



The Competencies of Turkish Visual Arts Teachers in Using Performance Evaluation Methods

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Abstract

This study aims to assess the competencies of visual arts teachers in using performance evaluation methods, and to examine how these competencies vary by gender, years of service, and faculty graduated from. The study is a descriptive one, aiming to depict the present situation. The sample for the study consisted of 78 visual arts teachers working in the primary schools in Turkey. A three point Likert type scale was used as the data gathering instrument of the study. For the analysis of the data and for calculations, the SPSS 13.0 statistical package was used. Frequencies and percentages were calculated. Of the parametric tests, two samples t-test and one way ANOVA were used to test for normalcy. In all statistical analyses conducted, a $p < 0.05$ significance level was used. The reliability coefficient of the scale was found to be 0.73. The findings indicate that visual arts teachers frequently engage in performance evaluation. Visual arts teachers state that they experience difficulties in finding time to prepare and evaluate development portfolios because classes are too crowded and with keeping these portfolios, that they do not have sufficient information on rubrics, and that they need assessment and evaluation experts to help with the use of this tool.

Keywords: Product portfolio, performance evaluation, rubric, visual arts education, evaluation methods.

Introduction

There is a need to create new and alternative assessment and evaluation systems that take learning and learning products, ways of thinking, and learning styles into consideration. In other words, non-conventional tools or techniques to measure what the student knows and what he or she can do, and to evaluate student development are needed. In education practices, evaluation aims to assess the level of knowledge and ability the student has prior to teaching, to monitor the level of realization of learning targets during teaching, and to produce quantitative data, after the teaching, on the level of achievement of the targets previously set.

Once the process within which the student is going to be evaluated is identified, the next step is to identify evaluation techniques appropriate for the purpose. Different methods can be used in the identification of the process within which the student is going to be evaluated and the collection of data following the identification of appropriate evaluation techniques. However, in the stage of identifying the appropriate evaluation technique, two important issues require the attention of the teacher. These are how to make the evaluation “meaningful” and “administrable”. For an evaluation to be meaningful, it needs to express the operations and criteria clearly, and produce results that provide clear guidance on how to improve teaching. The administration of the evaluation, on the other hand, involves the preparation of resources for teaching purposes (Johnson and Johnson, 2002).

When commonly used assessment-evaluation methods are examined, it can be observed that we have a system in which the results or the products are measured to evaluate the achievement of the student, and the individual achievement results are expressed relative to group achievement. The most important shortcoming of this system is that there is either insufficient information or none at all and no documents that would help the individual to assess his or her own standing and development. The achievement of the student is expressed as a “GRADE”, which usually means some combination of written exam scores and the teacher’s subjective evaluation.

This traditional method of evaluation, which focuses on measuring the competencies of students in terms of knowledge, comprehension, and application, fails to measure higher order competencies.

However, it is important that evaluations also assess student behaviors formed as a result of the knowledge and insights acquired during teaching. This type of an evaluation gives equal weight to the level and quality of cognitive inquiry processes, and to the skills and competencies the student has developed. In our constantly changing and developing world, we need a broad minded educational approach that does not solely focus on rote learning. Paralleling this approach, we also need to create novel learning environments in classes (Johnson and Johnson, 2002). In addition to exams, there needs to be various assessment and evaluation tools and methods to enrich the process of the evaluation of students, and the development of the student needs to be monitored, so that proper guidance can be provided.

Performance evaluation, which is an alternative evaluation method that measures actual problem solving abilities of the students by focusing upon the performance and upon the process, can serve these needs. Tekin (1991) argues that if education targets include the student following an order of operations, or coming up with a product using any or a specific method in a certain field, then performance evaluation is a must.

In this approach, which does not require the student to come up with a single correct answer, the aim is to evaluate what sort of an impact the new information has on the thinking of the student. Differently from the traditional method, this method of evaluation provides detailed feedback for the students on their development, and encourages personal development, creative activities, and social responsibility. From 1990 onwards particularly, student-centered evaluations based upon information from multiple sources became important, and various evaluation methods (performance evaluation, portfolio evaluation, etc.) and tools (rubrics, checklists, attitude scales, scoring guides, etc.) started to be used.

