research. A detailed analysis was conducted on research on skill-based questions, leading to the creation of a question pool comprising 12 items designed to ascertain teachers' perspectives on skill-based questions. Each of the items in the interview form was intended to illuminate a different aspect of the research phenomenon. For content validity, the interview questions were analysed with the faculty members working in the field of educational sciences and the teachers who would be excluded from the study group of the research, and evaluations were made in terms of appropriateness and comprehensibility. Based on the opinions and suggestions received, the questions in the interview form were checked again and the interview form was finalised with five questions by making the necessary arrangements. The finalised questions were applied to Science,

Turkish, Maths and Social Studies teachers. Since the teachers did not volunteer to be audio recorded during the interviews, the answers given were noted and recorded by the researchers. The data collection process was conducted over a period of five weeks.

Data Analysis

The data obtained at the conclusion of the study were analysed by means of content analysis. In qualitative research, the analysis of data involves the following steps: the preparation of data for analysis, coding of data, the consolidation of codes into themes, and the presentation of data in figures, tables, or a discussion. In this study, data analysis was conducted using content analysis. Content analysis is a type of analysis that goes from the part to the whole and looks at the root of the relevant event, the current situation. In content analysis, the data obtained through interviews, observations or documents is systematically coded, categorised and organised into themes. The findings are then defined and interpreted (Eysenbach & Köhler, 2002). For this research, 34 interview forms were analysed. Coding was done by two different coders. The inter-coder reliability coefficient (Miles & Huberman, 1994) was found to be .86. Then, the codes were compared, and common codes were created for the answers given to the questions. Categories were formed depending on the codes and themes were formed depending on the categories. These units were tabulated to show the relationship between them. While making interpretations, the opinions shared by the teachers were included in direct quotations. The opinions of the participants were presented with a number of codes. The teachers were coded as T1m, M1f, Sc1f, S1m according to the initials of their branches [*Turkish, Mathematics, Science (Sc), Social*] and gender [*Female (f), Male (m)*] and the participant order given to them and their opinions were presented after this code.

FINDINGS

The findings obtained by analysing the data obtained during the research process are presented in tables.

Table 2

Effects of skill-based questions on lesson preparation

Theme	Category	Code	Participant	f
Effects of skill-based questions on lesson preparation	Extra time allocation	Preparing the questions requires a lot of time	T1m, T3m, T4f, T6m, T7m, T8f, T9f, T11f, Sc1f, Sc2m, Sc3f, Sc4m, Sc5f, Sc6m, Sc7f, Sc8m, Sc9m, Sc10f, S1m, S2f, S3m, S4m, S5m, M1f, M3m, M4f, M5f, M7f	28
			M1f, M2m, M5f, M6m, M8f, Sc1f, Sc4m, Sc5f, Sc6m	9
	Preliminary preparation	Literature review and research process	T8f, T9f, T11f, M8f, M2m, M1f, M5f, M6m	8
		Looking at the questions to be solved in advance and solving them	T4f, T5f, T6m, T11f, Sc2m, Sc1f	6
	Being prepared for the use of material/technology	Requiring different teaching materials Use of smart board	T10m, T4f	2

When Table 2 is analysed, the opinions on “allocating extra time”, “making preliminary preparation” and “being prepared for the use of material/technology” in the theme of the effects of using skill-based questions in lessons on the preparation process of the lessons are categorised. When the categories are analysed, it is seen that the most emphasis is on the extra time allocation category. When the expressions related to allocating extra time were analysed, it was seen that the teachers emphasised the statement that preparing the questions requires time. Some examples of teachers' opinions are presented below:

T11f: “The preparation process before using skill-based questions in lessons can be tiring and time-consuming. Finding, analysing, preparing and solving appropriate questions can cause a serious loss of attention and time.”

S2f: “We need to make more effort regarding our lesson preparation process. Since time is needed to prepare the questions, the preparation process takes more time.”

