The Application of Portfolio Assessment in a Music Appreciation Class—An Instance in the University of Technology

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Abstract

The purpose of this study was to examine the feasibility of applying portfolio assessment in a music appreciation course, the effects on students’ learning, and the challenges confronted by the teacher in a university of technology in Taiwan. The researcher used one of his music appreciation courses as a research site, and data was collected during the Spring semester, 2008. It was found that portfolio assessment contributed to undergraduates’ music knowledge and learning motivation. It was also found that students participated in the class more actively in the end of the semester than in the beginning and appreciated the use of portfolios to engage themselves in becoming more active and responsible learners.

Key words: Portfolio Assessment, Music Appreciation, General Education, Vocational College Students
檔案評量應用於音樂欣賞課程之研究－
以科技大學為例

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摘 要

本研究目的是了解檔案評量應用於科技大學音樂欣賞的可行性，及對學生學習的影響，與在台灣的技職院校教師教學上所面臨的困難與可行性。研究者使用自任教的音樂欣賞課程班級中選擇一班，進行本教學實驗，並且資料收集是在2008年第二學期。研究結果發現學生在西洋音樂的歷史認知有顯著的成效，並提高學生對於音樂欣賞學習的動機，對於學生課堂上主動學習參與、培養反省和思考能力，都有正面之影響。

關鍵字：音樂欣賞、通識教育、技職校院學生、檔案評量
Introduction

Background and Purposes

It has long been acknowledged that vocational college students have relatively low learning motivation, since they usually do not gain self confidence from their academic performance. Vocational colleges are oriented toward occupational training, which may lead to the neglect of general education, especially with regard to the humanities. Therefore, offering a music appreciation course seems to be an appropriate and important way to strengthen students’ accomplishments in this area (Lin, 2005). However, the teaching of music appreciation is usually restricted to simply listening to music. Students are thus forced to be passive recipients in class, resulting in low learning motivation and reluctance to work hard in the course.

Most of studies on portfolio assessment regarding music appreciation in Taiwan are dedicated to senior high, junior high, and elementary levels of schooling. For example, with regard to studies on elementary schools, there is “A Study of Applying Portfolio Assessment in Singing Instruction for Sixth Graders” (Lai, 2007), as well as “The Use of Portfolio as Assessment in General Music Class: A Case Study of the Third Grade” (Hsu, 2005). In addition, research that focuses on senior high school includes Lin’s (2006) “The Study of the Portfolio Assessment Applied to the Vocational High School Students’ Learning Effectiveness in Music Appreciation.” However, to date no attention has been paid to the adoption of portfolio assessment in music appreciation classes at vocational colleges in Taiwan. In fact, little information is available on how to apply portfolio assessment to assist students’ learning of music appreciation in a general education context. The purpose of this study was thus to investigate the feasibility of applying this method in a music appreciation class and to examine the subsequent effects on students’ learning in a vocational college.

The research questions investigated were as follows:

1. How did portfolio, as a means of instruction and assessment, affect students’ learning?
2-1. How did students respond to the application of “portfolios” in teaching?
2-2. How did they respond to the application of “portfolios” in learning?
2-3. What was the panorama of their experiences?
2-4. How did they perceive this alternative pedagogy?
Literature Review

The goal of general education is to provide students majoring in different fields with a broad and encompassing foundation to develop cultural, social, and technological competencies required to function as educated professionals and citizens of the world. The general education curriculum, built upon a liberal education base, is designed to prepare students with abilities to solve problems, communicate effectively, and think analytically and critically. It is also hoped that general education courses will cultivate students’ literacy of humanity as well as their moral integrity, so that they will attain better ability to understand the emotional and scientific, social and natural, and local and global contexts of their lives, integrate and synthesize knowledge and skills from seemingly-disparate fields, and to balance the various domains and demands of life.

