

The Perception of Testing in Pupil's Drawings

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ABSTRACT

The aim of this research was to reveal 5th grade middle school students' perceptions of testing (examination) using their drawings (pictures). The students were asked to draw a picture that reflected their ideas about the concept of testing. This qualitative research was based on a phenomenological model. The sample of the study was 250 students attending a private middle school with branches in different provinces of Turkey. The collected data was analyzed in order to reveal the implicit content. According to the results of the content analysis, the students' drawings on their perception of the concept of testing were classified into 12 categories. The most and least represented categories were found to be anxiety and intelligence, respectively. The student drawings included in the categories of anxiety, grade anxiety, threat, and punishment constituted 60.7% of all the drawings, indicating that the students generally had a negative perception concerning exams. Although the drawings appear to be entertaining, they do provide evidence of the psychological effects of exams on students.

Key Words: Test perception, Test anxiety, Competitive exams, Student achievement, Student drawings

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INTRODUCTION

Educational policies implemented in Turkey have caused rapid changes, in particular, in the measurement and evaluation system. The most concrete example of change can be seen in the transition to secondary education. For example, the High School Entrance Exam (Liselere Giriş Sınavı-LGS), whose content and coefficient ratio changed, was substituted for the Secondary Education Institution Exam (Ortaöğretim Kurumları Sınavı-OKS) in 2005. In 2008, the Placement Test (Seviye Belirleme Sınavı-SBS) was conducted for 6th, 7th, and 8th graders. Students were accepted to high schools with the average scores of the 6th, 7th, and 8th grade tests. Then, in 2012 it was announced that the Placement Test would no longer be administered to middle school students. In 2014, the Transition from Primary to Secondary Education (Temel Eğitimden Ortaöğretime Geçiş-TEOG) exam was implemented. During the two semesters of the 8th year in basic education, the scores of the second exams of the courses included in the TEOG were considered as common test scores. Those scores were used to place students in a high school. In Turkey, three different assessment methods modifying the transition from primary to secondary education have been implemented in the last 13 years. Since the changes to the education system focused on measurement and evaluation, the other components of the system were also shaped according to assessment methods.

In general terms, an examination is a test, an assessment, or an evaluation performed in order to reveal the level of knowledge of students or individuals who wish to move to a higher level of education or apply for a scholarship or a job (TDK, 2014). The examination involves measurement and evaluation, a process which all students at almost all levels of education undergo and gain experience from. *Examination* has been defined as the process of the quantification of the properties of interest according to purpose, medium, and possibilities (Erkuş, 2012); the process of assigning a performance or feature (Airasian & Russell, 2008); and the quantification of test results (Berberoğlu, 2006).

In the rapidly changing educational structure, traditional measurement and assessment tools are inadequate to efficiently evaluate learning outcomes (Hensley, 1997; O'Neal, 1992). It has been observed that the measurement and evaluation activities that were previously used to classify students as "successful" or "unsuccessful" are now observed in practices that focus on the learning outputs of students (Stiggins, 2008). According to the new approaches, assessment is an activity that needs to be performed in order to support the learning process of students. This view does not exclude learning products; at the same time, it places emphasis on how the required performance for learning processes develops and changes (Kutlu, Doğan, & Karakaya, 2010). This provides a better understanding of how students can benefit from the process of education.

Students who cannot build a bridge between classroom learning and life and those who cannot measure school learning with the right techniques are unable to achieve academic success due to low motivation levels and negative attitudes regarding school (Willingham, 2009). On the other hand, while the education system is constantly changing, academic achievement is still regarded as success in exams. According to Harrison (2003), the testing system creates a problem because it functions as an enormous industry that tries to quantify the results of the education system; however, its efficiency and effectiveness are not questioned.

Exams have widespread use throughout the education system, and the importance of their results is emphasized by all stakeholders in education. However, it is noteworthy that

there has been little research on the perception of testing of those who are directly affected by this system—the students. Test scores are considered to be a strong source of anxiety for students because of their importance in the transition to higher educational stages and for the decisions taken during the course of their education and their employment (Zeidner, 2007); in the literature, this is referred to as “test anxiety” (Balogun, 2014; Cassady & Johnson, 2002; Culler & Holohan, 1980; Kumandaş & Kutlu, 2014; Kutlu, 2001; Spielberger & Vagg, 1995; Thergaonkar & Wadkar, 2007; Yıldırım & Ergene, 2003). *Test anxiety* is commonly seen in the field of education and is defined in general terms as distressing reactions with physical, behavioral, and cognitive components that are experienced in the face of results or expectations related to an exam or assessment (Öner, 1989; Zeidner, 2007). From this definition, it is clear that anxiety is related to how an individual experiences or makes sense of a distressing situation.

According to Dönmez (2008), Turkish elementary school is where the test marathon begins. Young children first experience test anxiety in primary school. Students are compelled to compete for success on national exams during a period in which their emotional needs require the most attention. Recently, all schools and educational institutions in Turkey have been required to initiate new procedures to better prepare students for the national exams. For example, although the content of the central tests for the Transition from Primary to Secondary Education (TEOG) implemented between 2014-2017 in Turkey focuses on the learning outcomes of the 8th grade and although the placement scores are calculated based on the grade point average only for the 8th grade, teachers are expected to prepare students for the national exams using teacher-prepared tests and by providing additional courses as early as the 4th and 5th grades. The performance of students in these examinations is usually taken as an indicator of student success by teachers, schools, and also by parents.