When the category for making preliminary preparation was analysed, it was seen that the teachers especially emphasised the process of scanning and researching resources and being prepared for the process by looking at the questions to be solved in advance and solving them. Since skill-based questions are long and complex questions that include more than one acquisition, the length of the questions does not coincide with the duration of the lesson, it was observed that

teachers who went through a detailed process by scanning the resources in advance and solved the questions to be solved during the lesson before the lesson did not skip important points and transferred the question to the students better, solved more questions by using the time efficiently and contributed to the process. Some examples of teachers’ opinions are presented below:

M8f: “I solve the skill-based questions I will use before the lesson and try to explain them more clearly.”

T8f: “Skill-based questions challenge us as much as the students. I feel the need to look at the questions to be solved in preparation for the lesson.”

When the category of being prepared for the use of material/technology was analysed, it was seen that the teachers emphasised the importance of the use of skill-based questions requiring different teaching materials and the use of smart boards. Some examples of teachers' opinions are presented below:

Sc2m: “Since there are question solutions based on activities, it creates the necessity to prepare materials before the lesson.”

T10m: “Skill-based questions require the use of smart board more for me.”

Table 3
Inclusion of skill-based questions in lessons

Theme	Category	Code	Participant	f
Inclusion of skill-based questions in lessons	Contributing to the exam preparation process	Increasing familiarity with questions	T3m, T4f, T6m, T7m, T11f, M2m, M3m, M4f, M5f, M8f, Sc4m, Sc5f, Sc7f, Sc9m, Sc10f, S2f, S4m, T5f, T8f	19
		Supporting studies for the central exam	M2m, M3m, M4f, M5f, M6m, M8f, Sc1f, Sc2m, Sc3f, Sc4m, Sc6m, Sc7F, Sc8M, Sc9m, Sc10f, S4m, S1m, S5K, T1m	19
		Moving away from a rote-based system	T10m, S3m, T5f, T11f, S2f	5

Within the scope of the research, the teachers were asked about the purpose of including skill-based questions in the courses. In this context, when the evaluations of the teachers were coded and categorised, the category of “contributing to the process” emerged. These contributions are listed as increasing familiarity with the questions, supporting the studies for the central exam and moving away from the system based on rote learning:

M2m: “Including similar skill-based problems in the lessons, the common exam questions published by MoNE increase children's familiarity with the exam. It is a guide for teachers and students.”

T1m: “I find it positive because it supports students' studies for the exam. It also helps students to be more prepared for the central exams.”

Sc1f: “The inclusion of skill-based questions in the lessons ensures that students are constantly confronted with the same types of questions they will face in the central exams. This helps to reduce the gap between classroom learning and exam expectations.”

T10m: “Students participate more actively in the lessons. At the same time, it also distracts from the education system based on rote learning.”

Table 4

The effects of skill-based questions on teachers' professional development

Theme	Category	Code	Participant	f
The effects of skill-based questions on teachers' professional development	The change created by the teacher in the student	Developing reasoning skills	T3m, T4f, Sc4m, F7f, T5f Sc7m, T9f, Sc6m, Sc9m, S1m, S3m, M5f, M7f, M8f	14
		Gaining a different perspective	T6m, T11f, Sc6m, M4f, M6m	5
		Supporting higher order thinking skills	Sc5f, Sc9m, S4m, Sc1f	4
		Encouraging learning to learn	Sc1f, Sc3f, S4m	3
	Contribution to the teacher's own personal/professional development	Being aware of innovations and developments	T1m, Sc7f, S2f, T11f, T10m	5
		Stay up to date	T1m, T11f, M1f, S2f, T9f	5
		Deepening subject knowledge and pedagogical skills	Sc1f, Sc3f, M8f, Sc9m, S2f	5
		To change the static teacher profile into an active teacher profile	T2f, M2m, T10m, T8f	4

Within the scope of the research, teachers were asked to evaluate the effects of skill-based questions on teachers' professional development. When the answers about the effects of using skill-based questions on their professional development were analysed, two main categories were formed. These categories were categorised as “the change that the teacher creates in the student” and

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“contribution to the teacher's own individual professional development”. In the context of the changes that the teacher creates in the students, it was stated that the most frequently encountered changes were developing reasoning skills, gaining different perspectives, supporting high-level thinking skills, and encouraging learning to learn. Some of the opinions of the teachers are presented below:

T3m: “I see that students' reasoning skills improve and this increases my belief in the positivity of training students with skill-based questions.”

