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An Investigation into Open-Ended Question Preparation Skills of Turkish Language Teachers

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ABSTRACT

The aim of this study is to determine the level of Turkish teachers' preparation of open-ended questions, to determine the intensity of using open-ended questions, and to offer solutions for the problems that teachers encounter in these issues. A case study method was used in the study, where a qualitative research method was preferred. First, a semi-structured interview technique was used with teachers who preferred open-ended questions in their exams. The data collected through the interview was examined using the descriptive analysis method. The interview was conducted with 13 Turkish teachers working in Tortum district of Erzurum. In the second part of the study, a document review was conducted. With the permission of the Erzurum Provincial Directorate of National Education, the open-ended exam questions used by Turkish teachers in 7 secondary schools in Tortum district in the 2018-2019 and 2019-2020 academic years were examined. According to the research findings, teachers complain about the answering times of open-ended questions, low content validity, and problems experienced in evaluation. Written questions consist of simple level questions such as reading comprehension. According to the results of the research, teachers are aware of the importance of the open-ended question type in teaching Turkish. However, their skills in preparing these types of questions are at a low level. When evaluating open-ended questions, it was determined that the prepared answer keys were not very detailed, so their reliability was low. It was also concluded that simple level reading comprehension questions negatively affected validity.

Keywords: Turkish language teaching, assessment and evaluation, open-ended questions.

Introduction

In recent years, one of the vital topics in teaching programmes is measurement and evaluation. "Alternative Measurement and Assessment Methods", which has become more popular with these programs, has started to have an essential role in the Turkish education system. Mentioned method, which has recently been known as "New Approaches in Education and Training", has brought new concepts in the area of measurement and evaluation. In the curricula published by the Ministry of National Education; multiple-choice items, short-answer items, matching items, open-ended questions, true-false items, attitude scales, performance homework, student product file, and project homework are included in the curriculum as complementary measurement tools. With the changed curriculum; interview, observation form, self-assessment form, peer assessment form, speaking skill assessment form, listening / monitoring skill observation form, reading

skill checklist, written expression assessment form, student work file assessment form, group work self-assessment form, product file assessment form, project and performance homework assessment form have also taken their places in the new curriculum as evaluation tools.

Measurement and assessment methods in the Turkish language teaching programme can be examined under three headings. These evaluations are those made at the beginning of the academic year, those made during the academic year and those made at the end of the academic year (Göçer, 2018). Determining the level of pupils at the beginning of the process is of great importance before starting teaching. At the very first stage of the teaching process, students' opinions about the course, their speaking, writing, listening, reading and grammar skills and attitudes can be determined. In order to determine the

specified level, measurement tools such as achievement tests, attitude scales, rubrics, and observation forms are used. The measurement made at the beginning of the year is very important in regard to how much the students improved themselves. The purpose of the evaluations made during the process is to evaluate teaching and identify mistakes in learning. Observation tests, performance and project homework, student product files, etc. are used here. Similarly, tools such as observation forms, checklists, peer assessment and self-assessment forms are used to determine to what extent and how the goals set during the academic year are achieved (Göçer, 2018).

These tools, which are frequently used by teachers and students in the area of measurement and assessment, have been a source of many studies. Many situations, such as how much these tools are adopted by students, how they are applied in our education system, and the opinions of practitioners, have been the subject of study for researchers. Bekaroğlu (2007), in the outcomes of his research, discovered that teachers did not prepare questions for a purpose, they focused on questions at the knowledge level more, they did not use analysis and synthesis type questions much and they did not benefit from texts in the question types. Güfta and Zorbaz (2008), in their study, found that questions were mostly asked at lower cognitive levels in the written exams of Turkish courses. In their study, Akyol et al. (2013) found that they generally used simple comprehension-level questions while preparing questions and prepared questions related to texts that mostly required lower-level cognitive skills. Kavruk and Çeçen (2013), who investigated what level of skills are measured in the exam questions which are prepared by Turkish language teachers, found that a significant majority of the questions were in the knowledge, comprehension and application section, which consists of lower-level skills. Based on the results of Yiğit's (2013) research, it was observed that teachers accepted the functions of alternative assessment-evaluation methods described in the Primary School Turkish Language Teaching Programme. On the other hand, it was found that teachers had suspicions about the efficiency of the peer assessment method. In their study, Maden and Durukan (2013) aimed to determine the distribution of the questions used in the written exams of the Turkish language course regarding skill areas, objectives and achievements, question types and their equivalents in the taxonomy of cognitive steps. As a result of their study, they concluded that short-answer and multiple-choice question types were generally emphasised in the exams, the questions were mostly concentrated on the lower level

cognitive skills of remembering and understanding, and the questions generally measured certain objectives and achievements in reading and writing skill areas. Considering the results of Birgili's (2014) study, in which he aimed to investigate the separation of multiple-choice and open-ended questions in terms of high-level cognitive and affective areas, it is seen that open-ended questions have an important role in revealing the self-control skills and cognitive strategies of 8th-grade students.