While general education is aimed at cultivating holistic citizens, vocational education is aimed at developing specialized vocational skills, which include the traits and qualities conducted to participating in the workforce, such as punctuality, conformity, and diligence. In the past, vocational education was skill-oriented, with a skewed concentration on applied science and technology learning. The rhetoric of speeding up economic growth has naturalized and rationalized this slanted educational trend of excessive specialization and market-oriented pragmatism. Nonetheless, in recent years, as the economic status in Taiwan has been transformed from a labor-intensive economy to a knowledge- and service-based one, some vocational educators have started to recognize that the emphasis on the development of links between business and academia has helped to create a generation of technicians who are not prepared for an era of volatility and innovation. Many educators and academics have thus turned to general education, founded on a liberal education base, as a way to rectify the imbalanced development of professional education (Su & Huang, 2001).

Arts education is an essential part of general education. It fosters students’ sense of aesthetics and enhances their sensibility and creativity. It is widely agreed that a substantive arts education will help students perform better in other subjects, since it engages individuals in a process that helps them develop their capacities for imagination, observation, reflection, and appreciation, as well as enhancing the discipline and motivation necessary for success in life (Huang, 2005). Music appreciation is one of the common arts education courses that most universities offer on a regular basis. It thus plays a significant role in strengthening vocational college students’ competencies with regard to the humanities, as well as raising their ability to appreciate art (Lin, 2005).
Lin (2005) points out that even though music appreciation has an important educational function, vocational education is still solidly grounded in the mode of technocratic thinking, and thus within this milieu music appreciation continues to be perceived as peripheral. Consequently, most students view such classes as an opportunity to passively listen to music, and demonstrate little learning motivation. Nevertheless, with the rise of the philosophies of humanistic teaching and social constructivism, the idea that students should become active learners responsible for their own learning has become more widespread in Taiwan. Many music educators, working against the technocratic tide, are now inclined to adopt a student-centered approach in class (Lin, 2005). According to Brown (2001), the student-centered approach has several features: (1) emphasizing students’ learning needs, learning styles, and learning objectives; (2) giving students partial authority over what happens in class; (3) adopting students’ opinions with regard to designing the course; (4) encouraging students’ creative performances; and (5) increasing students’ learning achievements and self values. One alternative teaching method that offers all of these beneficial features is the use of portfolio assessment in class.

Traditional assessment generally focuses on students’ learning outcomes at certain stages of a course. However, it has been revealed that by incorporating portfolio assessment into a class, students’ intrinsic sense of motivation, responsibility, and ownership can be promoted, since their learning processes can be more clearly seen (Genesee & Upshur, 1996; Brown & Hudson, 1998). In addition, interactions between the teacher and students can be fostered when this form of assessment is used, and students are able to engage in more critical thinking and self evaluation. Moreover, teaching, learning, and assessment can be combined in such a context (Melograno, 1994). Consequently, the authors wanted to investigate whether portfolio assessment would be helpful in the teaching of music appreciation, especially in a vocational college, where students tend to be low academic achievers and passive learners.

In describing the experience of using portfolio assessment in general music education, Smith (1995) suggested that educators include a student’s “best” work in his/her portfolio, along with work that represented their initial performance. A portfolio should also contain copies of a student’s work with revisions and remarks made by both the student and teacher, including the student’s reflections on their own development. In her master’s thesis, Lin (2002) described in a greater detail what she asked students to collect in their portfolios. She believed that the content should be diverse, including diaries, drawings, worksheets, written reports, essays, notes, sketches, recordings and so on. This collection was intended to effectively reflect the students’ learning and growth, both inside and outside of class. Therefore, she
proposed that even records of extracurricular activities should be included in these portfolios.

Lin’s view is shared by many other educators, and since the responsibility of a teacher is to provide students with opportunities to learn, her relevant literature often suggests that they need to actively gather information about how students learn and under what circumstance learning takes place (Chang, 2000; Chuang, 2007; Dahlberg, Moss & Pence, 2002). In addition to the process of learning development, the documents collected in portfolios can represent the outcomes of students’ skills and knowledge (Cheng, 2000; Dirth, 2000; Klenowski, 2002). Zou (1997) asserted that a meaningful assessment could reflect the quality of instruction, and, most importantly, inform educational reform. In addition, many reformers believe that a well-designed assessment program can enhance both teaching and how students learn. Portfolios can make students be aware that reflection, observation and documentation are important to learning, and thus they are more likely to focus increased efforts to hone their skills in these areas.