Sc4m: “I see this as a very positive and appropriate situation. Because science is more comprehensive and everywhere in life than it is thought to be, and because these skill-based questions enable the use of reasoning skills at a high level, I think they will have very positive contributions both for the course and for the rest of life.”

S4m: “Thanks to skill-based questions, students' high-level thinking skills are supported; it is effective in learning to learn.”

In the category of “contribution to the teacher's own individual/professional development”, it was stated that positive situations such as being aware of innovations and developments, staying up to date, deepening in subject knowledge and pedagogical knowledge, and changing the static teacher profile into an active teacher profile were fed by using skill-based questions. Some of the opinions of the teachers are listed below:

T11f: “Since skill-based questions constantly appear in new formats, a teacher who professionally follows and analyses these questions well is aware of innovations and changes. It enables him/her to constantly update himself/herself professionally.”

S2f: “It contributes a lot to professional development. We update ourselves by moving away from a monotonous narrative, increasing general culture skills and following professional innovations.”

M1f: “Skill-based questions are necessary for the development of teachers. It keeps the teacher's knowledge pool fresh.”

T10m: “Using skill-based questions also saves the teacher from becoming monotonous. It helps him/her to improve himself/herself. It also helps him/her to renew himself/herself.”

T2f: “I think it was good to use these questions because it turned the static teacher profile into an active teacher profile.”

Table 5
Effects of skill-based questions on students

Theme	Category	Code	Participant	f
Positive effects	Negativities with affective dimension	Demotivation	T2f, T4f, T6m, M8f, Sc3f, Sc6m, Sc8m, T9f, Sc4m, Sc5f	10
		Bias	M4f, M6m, Sc3f, Sc6m, M7f, Sc7f, Sc9m	7
		Causing a sense of inadequacy	M1f, Sc8m, Sc1f, T2f	4
	Negativities with cognitive dimension	Difficulty in comprehension in limited time	M1f, T7m, T5f, S2f, T1m, Sc1f	6
		Inadequate student readiness	T10m, M3m, S1m, T11f	4
		Development of different thinking skills	T2f, M2m, Sc7f, Sc10f, Sc3f, T3m, Sc1f, Sc2m, Sc8m, Sc9m, M4f	11
Negative effects	Cognitive gains	Reading comprehension-interpretation	M5f, S2f, S3m, S4m, S5m, Sc6m	6
		Moving away from memorisation	T8f, M2m, Sc8m	3
		Developing problem solving skills with real life scenarios	M8f, Sc1f, T1m	3
		Getting efficiency from the lesson	Sc4m, Sc5f, Sc3f	3
	Affective gains	Positive attitude towards the course	M8f, Sc3f	2
		Encouragement towards the lesson	Sc6m	1

Within the scope of the research, teachers were asked to evaluate the effects of skill-based questions on students. Within the scope of the research, it was observed that skill-based questions had positive and negative effects on students. When the themes are analysed, it is noteworthy that the most emphasis is on the negative effects of skill-based questions on students. The negative effects of skill-based questions on students were categorised as “negativities in affective dimension” and “negativities in cognitive dimension”. When these categories were analysed, it was stated that the most emphasis was on negativities in the affective dimension. When the category of negativities in affective dimension was analysed, teachers mostly stated that skill-based questions decreased motivation, that there was prejudice about these questions and that they caused a sense of inadequacy in students. Some examples of teachers' opinions are presented below:

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M8f: "While students with low achievement level have difficulty even in simple questions, they have more difficulty in solving skill-based questions. This negatively affects students' attitudes towards mathematics and decreases their intrinsic motivation."

Sc1f: "Some students may initially struggle with skill-based questions due to their complexity, potentially leading to anxiety and demotivation."

Sc8m: "Unfortunately, stress and pressure cause loss of motivation and a sense of inadequacy."

M6m: "Questions affect students negatively. Generally, the length of the questions makes students think that the question is difficult and creates prejudice. Students who do not like to read and see long questions may not look at the question."

