

An Application of Digital Portfolio with the Peer, Self and Instructor Assessments in Art Education

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Suggested Citation:

Dikici, A. (2009). An application of digital portfolio with the peer, self and instructor assessments in art education. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 36, 91-108.

Abstract

Problem statement: In art education, one of the most difficult tasks is to evaluate the artistic works of students. Portfolio assessment is a method of assessment that is commonly used in artistic education. The major research question investigated in the study is: "What are the advantages and disadvantages of digital portfolio in an art classroom?"

Purpose of the study: The first aim of this study is to investigate digital portfolio assessment in higher art education with the combination of self, peer and instructor ratings. The second aim is to determine opinions and perspectives of the students on the self and on peer and instructor assessment.

Research method: This research contains data collected from 34 students. The students were 14 males and 20 females. Age levels of the students ranged from 21 to 28. The students were asked to prepare their portfolio in the computer environment. The students were given 4 weeks to prepare the digital portfolios. The digital portfolios were evaluated as to the rubric which was previously prepared and adopted by the students and researcher. The students first evaluated their own portfolios and then those of their peers. Finally, the researcher evaluated all of the portfolios.

Results and discussion: Regarding the evaluation of the results, the lowest correlation values were found between the instructor and the peer, and the highest correlation values were found between self and the peer. In the interviews with the students, the students judged the peer assessment to be less trustworthy than instructor assessment. The hesitation of the students about self assessment and the peer assessment might be caused by Turkish culture, because an instructor as a superior authority figure is always considered the most trustworthy person by the Turkish students.

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Recommendations: In terms of educational applications, digital portfolio as an assessment tool should be improved and widely applied in classroom settings where the subjects especially deal with artistic art works. In art teacher training programs, the importance of triadic assessment should be seriously taken into account. This would be vitally important to teach how viable criteria can be set up for the assessments.

Key words: Art education, portfolio assessment, digital portfolio, assessment rubric.

Introduction

Portfolios are used in many fields such as fine arts, marketing, architecture, and education. A portfolio is defined as “a purposeful collection of student works that reflect the efforts, development and successes of the learner” (Jacobson, Sleicher & Maureen, 1999; Mullin, 1998; Paulson, Paulson & Meyer, 1991, p. 60; Stiggins, 1997). Portfolio assessment procedures are increasingly recommended to document students’ performance in school and in extra-curricular activities. During the past two decades, the use of portfolios to assess creativity and giftedness has been widely accepted due to the development of explicit, well-defined procedures for their use (Johnsen & Ryser, 1997). Examples of the students’ work are typically reviewed by knowledgeable individuals (Davis, 1997). Authentic measures such as portfolios, work samples, and biographical information are essential components in identifying talent, for example, in the visual arts.

Properties of portfolio assessment. The most distinctive property of a portfolio makes a learner both assessor and assessed. In this case, apart from being the object of the assessment, the student is both the partner of the assessed object and the assessment (Wolf, 1991, p. 130). Here, the learner actively participates in the selection of the content and determining the selection of the criteria. Therefore, portfolios serve both for teachers and for students. They not only provide an opportunity for students to project their successes, but also provide an opportunity for teachers to evaluate the development and success of their students. Students test their own works and project them on their targets for the future (Stiggins, 1997). Traditional tests do not reveal the development and all the skills of the individual (Barton & Collins, 1993).

Benefits of portfolio assessment. One of the many benefits of a portfolio brings clarity to the fairness in assessing students’ performances. By means of portfolio assessment, assessment is not a secret method. Students judge the quality of their own works and develop standards. In determining the assessment criteria, student-student negotiation and student-teacher negotiation play important roles. In order to shape the assessment criteria, students can be allowed to have a class discussion. This method provides an educational environment both for the students and the teachers (Mullin, 1998). This environment enables the students to be responsible for their own development because it contributes to the activation of the meta-cognitive awareness to monitor their own learning. So, a portfolio assessment is not simply a tool to use to evaluate the end product. It also monitors students’ learning processes. However, it is important to note that an assessment rubric should be reliable and applicable as independently as possible. Students should reach a common decision

by acting together to determine the structure, contents and criteria of the portfolio and the necessary documents under the guidance of their instructor.

Triadic assessment. Some form of self and peer assessments in higher education have been documented in the literature (McConnel, 2002). Gale, Martin and McQueen (2002) developed a triadic (*self, peer and tutor*) assessment by using questionnaire and semi-structured interview techniques at the University of Plymouth in the UK. The research sample was drawn from groups of students studying at different stages of the Bachelor Education and Training program within the Faculty of Arts & Education. Questions of power and knowledge were closely examined, alongside a close critical analysis of the way in which the professional identity and assessment practice style of those involved in the research were influenced by the way they were situated within a variety of different practice contexts. However, researchers suggested that triadic assessment was not a transparent activity to easily generalize due to its lack of universal features and characteristics.

