**IMPROVING STUDENTS’ LEARNING ACHIEVEMENT IN**

**SCHOOL MUSICAL ENSEMBLE THROUGH PORTFOLIO-BASED LEARNING**

**AT MUSICAL EDUCATION DEPARTMENT FBS YSU**

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1. **Introduction**
2. **Background of Problem**

Starting from 2002, formal schools in Indonesia from elementary up to higher education were instructed to implement the competency-based curriculum (Kurikulum Berbasis Kompetensi, KBK). In 2006, the KBK was further developed into education-unit level curriculum (Kurikulum Tingkat Satuan Pendidikan, KTSP). The main difference between KBK and KTSP is that in KTSP every school is given freedom to develop its own specific curriculum which suits its unique condition and environment, but the substance is still kept the same. It means that the substance of curricula of KBK and KTSP remains the same.

KBK was designed following the development of the society that became more critical to the output of educational system which focused mainly on conceptual abilities. The society as a stakeholder demands the school output to be more able to actualize their abilities in a more concrete way, which requires the school graduates not only to master the concepts, but also to be able to implement them in the real life. Even though the KBK was not very much different from the preceding curricula, it was expected to bring about the objectives of educational system more realistically.

There are two main reasons why the government instructed the implementation of Competency-Based Curriculum in all levels of education units, i.e.: first, the competition taking place in the global era lies mainly on the ability of human resources which constitute the output of education institutions. To be able to survive and win the competition, the competency of human resources as graduates of all levels of education has be clearly defined, i.e. what competence is to be obtained. Second, the system of evaluation needs clear standards. These standards are in the forms of competencies that must be achieved by the learners. To show how far these standards are achieved, achievement indicators are established to be the yardstick or measurement whether someone has obtained the standard of competence (Mardapi, 2003: 1). The next process is to construct the standard of competence to be a benchmark (Marzano, 2003: 3). The benchmark must be such specific knowledge or skills that are clearly defined.

The Competency-Based Curriculum constituted the main framework with four components, i.e. Curriculum and Learning Achievement, Class-Based Assessment, Teaching Learning Activities, and School-Based Curriculum Management. Curriculum and Learning Achievement consists of planning for developing the competencies that the students need to achieve comprehensively, which include the competencies, learning achievement, and indicators. Class-Based Assessment, on the other hand, consists of the principles, objectives and implementation of evaluation which is more accurate and consistent by means of competence identification and achievement that have been obtained, a clear statement about the standards that need to be achieved as well as the map of students’ progress and report (Balitbang, 2002: 1).

The demand of Competency-Based Curriculum which emphasized the result or learning achievement in the form of competencies that can be known, accepted, and performed by students reflected that the result of learning should be authentic. Mursell (1983: 3) states that the authentic learning results are the results that can last for a long time, purposeful, and that the students really use in their life, so that they are meaningful. Mursell (1983: 93) also adds that the meaningfulness of a learning result will depend on its possibility to be “transferred” into other situations.

What Mursell states above answers the critique avowed by Suyanto and Hisyam (2000: 63) who take the term proposed by Paulo Freire that, so far, learning is just a *banking concept*, that is, providing conditions to students to treat the learning results as a collection of information. Mursell (1982: iv) develops a different learning approach to achieve the authentic learning results by presenting six learning principles as follows:

“Pikiran pelajar harus berjalan dalam kerangka konteks yang tepat, bila ia hendak belajar dengan baik. Pelajar harus memusatkan perhatiannya dengan tepat. Hubungan sosial yang wajar akan sangat membantu. Sampai pada batas tertentu ia harus dapat mengikuti caranya sendiri untuk belajar. Setiap pelajaran harus merupakan rangkaian proses untuk memahami dan mengerti. Cara menilai yang tepat merupakan sesuatu yang hakiki, karena pelajar perlu mengetahui perkembangannya.”