A traditional written exam might be able to indicate how effectively a student has learned a particular set of skills and knowledge at a point in time. However, exams cannot show what or how a student has learned over a period of time. Lin (2005) thus suggested that educators invite students to participate in every stage of portfolio making, including setting up the scope of content and criteria for assessment, and even evaluating their own work. She argued that by encouraging students to be participatory, they would become more responsible for their learning. Gray (1993) emphasized that students’ growth is a complex and lasting process, and claimed that portfolio assessment is the method that is able to best capture how students’ learning development takes shape. Dirth (2000) reported that during such assessments, teachers can take advantage of the process of portfolio making and obtain constant feedback from students through both their formal and informal work. Using such information, teachers can then adjust their classroom practice to best meet the needs of their students.

This review of the literature demonstrates that the concept of portfolio assessment has been well-received by academics, teachers and students. Nonetheless, little research has been conducted to investigate the difficulties that emerge in the practical application of portfolio assessment. Moreover, most of the studies mentioned above pertain to senior high, junior high, and elementary school education, and little attention has been paid to the adoption of portfolio assessment in music appreciation course at the vocational college level.
Methods

Research Setting and Participants

The first author of this paper taught music appreciation at the General Education center of an all-female university of science and technology in southern Taiwan from 2008 to 2009, and randomly selected one of his classes as the research targeted. The forty-nine sophomore students in the class participated in this study, including eighteen International Business Management majors, sixteen Accounting Information majors, nine Finance majors, two Styling and Cosmetology majors, two Art majors, one Applied Foreign Language major, and one Interior Design major. The average age of the students was twenty years old.

The course of music appreciation was a compulsory selective one-semester course under the umbrella program of General Education, with two credits awarded. Students came to class for two hours every week and the semester lasted for sixteen weeks. Each student created her own portfolio.

Data-collection Tools

Three approaches for gathering data were involved: assessment tools in student portfolios, interviews and observation logs.

1. Assessment Tools in Student Portfolios
   (a) Feedback questionnaire.

   The purpose of surveying students’ feedback was to understand the problems and difficulties they faced in completing the portfolio assessment, as well as their views on this type of assessment. In doing so, the author intended to know how feasible it would be to apply portfolio assessment to the teaching of music appreciation. This questionnaire was conducted at the end of the semester, and contained twenty questions in a five-point Likert scale format. The questions included items to probe the students’ understanding of how to distinguish different musical periods in history, their awareness of the structure and appearance of Western musical instruments, their learning behaviors, as well as their perceptions as to whether the portfolio assessment actually enhanced their learning and cognitive abilities.
   (b) Worksheets

   Worksheets were designed in accordance with the teaching objectives, with the goal of allowing the teacher to better understand students’ learning results and self examination. Worksheets were handed out three times during the semester- at the start, in the middle, and at the end- and students finished them after class.
   (c) Learning diaries.
Students were asked to keep weekly diaries to record and reflect on their learning processes, as well as share the knowledge and insights they drew and organized from this class.

(d) Questionnaire on learning attitudes.

This questionnaire was used to gauge the impact of using portfolio assessment on students’ learning attitudes. The scope of the survey involved three aspects: in-class discussion, small group discussion, and after-class extended activities. The survey examined the following items: (1) End of semester student self-assessments of learning abilities, cognitive skills and experiences of working with others; and (2) student evaluations of the class content and the instructor’s teaching strategies, as well as the overall management of the class.

2. Semi-structured Interviews

Interviews with the forty-nine students were administered shortly after the mid-term exam. The purpose was to understand their thoughts about the use of portfolios and their general learning experiences in this class. Students were interviewed individually and each session lasted five to six minutes. Students were asked to talk about their music background knowledge and their understanding of this course, such as its content and assessment methods, and to compare their past and current music appreciation experiences. Each interview was tape recorded and transcribed for content analysis as a qualitative supplement to the quantitative results.