Evaluation and Rubrics in Visual Arts Education

In a subject like visual arts, coming up with evaluation criteria is a very difficult task. This is because expression, personal development, creativity, imagination, and originality, the improvement of which is one of main aims of arts education, are difficult to measure. The same work might be evaluated differently by different teachers. Thus, student evaluation in visual arts has to be multi-dimensional. Although there are no single correct answers to arts questions, pre-set targets based upon rubrics would lead both the student and the teacher to make sound assessments.

When evaluating, teachers should take daily performances into account as well as end-of-unit performances. Performance evaluation, defined as a function of long term learning of the students and evaluation of skills, is crucial because constant feedback is provided. With the feedback provided, students will be able to assess their own work.

Tools commonly used for recording observations on student performance include checklists and rating scales. With the development of supplemental evaluation tools, especially since 1990, rubrics, scoring guides, and reflection logs also started to be used for recording observations on performance. Mehrens (1992) defines a rubric as follows: “new approaches” that include performance evaluation and actual assessments and separate these from traditional written exams. In addition, we can say that a rubric aims to make a performance based assessment, and to measure how well the student employs the basic knowledge he or she has acquired when

performing complicated tasks under authentic conditions. If the performance evaluation is made under authentic conditions, it is called authentic evaluation. The evaluation method that includes performance evaluation and actual assessments and that separates these from traditional written exams is called the “new methods (approaches)” (Mehrens, 1992).

A book published by the Ministry of National Education of Turkey details teacher competencies, and “states that visual arts teachers identify students that show development above and below certain levels, and help them improve using various tools and methods taking individual differences into account” (MEB, 2008: 130). One of the most appropriate methods for evaluating the class level to assess student development is a rubric. A rubric, which is a scoring tool used in evaluating student performance, helps measure the quality of the student achievement (Strickland, 1998).

Dorn (2002) argues that in visual arts education evaluation, rubrics based upon certain criteria need to be used. This kind of an evaluation aims to collect information about the class level, rather than measuring artistic levels. “A rubric is an evaluation method that identifies the standards that a student needs to meet, and can be used to assess which students meet these standards and which do not” (Dorn, 2002: 235).

Huffman (1998) argues that rubric evaluation in arts education can reflect the personal, historical, and cultural understandings of the students about art, as well as their technical and intellectual abilities. This evaluation can be made on the basis of verbal, written, or visual presentation.

Stokrocki (2005), on the other hand, argues that preparing rubrics on arts education performance may influence design by giving information to the student prior to the work, and thus causing confusion. Stokrocki (2005) also argues that teachers should evaluate themselves first, based upon the rubric they prepared, so that they can detect mistakes in their own thinking. This way they would also be able to detect differences between what they teach and what the students learn.

Various studies on the use of a rubric in painting classes exist. One of these studies is Piscitello’s (2002) study on evaluation and the use of rubrics in the arts. The findings of this study suggest that rubrics are successful in helping students assess themselves and develop self assessment abilities. In the process of evaluation, it was observed that over time, students’ decisions on their own painting projects grew more independent of their teachers. “The researcher thus suggests that rubric systems are used in painting classes” (Piscitello 2002: 40). Based upon the results of another study on rubrics, Shepard (2005) argues that the use of rubrics in arts education should be more widespread. The results of Borden’s (2008) study, titled “Rubrics as assessment and evaluation tools in arts education”, indicate that rubrics help develop the self-respect and time management skills of the students, and that evaluations encourage student development both as individuals and in groups.

The holistic rubric prepared by the researcher, based upon a literature review and expert opinion, to be used in visual arts education (Borden, 2008, Huffman, 1998, McCollister, 2002, National Education Visual Arts and Sports High School Curriculum, 2009).