Exams are acknowledged as part of formal education. As individuals undergo exams during a significant part of their school life, investigating students’ image of testing could reveal important findings. In particular, in Turkey, students are first introduced to the central examination system in the 5th grade; therefore, this study aimed to determine the perceptions of testing of students at this grade, which corresponds to the starter grade for middle schools in Turkey.

There are many methods that can be used to determine the perceptions of individuals regarding a specific phenomenon or concept. One of the important tools used to reveal students’ perceptions of testing consists of pictures or drawings that reflect their ideas about this concept. Picture tests and drawings are referred to as projective techniques since they are considered a means of reflecting emotions. Projective tests allow people to use symbols or pictures to convey emotions and thoughts that are the reflections of their reciprocal relationships (Altınköprü, 2003). The line and figure drawings of a child who has attained a certain muscular level are influenced by intelligence, personality, and environment. Such interactions can distinguish the drawings of one child from those of another (e.g., a drawing by a child will feature the surroundings, experiences, and situations that are important to that child). Drawings are considered to be a reflection of a child’s inner world and offer us an insight into his or her personality traits, interpersonal relationships, emotional problems, frustrations, fears, expectations, perceptions, and anxiety; thus, they help us understand the child (Malchiodi, 2005; Yavuzer, 1993).

Determining the effects and impressions of the tests, which have an important place in the agenda of educational policies in Turkey, on students is worthwhile because it provides feedback on the functioning of the system through direct investigation of the perspectives of students. Since testing is an important measurement and evaluation component of the education system, revealing students' perception of examination is important not only to determine the quality and effectiveness of the measurement and evaluation activities in schools and develop educational policies, but also to assist education stakeholders in understanding how students view this concept. For this reason, the main purpose of this research was to examine the 5th graders' perceptions of testing through their drawings.

METHOD

The following sections present information about the research model, sampling, data collection and analysis, and the results concerning the validity and reliability of the data.

Research Model

This research was based on a phenomenological model and aimed to reveal 5th graders' perceptions of the examination process. The phenomenological model focuses on phenomena that we are aware of but do not deeply and fully understand (Yıldırım & Şimşek, 2013). Phenomena may be observed in different forms in the world-events, experiences, perceptions, tendencies, concepts, and situations. In case studies, the data source is individuals or groups who experience and can express the phenomenon under investigation. In phenomenological studies, data are usually collected through interviews with participants. However, observations, diaries, poetry, music, written speeches, official correspondence, drama, and other art forms can also be used as data collection tools (Creswell, 2007; Yıldırım & Şimşek, 2013). In the current study, the use of drawings to reveal students' perceptions of testing provided a basis for the researchers to construct the research model by allowing the students to freely express their feelings and thoughts as well as their experience with exams in an authentic way.

Sampling

The population of the study was 5th grade students attending branches of a private middle school in various provinces of Turkey. From this population, a sample of 250 students was selected, of whom 139 were female (55.60%) and 111 (44.40%) were male. The research sample was determined using the disproportionate cluster technique by selecting 20% of the population, which contained a total of 1,250 students (Cochran, 1977). Cluster sampling is generally performed in two stages: identifying the clusters using the random sampling method and randomly selecting elements from each cluster. In this study, in the first stage, each middle school operating under the private educational institution was considered as a cluster. In the second stage, a list of all students was obtained from each school, and the random sampling method was used to select the classes to be included in the study. This process eliminated the requirement of searching for an exemplary list of the whole population, rather than sampling the whole population, a more practical and less costly sampling was achieved by performing random sampling on the identified clusters (Böke, 2011).

Data Collection

The data for the study were collected during the first semester of the 2014-2015 academic year. The students included in the sample were asked to draw a picture that reflected

their thoughts on the concept of testing and to explain their drawings during a class hour. The students' drawings and explanations were used as the data source of this research.

Data Analysis

The data analysis process aimed to categorize the collected data and reveal implicit content through content analysis. The main objective of content analysis is to reveal concepts and relationships that can explain the collected data (Yıldırım & Şimşek, 2013). For this purpose, it is necessary to first determine the appropriate conceptualization of the collected data, then to organize it logically according to the emerging concepts, and finally to identify the themes explaining the data. Basically, the process of content analysis involves putting together similar data within the framework of certain concepts and themes and interpreting the data by organizing it in a way that the reader can understand (Yıldırım & Şimşek, 2013).

In this study, the students' drawings were examined and categorized based on similar features with the help of students' explanations. Then, the frequencies and percentages of the drawings were calculated for each representative category.

Results Concerning the Validity and Reliability of the Data

In order to ensure the validity of the results of the qualitative data analysis, this study explains the data analysis process in detail, the students' drawings are directly used for the analysis and interpretation of the data, and the drawings are discussed in the results section. According to Ratcliff (2008), another measure that can be taken to ensure validity in qualitative data analysis is to examine the consistency and similarity of the results of the current study with those of previous research studies.