According to another result, students spend the most energy while solving open-ended questions. Additionally, it was detected that multiple-choice questions worried students more than open-ended questions. Yıldız (2015) stated in his study that the questions were mostly at the conceptual knowledge level in terms of knowledge and at the comprehension level in terms of cognitive process. Temizkan and Sallabaş (2015) found that students were more successful in multiple-choice questions compared to open-ended questions when solving reading comprehension questions. Yavuz and İlgeç (2016) found discrepancies between the scores given by teachers on the same answer sheet. As a result of his research, Acar (2018) stated that test and question item statistics should be interpreted as well as the quality of the scoring method used in written exams. İnceçam et al. (2018) noted in their study that although open-ended questions are frequently used in written exams, teachers are not qualified to prepare these question types. Aydın (2019) found in his study that multiple choise exams are mostly preferred in Turkish lessons, followed by mixed format and written exams, respectively; in addition, 8% of all exam questions do not meet any acquisition and the distribution of questions for the skill areas in the programme is not at the same rate in the exam questions. Tatlı (2019) found in his study that the types of open-ended questions varied according to school types and that the questions also differed from school to school in terms of achievements. Rawadieh (1998) analysed 822 questions in his study by using Bloom's Taxonomy. Based on the results of the research, he determined that the questions were 35% at the knowledge stage, 48% at the comprehension stage, 1% at the application stage, 9% at the analysis stage, 4% at the synthesis stage and 3% at the evaluation stage. According to this, 84% of the questions are in the lower level cognitive skills level. Risner, Nicholson and Webb (2000) classified 100 questions in social studies textbooks using Bloom's taxonomy. Similar to the results of other studies, it was determined that 69.5% of the questions measured lower-level cognitive skills and 30.5% measured higher-level cognitive skills. Khan and Inamullah (2011) analysed 267 questions of primary school teachers by using Bloom's

Taxonomy. As a result of their research, they detected that the questions were 67% at the knowledge stage, 23% at the comprehension stage, 7% at the application stage, 2% at the analysis stage and 1% at the synthesis stage. No questions were identified in the evaluation stage, and it was stated that most of the questions were in the lower level cognitive skill stages. In many places in the Turkish Language Teaching Programmes (MoNE, 2005, 2017), it is explained that students should develop many high-level skills and mental skills such as understanding, questioning, sorting, classifying, establishing relationships, predicting, analysing, synthesising, evaluating, problem solving, making meaning between texts, questioning, criticising, interpreting, constructing in mind. In order to accomplish all these things, teachers need to know how to develop students' thinking skills in different ways and creatively. Questions are one of the most important measurement tools to be used in this direction. In this case, the competencies of teachers in the questions to be formed in order to measure these skills are an issue that needs to be examined (Akyol et al., 2013). It has become a necessity to investigate that these types of question items are more successful in measuring what kind of skills, the difficulties encountered while preparing them, the teachers' and students' opinions, and the positive or negative situations experienced in practice. In the study, it was aimed to specify what the teachers pay attention to when preparing open-ended questions, whether the questions are prepared in line with the learning outcomes, how the scoring and evaluation are carried out, and at what level they are in terms of validity and reliability. In this regard, answers to the following questions were sought:

1. How are Turkish teachers' habits of preparing open-ended questions?
2. What are the levels of open-ended questions in the exams which are prepared by Turkish teachers according to the renewed Bloom classification?
3. What is the level of perception and answering of open-ended questions by students?
4. In which type of skills are open-ended questions used more frequently?
5. What kind of problems are faced in terms of evaluation in the exams prepared by using open-ended questions?
6. What precautions should be taken to minimise the subjectivity of scoring and errors that may be made by the scorer?
7. What are the teachers' opinions on assessment and evaluation with open-ended questions?

Methods

Research Model
This study, in which Turkish language teachers' open-ended question preparation skills will be examined, is a case study among the qualitative research methods. Case study is a qualitative research method in which a situation limited in time is examined in detail by using data collection tools like interviews, observations and documents, and the issues related to the situation are described (Creswell, 2007). Davey (1991) defines a case study as a method in which a situation or case is examined in detail, data is gathered systematically and how it is reflected in the real environment is examined.