This study aims to examine the competencies of visual arts teachers to use these assessment and evaluation tools, which are part of the primary school curricula, to discover the common difficulties experienced in their application, and to propose solutions for the problems identified. To this end, answers to the following research question were sought:

1. How are the competencies of visual arts teachers in using development portfolios, performance evaluation, and rubrics distributed?
2. How frequently do visual arts teachers use development portfolios, performance evaluation, and rubrics?
3. What are the problems encountered by visual arts teachers in assessment and evaluation, and what solutions can be offered?
4. Do the competencies of visual arts teachers to use development portfolios, performance evaluation, and rubrics significantly vary by gender, years of service, and faculty graduated from?

Method

Research design

Because it aims to depict the present situation, the study is a descriptive one. Research design used for the study is survey methodology. Surveys are done to reach conclusions about a universe, based upon observations on the whole or a representative sample of that universe.

Study group

The universe for the study consisted of all visual arts teachers working in the 2009-2010 academic year in public and private primary schools overseen by the Ministry of National Education.

Random sampling method was used to draw the sample. The study group consists of a total of 78 visual arts teachers working in public and private primary schools in Turkey. 42.3% of the participants are female and 57.7% are male.

Distribution of the teachers by whether they took an assessment and evaluation course in college, whether they received any in-service training on assessment and evaluation, and the size of the classes they teach is shown in separate tables.

Table 1. *Distribution of Visual Arts Teachers by the Size of Class Taught*

Size of the class taught by the teacher	N	%
50-70	12	15.4
30-50	46	58.9
10-30	20	25.7
Total	78	100

When we examine Table 1, we see that 15.4% of the teachers teach in classes consisting of 50 to 70 students, 58.50% teach in classes consisting of 30 to 50 students, and 25.7% teach in classes consisting of 10 to 30 students. Most of the teachers, then, teach classes with sizes of 30 to 50 students. Classes with sizes of 50 to 70 are the least frequent.

Table 2. *Distribution of Visual Arts Teachers by whether they took an assessment and Evaluation Course in College or in Service*

		Assessment and Evaluation Course in College					
		Yes		No		Total	
		f	%	f	%	f	%
In-Service Training	Yes	15	19.4	21	26.9	36	46.3
	No	37	47.5	5	6.2	42	53.7
Total		52	66.9	26	33.1	78	100

Table 2 shows that 66.9% of the teachers took an assessment and evaluation course in college, whereas 33.2% did not. Most of those who did not take a university course on assessment and evaluation are probably graduates of visual arts faculties. It is also observed that 47.5% of those who took a course on assessment and evaluation did not have in-service training on the subject. These findings indicate that additional emphasis needs to be placed on in-service training in assessment and evaluation.

Data Collection Tools

As part of the study, a “scale for competency in using development portfolio, performance evaluation, and rubric” was developed. Prior to the development of the scale the literature on performance evaluation and how it is used in visual arts education was reviewed in detail (Stevens and Levi, 2005, Sezer, 2006, Borden, 2008).

The questionnaire developed aims to measure the competencies of visual arts teachers in using development portfolios, performance evaluation, and rubrics, and the frequency of the use of these assessment tools and methods. The questionnaire was developed taking views of visual arts teachers on the assessment and evaluation methods used in the second level of primary education into consideration.

In the first part of the questionnaire, there are items on the type of faculty the visual arts teachers graduated from, their years of service, class sizes, whether they took assessment and evaluation courses in college, and whether they received in-service training on assessment and evaluation. In the second part of the questionnaire, there are items designed to measure the competencies of visual arts teachers to use development portfolios, performance evaluation, and rubrics, in the form statements with 3-point Likert type responses “Disagree, Neither agree nor disagree, and Agree”. The data thus gathered were analyzed using the SPSS 13.0 statistical package. Following the analyses, 27 items that had t-test results $p > 0.05$ and correlation coefficients $r < .30$ were removed, as well as one item with an item-total correlation value lower than 0.30. Cronbach’s Alpha (α) reliability coefficient of the scale was found to be 0.73.