In this paper, the steps of data analysis are thoroughly and explicitly reported in order to ensure the reliability and validity of the findings obtained in the research, and the drawings of the participants are directly included in this report. According to Yıldırım and Şimşek (2013), thematic coding can be carried out at different levels according to the depth and scope of the collected data. If a large number of themes are found, then classification is performed for a higher-level theme starting with the common relations between the themes. It is also considered beneficial for an external researcher to verify whether or not the emerging themes adequately reflect the dataset and whether the data are effectively organized under categories according to the themes, and then to make recommendations to the researcher. Therefore, in the current study, external researchers were consulted in order to confirm that the drawings grouped into conceptual categories during the data analysis process truly represented this categorization.

The categories established by the researcher and those established by the two consulting researchers were compared, and the reliability of the findings calculated based on the formula for the percentage of inter-coder agreement, as proposed by Miles and Huberman (1994) and presented as Figure 1. In addition, during the course of the study, the participants were given the opportunity to provide only their own thoughts, and care was taken by the researchers to avoid offering any explanations that might influence the participants when they created their drawings.

$$\text{Reliability} = \frac{\text{Agreement}}{\text{Agreement} + \text{Disagreement}} \times 100$$

Figure 1. Formula for Percentage of Inter-Coder Agreement (Miles & Huberman, 1994)

In order to confirm that the drawings grouped under appropriate conceptual categories for testing truly represented these categories, two experts enrolled in a PhD program in the Department of Measurement and Evaluation were asked to complete an opinion form that contained the drawings with their conceptual categories. With a recommendation from a psychology professor working on cognitive processes in children's drawings, one-third of the total number of drawings were randomly selected as the student drawings for which expert opinion would be sought. The experts were asked to code the drawings as "appropriate" or "not appropriate" based on whether they belonged to the given conceptual category. Then, the extent of agreement between the experts and the researcher on coding was analyzed. In order to ensure the internal reliability of the study, expert opinion was sought during the elimination of those drawings which did not represent any category as a result of the analysis of the data.

Table 1 presents the percentage of inter-coder reliability calculations.

Table 1. *Percentage of inter-coder agreement on the categorization of the drawings*

<i>Drawing Categories</i>	<i>Number</i>	<i>Percentage</i>
Disagreement (a)	73	85.9
Agreement (b)	12	14.1
Agreement (a) + Disagreement (b) / Total Number of Drawings	85	100.0
$\frac{a}{a+b} \times 100$ (Inter-Coder Agreement)	-	85.9

The reliability percentages reveal an 85.9% inter-coder agreement on the categorization of the drawings.

RESULTS

In the current study, the students' perceptions of testing were explored through their drawings on this concept. The student drawings were placed in conceptual categories according to their common characteristics. Table 2 gives the number and percentage of drawings by category.

Table 2. *Distribution of student drawing numbers and percentages by category*

<i>Category</i>	<i>Number of Drawings</i>	<i>Percentage of Drawings</i>
Anxiety	56	24.8
Grade anxiety	38	16.8
Threat	30	13.3
Feedback	27	11.9
Diligence	20	8.8
Future and life	19	8.4
Content	10	4.4
Punishment	7	3.1
Happiness	6	2.7
Competition	6	2.7
Game and reward	4	1.8
Intelligence	3	1.3
Total	226	100.0

Despite being valid, 24 of the 250 drawings were excluded from analysis since they did not contain any explanation. Table 2 shows that the student drawings are divided into 12 categories. Among these, the anxiety category has the highest number of drawings ($n = 56$; 24.8%), while intelligence has the lowest ($n = 3$; 1.3%). The following subsections present the features of each representative category by providing examples of drawings included in the categories.

Anxiety

As revealed in Table 2, anxiety was the category most represented with 56 drawings (24.8%). The student drawings included in this category contained symbols, characters, and figures reflecting the concerns, fears, and doubts of the students related to the testing concept. Figure 2 and Figure 3 are examples of the drawings representing the anxiety category.

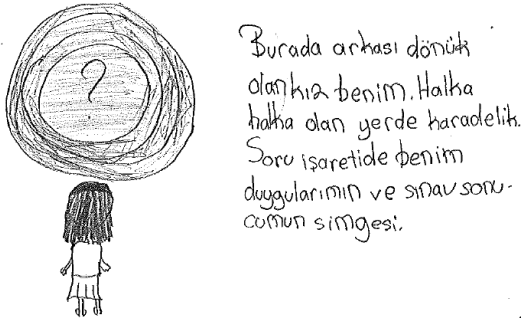


Figure 2. Student drawing 1 (female)

Here, the girl facing back is me. The rings form a black hole. The question mark is the symbol of my feelings and the exam score.



Figure 3. Student drawing 5 (female)

This picture depicts a girl's fear of exams. The girl looks scared because she dreads the exam.