A similar research was conducted by Centra (1994). Centra examined the correlation between scores given by two peer faculty members and four deans to the same portfolios. In the portfolios, faculty documented their accomplishments and wrote personal statements in four areas: teaching effectiveness, service to the college and community, personal credentials, and professional activities. Results of Centra's study indicated that all groups of raters judged the portfolios with very high scores. The deans gave the lowest ratings for total teaching effectiveness. Centra realized that a problem with the portfolio assessment in his study is that no standard criteria was used to rate the portfolios. Centra suggested that when using portfolios for evaluation, a standard criteria by which they are to be judged should be established.

Usage of Portfolio Assessment in Art Education

Eisner (1985) developed a holistic approach, which can deal with both processes and products, to characterize the ways that professional assessors perform tasks similar to those of connoisseurs and critics in the arts. Such a holistic assessment approach is certainly possible for much educational judgment, but it must go beyond the traditional assertion.

According to Madeja (2004), appropriately trained art teachers are capable of judging the aesthetic merits of artwork by using well established techniques in the field. However, standardized tests should not be the only measure, especially in arts assessment. In art education, a portfolio assessment is different from the traditional assessments in terms of scoring. Multiple parties such as the instructor, artists and students could participate in rating a portfolio, but it is important to have an agreement in scoring when the parties rate the portfolios independently. Sabol (2006) conducted a study related to portfolio assessment rated by the art teachers, art students, and artists. Sabol has found impressive results in his study. Fifty-nine elementary, middle, and secondary art teachers, 472 students, and 50 artists were involved in this research. Even though the criteria used to assess the portfolios suggest different priorities for the art teachers, art students, and artists in his study, high levels of agreement were found between the art teachers and students in scoring

the portfolios. Sabol interpreted this as a possible result from art teacher imposed criteria for artwork (p. 10).

The use of digital portfolio assessment in art education. The use of computers in art education is increasing day by day. While art teachers do not doubt that digital portfolios have advantages, they are skeptical about the reliability of using digital portfolios in order to evaluate students' artwork. They want to know whether evaluations of digital reproductions of artwork would be comparable to evaluations of actual artwork. Furthermore, they are concerned as to whether evaluations of portfolios by art educators would be comparable and reliable (Dorn, Madeja & Sabol, 2004).

In a recent study, Dorn and Sabol (2006) carried out a research involving 178 students of 29 secondary school teachers from four school districts in Florida and Indiana by using a digital portfolio. The results suggested that electronic portfolios could be used to reliably estimate students' art performances and scores, because art teachers' evaluations of the digital copies of the actual artwork were consistent with the evaluations of these same works in the actual form.

The Purpose of the Study and Research Question

The literature on digital portfolio assessment suggests that more research is needed that examines the effectiveness of this type of assessment and that reveals its advantages and disadvantages. Therefore, the main aim of this study is to investigate digital portfolio assessment in higher art education with the combination of self, peer and instructor ratings. In addition, the correlation among ratings of the self, peer and instructor on digital artwork is an interest of this study to judge the reliability of this technique. The major research question investigated in the study is: What are the advantages and disadvantages of digital portfolio in an art classroom?

Research Method

Participants

The research involved the fourth year (senior) students in the art teacher training program at a middle-sized Turkish University. The program aims to train art teachers for primary and secondary school levels with four-years of study. Turkish art teachers are trained according to the "Pre-service Art Teacher Training Program (ATTP)" by Kırıçoğlu and Stokrocki (1997). In the ATTP, the first three years mainly focus on developing trainees' art skills, such as art history, media applications, aesthetics, art criticism, computer operations, and drawing-painting skills. Starting with the third year, teacher training courses (i.e., classroom management, teaching methods, and lesson plans) are provided. The last year of the program emphasizes the practicum approach in school settings; where trainees are taken to schools to teach lessons and understand the daily routines in school settings.

The study sample consisted of 34 senior students at an art teacher training program at a College of Education, during the spring semester of the 2005-2006 academic year. The participants in the study were 14 males (41.1%) and 20 females (58.8%). Age levels of the participants ranged from 21 to 28. The average age for students was 21.71 years old.

Data Gathering Method

Both qualitative and quantitative data were utilized in the study. The following sections will clarify the sources of the data and their analysis.

I. Quantitative data. In this study, the students and the researcher utilized the same assessment rubric in order to assess the digital portfolio materials of the students. The criteria for the selected rubric were adopted from http://www.bcpl.net/~sullivan/modules/tips/rubrics_sec/scrapbook.html (Table 1.). Validity of a portfolio assessment is supported in two ways: (1) a well-established appraisal system, which encourages self-development, provides the opportunity for creative problem solving, and (2) this system focuses on individual effort for accepted program goals (Bursch, 1997). Therefore, the basic components of the student performance required for scrapbook preparing were: "content, theme, language & conventions, and overall effectiveness." Point assignment was used for each component of the assessment rubric. Points scale ranged from "two" to "eight." This kind of point assignment provides flexibility for the assessors in scoring (Custer, 1996; Herman, Gearhart & Baker, 1993; Moscal, 2000; Sabol, 2006). The scoring criteria were as follows: Minimal 2 point, Basic 4 point, Good 6 point, and Perfect 8 point.