3. Observation Logs

The researchers kept observation logs every week after the class. These weekly writings were to both record and reflect upon what happened in the class. The main aim was to achieve triangulation with multiple sources of data, so that the confidence and credibility of the final interpretations could be increased.

Data Analysis

In this study, both quantitative and qualitative data analyses were performed:

1. Quantitative Analysis

The quantitative data included feedback questionnaires, learning attitudes for music appreciation questionnaires, and music appreciation achievement exams. First of all, reliability as a means of internal consistency was calculated to evaluate how reliable the questionnaires were in the present study. Next, descriptive statistics inclusive of frequency distributions, means, and standard deviations and percentages were computed to illustrate the student perceptions of the use of portfolios.

2. Qualitative Analysis

Interview transcriptions and observation logs were analyzed to give details of students’ opinions about using portfolios as means of both instruction and assessment.
In addition, qualitative data were used to address the underlying assumptions behind the quantitative data.

**Results and Discussion**

**Quantitative results**

The results of the quantitative data analysis are presented below.

1. Impact of portfolio assessment on student learning.

By analyzing the responses to the questionnaire on learning attitudes, we found that 77% of the students indicated that they were extremely diligent with regard to researching and gathering data for the end-of-semester reports, while 69% agreed that they actively participated in the final group report discussion. Regarding the feedback questionnaires, we discovered 71% of the students claimed that portfolio instruction made them truly understand the ways Western musical periods were divided; 65% responded that portfolio instruction allowed them to understand the characteristics of each musical period; 60% of students stated that the portfolios motivated them to gather information related to the development of Western musical history; 58% indicated that the portfolios made them be aware of the categorization of Western musical instruments; 75% stated that the portfolios helped them to recognize the structure and appearance of Western musical instruments; and 63% claimed that portfolios familiarized them with the performance styles of the Western musical instruments. It is thus obvious that for every item a majority of the students felt that the portfolio assessment had positively impacted their learning. The exemplar item for each question is shown in Table 1.

Table 1 *Impact of portfolio assessment on student learning*

<table>
<thead>
<tr>
<th>Item</th>
<th>strongly agree</th>
<th>agree</th>
<th>neutral</th>
<th>disagree</th>
<th>strongly disagree</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. During the final group report, I work hard to get all the information that I am responsible for.</td>
<td>10</td>
<td>67</td>
<td>19</td>
<td>4</td>
<td>0</td>
<td>3.83</td>
</tr>
<tr>
<td>2. During the final group report discussion, I always participate actively.</td>
<td>4</td>
<td>65</td>
<td>25</td>
<td>6</td>
<td>0</td>
<td>3.67</td>
</tr>
<tr>
<td>3. Portfolio assessment makes me understand the classification of western music period.</td>
<td>8</td>
<td>63</td>
<td>27</td>
<td>2</td>
<td>0</td>
<td>3.77</td>
</tr>
<tr>
<td>4. Portfolio assessment makes me understand the uniqueness of each musical period.</td>
<td>6</td>
<td>59</td>
<td>31</td>
<td>4</td>
<td>0</td>
<td>3.67</td>
</tr>
</tbody>
</table>
2. Student Perceptions of Portfolio Assessment.

The results of the questionnaires on learning attitudes were as follows. 52% of the students agreed that final group reports could better assess their learning abilities than in-class written exams; 75% stated that group reports helped them to recognize Western musical instruments; 83% indicated that they made efforts to complete assignments; and 77% claimed that they learned a great deal about music appreciation during the semester. In addition, the feedback questionnaires found that 52% claimed that portfolio assessment allowed them to be in charge of their own learning; 63% indicated that it helped them to examine and reflect upon their own learning status; 65% agreed that this kind of assessment enhanced their music appreciation capacities; 69% hoped that the instructor would give them more comments about their work; and 81% of students noted that portfolio assessment allowed them to revise their work based on the teacher’s feedback. The exemplar item for each question is shown in Table 2.

Table 2 Student Perceptions of Portfolio Assessment.