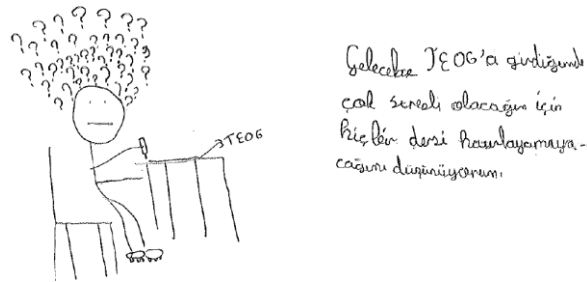


Figure 4. Student drawing 8 (male)

“When I take the TEOG exam in the future, I think I will not remember anything I have learned because I will be too anxious.”

When the drawings in the anxiety category are examined, it can be seen that most students portrayed themselves before or during an exam. These drawings demonstrate that the students constantly felt anxious before, during, and after exams, and that they found exams to be physically and mentally distressing.

Grade Anxiety

According to the data collected in the study, grade anxiety was the second most represented category with 38 drawings (16.8%). Figure 5, Figure 6, and Figure 7 are examples of student drawings included in this category.

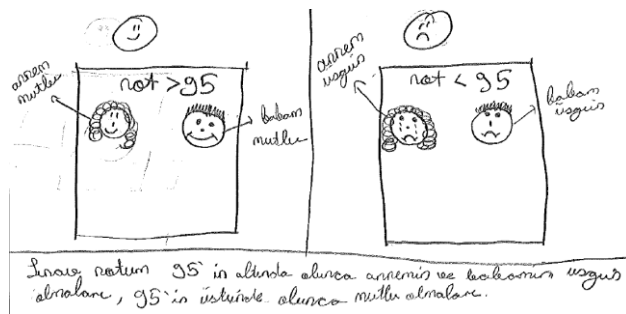


Figure 5. Student drawing 37 (female)

Score > 95

Mum is happy. Dad is happy.

Score < 95

Mum is sad. Dad is sad.

Mum and dad are happy when I score more than 95 on exams; they are sad when I score less than 95.

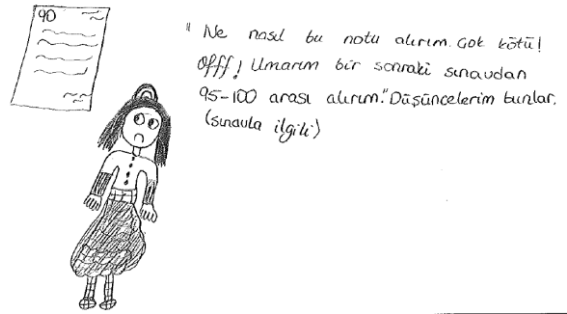


Figure 6. Student drawing 38 (female)

"What! How did I get this score [90]? It is very bad! Ugh! I hope I score 95-100 on the next exam." These are my thoughts about exams.

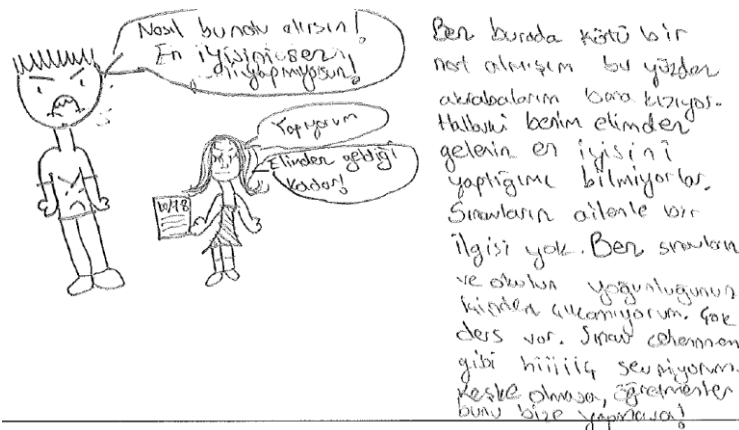


Figure 7. Student drawing 39 (female)

- “Why did you get this [low] score! You are not doing your best!”
- “I am. This is as best that I can do.”

Here, my relatives are annoyed with me because I received a low score, but they are not aware that I am doing my best. Exams have nothing to do with your family. I cannot do anything else in the intensity of exams and school. There are too many classes. Exams are like hell. I do not like them. I wish there weren't any [exams]; I wish teachers wouldn't do this to us!

In the drawings in the grade anxiety category, the students depicted not only themselves and exam-related elements, but also their teachers. They made references to how, even during exams, they focused on the scores they would get, the comments made by their parents regarding their scores, and their teachers' expectation of high grades. Another interesting aspect of some of the drawings was that the students considered that only a very high score would satisfy their parents and teachers as well as the students themselves. The students seemed to be competing under pressure from their parents and teachers to achieve 100% scores on their exams, and they were concerned about the possibility of facing negative attitudes from these people, even if they obtained a score as high as 90%.

Threat

As shown in Table 2, the threat category consisted of 30 drawings (13.3%). Two examples of these drawings are given as Figure 8 and Figure 9.