Table 1
Scrapbook Rubric*

	Perfect 8	Good 6	Basic 4	Minimal 2
Content	Information is complete and is enhanced by accurate and appropriate details. Pictures, photographs, drawings, diagrams, graphs, or other similar devices add to the overall effectiveness of the scrapbook; captions are relevant and explanatory. Space, shapes, textures, and colors provide information themselves and add to the overall effectiveness of the scrapbook. All sources are properly and thoroughly cited; the number/types of sources are exceeded.	Main points are covered but lack some detail. Number and types of visuals are adequate as are captions. Design elements and principles used are adequate. The minimum number/types of sources are present and are cited properly.	Some main points and details are missing. More and better visuals could be used; captions only identify and label rather than explain. Shows evidence of use of some design elements and principles. Sufficient number/types of sources are lacking; citations are not all formatted properly.	Main points are not complete and are greatly lacking in detail. Very little pictorial representation is present; captions are incomplete. There is no consideration of design elements and principles. The list of sources if inadequate in number/types and format of items.

Theme	There is wholeness about the scrapbook; the theme is consistent throughout. The cover clearly identifies the theme.	Most of the information relates to the theme of the scrapbook. The cover is relevant to the contents.	Only a portion of the information relates to the theme of the scrapbook. The cover is unclear in its message.	Confusing and/or inconsistent information.
Language & Conventions	Conventions of spelling, punctuation, and grammar are used with a high degree of accuracy.	Most conventions of spelling, punctuation, and grammar are used accurately.	Common conventions of language are used with some accuracy but there are some mistakes.	A significant number of errors are made in spelling, punctuation, and grammar.
Overall Effectiveness	The requirements of the assignment have been exceeded. The scrapbook is very creative and interesting.	All the requirements of the assignment have been fulfilled. The scrapbook is neat and presentable.	Only some of the assignment requirements are fulfilled. Areas of the scrapbook lack neatness.	Few of the assignment requirements have been met. The presentation as a whole lacks neatness.

*The rubric adopted from <http://www.bcpl.net/~sullivan/modules/tips/rubricssec/scrapbook.html>

The process of preparing the digital portfolios was completed as follows: First of all, students were required to identify the aims for their portfolios they would prepare. In the first week, it was carried out into the identification of the aims. The significance and necessity of the aims, this frame, which would be provided for the portfolios the students would improve, were explained to the students.

Identification of the necessary features for a qualified scrapbook and the presentation of the assessment rubric were in the frame. The features that would be necessary for a qualified scrapbook were determined by face-to-face discussions with students. The assessment rubric which had been improved beforehand was presented in the frame features. These frame features highlight the major components for a qualified scrapbook that would be carried out by students. Also, the duties and the rubric indicating the criteria for evaluation and scoring were explained to the students in detail.

The scrapbook examples and the rubric were sent to the e-mail addresses of the students. The paper-based samples and the rubric were given to the students in the classroom. Thus, the students had an opportunity to know not only which samples of the work were good, average and unsuitable but also for what reasons those works were evaluated in that way. They were given the chance to improve their works in that frame.

Each student was required to prepare at least four scrapbooks for his/her portfolio that s/he would hand in at the end of the research. Each scrapbook contains a well-known artist's paintings and bibliography. In the instruction, it was pointed

out that the selected artists in the scrapbooks should be from different time periods, from the renaissance era to the present-day. Students also had freedom to prepare additional scrapbooks. Students had 4 weeks to turn in their scrapbooks. With 4 hours in a computer-based environment for the students, a total of 8 hourly practices were carried out each week. During the research session, the students made use of various web pages and software package programs such as Word, Paint Brush, Power Point Presentation and Illustrator, and Photoshop to prepare their digital portfolios.

This course was not limited to classroom practices and face to face discussions. Discussions were also taking place on the online environment to extend their learning. Although we did not use an online discussion board, students asked their questions, presented their works, and shared their ideas with their classmates via electronic mail and msn messenger. In this way, each student had an important opportunity to hear the critiques of the others for their works. In each stage of the works (at the end of each course) the quality of the students' works were evaluated. In addition, necessary corrections and feedback were provided in order that there was a scope for students to take note of incorrect and inefficient parts of their works and to improve on them.

The explanation for the storage of the students' works and how they would present prepared portfolios was given in the last week. There were some alternatives for the students to store their works on computers, in electronic mail addresses, or on CDs, DVDs or flash disks. Students were permitted to use a scanner in order to transfer the works done by pen and paper to the digital environment. Students presented the drafts of each of their own works in a chronological order.