Data Analysis

Frequencies, percentages, and averages for the items of the scale for competency in using development portfolios, performance evaluation, and rubrics were examined using descriptive statistics. In addition, one way ANOVA and when necessary Tukey’s test were used to examine whether there are differences in competency by gender, years of service, and the type of faculty graduated from. To examine whether there are significant differences between the genders, an independent samples t-test was used.

Findings and Implications

This section examines the frequencies, percentages, averages, and standard deviations for the items in the second part of the scale, reflecting visual arts teachers’ views on the methods of evaluation that started to be applied, reported in Table 3.

Table 3. *Frequencies, Percentages, Averages, and Standard deviations of the Items on Visual Arts Teachers’ Competency in using Development Portfolios, Performance Evaluation, and Rubrics*

	Disagree		Neither agree nor disagree		Agree		\bar{X}	SD
	f	%	F	%	F	%		
1- I can use product portfolio efficiently for evaluation purposes.	27	34.6	9	11.5	42	53.8	3.02	1.13
2- I can evaluate product portfolios easily.	51	65.4	3	3.8	24	30.8	2.33	0.83
3- I can select appropriate criteria in the evaluation of product portfolios.	63	80.7	-	-	15	19.2	2.18	1.16
4- I spend too much time evaluating the product portfolios.	60	76.9	4	5.2	14	17.9	2.21	1.12
5- I need the assistance of an assessment and evaluation expert in the evaluation of product portfolios.	30	38.4	19	24.3	29	37.3	3.13	1.29
6- I have sufficient information on product portfolios.	65	83.3	4	5.2	9	11.5	2.73	1.34
7- I can use product portfolios efficiently in my class.	59	75.6	-	-	19	24.3	2.16	1.27
8- I can use rubrics efficiently in evaluating product portfolios.	69	88.5	-	-	9	11.5	2.18	1.67
9- I can prepare proper rubrics for product portfolios.	63	80.7	3	3.8	12	15.3	2.10	1.21
10- I need assistance from an assessment and evaluation expert in preparing proper rubrics for product portfolios.	45	57.6	17	21.7	16	20.5	4.01	1.09
11- I can assign performance tasks fit for students' genders.	32	41	26	33.3	20	25.6	3.23	1.18
12- I can assign performance tasks fit for students' levels.	11	14.1	16	20.5	51	65.3	4.52	1.46
13- I can assign performance tasks designed to improve the higher order thinking abilities of the students.	37	47.4	31	39.7	10	12.8	3.29	1.22
14- I can prepare suitable environments to evaluate students' performance.	56	71.7	13	16.8	9	11.5	2.13	1.12
15- The performance tasks I assign involve multiple skills.	43	55.1	23	29.6	12	15.3	2.42	1.23
16- I can select performance tasks fit for learning goals mentioned in the program.	35	44.8	14	17.9	29	37.3	3.27	1.21
17- I can select proper criteria for evaluating performance tasks.	42	53.8	9	11.5	27	34.7	2.42	1.32

18- I have difficulty evaluating learning goals mentioned in the program.	39	50.0	14	17.9	25	32.1	3.70	1.16
19- I need the assistance of an assessment and evaluation expert in the evaluation of performances.	41	52.5	4	5.2	30	38.4	4.03	1.43
20- I have sufficient information on performance evaluation.	65	83.3	2	3.6	11	14.1	2.11	1.16
21- I can use performance evaluation efficiently in class/a workshop.	28	35.9	14	17.9	36	46.2	3.23	1.59
22- I can use rubrics efficiently in performance evaluation.	53	67.9	5	6.5	20	25.6	2.42	1.83
23- I have sufficient information on rubrics.	71	91.1	-	-	7	8.9	2.02	1.18
24- I need the assistance of an assessment and evaluation expert for preparing rubrics.	56	71.7	8	10.4	14	17.9	2.88	1.49

Total $X=2.48$

Table 3 shows that 11.5% to 53.8% of the visual arts teachers agree with the statements designed to measure how competent they perceive themselves to be on the use of development portfolios. 83.3% of the visual arts teachers state that they do not have sufficient information on product portfolios. 53.8% of visual arts teachers agreed with the item on efficient use of the product portfolio as an evaluation tool. These responses indicate that visual arts teachers perceive themselves to be incompetent in the use of development portfolios, performance evaluation, and rubrics ($X=2.48$).