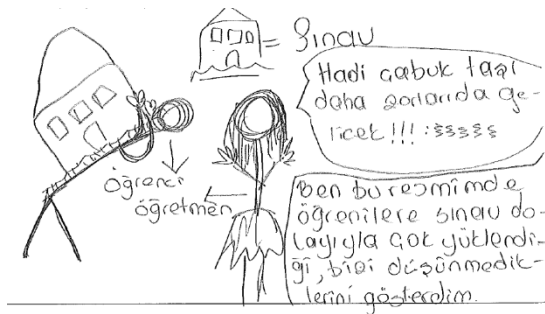


Figure 8. Student drawing 49 (female)

- “Come on, carry them quickly, there are harder ones to come!!!”

In this drawing, I depicted that exams place too much load on students and people do not consider them [students].

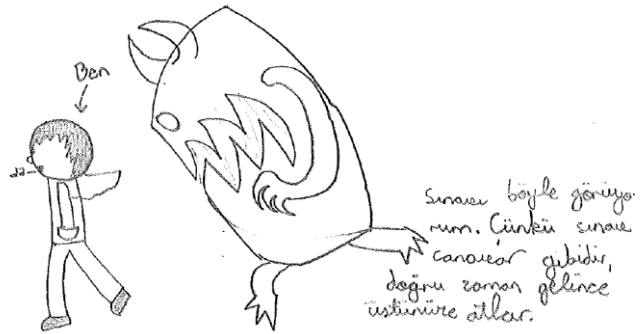


Figure 9. Student drawing 50 (male)

I think exams are like this because they are like a monster; they jump on you at the right time.

In the threat category, the students mostly referred to “monsters,” “enemies,” “death,” “pain,” and “load,” as well as using symbols and figures representing these concepts. The students perceived exams as situations, people, and imaginary creatures that threatened their existence as an individual and inflicted harm on them. The students felt vulnerable and inadequate in exams and reacted to this by adopting a resigned and submissive role. However,

some of the students that perceived exams as a threat explained that they needed to struggle with it.

Feedback

As shown in Table 2, the feedback category consisted of 27 drawings (12%), examples of which are Figure 10 and Figure 11.

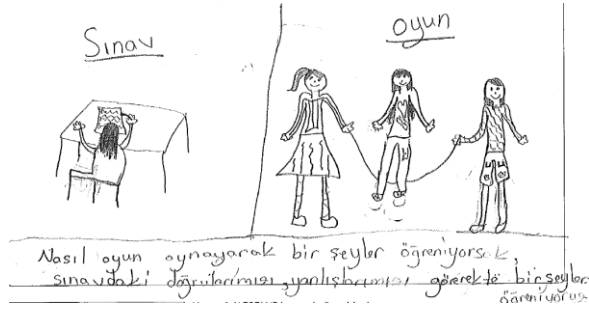


Figure 10. Student drawing 26 (female)

Exam vs. Game

Just as we learn by playing a game, we learn in exams through our correct and incorrect responses.

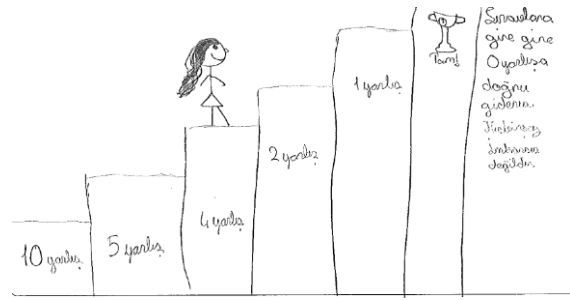


Figure 11. Student drawing 30 (female)

10 wrong answers-5 wrong answers-4 wrong answers-2 wrong answers-1 wrong answer-Full score-The more exams I take, the closer I get to 0 (zero) mistakes. Nothing is impossible.

The analysis of the drawings in the feedback category demonstrated that the students considered exams as a tool for achieving academic development. That is, the students explained that exams helped them determine the areas in which they lacked knowledge and thus gave them an opportunity to focus on these areas. Furthermore, the students considered that feedback was necessary and valuable for them to be successful.

Diligence

There were 20 drawings (8.9%) in the diligence category as shown in Table 2. Figure 12 and Figure 13 are examples of the student drawings included in this category.

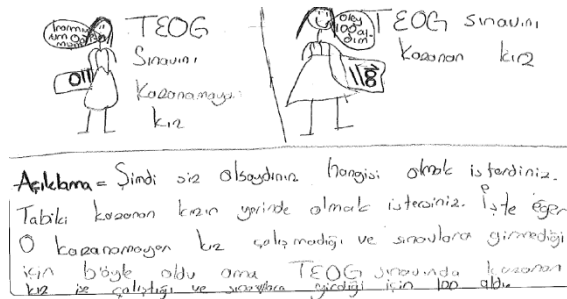


Figure 12. Student drawing 15 (female)



Figure 13. Student drawing 17 (male)

- “I cannot believe that I scored 0 (zero)”
(girl that failed the TEOG test)
- “Hooray! I scored 100”
(girl that passed the TEOG test)

Explanation: “Which girl would you like to be?” The girl [on the left] failed the test because she did not work hard or take the exam. The girl that passed the TEOG test scored 100 because she worked hard and took the exam.

I think [passing] an exam requires working hard. This is what I depicted in this drawing.

In the diligence category, it was observed that in their drawings, most students used student figures that were intensively working before an exam and compared students that worked hard to succeed in exams with those that did not.