The students (self and peer) and the researcher participated in the assessment. Each student first evaluated his/her own portfolio according to the rubric and then each student evaluated the portfolio of his/her friend according to the rubric. In peer assessment, the students did not know whose portfolio they were evaluating (blind review). Finally, the researcher evaluated all portfolios. The researcher has expertise in art education and the use of portfolio assessment in educational settings. The assessors made individual assessments without external influences. In addition, the assessors didn't do a different evaluation for digital portfolios. In other words, the assessors made an assessment with respect to the assessment rubric which was developed for students' digital portfolios.

Analysis of quantitative data: After collecting the scores given by the three parties--self, peer and the researcher--at the end of the research, Pearson correlation coefficients were calculated by using the SPSS 13.0 statistical package program. The significance levels of the coefficient values were determined according to Hopkins (1997). The coefficient values of 0.10-0.30, 0.30-0.50, and 0.50-0.70 are considered low, medium, and high correlations, respectively.

II. Qualitative data. After the evaluation procedures were completed for the portfolios, several open-ended and semi-structured questions were asked to the students. The examples from the questions sets are as follows: What do you think

about that evaluation procedure overall? What kind of software did you prefer when you prepared your portfolio? Why? To what extent were you confident as you evaluated your own portfolio? Why? To what extent were you confident as you evaluated the portfolio of one of your friends? Why? What do you think about this triple evaluation? What are your overall experiences from all of these? The interviews were audio-taped and then transcribed. In the analysis, after the data was encoded, the themes were found and then arranged (Strauss & Corbin, 1998). Finally, each theme was expressed with frequencies and each was interpreted.

Results and Discussion

Evaluation of Statistical Findings

In the correlation analyses, while the lowest correlation was .19 between the researcher and peer in scoring the *Language & Conventions*, the highest correlation was found to be 0.50 between self and peer ratters in scoring the *Overall Effectiveness* and in scoring *Theme* (See Table 2). Compared to the ranges of values determined by Hopkins (1997), the values in Table 2 can be accepted as at the medium level. Also, Cohen and Lea (2003) stated that the value at the level of 0.30 was a medium level value for social sciences.

Table 2

The Correlations among the Assessors (R: Researcher, S: Self, P: Peer)

Sub-Components	Assessors (R,S,P)			
	R	S	P	
Content	R	1.000		
	S	0.491*	1.000	
	P	0.420*	0.334*	1.000
Theme	R	1.000		
	S	0.502*	1.000	
	P	0.389*	0.323**	1.000
Language & Conventions	R	1.000		
	S	0.462*	1.000	
	P	0.193**	0.499*	1.000
Overall Effectiveness	R	1.000		
	S	0.467*	1.000	
	P	0.372*	0.504*	1.000

*p< 0.01, **p< 0.05 significance

It was found that the highest correlation was between peer and self scoring (0.504) and the lowest correlation was between the researcher and peer (0.193). However, Sabol (2006) found greater levels of agreement in rankings which were found amongst the art teachers and students. Sabol interpreted this as possibly being the result of art teacher imposed criteria for artwork. The art teachers must be concerned with developing a range of knowledge and skills among their students.

According to Sabol, students in school focus on what art teachers teach. Students at home focus on skills with media and personal satisfaction derived from their art.

Pitts, Coles and Thomas (1999) found the reliability of individual assessor's judgements (i.e., their consistency) as moderate, but inter-rater reliability did not reach a level that could support making a safe summative judgment. They said, "What can we learn from qualitative approaches? Qualitative research takes an interpretive, naturalistic approach to its subject matter; qualitative researchers study things in their natural settings, attempting to make sense, or interpret, phenomena in terms of the meanings that people bring to them" (p.519). In another research, Pitts, Coles, Thomas and Smith (2002) found an agreement between assessors ranged from "slight" to "fair." A kappa coefficient of 0.50 reflects the moderate agreement between assessors.

Evaluation of Interviews and Observations

From a grounded theory approach to the analysis of the data (Strauss & Corbin, 1998), five broad analytic categories were built under which the experiences and opinions of students can be considered. The categories were related to the preparation of the digital portfolios and assessment processes. The features used in forming scrapbooks in the digital portfolio were taken into consideration in the categorization. The frequencies and percentages of the observed themes among students are presented in Table 3. The categorizations of the themes were based on the analyses of the interviews and observations of the researcher about the preparation and evaluation phases of the digital portfolios. The sums of the percentage in the Table 3 are not 100% because a majority of the students meet the criteria for more than one category.

Table 3

Frequencies and Percentages of the Categories

Categories	f	%
Approval of the researcher assessment	29	85.2
Paucity of web pages	28	82.3
Hesitation of the peer assessment	25	73.5
Difficulty of computer software	23	67.6
Hesitation of the self assessment	21	61.7

Approval of the researcher assessment. For students, it sounds normal if the only assessor is the trainer. 85.2% of the students thought in that way but they did not have such a confident for themselves and their peers. This might be because they saw themselves as inexperienced in assessment. Some students such as student A, a male student, expressed that if the trainer (researcher) also participated in the assessment, then it was okay.