In this report, which is considered as a qualitative case study, open-ended written questions were analysed in order to identify an existing situation or problem and to develop solutions for this situation, and teachers' opinions about open-ended questions were determined.

Participants
A semi-structured interview was conducted with the teachers preparing the open-ended written questions to be used in this study. The participants of the interview consisted of 13 Turkish language teachers working in 7 secondary schools in Tortum district of Erzurum province. Maximum variation sampling, which is one of purposeful sampling methods, has been used to identify the teachers. The selection of teachers working in schools in all conditions enabled the collection of more reliable data for the research. Accordingly, central secondary schools, imam hatip secondary schools, regional boarding secondary schools, neighbourhood/village secondary schools and secondary schools from rural areas are the schools in the study. At the same time, both new and head teachers are included in the study in order to ensure a balanced distribution of teachers' tenure.

Data Collection
With the permission of Erzurum Provincial Directorate of National Education, an equal number of written exam papers consisting of open-ended questions used at the 5th, 6th, 7th and 8th-grade levels in the 2018-2019 and 2019-2020 academic years were taken from Turkish language teachers working in 7 secondary schools in Tortum district. The semi-structured interview form presented in the appendix has been used to collect other data through interviews. This technique, which is one of the interview types, provides the opportunity to receive in-depth information on the subject being researched. In addition, while applying this technique, the researcher both uses the questions prepared in advance and has the chance to ask

new questions according to the process of the interview (Yıldırım & Şimşek, 20).

In the process of preparing and developing the interview questions to be used in the research, significant importance was attached to the questions being easy to understand and not directing the participant. Expert opinions were consulted to determine whether the questions to be used were prepared in line with the problems of the research and whether they were understandable and applicable. The form was prepared by taking expert opinions.

The ethical process in the study was as follows:
- Ethics committee approval was obtained from Atatürk University Social and Humanitarian Ethics Committee Ethics Committee (Date: 06.05.2020, Sayı: E-2000118598)
- Informed consent has been obtained from the participants.

Data Analysis
The open-ended written exam samples to be used in this study were analysed using the document analysis method. With this method, the data that the researcher wants to obtain can be obtained without the need for any observation or negotiation. Document analysis saves time and money. Also when applied together with data collection methods such as interview, observation, etc., it will increase the validity of the research as it will provide data diversification (Yıldırım & Şimşek, 2016).

The levels of open-ended questions in written exams were evaluated in a general way in line with the restructured Bloom classification. Firstly, a literature review was conducted to analyse the open-ended questions of written exam regarding the stages in the taxonomy. Then, descriptive analysis was made by using percentages and frequencies related to the distribution of open-ended questions to the stages.

As a result of the research, to ensure the dependability of the analysis of the open-ended written exam questions collected, the opinions of 3 field experts and 2 doctoral students with doctoral qualifications were consulted. When the opinions of the evaluators were analysed, the classification in which 4 of 5 experts had the same opinion was taken as a basis.

The descriptive analysis technique was used to analyse the interview data collected during the research process. In descriptive analyses, the collected data are summarised according to predetermined themes and interpreted by the researcher. In this type of analysis, the thoughts of the interviewees can be conveyed directly and the narratives can be presented in a striking way. The aim of this type of analysis is to transfer the data in an organised and interpreted way (Yıldırım & Şimşek, 2016) data collected as a result of the interview and consistency was obtained as a result of the comparison of these evaluations. In order to ensure the external reliability of the research, detailed information about the participants, details about the research process, theoretical information about the analysis of the collected data and details about the methods were conveyed in detail. In addition, the findings were reported and saved in order to make comparisons and to be used in other studies.

Results

Findings Regarding Written Questions
Table 1 indicates the distribution of open-ended questions prepared by Turkish language teachers on cognitive levels to the revised Bloom's taxonomy. 599 open-ended questions in 133 mixed-format exams and 7 written exams prepared by 15 different teachers were analysed by using the document analysis method and the distribution of these questions to cognitive stages was shown at grade levels.

While the distribution of the questions to the grade levels shows similar characteristics, clustering is observed at the remembering and understanding levels.

Table 1.

Distribution of the Grades 5, 6, 7 and 8 Turkish Language Open-Ended Written Exam Questions by the Cognitive Stages in the Restructured Bloom's Taxonomy and Grade Levels

Cognitive steps	5th Grade		6th grade		7th grade		8th grade		Total	
	f	%	f	%	f	%	f	%	f	%
Remembering	53	34	56	33	47	39	54	35	210	35
Understanding	65	42	66	39	54	44	66	42	251	42
Applying	13	9	14	8	6	5	13	8	46	8
Analyzing	6	4	8	5	5	4	8	5	27	4
Evaluating	2	1	3	2	2	2	3	2	10	2
Creating	15	10	21	13	7	6	12	8	55	9
Total	154	100	168	100	121	100	156	100	599	100

Out of 599 open-ended questions in the written exam papers analysed within the scope of the research, 406 (68%) were used in the achievement of reading comprehension skills. It is observed that reading comprehension questions are quite inadequate in terms of high-level cognitive skills.