<table>
<thead>
<tr>
<th>Item</th>
<th>strongly agree</th>
<th>agree</th>
<th>neutral</th>
<th>disagree</th>
<th>strongly disagree</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The final group report is better than the written test to assess my learning ability.</td>
<td>10</td>
<td>42</td>
<td>38</td>
<td>8</td>
<td>0</td>
<td>3.5</td>
</tr>
<tr>
<td>2. The final group report can make me get to know the musical instruments more.</td>
<td>8</td>
<td>67</td>
<td>23</td>
<td>2</td>
<td>0</td>
<td>3.8</td>
</tr>
<tr>
<td>3. I will do my best to finish all the homework.</td>
<td>16</td>
<td>67</td>
<td>15</td>
<td>2</td>
<td>0</td>
<td>3.97</td>
</tr>
<tr>
<td>4. I learn a lot from the music appreciation class.</td>
<td>25</td>
<td>52</td>
<td>21</td>
<td>0</td>
<td>0</td>
<td>4.00</td>
</tr>
<tr>
<td>5. If I have the chance I would like to take the music appreciation class.</td>
<td>19</td>
<td>33</td>
<td>42</td>
<td>4</td>
<td>0</td>
<td>3.63</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>6. I can check and evaluate my learning progress through the portfolio assessment.</th>
<th>10</th>
<th>53</th>
<th>31</th>
<th>4</th>
<th>0</th>
<th>3.65</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. The portfolio assessment increases my ability in music appreciation.</td>
<td>8</td>
<td>57</td>
<td>31</td>
<td>0</td>
<td>0</td>
<td>3.65</td>
</tr>
<tr>
<td>8. I hope the teacher can give some opinions or guidance when assess my work.</td>
<td>8</td>
<td>61</td>
<td>31</td>
<td>0</td>
<td>0</td>
<td>3.77</td>
</tr>
<tr>
<td>9. I would improve a lot through the teacher’s opinions or suggestion.</td>
<td>8</td>
<td>73</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>3.89</td>
</tr>
</tbody>
</table>

3. General discussion.

The average mean of the items in the learning attitudes questionnaire was 3.5, showing a medium agreement of students that the use of portfolios increased their learning motivation. This set of data also indicated that students believed that they learned more through portfolio assessment, became fully responsible for their learning, and worked hard on making their own portfolios comprehensive and substantial. The researchers speculate that since the portfolios were a collection of the students’ hard work and represented their learning achievement throughout the semester, in order to gain good grades, students became more involved in the learning process, which echoes the results of Danielson and Abrutyn’s (1997) study that using portfolios improves students’ learning effects.

The average mean of the items in the feedback questionnaire was 3.66, representing a medium positive perception of portfolio assessment. The data further revealed that this kind of assessment made the students become more aware of the structure and appearance of Western musical instruments and students there, had clearer ideas about how to distinguish the different musical era.

**Qualitative results**

We categorized our qualitative data into three main areas, as details blow.

1. The Impacts of Portfolio Assessment on Student Learning.

   With respect to the qualitative results, the majority of students indicated that making their own portfolios and recording their learning achievements was an innovative and interesting way to learn music appreciation. At the start of the semester, most students felt that learning music appreciation meant only listening to different genres of music, whereas by using the portfolios they came to feel that they were able to learn more detailed information, including musical history, the differences between instruments, and the influence of music on wider human culture. For example, students were most impressed with the unit on Broadway Musicals. They were amazed at the versatility of the musicals which combined songs, dances,
dramas, spoken dialogue, and music. In contrast, students found the classification scheme of Western musical instruments most difficult, since these items were foreign to them in their everyday lives. Nonetheless, portfolios instruction and assessment engaged them to do research on their own, and resulted in their active participation in learning. This was reflected in the fact that the students themselves noted that as they became more active during the instruction, by making their own portfolios, they were able to memorize related knowledge more easily since they learned by doing. This class thus gave them a refreshing perspective on the general education curriculum, which was previously notorious for being considered very boring.

2. Student Perceptions of Portfolios.

With regard to curriculum design, students observed that in the making of the portfolios, the instructor arranged course activities for them to work in groups and collaborate with each other, hoping that they would benefit from peer learning. While some found group work engaging, others complained in the interviews that it was troublesome to work with others, and that they would rather make their own portfolios alone. Nevertheless, overall among all the assessment methods that they had encountered, students were most interested in portfolio assessment, although they considered the in-person oral presentations challenging, and often tended to draw a blank when attempting these.