Student A- *"I was happy when I found out three persons will grade one portfolio. So, you will also give points, too...Then, there is no problem..."*

In fact, self assessment and peer assessment were very strange to the students because they had gotten used to trainer or instructor assessment over the years. Thus, their hesitations and avoidances for the self and the peer assessments can be considered as a normal consequence.

Paucity of web pages. The students stated that they easily obtained the paintings of the artists from the web pages; on the other hand, they didn't find enough information about the artists and their paintings. 82.3% of the students complained about the insufficiency of the web pages. However, some students like student B weren't very constrained in developing content since they prepared the scrapbooks with the paintings from the art magazines.

Student B- *"I could not find detailed information about Paul Gauguin on the web pages. There were a lot of samples from his works, but there were little information related to his pictures. So, I used the art magazines and scanned his pictures and transferred them to the digital environment. Hope you have not got angry with me!..."*

Hesitation of the peer assessment. The students first objected when they were asked to assess the portfolios of their friends. It was observed that they did not want to take responsibility. They were told they would be teachers in the future and they would have to assess and grade their students' works. 73.5% of the students thought that peer assessment might be distrustful. Similar findings were found in a research of Gale et al. (2002). The students hesitated to evaluate their friends' portfolios. For example, student C, a female student, did not think that she could be objective in assessing someone's work.

Student C- *"Sir, you want me to assess my friend's portfolio!...Shall I know whose portfolio I will be assessing?. I am not sure if I will be able to evaluate it objectively."*

With this in mind, student C has in fact accepted that one of the dimensions of the assessment is objectivity. Although she knows the criteria for the assessment, she has low self-confidence.

Difficulty of computer software. The classroom observations let the researcher identify some significant problems. The students first tried to learn how to use computer software that they need for preparing a scrapbook. The four weeks given to the students for their assignment was not a long period of time, because some students apparently also needed to develop specific skills to use the necessary software. Therefore, specific software skills needed to be introduced and practiced.

The software popular among the students to prepare the digital portfolios were *Paint Brush, Microsoft PowerPoint, and Word Processor*. These softwares were seen as somewhat familiar and generally available on all computers. However, it was difficult for the students to use some package programs like *Illustrator and Photoshop*. Such difficulties were expressed by 67.6% of the students. Also,

observations of the researcher in the classroom supported such difficulties experienced by the students. An interview segment of student D, a female student, exemplifies how students had a hard time with the software.

Student D- *“At the beginning, the idea of preparing a scrapbook seemed great to me; however, when I sat at the computer, the first thing that came to my mind was to make a search over the internet. But I could not use a software by which I am able to prepare my work. It is very difficult to use the Photoshop software which you have recommended, so I preferred to use an easy software.”*

It was noticed that there were differences between male and female students regarding the difficulty that they experienced in using the software. While 90.0% of the female students expressed some difficulty in using the software programs, only 35.7% of the male students expressed similar difficulties in using the software. Female students frequently preferred to use Paint Brush, Power Point and Word Processor. Male students showed more effort in using the computer software. Male students used some of the software that female students used too; however, some male students were able to figure out how to use some difficult software like Photoshop. Some male students used Photoshop to arrange the dpi resolutions and sizes of the pictures that they found from the internet. For example, student E, a male student, expressed that although Photoshop is professional software, it is not necessary to be competent in it for their assignments.

Student E- *“When you said we can use the Photoshop software, I was astonished. As far as I know, it is a professional software program; however, all I needed to enlarge and reduce the sizes of the pictures. It was difficult at the beginning but I think I have overcome it...”*

Student E said that Photoshop was professional software; however, he figured out simple functions of Photoshop to prepare his own work. Although he found it difficult to use this software at the beginning, he overcame that problem; however, female students made no attempt to use the Photoshop software.

Hesitation of the self assessment. The researcher received interesting responses when students were asked their opinions about their own works. As the students were only familiar with the traditional evaluation, it was very interesting for them to evaluate their own works. 61.7% of the students thought that their evaluation might be wrong so it would be more suitable if I do the evaluation. A female student, student G, gave an interesting response when the researcher asked how she felt about the self assessment.

Student G- *“Sir, why do you have us make the evaluations?...I don't believe I can evaluate my own study in a truly way even if it is done according to the rubric! You give us too much power. Keep some of them in your own hands...”*

As you notice, Student G felt that she was given too much power for the evaluation because she thought that the evaluations should be under the heavy control of the instructor. Her thoughts might be an indication that she is very loyal to

the authority and that she accepts authority without questioning it at all; however, most students had already had this thought, too, before the start of self assessment. However, their worries and hesitations disappeared after the self assessment, because they had an opportunity to judge their own study. Mullin (1998) says that the most important benefit of portfolio assessment is the opportunity for the student to assess his own work.