Table 2.

Results Based on the Distribution of Reading Comprehension Questions Prepared in the Form of Open-Ended Questions to Cognitive Stages.

Cognitive Step	f	%
Remembering	210	52
Understanding	169	42
Applying	0	0
Analyzing	27	6
Evaluating	0	0
Creating	0	0
Total	406	100

The second important role in the distribution of open-ended questions belongs to writing skills. Table 3 shows the results of the distribution of the questions related to writing skills prepared as open-ended questions to cognitive stages (Table 2).

Of the total open-ended questions, 23% were prepared to measure writing skills. In the distribution of writing skills in terms of cognitive stages, the results were found only in the understanding and creating stages. It was identified that open-ended type questions involving writing skills were not used in the other stages. It is understood that the questions in the understanding stage (60%, Table 3) consist of writing an essay based on the proverb or aphorism given, and the questions in the creating stage consist of completing the texts such as fables, fairy tales, stories, etc. in a unique way or writing original essays, stories, tales.

Table 3.

Results Based on the Distribution of Writing Skill Questions (Composition) Prepared in the Form of Open-ended Questions According to Cognitive Stages

Cognitive Step	f	%
Remembering	0	0
Understanding	82	60
Applying	0	0
Analyzing	0	0
Evaluating	0	0
Creating	55	40
Total	137	100

Figure 1 presents the comparison of open-ended type questions in the mixed format and written exams used in Turkish exams with the other questions set in the same exams.
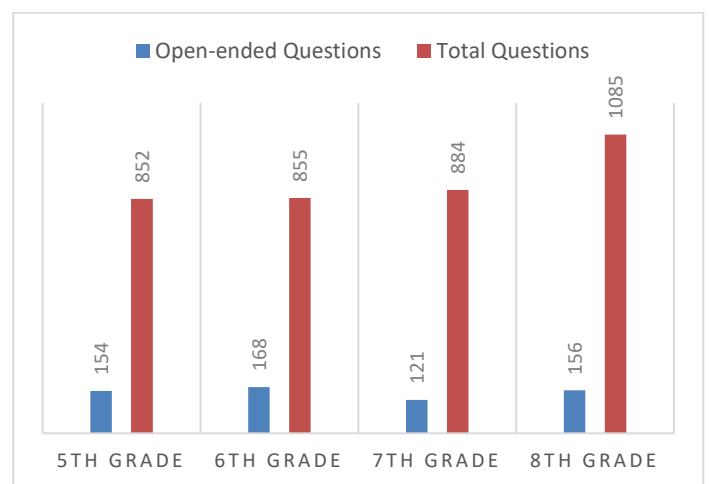
Figure 1.

The Ratio of Open-Ended Questions Asked in Turkish Language Exams to Other Questions.
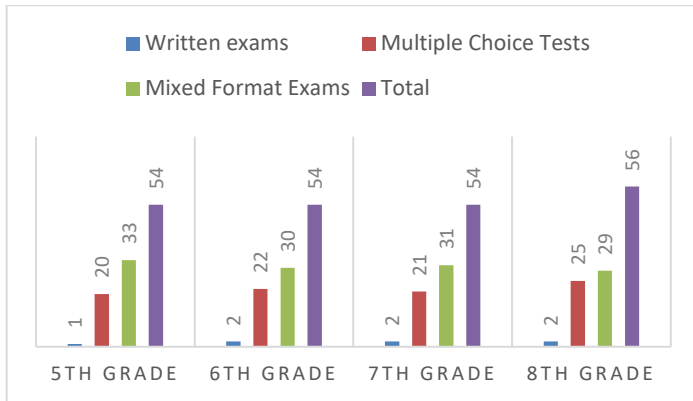
Figure 2.

Distribution of All Types of Exams Conducted by Teachers According to Grades

The types of exams used by Turkish language teachers and the use of these exams according to the grade levels are shown in Figure 2.

The types of questions used in the mixed and written exams prepared by Turkish teachers and their distribution to grade levels are shown in Table 4. In the exams where a total of 3,686 questions were used, it was seen that the most asked questions were multiple choice questions. Accordingly, it was determined that 2,680 (73%) questions were multiple choice questions, 599 (16%) were open-ended questions, 110 (3%) were short-answer questions, 28 (0.8%) were matching questions and 6 (0.16%) were true-false questions.