3. Difficulties Confronted by the Teacher

The teacher’s voice was directly expressed via the qualitative data. Through the weekly logs, the researchers observed that for the teacher it was very time-consuming to use portfolio assessment as part of the teaching method, particularly at the very beginning of the semester. Not only the teacher but also the students were frustrated, as everyone concerned was learning about this method while doing it for the first time, without any established framework to follow. However, midway through the semester, as each student’s portfolio started to take shape and the class as a whole was getting settled, the teacher felt more grounded and had a better grasp of how to make best use of portfolios in his teaching practice.

4. Student interviews.

There were several items of positive feedback from the students with regard to the portfolio assessment.

Student A reported: “I learned a lot of musical knowledge through taking the course. In addition, by using a portfolio, I am able be to learn more information related to music.”

Student B thought: “The teaching was so boring before I used a portfolio; however, it is interesting and attractive now.”

Student C noted: “I needed to write my reflection as an assignment of the course
and search for information via websites. It was useful and helpful for me to get more information through by doing this. I think that the benefits were generated by using my portfolio.”

However, some students also contributed their suggestions for improving the assessment.

Student D said: “Although the music and stories of musicals were great, it was hard for me to recall the plots. Therefore, it was a big task for me to finish the worksheet assigned as homework by the instructor.”

Student E reported: “Having oral presentations was so challenging. It was really not an easy task! I felt nervous and had a lot of pressure, especially when facing the instructor, so I forgot what I had prepared to report. My classmates and I were worried that we could not answer the instructor’s questions, because we did not know what he would ask us. Another challenge was that we were in different majors and from different departments, so we had different schedules. It was difficult for us to meet together regularly do the team work we were assigned.

Student F complained: “This course is offered as part of the general education curriculum. However, I am confused because there are so many course requirements, and the high workload is similar to what the professional courses require.”

Students suggested that there be fewer assignments. Perhaps taking examinations in class is easier than using portfolios or written papers, because we do not need to finish weekly assignments in time. Interviewing is a good approach, but it may make us nervous. Perhaps having small group interviews will make us feel comfortable. Students in vocational colleges had to take many required courses every semester, and thus tend to prioritize those that are part of their majors rather than general education curriculum. As a result, general education teachers remarked that it was quite common in their classes that students made less effort to complete their projects, with lateness and indifferences which also featured student participation in such classes. As part of the general education curriculum, the music appreciation class was not immune to these problems. Another challenge was the size of the class. When one teacher had to manage a class of forty-nine students with various academic backgrounds and different experiences of music training and appreciation, the increased work load was not conducive to exploring innovative teaching methods.

**Conclusion and Suggestions**

**Conclusions**

The results of the study indicate that it is feasible to implement portfolio
instruction in a course of music appreciation. In terms of students’ learning attitude, this new teaching approach changed students’ original opinion that appreciating music was merely listening to it and memorizing certain information. Instead, by following the portfolio assessment method, they were able to learn more in-depth knowledge related to music. Under the principle of learning by doing, the students developed their cognitive abilities and became active participants in class and were trained to be more responsible for both the learning process and outcome. Moreover, the students expressed that after taking part in the portfolio assessment they had a better understanding of the meaning and purposes of general education. By utilizing their portfolios, the students were able to trace the progress they had made throughout the 16-week semester, and thus gained a sense of achievement and ownership over their learning.

In their interviews, the students responded positively to the introduction of portfolio assessment in the music instruction class. However, the average means of the questionnaires showed only a medium degree of the perception of the new teaching approach. The results suggest that students perhaps did not really like or understand the new method but only followed the teacher’s instructions. Moreover, vocational college students generally adopt more passive learning styles and spend less effort on their academic performances. Consequently, making own portfolios may seem an overly demanding task for such students. In addition, the students had a diversity of views with regard to replacing the traditional in-class written (mid-term and final) exams with portfolio assessments—with only slightly more than half of the students coming down in favor of the portfolios. However, the overall results of the study suggest that this form of teaching assessment could still be beneficially incorporated into the teaching of music appreciation, and thus the application in this work can serve as a moderately successful trial of this method for the reference of other instructors of general education in vocational colleges.