A Theoretical View to the Findings

On the basis of the presented data, a model was generated to determine the students' perspectives on digital portfolio assessment (Figure 1).

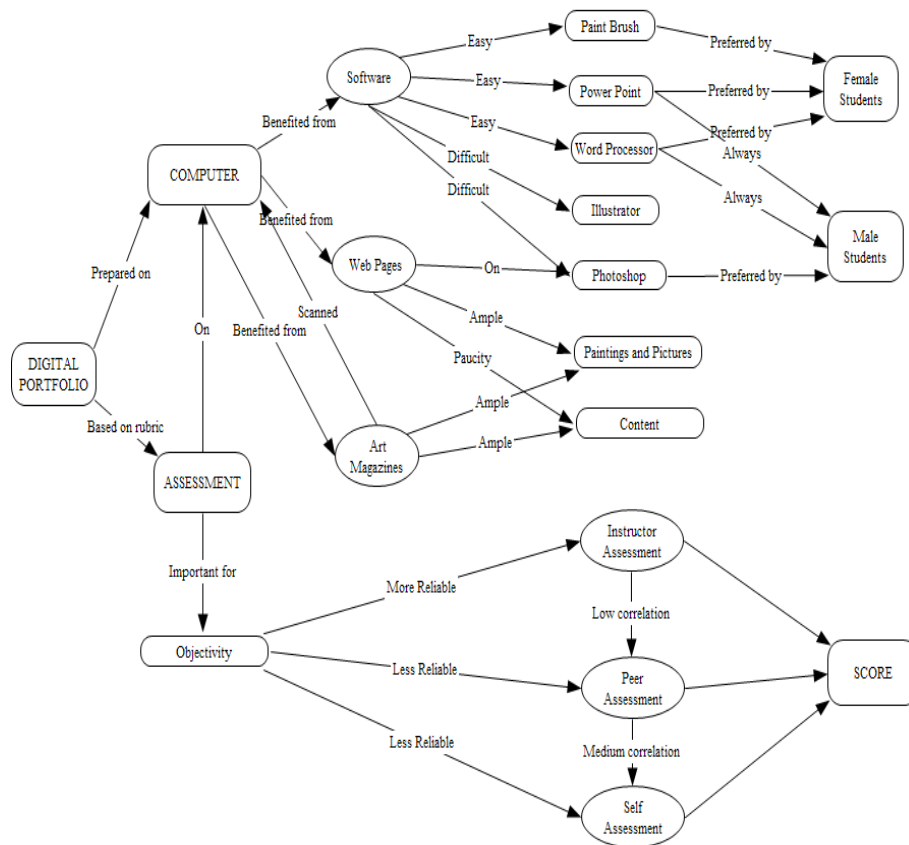


Figure 1. Integration of the findings

At the left of the diagram, there was the DIGITAL PORTFOLIO prepared on the COMPUTER where the ASSESSMENT was made. In the preparation of the digital portfolios, the students benefited from the SOFTWARE and WEB PAGES. Based on

the data taken from the students, the software fall into two categories: difficult and easy. The easy ones were PAINT BRUSH, POWER POINT and WORD PROCESSOR. The difficult software included ILLUSTRATOR and PHOTOSHOP. While Paint Brush, Power Point and Word Processor were preferred by FEMALE STUDENTS, Paint Brush and Power Point were constantly preferred by MALE STUDENTS. Photoshop, which was difficult software to use, was used by some male students. No student used Illustrator. The students benefited from the web pages in the creation of digital portfolios. While students found many PAINTINGS and PICTURES on web pages, they were not enough in terms of CONTENT. Some male students transferred the pictures they took from web pages to Photoshop. Some students scanned the pictures and contents of ART MAGAZINES and they placed them in the computer environment.

In the second part of the diagram, there was the evaluation of the digital portfolios on the COMPUTER, ASSESSMENT. This assessment was made according to the rubric. OBJECTIVITY was important in assessment. In this assessment, INSTRUCTOR ASSESSMENT was more important. SELF and PEER ASSESSMENT was more trustworthy. There was low correlation between instructor assessment and peer assessment, and medium correlation between peer assessment and self assessment. The average values of all three assessments determine the score of the digital portfolio.