Table 4.

Results Related to Question Types in Mixed Format and Written Exams Prepared by Teachers

Grade Level	Question Types					Total
	Open Ended	Multiple Choice	Short Answer	Matching	True False	
5	154	615	69	20	4	862
6	168	609	58	17	3	855
7	121	671	68	20	4	884
8	156	785	110	28	6	1085
Total	599	2680	305	85	17	3686

Findings Regarding Sub-Problems

What are the Habits of Turkish Teachers in Preparing Open-Ended Questions?

When the teachers who participated in the interview were asked what they consider when preparing open-ended questions, 54% of the teachers stated that they prepare questions in a way that can take measurement the high-level cognitive skills in the taxonomy, 38% stated that they try to prepare questions that will be clearly understood by all their students, 31% stated that they pay attention to ensure that the question to be prepared is appropriate to the level of the student, 15% of them stated that they chose questions appropriate to the students' level of readiness, 15% stated that they prepared questions appropriate to the curriculum and lesson plan, 15% stated that they preferred questions that would not cause problems in scoring while evaluating, and 7% stated that they preferred questions with clear limits as opposed to questions with very long answers (Table 5).

Table 5.

Results Related to the Question "What do you pay special attention to when formulating open-ended questions?"

What do you pay special attention to when formulating open-ended questions?	f	%
I ask questions that can measure higher-level cognitive skills in the taxonomy.	7	54
I ask clear and understandable questions.	5	38
I make sure that the question is appropriate to the student's level.	4	31
I prepare questions according to the student's readiness level.	2	15
When preparing questions, I do so in accordance with the curriculum and lesson plan.	2	15
I prepare questions that I will not have difficulty in scoring.	2	15
I prepare questions that will have limited answers.	1	7

At Table 6 when the teachers who took part in the interview were inquired why they preferred open-ended questions in their exams, 54% of the teachers said that they preferred these question types to measure higher level skills, 23% said that they preferred these questions because students expressed themselves better in these questions, 15% stated that they prefer these questions because they think that they provide the opportunity to practice instead

of memorisation in learning, 7% stated that they are useful in measuring the achievements, 7% stated that they prefer these questions because they eliminate the chance factor in the exam, and 7% stated that they prefer these questions when they want to measure students' writing skills.

Table 6.
What is your reason for preferring open-ended questions in your exams?

What is your reason for preferring open-ended questions in your exams?	f	%
I prefer it because it measures high-level skills.	7	54
I prefer it because it allows students to express themselves.	3	23
I prefer it because it allows practice instead of memorization.	2	15
I prefer it because it is useful in measuring gains.	1	7
I prefer it because it eliminates the luck factor.	1	7
I use it to measure writing skills.	1	7

What are the Levels of Open-Ended Questions in Exams Prepared by Turkish Teachers According to Bloom (1956) Classification?

A total of 599 open-ended questions were identified in 133 mixed format and 7 written exams prepared by Turkish language teachers to be used at all grade levels and their distribution to cognitive stages was analysed. According to this, the highest number of 210 (35%) questions are found in the remembering stage. This is followed by the understanding (comprehension) stage in which 251 (42%) questions are used. There are 55 (9%) questions in the creating stage, 46 (8%) in the applying stage, 27 (4%) in the analyzing stage and 10 (2%) in the evaluating stage. While it is observed that the questions are used intensively in the remembering, understanding and creating stages, it is seen that there are fewer questions in the applying, analyzing and evaluating stages (Table 7).

Table 7.
Distribution of the grades 5, 6, 7 and 8 turkish language open-ended written exam questions according to cognitive stages

Grade	Remb.	Und.	App.	Anl	Eva	Cre	Total
5	53	65	13	6	2	15	154
6	56	66	14	8	3	21	168
7	47	54	6	5	2	7	121
8	54	66	13	8	3	12	156
Total	210	251	46	27	10	55	599

In Table 8 when the Turkish teachers who participated in the interview were asked which types of skills open-ended questions were used more frequently to measure, 38% of the teachers answered analysis, 38% stated that they measured creativity skills, 31% stated that they measured synthesis skills, 23% stated that they measured problem solving, application, writing and punctuation skills, 15% stated that they measured comprehension, evaluation, visual reading, expression ability, text creation and commenting skills, while 7% stated that they measured the skills of using information, critical thinking, decision making, self-realization, giving examples and learning by doing-experiencing.

Table 8.

Results for the Question "Which types of skills do open-ended questions provide more advantages in measuring in your exams?"