When the negativities related to the cognitive dimension are considered, the expressions of difficulty in understanding the questions in a limited time and insufficient student readiness draw attention. Some examples of teachers' opinions are presented below:

S2f: "It clearly reveals the difference between students who read a lot of books and those who do not. The negative aspect is that since the questions resemble a complex DNA sequence, the student cannot transfer some of his/her knowledge to the question in a short time just because he/she cannot understand it."

T10m: "The fact that the students encountered questions above their level of readiness and they could not solve these questions can be considered as a negativity."

In the theme of the positive effects of skill-based questions on students, the categories of "cognitive gains" and "gaining attitudes and behaviours towards the course" were formed. When these categories are analysed, it is seen that the most emphasis is on the cognitive gains category. When the cognitive gains category was examined, it was seen that the most emphasis was placed on the development of different thinking skills, followed by reading comprehension, interpretation, getting away from memorisation, and developing problem solving skills with real life scenarios. Some examples of teachers' opinions are presented below:

T2f: "It encourages our children to think analytically."

M4f: "It activates many cognitive aspects of students and ensures that they do not look at it from only one side."

M2m: “It encourages students to think analytically by moving them away from rote memorisation.”

Sc6m: “For me, there are more positive aspects. If the student does not have the habit of reading books, skill-based questions fulfil this need. Skill-based questions ensure that the information is kept in memory. In other words, the fact that the information is attributed several times in that question makes the information permanent, and since the question is narrated, it adds enthusiasm to the student to read and solve it.”

Sc1f: “Skill-based questions encourage my students to apply their knowledge to real-world scenarios, significantly improving their critical thinking and problem-solving skills.”

In the category of gaining attitudes and behaviours towards the lesson, the teachers stated that the most emphasis was on gaining efficiency from the lesson and then providing a positive attitude towards the lesson and encouragement towards the lesson. Some examples of teachers' opinions are presented below:

Sc3f: “The lesson becomes more educational and instructive. Thus, the lesson is more efficient.”

M8f: “It makes students' minds work more. It contributes to the development of problem-solving skills and as they are able to solve these questions, they show a positive attitude towards mathematics.”

Sc6m: “Skill-based questions sometimes give courage. As they see that long question, they think that I cannot solve it, and as they see the simplicity of the solution, they may have the confidence and courage that I can solve it.”

Table 6
Challenges encountered in using skill-based questions

Theme	Category	Code	Participant	f
Student-Related Challenges	Problems of cognitive origin	Problems in reading comprehension	S3m, S4m, S5m, M3m, M8f, T3m, T5f, T6m, T7m, T11f, Sc1f, Sc4m, Sc5f, Sc9m	14
		Inability to focus	S2f, T1m, M4f, M6m, Sc10f	5
	Problems arising from questions	Staged and long questions	M1f, M8f, M4f, M5f, T1m, T5f, T10m, Sc2m, Sc6m, Sc5f, Sc7f	12
		The questions are not addressed to every student	T9f, T8f, Sc1f, M7f	4

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Teacher-Related Challenges		The questions are intended to measure more than one skill	Sc6m	1
	Problems of affective origin	Anxiety of not being able to solve the questions	M4f, M7f, M8f, M1f, T8f, T2f	6
		Lack of motivation	Sc8m, M7f	2
	Application-related problems	Insufficient course duration	M1f, M2m, M7f, T1m, T4f, T10m, Sc10f, Sc1f	8
		Insufficient resources	Sc8m, Sc10f, Sc1f	3
		Difficulty in overcoming students' prejudices	M4f, M8f, T4f, T2f	4
	Perception of personal inadequacy	Anxiety of not being able to solve the questions	M4f, M7f, M8f	3

Within the scope of the research, teachers were asked to evaluate the main problems experienced by themselves and their students regarding skill-based questions. Within the scope of the research, two themes were formed in the context of “student related challenges” and “teacher related challenges”. In this context, it was stated that students had more problems. It was seen that students experienced “cognitive problems”, “problems caused by questions” and “affective problems”. When these categories are analysed, it is noteworthy that the most emphasis is on cognitive problems. When the cognitive problems category was analysed, teachers stated that students mostly had problems in reading comprehension and not being able to focus. Some examples of teachers' opinions are presented below:

M8f: “The most basic problem of students is not understanding what is given in the question. This may be due to not reading enough books and lack of conceptual knowledge.”