Conclusion

It is important to prepare a rubric in the beginning in terms of harmony amongst self, peer and the researcher's points. A lower correlation coefficient, reflecting less than moderate agreement, is unlikely to be acceptable. According to Pitts et al. (2002), whether a coefficient of 0.50 is acceptable is open to debate. Certainly, the higher value is the better. Nevertheless, these results show that discussion between assessors increases reliability above the levels often achieved in assessments of professional competence, and is an improvement on individual assessment. This result is also a result recommended by Centra (1994); however, it was determined the score points in the rubric ranged from 2 to 8. If it was arranged in way that the score points in the rubric ranged from 1 to 4, correlation values amongst the pointers might have been higher. The hesitation of the students about self assessment and peer assessment might be caused by Turkish culture, because an instructor as a superior authority figure is always considered the most trustworthy person by the Turkish students. Korkmaz and Kaptan (2003) suggested the practical information to the teachers on portfolio assessment both in their pre-service and in-service education should be given. Even though portfolio assessment has many difficulties, the use of portfolio assessment in our schools and teacher training systems should be taken into consideration. Because the portfolio assessment approach has better features than the

traditional assessment tools with regard to reflecting the efforts, development and successes of the students

The capabilities of the students to justify their own works support their learning. Peer assessment can enable to the students a fair and an honest pointing habit; however, this evaluation in this study is not a generalizable one. Students from different training fields and age groups can reveal different opinions. Gale et al. (2002) stated that “triadic assessment was clearly not a transparent activity that revealed easily generalizable and universalizable features and characteristics.”

As a result of the current study, it is suggested that digital portfolio as an assessment tool should be improved and widely applied in classroom settings where the subjects especially deal with artistic art works. In the art teacher training program, the importance of triadic assessment should be seriously taken into account. It is important to learn how to define assessment criteria. Also, it would be effective for Turkish students to overcome their cultural barrier regarding peer and self assessment types. Furthermore, it is suggested that the assessment exercises employed in this study would contribute to the art teacher candidates’ professional development. In fact, the Turkish Ministry of National Education suggests as assessment tools the self assessment, group assessment, peer assessment, checklist, portfolio assessment and performance assessment in art education (MEB, 2006, p. 100).

Limitations of the Study

This study was conducted in the field of art education. Digital portfolios prepared with scrapbooks by the students were evaluated. Different results could be achieved from the data collected from different cultures’ students. In this study, the students encountered such an assessment for the first time. Different results could be achieved with the students who have already been made familiar with such an evaluation.

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Sanat Eğitiminde Akranın, Kendisinin ve Öğreticinin Değerlendirmesi İle Dijital Süreç Dosyasının Bir Uygulaması

(Özet)

*Problem Durumu:*Süreç dosyaları birçok alanda kullanıldığı gibi eğitim alanında da kullanılmaktadır. Süreç dosyası gibi çalışma örnekleri görsel sanatlarda bireyin yeteneğinin ve gelişiminin belirlenmesinde önemli role sahiptir. Süreç dosyasının en ayırt edici özelliği öğreneni hem değerlendiren hem de değerlendirilen yapmasıdır. Öğrenci değerlendirme ölçütlerinin ve içeriğinin belirlenmesine aktif olarak katılır. Böylece, süreç dosyası hem öğrencilere hem de öğretmenlere hizmet eder. Süreç dosyası değerlendirme sanat eğitiminde yaygın bir şekilde kullanılan bir değerlendirme şeklidir. Sanat eğitiminin en zor işlerinden birisi öğrencilerin sanat çalışmalarının değerlendirilmesidir. Bu araştırmanın en önemli araştırma sorusu, bir sanat sınıfında dijital süreç dosyasının avantaj ve dezavantajları nedir?

*Araştırmanın Amacı:*Bu araştırmanın temel amacı eğitim fakültesi resim iş öğretmenliğinde öğrencinin kendisinin, akranının ve öğreticinin puanlama birleşimi ile dijital süreç dosyası değerlendirmeyi araştırmaktır. Araştırmanın bir diğer amacı ise öğrencinin kendisi, akranı ve öğreticinin değerlendirmesi hakkında öğrencilerin bakış açılarını ve düşüncelerini belirlemektir.

*Araştırmanın Yöntemi:*Bu araştırmada, Eğitim Fakültesi Resim İş Öğretmenliği son sınıf öğrencilerinden 34 öğrenci üzerinden veri toplanmıştır. Bu öğrencilerin 14'ü erkek 20'si kız öğrencidir. Öğrencilerin yaşları 21 ile 28 yaş arasında değişmektedir. Öğrencilerden bilgisayar ortamında süreç dosyalarını hazırlamaları istenmiştir. Süreç dosyalarının