From the teacher’s point of view, although the results of the study were not conclusive, they are still encouraging enough to motivate the instructor to continue in his efforts to explore ways of incorporating portfolio assessment into the teaching of music appreciation. The portfolios, in particular, as collections of student work and ideas, enabled the instructor to witness, in a concrete manner, how the class progressed, and to observe the characteristics of each student’s work and learning. Portfolio teaching required the instructor to keep records of his teaching and interaction with students, and this process of documentation allowed the teacher to be more observant of his own thoughts and behaviors, and thus adjusting his teaching practice were necessary.
Suggestions

The findings have several implications for vocational college education, where students are usually seen as not particularly interested in schoolwork and passive with regard to academic learning.

First, for teachers and the school administration, this research found that with clear instruction students are reliable with their own learning behaviors, processes, and outcomes, in this instance by making portfolios that can record the learning achievements and uniqueness of each student. Based on this observation, the authors recommend the use of portfolios to create an improved class atmosphere so that students are more motivated and engaged in learning music appreciation. At the same time, based on some students’ reservations about this new method, the authors suggest that teachers should combine portfolios with other forms of assessment that students are more familiar with, such as in-class quizzes, to measure their learning achievements periodically and adjust the tempo of teaching accordingly. The flexibility of portfolio instruction is essential, and we particularly suggest that teachers spare some time in class for students to share their work and opinions. If the purpose of portfolio instruction and assessment is to promote expression and interaction, every aspect of teaching has to be designed to foster communication.

However, adopting portfolio instruction also met many difficulties. For one, group work is considered important in portfolio teaching since it engages students to learn to work and negotiate with each other. Moreover, education is not merely about book learning but about human relationships. Nevertheless, our research experience indicated that students need more guidance to undertake successful group work. We thus suggest that teachers should emphasize thoroughly and repeatedly the underlying educational value of group work with their students. In conducting group work, teachers also need to be observant and sensitive, knowing when to get involved and when to leave students to settle their own issues, as such negotiations are key to successful cooperation. This is not easy, but is part of both the challenge and beauty of portfolio teaching.

In addition, the grading criteria were hard to develop, leaving validity and reliability as an unsolved problem in this research. Here it should be noted that Brown and Hudson (1998) think teachers need more training to be clear about the requirements and principles when using portfolios. Otherwise, students might feel confused and uncertain about what to do, particularly in a Taiwanese context, as the local education system does not often focus on students’ meta-cognitive abilities to plan, monitor, and evaluate their learning. We thus recommend that schools provide teachers with ample formal and informal opportunities to communicate with scholars, colleagues, and students, in order to develop a set of criteria that is standardized, and
yet still leaves room for idiosyncratic or individual concerns.

Moreover, Orsmond (1996) pointed out that using portfolio instruction meant that students were credited to be responsible for their own learning, and this might give them more learning pressure. Therefore, the authors emphasize the importance of getting students involved in the educational decision making process. In addition, students also have to fundamentally re-think the role they play in learning, and adjust the way they learn accordingly. If we would like portfolio assessment to be effective, both teachers and students have to be willing to work and communicate with each other. An interactive education does not just happen to students, but instead their active participation is essential.

Although this work is merely a case study without any inferential meaning, it can still be of some help for teachers who wish to try portfolio teaching or assessment methods in general education. In future work, researchers could investigate the feasibility of using electronic portfolios to assist in students’ learning, since such an approach would also integrate the new technologies that are becoming more pervasive in education. In addition, it is also hoped that this paper can raise Taiwanese teachers’ awareness of the importance of music appreciation and general education in vocational colleges, because no students or non-mainstream courses should be neglected in such contexts. If portfolio instruction and assessment can be appropriately implemented in vocational college education, students’ learning motivation can be promoted, and their portfolios can be regarded as an illustration of their hard work and additional efforts when they seek to join the workplace after graduation.
References