Which types of skills are open-ended questions used more frequently in measuring?	f	%
Analysing	5	38
Creativing	5	38
Synthesing	4	31
Problem Solving	3	23
Application	3	23
Spelling and Punctuation	3	23
Understanding	2	15
Evaluation	2	15
Visual Reading	2	15
Expression Ability	2	15
Text Creation	2	15
Comment	2	15
Using Information	1	7
Critical Thinking	1	7
Decision Making	1	7
Self-Actualization	1	7
Giving Examples	1	7
Learning by doing and experiencing	1	7

What is the level of perception and answering of open-ended questions by students?

The results in Table 9 related to the true and false answer rates of the open-ended type questions by the students were analysed, and the Turkish language teachers whose exam questions were examined used a total of 3686 exam questions at all grade levels in the classes they taught. 599 (16%) of these questions consisted of open-ended questions. It was seen that 599 open-ended questions used in Turkish language exams were answered correctly 7,945 (85%) times in total and 1,399 (15%) times incorrectly. The fact that 85% of the open-ended type questions were answered correctly means that the questions were perceived and answered correctly by the students at a high rate.

Table 9.

Results for the Distribution of the Rates of Answering Open-Ended Questions by Students According to Grade Levels.

Grade	Total Questions	Open Ended Q.	True Answer		False Answer	
			f	%	f	%
5	862	154	2.082	86	331	14
6	855	168	2.081	87	310	13
7	884	121	1.764	83	367	17
8	1.085	156	2.018	84	391	16
Total	3.686	599	7.945	85	1.399	15

In which types of skills are open-ended questions used more frequently?

In Table 10 the results regarding the distribution of open-ended questions used in Turkish language exams according to the skill areas (acquisition) and grade levels in the Turkish language teaching programme were examined.

Table 10.
Results for the Distribution of Open-ended Written Exam Questions According to the Skill Areas in the Turkish Language Teaching Programme.

Grade	Open End Question	Listening/Watching		Speech		Reading		Writing	
		f	%	f	%	f	%	f	%
5	154	0	0	0	0	103	67	51	33
6	168	0	0	0	0	119	71	49	29
7	121	0	0	0	0	81	67	40	33
8	156	0	0	0	0	103	66	53	34
Total	599	0	0	0	0	406	68	193	32

Accordingly, 406 (68%) of 599 open-ended questions were used to measure reading skills, while 193 (34%) were used to measure writing skills. No open-ended questions were used for listening/watching and speaking skills (Table 10).

What kind of problems can be encountered in terms of evaluation in exams prepared using open-ended questions?
When the teachers who participated in the interview were asked what kind of problems they experienced during the scoring of open-ended questions, 38% of the teachers stated that they experienced problems due to each student giving unique answers, 31% stated that the scoring affected the scoring of other answer sheets, 23% stated that grammatical errors affected the scoring, 15% stated that they had problems in scoring due to spelling and punctuation errors, and another 15% stated that they experienced scoring problems due to insufficient time (Table 11).

Table 11.
Results for the question "What kind of problems do you experience in the scoring of such questions?"

What kind of problems do you experience with scoring these types of questions?	f	%
Authentic answers	5	38
Scoring affects other answer sheets	4	31
Grammar mistakes	3	23
Spelling and punctuation mistakes	2	15
Lack of time	2	15

What precautions should be taken to minimise the subjectivity of scoring and errors that may be made by the scorer?
When the Table 12 on the scoring of open-ended questions prepared by Turkish language teachers is examined, it is seen that only scoring key and overall impression scoring methods are used among the scoring methods used in Turkish language written exams, and ranking and categorising scoring methods are not used. It was determined that the scoring key method was used in 111 (79%) and the scoring by overall impression method was used in 29 (21%) of a total of 140 exams, including mixed format (133) and written (7) exams with open-ended questions.

Table 12.
Results for the scoring of the open-ended questions analysed

Grades	Number of exams	Scoring Key		Categorising		Ranking		Scoring by Overall Impression	
		f	%	f	%	f	%	f	%
5	37	31	84	0	0	0	0	6	16
6	35	29	83	0	0	0	0	6	17
7	34	26	76	0	0	0	0	8	24
8	34	25	74	0	0	0	0	9	26
Total	140	111	79	0	0	0	0	29	21

What are the opinions of teachers on assessment and evaluation with open-ended questions?

When the teachers who participated in the interview were inquired about the difficulties of preparing open-ended questions, 54% of the teachers stated that it was more difficult to prepare open-ended questions than other question types, 38% stated that open-ended questions were low in covering the achievements, 23% stated that it was more difficult to score open-ended questions than other question types, and 1% informed that students did have more difficulties in answering the type of open-ended questions than other question types (Table 13).