Only 17.9% of the teachers agreed with the item on having time-related difficulties in product selection for preparing product portfolios ($X=2.21$). 80.7% of the teachers stated that they cannot select proper criteria for evaluating product portfolios ($X=2.18$), 65.4% stated that they cannot evaluate product portfolios easily ($X=2.33$), and 88.5% stated that they cannot use rubrics efficiently in evaluating product portfolios ($X=2.18$). 8.9% to 65.3% of the visual arts teachers agree with the statements designed to measure how competent they perceive themselves to be on the use of performance evaluation. 83.3% of the visual arts teachers think they do not have sufficient information on performance evaluation ($X=2.11$). 46.2% of the visual arts teachers agree with the item on efficient use of performance evaluation in their classes ($X=3.23$). 12.8% to 63.5% of the visual arts teachers agreed with the items in the questionnaire on being able to assign proper performance tasks. Of these positive items, teachers who agreed with the item "I can assign performance tasks fit for students' levels" made up 65.3% of the teachers ($X=4.52$). Of the negative items, 38.4% agreed with the item "I need the assistance of an assessment and evaluation expert in the evaluation of performances". Finally, 91.1% of the visual arts teachers think they do not have sufficient information on rubrics ($X=2.02$), and 17.9% state they need assistance from an assessment and evaluation expert for preparing rubrics ($X=2.88$).

Visual arts teachers' frequency in using development portfolios, performance evaluation, and rubrics

Table 5 reports the frequencies and percentages of the responses given by visual arts teachers to the items in the third part of the questionnaire, designed to measure how frequently the evaluation tools and methods are used.

Table 4. *Views of Visual Arts Teachers on How Frequently They Use Development Portfolios, Performance Evaluation, and Rubrics*

	Never		Rarely		Often		Total
	f	%	f	%	f	%	
Product portfolio	29	37.2	32	41.1	17	21.7	100
Performance evaluation	32	41.1	28	35.9	18	23.0	100
Rubric	40	51.3	23	29.4	15	19.3	100

When we examine how frequently visual arts teachers use the tools and methods of evaluation under study, we observe that 41.1% of the teachers stated that they never use performance evaluation, and 23.0% stated that they use performance evaluation often. When use of product portfolios among the teachers was examined, it was observed that 21.7% of the teachers stated that they use it often, whereas 37.2% state they never use it. 19.3% of the teachers state they often use rubrics, whereas 51.3% state they never use them. These findings show that the assessment and evaluation tool most frequently used by teachers is performance evaluation (23.0 percent), whereas a rubric is the least frequently used (19.3 percent). 21.7% of the teachers stated they often use product portfolios, coming second after performance evaluation, and 51.3% state they prefer rubrics the least.

Table 5. *“t” Values for Visual Arts Teachers’ Views on Frequency of Use of Development Portfolios, Performance Evaluation, and Rubrics by the Independent Variable of Gender*

Gender	n	x	SD	df	t	p
Female	33	113.34	12.23	77	0.641	0.92
Male	45	115.78	10.17			

P> 0.05 Insignificant

When we examine Table 6, we can see that there are no significant differences between genders with regards to the views of visual arts teachers on frequency of use of development portfolios, performance evaluation, and rubrics (t (77)0. 641; p>0.05). These findings indicate that male and female visual arts teachers have similar views on the issue.