içeriğini Rönesanstan günümüze istedikleri sanatçıları tanıtan kesme yapıştırma kitapların (scrapbook) oluşturması söylenmiştir. Öğrencilere dijital süreç dosyalarını hazırlamaları için dört haftalık bir süre verilmiştir. Haftalık 8 saatlik uygulamanın 4 saati bilgisayar ortamında yapılmıştır. Öğrencilerin dijital süreç dosyalarını hazırlamak için çalışmaları süresince Word, Paint Brush, Power Point Presentation, Illustrator ve Photoshop gibi bilgisayar programlarından ve çeşitli internet sayfalarından yararlanabilecekleri söylenmiştir. Öğrencilerin bilgisayar ortamında hazırladıkları çalışmaları elektronik postalarında, CD ROM, DVD, taşınabilir bellek gibi ortamlarda depolanmıştır. Öğrencilerin dergi, gazete gibi kâğıt ortamındaki çalışmaları dijital ortama aktarmaları için tarayıcı (scanner) kullanmalarına izin verilmiştir. Öğrenciler süreç dosyalarının içerisinde yer alan çalışmalarını (scrapbook) tarihsel bir sıra düzenine göre sıralayıp dijital ortamda sunmuşlardır. Öğrencilerin hazırladıkları süreç dosyaları daha önceden belirlenmiş ve hazırlanmış bir yönergeye (rubric) göre değerlendirilmiştir. Öğrenciler ilk olarak yönergeye göre kendi çalışmalarını daha sonra yine aynı şekilde yönergeye göre arkadaşlarının çalışmalarını değerlendirmişlerdir. Son olarak tüm süreç dosyaları araştırmacı tarafından yine aynı yönergeye göre değerlendirilmiştir. Araştırmanın nicel boyutunda, öğrencilerin süreç dosyaları için kendisine ve akranına verdiği puanlar ile araştırmacının verdiği puanların arasındaki ilişkiye (korelasyona) bakılmıştır. Araştırmanın nitel boyutunda ise öğrenciler ile yarı yapılandırılmış görüşme tekniği kullanılmıştır. Öğrencilere çalışma süresi içerisinde yaşadıkları zorluklar ve kolaylıklar ile yaptıkları değerlendirme ile ilgili açık uçlu sorular sorulmuştur. Öğrencilerin kendi çalışmasını, arkadaşının çalışmasını ve öğreticinin onların çalışmalarını değerlendirmeleri hakkında görüşleri alınmıştır. Öğrenciler ile yapılan görüşmeler ses kaydı yapılarak daha sonra metne dönüştürülmüş ve analiz edilmiştir.

Sonuçlar ve Tartışma: Araştırmanın nicel sonuçlarında en düşük puanlama korelasyonu araştırmacının kendisi ile öğrencinin akranı arasında bulunmuştur. En yüksek puanlama korelasyonu ise öğrencinin kendisi ile akranı arasında bulunmuştur. Araştırmanın nitel boyutu için öğrenciler ile yapılan görüşmelerde ise beş temel kategorinin oluştuğu görülmüştür. Bu kategoriler frekans ve yüzdesi en yüksekten en düşüğe doğru şöyledir: Araştırmacının değerlendirmesini onaylama, web sayfalarının yetersizliği, akran değerlendirmede tereddüt, bilgisayar programlarının zorluğu ve kendini değerlendirmede tereddüttür. Öğrencilerin öğreticinin değerlendirmesine daha çok güvendikleri görülmüştür. Öğrenciler internet sayfalarından yeterince yararlanamadıklarını belirtmişlerdir. İnternet sayfalarında hazırlayacakları süreç dosyaları için sanatçıların resimlerinin bol olduğunu ancak sanatçılar ve eserleri hakkında yeterince bilgi bulamadıklarını belirtmişlerdir. Ayrıca öğrenciler kesme yapıştırma kitaplarını oluşturmada kullandıkları bilgisayar programlarında da zorluk yaşamışlardır. Profesyonel bilgisayar programlarında kız öğrencilerin daha

çok zorlandıkları hatta bu programları tercih etmedikleri bulunmuştur. Erkek öğrencilerin bazılarının ise profesyonel programları tercih ettiği görülmüştür. Öğrencilerin arkadaşının süreç dosyasını değerlendirmede tereddüt ve endişeye kapıldıkları öğreticinin değerlendirmesinden daha az güvenilir olacağını belirtmişlerdir. Öğrencilerin kendi süreç dosyasını ve arkadaşının süreç dosyasını değerlendirmede yaşadıkları tereddüdün Türk Kültürü'nden kaynaklandığı düşünülebilir. Çünkü Türk Kültürü'nde öğretmen ya da öğretici otorite, bilgi sahibi ve daima öğrenciler tarafından en güvenilir görülen kişi olarak düşünülür.

Öneriler: Eğitimsel uygulamalar bakımından bir değerlendirme aracı olarak dijital süreç dosyası özellikle sanatsal çalışmalar ile ilgili sınıf ortamlarında yaygın bir şekilde uygulanmalı ve geliştirilmelidir. Sanat öğretmeni eğitim programlarında bu araştırmadaki gibi üçlü değerlendirme yaklaşımına ciddi şekilde yer verilmelidir. Değerlendirmede yönerge çok önemlidir. Değerlendirme yönergesinin kriterleri açık ve net olmalı puanlayıcılar arasında uyumun düşük olmasında neden olmamalıdır.

Anahtar Sözcükler: Sanat eğitimi, süreç dosyası değerlendirme, dijital süreç dosyası, değerlendirme yönergesi