Table 13.

Results concerning the question "What are the difficulties of preparing open-ended questions?"

What are the Difficulties of Preparing Open-Ended Questions?	f	%
It is more difficult to prepare than other question types	7	54
It has low content validity	5	38
It is more difficult to score than others	3	23
Students have difficulties in answering this type of questions	1	7

When the teachers who participated in the interview were asked about their opinions on the content validity of the open-ended questions, 54% stated that the content validity of the open-ended questions was low, 38% stated that the content validity was partially low, and 1% stated that they had no content validity problem (Table 14).

Table 14.

Results concerning the question "What are your opinions about the content validity of a Turkish language written exam consisting of open-ended questions?"

What are your thoughts on the content validity of a Turkish written test consisting of open-ended questions?	f	%
Content validity is low.	7	54
Content validity is relatively low.	5	38
I don't have any content validity issues.	1	7

When the teachers who took part in the interview were inquired about their thoughts on the reliability of open-ended questions, 38% of the teachers stated that reliability may vary from scorer to scorer, 23% stated that they found open-ended questions reliable, 15% stated that they did not find open-ended questions reliable, 15% stated that the reliability of open-ended questions may vary depending on the number of questions, and 15% stated that reliability may vary from teacher to teacher (Table 15).

Table 15.

Results for the Question "What are your opinions about the reliability of open-ended questions?"

What are your opinions on the reliability of open-ended type questions?	f	%
Reliability depends on the scorer.	5	38
I find it reliable.	3	23
It is not reliable.	2	15
It depends on the number of questions.	2	15
It depends on the teacher.	2	15

Discussion

It is seen that open-ended questions were adequately included in the written and mixed format exams prepared by the teachers. In mixed format format exams, it was determined that most of the required question types were used. However, the high number of multiple-choice questions and the exams in the format of tests involving entirely multiple-choice questions were remarkable. Ünlü et al. (2014), Yıldız (2015), Şanlı and Pınar (2017), Aydın (2019) and Akar (2019) received similar results in their works. In the interviews, it was determined that teachers' awareness of the type of open-ended questions was high. However, the questions in the exams examined

concentrate on certain cognitive steps and achievements. It was determined that the questions were capable of measuring lower-level cognitive skills and the achievements of reading skills at a high rate. In addition, while writing skills were included in a limited number of questions, speaking and listening/monitoring skills were not included at all. It was seen that the pupils did not have any difficulty in perceiving and answering the questions. These types of questions are used to determine students' skills such as thinking, questioning, understanding and writing, and to determine their interests and attitudes (Güneş, 2012). Open-ended questions are used to try to elicit students' learning about a particular topic in as a natural and extensive way as possible. Thus, closed alternatives that prevent a detailed and complete explanation are avoided (Friborg & Rosenvinge, 2011). In addition to being used in the measurement of high-level skills, their easy preparation is also an outstanding factor in their election.

They are used to measure behaviours at higher levels in the cognitive domain, generally at the level of synthesis and evaluation (O'Neil & Brown, 1998).

In the analysis, it is seen that the rate of answering correctly was quite high. It is thought that the correct answer rate was high due to the fact that the questions were used in the measurement of both simple reading comprehension and low-level cognitive skills.

In the teacher interviews, it is understood that another issue complained about open-ended questions is the validity and reliability of such questions. Especially the view that these questions are inadequate in terms of content validity is predominant. Lack of time and problems in limiting the answers bring along the necessity of preparing a limited number of questions. Although exams consisting entirely of open-ended questions are rarely preferred, it is understood that the same problems are experienced in mixed-format exams with open-ended questions.

It is certain that the limited number of open-ended type questions and the problems experienced in the evaluation process have a direct effect on reliability. It is realised that the teachers' failure to use a detailed key, the undesirable expressions in the students' answers, and the mistakes related to writing and grammar reduce the objectivity of the scoring and the reliability of the exam.

When the distribution of the questions according to the achievements in the curriculum was viewed, it was understood that open-ended questions were only used to measure certain achievements. From this inference, it can be concluded that teachers did not take the achievements into consideration while preparing open-ended questions. It is understood that multiple-choice and other question types were used more than open-ended ones in the measurement of the achievements belonging to other skill areas.

It was found that one of the reasons why open-ended questions were less preferred was the negative aspects they had in terms of evaluation compared to other question items. It was detected that the experienced difficulties were that the evaluation took a longer time, the students deviated from the expected answer, and the time could not be adjusted as desired. As a scoring method, it was observed that the most used scoring method was scoring key and the second most used scoring method was overall impression scoring. While a detailed key was prepared for other question types in the scoring key, it was understood that a detailed key was not prepared for open-ended questions or they were scored with an overall impression. This situation revealed score differences between students and between classes. It was detected that the fact that teachers did not prepare a detailed key in the scoring of open-ended type questions caused them to be quite generous in evaluating these questions.