S2f: “Among the general problems experienced by the students, the most important one is that too much attention is not paid to the question and since it should be done by focussing on the question, the transmitters around can distract attention. The question should be analysed and answered by keeping the comprehension ability at a high level and analysing the question with different thoughts.”

When the category of problems arising from the questions is analysed, the statements that the questions consist of gradual and long questions, that the questions do not appeal to every student, and that the questions are intended to measure more than one skill draw attention. Some examples of teachers' opinions are presented below:

T10m: “I have problems such as long questions, insufficient lesson time and students encountering too few questions.”

T1m: “As seen in the central exams, the question can sometimes take up a whole page. This causes me and my students to lose some time in judging where to pay attention.”

M5f: “The questions were too long and giving unnecessary information in the questions caused a waste of time.”

T9f: “It doesn't appeal to every student.”

When the category of affective problems is analysed, it is seen that the most emphasised situation is the anxiety of not being able to solve skill-based questions and lack of motivation. Some examples of teachers' opinions are presented below:

M4f: “When the student sees a long question, he/she automatically makes the judgement that he/she cannot solve it. Therefore, they pass the question directly. I had difficulty in making the student perceive that those questions were actually doable.”

T2f: “Sometimes it upsets me that it creates learned helplessness in my students such as not being able to solve the question.”

Sc8m: “Lack of motivation, concentration, stress, anxiety.”

Within the scope of the research, the problems experienced by the teachers were identified in two categories as “application-related” and “perception of personal inadequacy”. When these categories are analysed, it is seen that the most emphasis is on application-related problems. When the category of application-related problems was analysed, it was seen that the insufficient course duration and resources were pointed out. Some examples of teachers' opinions are presented below:

M1f: “Lesson hours are insufficient for the teacher. There are not enough question solutions for the students to understand.”

Sc1f: “There is a lack of resources and often inequality in lessons. This can make it difficult for some students to develop the skills necessary to succeed in such assessments.”

In the category of personal efficacy perception, the most emphasised expressions were difficulty in breaking students' prejudices and anxiety of not being able to solve the questions. Some examples of teachers' opinions are presented below:

M4f: “When the student sees a long question, he/she automatically makes the judgement that he/she cannot solve it. Therefore, they pass the question directly. I had difficulty in making the student perceive that those questions were actually doable.”

M7f: “When students bring questions, I have anxiety about not being able to solve them.”

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Türkiye has undertaken various initiatives to improve the quality of its education system, including efforts to strengthen assessment and evaluation practices and establish a more effective system for monitoring and supporting students' competencies (MoNE, 2019) Among the arrangements that can be made in order to achieve better success at the international level, the measurement and evaluation dimension comes to the forefront and especially the question types used in central exams are changed and questions similar to those used in international exams are used (Böyük, 2017; Çataldere, 2022). In this context, necessary arrangements were made and skill-based questions were started to be used especially in high school transition exams (MoNE, 2018) Different studies were carried out for these questions (Erden, 2020; Kılcan, 2021). These questions used in central exams have been harmonised with the courses and many teachers from different branches use these questions in their lessons. This study was conducted to determine the views of Turkish, Mathematics, Science and Social Studies teachers working in secondary schools in Türkiye on skills-based questions. In this context, teachers' views were analysed through content analysis, organised under five main themes, and interpreted accordingly. Based on these findings, the conclusions of the study are presented below:

Teachers' use of skill-based questions in lessons requires prior preparation. This process involves allocating additional time, engaging in preliminary preparation, and being ready to use materials and technology. Allocating extra time, the questions requiring time, pre-preparation, scanning the resources, research process and solving the questions to be solved in advance and coming to the lesson prepared, and being prepared to use material/technology includes using smart boards and various instructional materials

The main purpose of using skill-based questions, which have started to be used in central exams at the country level, in the lessons is determined as contributing to the exam process. Accordingly, using skill-based sample questions in lessons increases students' familiarity with the questions and supports preparation for the

central exam. At the same time, students moving away from memorisation is another important contribution to the process. The contributions of using skill-based questions to teachers' professional development were analysed and in this context, it was concluded that teachers gained gains in terms of both creating change in their students and contributing to their own individual changes. By using skill-based questions in their lessons, teachers support students in developing reasoning skills, gaining different perspectives, supporting high-level thinking skills and encouraging them to learn to learn. Providing these supports also enables students to develop themselves professionally. At the same time, teachers acknowledge that by integrating these questions into their lessons, they also feed themselves individually in terms of being aware of innovations and developments, staying up-to-date, deepening subject knowledge and pedagogical skills, and transforming from a static teacher profile to an active teacher profile.