Table 6. *Frequency, Mean, and Standard Deviation of the Variable of Years of Service for Visual Arts Teachers’ Views on Frequency of Use of Development Portfolios, Performance Evaluation, and Rubrics*

Years of Service	of	n	F	x	s.s.
5 and below		24	15.5	142.85	14.36
6-10		38	24.6	118.40	11.56
11-15		46	29.8	115.01	12.43
16-20		28	18.1	111.80	7.13
21 and above		20	12.9	111.46	11.43
Total		154	100	118.70	11.38

Table 7. *One Way ANOVA Results for Visual Arts Teachers' Views on Frequency of Use of Development Portfolios, Performance Evaluation, and Rubrics by the Variable of Years of Service*

Source of Variation	Sum of Squares	Sd	Mean Square	f	p
Between Groups	5692.35	4	73.22	0.47	.000
Within Groups	167622.27	149	138.00		
Total	173314.63	153			

P < 0.05 significant

Table 8. *ANOVA Results for the Type of Faculty Visual Arts Teachers Graduated From*

Type of Faculty Graduated From	n	\bar{X}	S	F	p
Faculty of Education	126	58.75	9.72	7.703	.000
Faculty of Fine Arts	25	53.14	9.21		
Other*	3	43.18	8.53		

*P < 0.05 significant

Discussion and Conclusion

The findings indicate that a great majority of visual arts teachers identify crowded classes and lack of assessment and evaluation experts as the main difficulties they encounter when using these tools and methods of evaluation. Most of the visual arts teachers who are currently teaching, as shown in Table 3, never took any classes on assessment and evaluation in college. What is more, 47.5% of those that did take such courses never received any in-service training on the subject. Another important issue is the size of the classes the teachers have. Distribution of the sizes of classes taught by visual arts teachers participating in the study is displayed in Table 1. Table 1 shows that 58.9% of the visual arts teachers teach classes of 30 to 50 students. The phenomenon of crowded classes negatively affects the individual assessments of the students, given that visual arts classes are offered one hour a week in the 4th, 5th, 6th, 7th, and 8th grades.

The difficulties encountered by visual arts teachers can be alleviated by having smaller class sizes and more class hours, having assessment and evaluation experts in each school, and offering in-service training seminars on assessment and evaluation tools and methods and their use. Another important issue is to have experts offer these seminars.

Mamur's (2004) study, finds that arts teachers fail to use different dimensions like testing, scaling (rating), self-criticism, and criticism, which complement each other. The findings of this study also show that as methods of teaching and learning change, assessment methods used to evaluate how much of the aims and the targets are achieved need to change as well. Otherwise, limited standards would result in limited results.

Gelbal and Kelecioğlu (2007), in their study, find that teachers mostly use traditional methods for getting to know their students and evaluating their levels of achievement, and never use methods based upon self-evaluation of the students.

Teachers also find themselves to be competent in evaluating student achievement, but state that they have difficulties using assessment tools due to negative factors, such as crowded classes and lack of time. The findings of this study indicate that teachers need training on the use of assessment techniques.

Based upon the interviews made with visual arts teachers and their responses to the questionnaire, we can argue that a great majority of the teachers do not have sufficient information on the subject. For the new primary education program to be successfully applied, and for visual arts teachers to be able to make efficient use of the assessment and evaluation methods of development portfolios, performance evaluation, and rubrics, first, the teachers need to have proper training on these issues.

In-service training seminars on the subject have been organized in certain schools in some of the provinces of Turkey, and the teachers were informed about these methods, but views expressed by the teachers and the findings of the present study indicate that there is a need for more training. Ministry of National Education needs to organize more in-service training seminars, and inform visual arts teachers about both the new primary education program, and the use of new assessment techniques. The Ministry of National Education could also cooperate with faculties of education in universities on the planning and provision of these seminars.

Teachers also state that they experience difficulties due to parents completing painting homework they assign to the students. Parents who complete homework assigned to the students definitely damage the development of their children. What visual arts teachers can do on the subject is identify the parents who engage in this kind of behavior, and talk to them in person. If that effort fails, then arrangements can be made for school guidance counselors to meet with these parents.

Finally, visual arts teachers state that they need the assistance of an assessment and evaluation expert in their schools who can help deal with evaluation problems they encounter. Setting up assessment and evaluation centers in each province and district could alleviate some of these problems. Teachers would thus be able to consult with experts in these centers on the causes of the difficulties they experience and on how to deal with them.

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