Future and Life

The 19 drawings (8.4%) in this category depicted testing as a vital concept. Figure 14 and Figure 15 are two examples of the student drawings included in this category.



Figure 14. Student drawing 20 (female)

There is no difference between performing surgery and taking an exam.

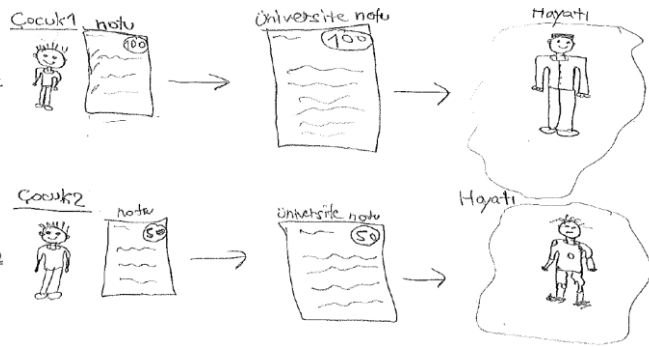


Figure 15. Student drawing 24 (male)

Child 1 Score (100) University Grade (100) Life
Child 2 Score (50) University Grade (50) Life

The drawings in the future and life category showed that the students acknowledged the determining role of exams in their future and standard of life. Considering that their future would be influenced by their scores in exams, the students attached importance to being successful in exams.

Content

According to the data collected in the study, 10 drawings were included in the content category. These drawings contained symbols, figures, and shapes representing the content of teacher-made tests (e.g., topics, learning outcomes, and multiple-choice tests) administered in their school. Figure 16 and Figure 17 are some of the drawings belonging to the content category.

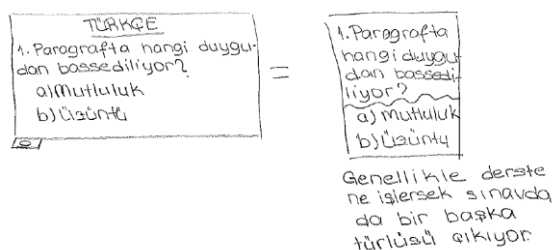


Figure 16. Student drawing 33 (female)

TURKISH

1. Which feeling is described in the paragraph?

a) Happiness b) Sadness

1. Which feeling is described in the paragraph?

a) Happiness b) Sadness

Whatever we go through in class is presented to us in exams in another form.

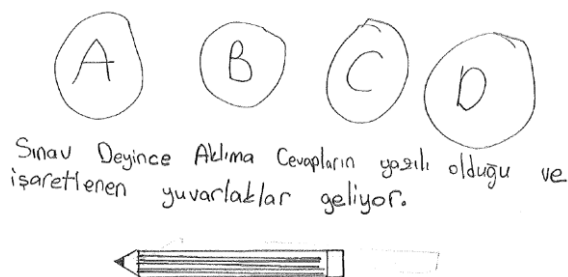


Figure 17. Student drawing 34 (female)

Exams remind me of filling in circles containing response options.

Further analysis of the drawings in the content category showed that the students focused on the features and scope of exam questions. One of the details in the drawings showed that the students were mostly presented with multiple-choice questions in tests. Another notable finding was that test items or materials used in class were presented in the form of questions in exams. Most of these students emphasized that examinations contained questions that were addressed in class or were included in their notebooks. The fact that students perceived exams as homework, a worksheet or notebook raises the question as to whether their teachers failed to prepare tests for specific purposes or the students had misconceptions concerning the objective of exams.

Punishment

According to the results, there were seven student drawings (3.1%) in the punishment category. The analysis of the drawings showed that the students used symbols, figures, and environments representing elements related to punishment when expressing their perceptions of the testing concept. Figure 18 and Figure 19 are two examples of student drawings representing the punishment category:

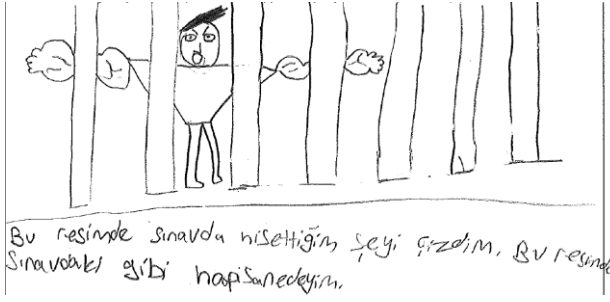


Figure 18. Student drawing 10 (male)

In this picture, I have drawn everything I feel during exams. In the picture, I am in prison as I feel I am during an exam.

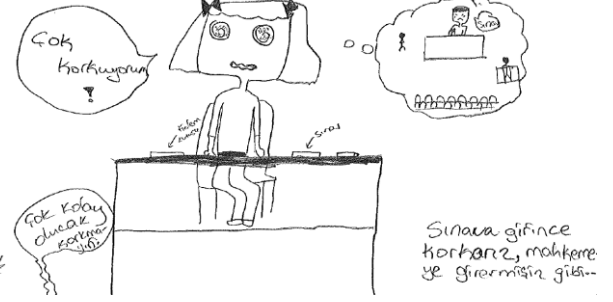


Figure 19. Student drawing 11 (female)

"I am so scared!"