Using skill-based questions causes both positive and negative effects on students. Skill-based questions create affective negativities such as low motivation, sense of inadequacy and prejudice. At the same time, in this framework, students face cognitive difficulties such as inadequate readiness and solving questions. On the other hand, cognitive gains such as developing different thinking skills, reading comprehension, getting away from memorisation, and developing problem solving skills with real life scenarios are obtained in a positive dimension. There are findings in the literature that the use of skill-based questions activates students' high-level thinking skills (Polat & Bilen, 2022). In a similar study, it was stated that skill-based questions have positive effects on students and play an important role in developing students' ability to understand, analyse and interpret what they read (Tortop et al., 2022). At the same time, the use of these questions in the current research also enables the student to get efficiency from the course, to be encouraged about the course and to develop a positive attitude towards the course. In the literature, there are research findings that skill-based questions are beneficial for students (Akpınar, 2012; Ar, 2019; Kertil et al., 2021).

Teachers and students face some problems in the use of skill-based questions. Students experience cognitive problems such as not being able to understand what they read and not being able to focus. Karakeçe (2021) obtained similar results in his study examining the opinions of teachers and revealed that students had difficulty in understanding skill-based questions. In addition, the problems arising from the questions are that the questions are long, not suitable for the level of each student, and measure more than one skill. In addition, anxiety of not being able to solve the questions and lack of motivation are also important affective problems. When the literature is examined, it is found that students are not familiar with skill-based questions that are not sufficiently included in the

textbooks and that they have problems (Erden, 2020; Tekbıyık & Akdeniz, 2010; Ünal, 2019). Teachers, on the other hand, experience problems related to skill-based questions due to practice and personal inadequacy. In addition to the problems experienced in terms of short course durations and inadequate resource provision due to practice, there is a perception of personal inadequacy in breaking the prejudice of the students and being inadequate in solving the questions as a teacher.

In light of these results, the following recommendations were made:

To ensure the effective use of skill-based questions in lessons, greater support in terms of supplementary resources and question banks should be provided to schools and teachers. Given that such questions are often large-scale and time-consuming, current lesson durations appear insufficient; therefore, lesson periods should be reconsidered or additional time should be allocated for question-solving activities. Skill-based questions also have a significant impact on teachers' professional development. In this regard, teachers should be supported through targeted training on how to design skill-based questions and on the instructional methods and techniques for effectively implementing them in the classroom. Accordingly, in-service training programs should be organized. Furthermore, practices related to the development and solution of skill-based questions should be incorporated into teaching practice as well as measurement and evaluation courses in education faculties. In this context, prospective teachers should be systematically trained during their pre-service education.

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GENİŞLETİLMİŞ ÖZET

Amaç: Bu araştırmanın amacı, öğretmenlerin beceri temelli sorulara ilişkin görüş ve deneyimlerini incelemektir. Bu doğrultuda araştırma kapsamındaki öğretmenlerin beceri temelli soruları kullanmaları bağlamında derse hazırlık, sınıf içi uygulamalar, mesleki gelişime katkı, öğrenciler üzerindeki etki, karşılaşılan güçlükler gibi durumlara ilişkin değerlendirmeler yapmaları istenmiş ve elde edilen bulgular yorumlanmıştır.

Yöntem: Çalışma nitel araştırma bağlamında olgubilim desenine uygun olarak tasarlanmıştır. Buna göre öğretmenlerin görüş ve deneyimleri belirlenmeye çalışılmıştır. Bu bağlamda farklı öğretmenlik branşlarından 34 (17 kadın, 17 erkek) gönüllü öğretmen sürece dâhil edilmiş ve araştırma verileri görüşme formu kullanılarak toplanmıştır. Elde edilen veriler içerik analizine uygun olarak çözümlenmiştir.