When it comes to the outcomes of the research, it is concluded that teachers have sufficient subject matter knowledge about the functions and application areas of open-ended questions. In the interviews, it was determined that there were enough open-ended questions in all of the mixed format exams despite the problems experienced in content validity and evaluation. However, it was concluded that open-ended question preparation skills were at a low level. When the open-ended questions were analysed, it was determined that these types of questions were principally set as simple reading comprehension questions and they were located in the lower level cognitive skills concerning cognitive levels. Since a detailed key was not developed for scoring, it was understood that their reliability was quite low. Preparing questions that measure only certain achievements also creates a negative situation in terms of validity.

Conclusion and Recommendations

It would be very productive for teachers to participate in training activities related to open-ended questions. It is known that the number of distance or face-to-face courses on open-ended questions has increased recently. Especially attending open-ended question preparation courses given in measurement and evaluation centres will be beneficial. In addition, while formulating open-ended type questions, it should be paid special attention to distribute the achievements equally. Measuring only reading comprehension skills decreases the reliability of the exam. At the same time, they should focus on questions that can measure high-level skills in terms of cognitive levels. The preparation of more detailed scoring keys will be useful in terms of objectivity. The fact that there is a point value for each part of the question will provide an advantage to both the answerer and the scorer. At the same time, it may be useful to apply to different scorers in order to minimise the problems in terms of scoring. Students should be given preliminary information about how to answer open-ended questions. In addition, allowing enough time will relieve the answerer.

School administrators should provide general information about the exams, guide teachers in the desired direction and support them for educational activities.

Especially at the beginning of the semester, it is necessary to determine and follow up on the qualifications of the exams to be held during the semester. In addition, school administrations should not restrict teachers in these and similar activities.

District and provincial directorates of national education can organise in-service training activities or seminars on topics such as question preparation techniques or alternative assessment and evaluation methods in cooperation with universities and non-governmental organisations. Under the coordination of national education directorates, experts in their fields can organise seminars in crowded schools or town centres.

It would be useful for a team consisting of universities, research organisations, assessment and evaluation experts and teachers under the coordination of the Ministry of National Education to conduct a comprehensive study on written exam questions across the country. As a result of the research, a guideline on how to conduct exams for all courses that are assessed in the form of exams, including the distribution of achievements, sample scoring keys, etc. can be prepared and made available to all teachers.

It has been determined that there are not enough studies on exam questions in the literature. It is understood that the existing studies generally consist of statistical results. Researchers may be advised to conduct more research on the quality of the questions and the validity and reliability of the exams. will be quite productive for teachers to participate in training activities on open-ended questions. It is known that the number of distance or face-to-face courses on open-ended questions has increased recently. It will be beneficial for them to participate in open-ended question preparation courses given in measurement and assessment centers. In addition, care should be taken to distribute the gains equally when preparing open-ended questions. Measuring only reading comprehension skills reduces the reliability of the exam. At the same time, they should focus on questions that can measure high-level skills in terms of cognitive steps. More detailed preparation of scoring keys will be useful in terms of objectivity. Including the score value for each section of the question will provide an advantage to both the respondent and the rater. At the same time, it may be beneficial to apply to different raters in order to reduce the problems that will be experienced in terms of scoring. Students should be given preliminary information on how to answer open-ended questions. In addition, giving enough time will relax the respondent.

School administrations need to provide general information about exams, guide teachers in the desired direction and support them in educational activities. Especially at the beginning of the term, the qualifications of the exams to be held during the term should be determined and followed up in the group teacher meetings. In addition, school administrations should not restrict teachers in these and similar activities.

District and provincial directorates of national education can organize in-service training activities or seminars on topics such as question preparation techniques, alternative measurement and evaluation methods in cooperation with universities and non-governmental organizations. Experts in the field can hold seminars in crowded schools or district centers under the coordination of national education directorates.

It would be beneficial for teams consisting of universities, research organizations, measurement and evaluation experts and teachers to conduct a comprehensive study on written exam questions across the country under the coordination of the Ministry of National Education. As a result of the research, a guideline including how exams will be conducted for all courses evaluated in the form of

exams, distribution of achievements, sample scoring keys, etc. can be prepared and made available to all teachers.

It has been determined that there is not enough study on exam questions in the literature. It is understood that the existing studies generally consist of statistical results. It can be recommended that researchers conduct research especially on the quality of the questions and the validity and reliability of the exams.

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