"It is very easy. Do not be scared!"

When we take an exam, we get scared as if we are being tried in court...

The majority of the drawings in the punishment category demonstrated that the students related taking an exam to freedom-restricting and punitive situations such as persecution, torture, imprisonment, and being tried in court. It was considered to be a remarkable finding that the students associated their emotions during exams with mental processes triggered from physically harmful situations.

Happiness

In the happiness category, there were six drawings (2.7%), and Figure 20 is an example from this category.

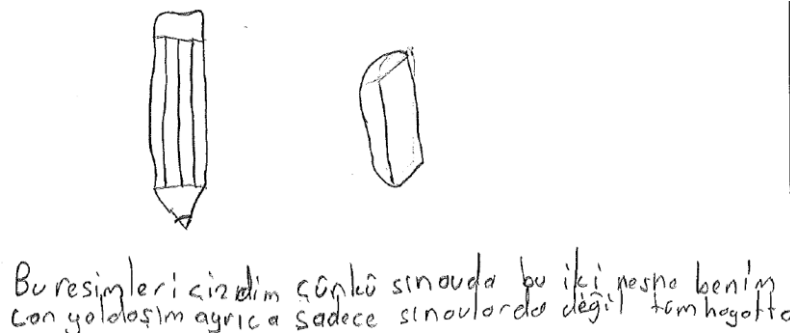


Figure 20. Student drawing 36 (male)

I have drawn these objects because they are my faithful friends, not only in exams but also in my whole life.

The drawings in this category reflected the positive attitudes of students towards testing and in their explanations, the students emphasized that an exam was a way of making them happy.

Competition

Of the 250 student drawings, six (2.7%) were found to represent the competition category. Figure 21 and Figure 22 are two examples of the drawings in this category.

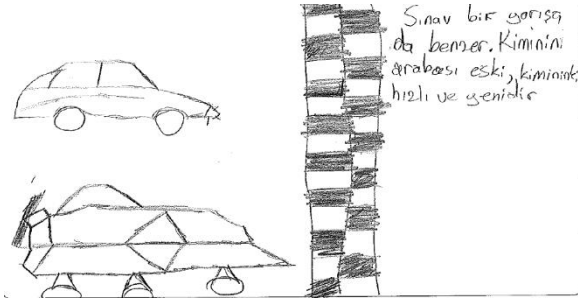


Figure 21. Student drawing 47 (male)

An exam is like a race. Some people have an old car while some others have a new and fast car.

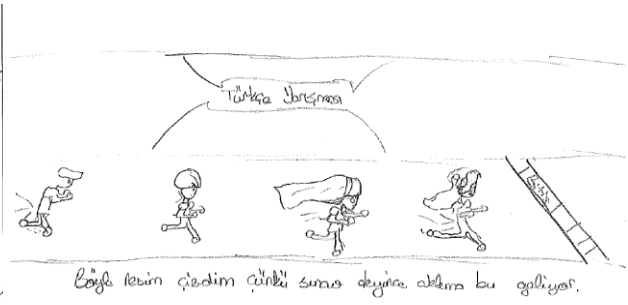


Figure 22. Student drawing 48 (female)

Turkish Language Competition
I have drawn this picture because this is what exams remind me of.

In the drawings under the competition category, the students used competitive elements and symbols to demonstrate their perceptions of testing. According to these drawings, in the students' minds, exams were represented as the moment of competition. The students perceived testing as a competition that took place between those that wanted to succeed.

Game and Reward

Among the data collected in the current study, there were four drawings (1.8%) in the game and reward category. Figure 23 is an example of a student's drawing from this category.



Figure 23. Student drawing 45 (female)

- "One...two...three..."
- "Well done, you are playing very nicely"
- "OK everyone, the exam has started"

"Exams remind me of playing games and fresh air. This is what I portrayed in the drawing."

The drawings in the game and reward category indicated that the students perceived testing as a leisure time activity or game. The students described in their drawings in a way that exams were games that relaxed their minds and each successful examination carried them to a higher level. At the end of the game, they would be rewarded with a good grade or a certificate of appreciation, achievement or honor.

Intelligence

The intelligence category consisted of three drawings (1.3%), an example of which is Figure 24.

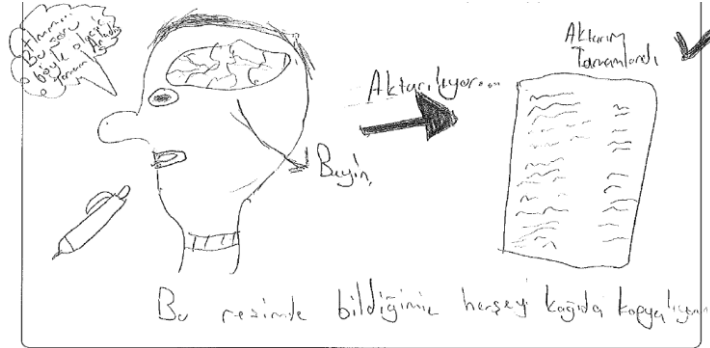


Figure 24. Student drawing 46 (male)

- "Hmm... this is the answer to this question. Okay, I got it"

- Transferring... Transfer complete.