Bulgular: Beceri temelli soruların ders hazırlık sürecinde ek zaman ayırma, ön hazırlık yapma ve materyal/teknoloji kullanımına hazırlıklı olma

gereksinimlerini ortaya çıkardığı görülmüştür. Öğretmenlerin en fazla vurguladığı husus, bu soruların hazırlanmasının fazla zaman almasıdır. Ayrıca soruların uzun ve karmaşık yapısı nedeniyle önceden kaynak tarama ve soru çözmenin ders süresinin verimli kullanılmasına ve öğretim sürecinin daha etkili yürütülmesine katkı sağladığı belirtilmiştir. Öğretmenlerin derslerinde beceri temelli sorulara yer verme amaçları, öğrencilerin sorulara aşinalıklarının artırılması, merkezî sınavlara yönelik çalışmaların desteklenmesi ve ezbere dayalı sistemden uzaklaştırılması şeklinde sıralandığı görülmüştür. Araştırma kapsamında öğretmenlerden, beceri temelli soruların kendilerinin mesleki gelişimleri üzerindeki etkilerini değerlendirmeleri istenmiştir. Buna göre “öğretmenin öğrencilerde oluşturduğu değişim” ve “öğretmenin bireysel/mesleki gelişimine katkı” olmak üzere iki temel kategori ortaya çıkmıştır. Öğretmenin öğrencilerde oluşturduğu değişim kategorisinde; akıl yürütme becerilerinin geliştirilmesi, farklı bakış açılarının kazandırılması, üst düzey düşünme becerilerinin desteklenmesi ve öğrenmeyi öğrenmenin teşvik edilmesi öne çıkmıştır. Öğretmenin bireysel/mesleki gelişimine katkı kategorisinde ise beceri temelli soruların kullanımının yenilik ve gelişmelerden haberdar olma, güncel kalma, alan ve pedagojik bilgiyi derinleştirme ve durağan öğretmen profilinden aktif öğretmen profiline geçiş gibi olumlu katkılar sağladığı ifade edilmiştir. Araştırma kapsamında öğretmenlerden, beceri temelli soruların öğrenciler üzerindeki etkilerini değerlendirmeleri istenmiştir. Öğretmen görüşleri doğrultusunda, beceri temelli soruların öğrenciler üzerinde hem olumlu hem de olumsuz etkilerinin bulunduğu belirlenmiştir. Ancak öğretmenlerin olumsuz etkilere daha fazla vurgu yaptıkları görülmüştür. Olumsuz etkiler, “duyuşsal boyuttaki olumsuzluklar” ve “bilişsel boyuttaki olumsuzluklar” olmak üzere iki kategoride ele alınmıştır. En fazla vurgulanan duyuşsal boyuttaki olumsuzluklar kapsamında öğretmenler, beceri temelli soruların öğrencilerin motivasyonunu düşürdüğünü, bu sorulara yönelik ön yargı oluşturduğunu ve öğrencilerde yetersizlik duygusuna neden olduğunu ifade etmişlerdir. Araştırma kapsamında öğretmenlerden, beceri temelli sorulara ilişkin kendilerinin ve öğrencilerinin karşılaştıkları temel sorunları değerlendirmeleri istenmiştir. Öğretmen görüşleri doğrultusunda, “öğrenci kaynaklı sorunlar” ve “öğretmen kaynaklı sorunlar” olmak üzere iki tema oluşturulmuştur. Öğrenci kaynaklı sorunların daha fazla vurgulandığı belirlenmiştir. Bu sorunlar “bilişsel sorunlar”, “sorulardan kaynaklanan sorunlar” ve “duyuşsal sorunlar” şeklinde kategorilere ayrılmıştır. En fazla vurgulanan bilişsel sorunlar kapsamında öğretmenler, öğrencilerin özellikle okuduğunu anlama ve odaklanma konusunda güçlük yaşadıklarını ifade etmişlerdir.

Sonuç ve Tartışma: Türkiye, eğitim sisteminin kalitesini ve öğrenci başarısını artırmak amacıyla, özellikle ölçme ve değerlendirme uygulamalarının geliştirilmesi ve öğrenci yeterliklerinin izlenmesine yönelik çeşitli iyileştirme çalışmaları yürütmektedir (MoNE, 2019). Bu kapsamda merkezî sınavlarda kullanılan soru türleri uluslararası sınavlarla uyumlu hâle getirilmiştir (Böyük, 2017; Çataldere, 2022). Özellikle liselere geçiş sınavlarında beceri temelli sorular kullanılmaya başlanmış (MoNE, 2018) ve bu sorulara yönelik çeşitli araştırmalar yapılmıştır (Erden, 2020; Kılcan, 2021). Bu araştırmada, ortaokullarda görev yapan Türkçe, matematik, fen bilimleri ve sosyal bilgiler öğretmenlerinin beceri temelli sorulara ilişkin görüşleri incelenmiş ve beş ana tema altında değerlendirmeler yapılmıştır. Araştırma sonucunda, beceri temelli soruların derslerde kullanımının öğretmenler açısından ek zaman ayırma, kaynak tarama, soruları önceden çözme ve materyal/teknoloji kullanımına hazırlanma gibi gereklilikler oluşturduğu belirlenmiştir. Öğretmenlerin bu soruları kullanmalarındaki temel amaçların öğrencileri merkezî sınavlara hazırlamak, soru türlerine aşinalıklarını artırmak ve ezbere dayalı öğrenmeden uzaklaştırmak olduğu görülmüştür. Beceri temelli soruların öğretmenlerin mesleki gelişimlerine katkıları, öğrencilerde oluşturdukları değişimler ve kendi bireysel/mesleki gelişimleri olmak üzere iki boyutta ortaya çıkmıştır. Öğretmenler, bu soruların öğrencilerin akıl yürütme, farklı bakış açıları geliştirme ve üst düzey düşünme becerilerini desteklediğini; kendilerinin ise alan ve pedagojik bilgilerini geliştirmelerine, yenilikleri takip etmelerine ve daha aktif bir öğretmen profili benimsemelerine katkı sağladığını belirtmişlerdir. Beceri temelli soruların öğrenciler üzerinde hem olumlu hem de olumsuz etkilerinin bulunduğu belirlenmiştir. Olumsuz etkiler arasında motivasyon düşüklüğü, yetersizlik duygusu, ön yargı ve bilişsel güçlükler öne çıkarken; olumlu etkiler arasında üst düzey düşünme, okuduğunu anlama ve problem çözme becerilerinin desteklenmesi yer almaktadır. Bu bulgular, beceri temelli soruların üst düzey düşünme becerilerini geliştirdiğini belirten araştırmalarla örtüşmektedir (Polat & Bilen, 2022). Benzer şekilde, bu soruların okuduğunu anlama, analiz etme ve yorumlama becerilerine katkı sağladığı belirtilmektedir (Tortop et al., 2022). Ayrıca öğrencilerin derse katılımını ve olumlu tutum geliştirmelerini desteklediğine ilişkin bulgular, alanyazındaki çalışmalarla paralellik göstermektedir (Akpınar, 2012; Ar, 2019; Kertil et al., 2021). Beceri temelli soruların kullanımında öğrencilerin özellikle okuduğunu anlama ve odaklanma güçlükleri yaşadıkları belirlenmiştir. Bu sonuç, Karakeçe'nin (2021) çalışmasının bulgularıyla benzerlik göstermektedir. Soruların uzunluğu, öğrenci düzeylerine uygun olmaması, birden fazla beceriyi ölçmesi, çözememe kaygısı ve motivasyon eksikliği diğer sorunlardır. Alanyazında da öğrencilerin bu sorulara yeterince aşına olmamalarından kaynaklanan güçlükler yaşadıkları belirtilmektedir (Erden,

2020; Tekbıyık & Akdeniz, 2010; Ünal, 2019). Öğretmenler açısından ise ders sürelerinin yetersizliği, kaynak eksikliği, öğrencilerin ön yargılarını giderme ve soruları çözmeye konusunda algılanan kişisel yetersizlikler öne çıkmaktadır.

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