In this drawing, everything we know is copied onto the paper.

In this category, it was observed that the students perceived testing as a tool for demonstrating their intelligence. These students considered that exams created an environment in which they perform their mental skills.

DISCUSSION

In this study, student drawings were used to reveal the deeper representations of students' perceptions of the testing concept. The drawings created by the students regarding this concept were classified under conceptual categories based on their common characteristics. According to the analysis, which was supported by descriptive statistics, the drawings reflecting the image of exams in the students' minds fell into 12 different categories. Anxiety was the most represented category in student drawings, while the least represented was the intelligence category. In the drawings clustered under the anxiety category, the students used symbols, characters, and shapes that reflected their concerns, fears, and doubts when describing their perceptions of the testing concept. Based on the number of drawings, the most to the least represented categories can be listed as follows: Anxiety, grade anxiety, threat, feedback, working hard, future and life, content, punishment, happiness, competition, game and reward, and intelligence.

When the findings of the research were further examined, they were found to be consistent with those reported by the limited number of studies conducted in this area. Wheelock, Bebell, and Haney (2000) explored students' perception of high-stakes tests through drawings and found that 17.6% of the drawings referred to their difficulty, 8.5% to their content and questions (deceptive and confusing nature of the questions), and 19.28% to the boring length of the test. The authors stated that in these drawings, the students mostly reflected their feelings of anxiety, fear, anger, boredom, pessimism, and of being withdrawn.

According to the results obtained by Harris, Harnett, and Brown (2009), in their drawings on assessment, 30% of the students reflected negative perceptions (anxiety, panic,

isolation, pressure, and threat) and 33% used a test paper as a physical element. Another remarkable finding of their study was that 79% of the drawings did not contain any elements referring to the teacher's role in the assessment process. In contrast, the current study found that students tended to portray their teacher as an individual pressuring them to work hard and obtain high grades.

According to the findings of Paris, Roth, and Turner (2000), 72% of the 4th grade students in their study thought that their parents placed importance on the test results, 67% considered that it was their teachers who found the results important, and 77% tried to perform as well as possible in tests. The authors also determined that 16.8% of the students explained their test perceptions using grade anxiety. Similarly, the current study found that in drawings and explanations classified under the grade anxiety category, it is seen that high expectations of teachers and parents negatively affect students' mental and physical well-being. The students stated that even if they achieved 85%, their parents and teachers would have a negative reaction, to which the students felt vulnerable. However, Paris et al. (2000) also reported findings not parallel with the current study's results. For example, Paris et al. (2000) found that 16% of the students agreed with the statement, "I feel anxious during the test." However, in the current research, a considerably higher number of drawings (24.8%), were included in the anxiety category. This can be attributed to the imposition of exams to achieve important objectives in Turkey. Although the participants were only attending the 5th grade, some already had concerns regarding the TEOG exams.

In this section, the categories of the students' drawings of the testing concept were discussed in comparison with the limited number of studies to be found in the related literature. Each drawing analyzed in this research reveals students' different perceptions of testing. In the drawings, the students made various descriptions of the concept of testing using figures, characters, symbols, and explanations related to the purpose, function, content, form of application, preparation process, and the results of exams. Exams mostly created the feelings of anxiety, threat, fear, doubt, pressure, and punishment in students. In their drawings, the students emphasized the physically and mentally distressing nature of exams. There were very few drawings reflecting positive perceptions of testing. These drawings were grouped under the categories of feedback, diligence, happiness, game and reward, future and life, and intelligence.

CONCLUSION AND SUGGESTIONS

From this research, it can be concluded that the drawings of the students mostly revealed negative perceptions of the testing concept. The reasons for this need to be investigated in detail and education stakeholders and policymakers should be made aware that these perceptions have an important role when making changes to the education system and for the provision of efficient educational services. In addition, the results of studies similar to the current research should be made available to parents and teachers in order to raise awareness of the issue. Similarly, competent and relevant government and non-governmental organizations should take necessary measures to reduce the considerable anxiety of students concerning exams and testing, and to ensure that exams widely used in measurement and evaluation activities are a natural part of the education system.

In the literature, only a limited number of studies have used drawings to reveal students' perceptions of testing. Particularly, in a country like Turkey, in which testing is constantly on the agenda of not only education stakeholders but also the public, it is necessary

to conduct research to determine the perception of students in this area and to change the prevailing negative attitudes. Considering the fact that the education system in Turkey is shaped by the measurement and evaluation process, before introducing any changes to the system, it is important to determine students' perceptions of testing and the transition between educational stages in order to positively affect the outcome of the system and the views of the students as part of this system.

Future research can focus on the comparative analysis of student perceptions of testing at different educational stages (primary and secondary). This will allow the determination of whether or not student perceptions change according to their educational stage or other factors. In addition, it may be useful to plan studies using interviews, in particular focus-group interviews that can provide more detailed and in-depth findings concerning other variables associated with the attitudes and expectations of students in relation to exams (e.g., school characteristics, teacher characteristics, educational background of parents, and the experience of students related to testing).

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