(A learner’s way of thinking must run in the appropriate contextual framework, if he is to learn well. The learner should focus his attention accordingly. The suitable social relationship will help a lot. Up to a certain limit, he should be able to follow his own way of learning. Every learning activity should be a sequence of process to understand and to comprehend. The suitable method of assessment is a must, because a learner needs to know his progress.)

The core of this learning approach is asking the students to learn in real-life situations.

The Competency-Based Curriculum requires that there is an assessment method that is performed individually and continually which can reflect the process performance that has been achieved by the students from time to time. The type of measurements suitable for this assessment is more on alternative measurements than on traditional measurements. One of the alternative measurements is *portfolio*.

Portfolio is a note which describes the skills, ideas, interests, and achievement that have been achieved by each student. Different from the traditional measuring tests which describe the students’ ability at a certain time, portfolio is a description of students’ abilities which are noted from time to time to know the students’ progress. Portfolio aims to, among others: (1) reveal the development and progress of the students, (2) improve the effectiveness of communication between teachers and parents about the students’ performance, and (3) make it easier for teachers and supervisors to evaluate the learning program (Hart, 1994: 5)

One of the subjects offered by the department of Musical Education of Yogyakarta State University (YSU) is Advanced School Musical Ensemble. This Advanced School Musical Ensemble is a subject which aims to provide students with skills to play school music together. By this ability, it is expected that the graduates of Musical Education Study Program of Yogyakarta State University can play ensemble music and teach it at school if they become teachers later. School music ensemble is an important subject for musical teachers because this subject is a very popular subject at elementary and secondary schools, since this subject of school musical ensemble can be a forum for students to play musical instruments in a large group at a time, even if they do not yet have high ability of playing musical instruments.

In line with the Competency-Based Curriculum, the learning of school musical ensemble must be performed in accordance with the demand and characteristic of this curriculum; therefore, a suitable learning strategy for school musical ensemble needs to be developed so as to be able to provide students with learning experience to achieve mastery learning, i.e. to master all the basic competencies based on the criteria set up for this subject, and give opportunities to each student to be able to obtain those competencies on their own speed according to their talents and abilities with regards to the cognitive, psychomotor and affective aspects.

According to Boediono (2001), the learning model which is based on portfolio is a form of learning practice, that is, a learning innovation designed to help the students to understand the theories comprehensively through practical-empirical learning experience. This learning practice can be an education program that will support the competence, responsibility, and participations of the students, learn how to evaluate and influence the general policy, and participate in the activities taking place among the students and among the community members.

1. **Formulation of Problems**

Based on the discussion on the background of problem above, the problems can be formulated as follows:

1. How is portfolio-based learning on the subject of school musical ensemble to be developed?
2. What is the impact of portfolio-based learning to the learning achievement of students on school musical ensemble?
3. **Objectives of Research**
4. To develop the implementation of portfolio-based learning to the subject of School Musical Ensemble.
5. To know the impact of portfolio-based learning to the students’ learning achievement on School Musical Ensemble.
6. **Review of Literature**
7. **School Musical Ensemble**

School Musical Ensemble is a collective musical performance played by several players with different functions. All of the players play on the same song but at a different parts (Astuti, 2003: 281). Miller (in Bramantyo, n.d.: 87) further explains that a musical ensemble involves two or more players who are involved relatively evenly and equally in playing a musical work.

1. **Criteria of Qualified Musical Ensemble**

According to the term “ensemble” which are taken from a French word “ensemble” which means “together”, a musical ensemble is characterized with its “togetherness”. This togetherness can be seen from the cohesiveness and the balance of the group. The cohesiveness is the suitability in tempo, while balance can be seen from the balanced volume among the players and the balance of sound forms. The cohesiveness of a musical ensemble can be seen from its *attack*, *tempo*, and *release*.

1. **Some Factors Determining the Success of School Musical Ensemble**

The success of performing school musical ensemble is determined by two factors, i.e. individual ability and group ability. Individual ability covers the musical ability and interpersonal ability of each player. According to Gardner (1993: 24) musicality is an intelligence that needs one’s sensitivity to the relationship among tones and flexibility of fingers or other body organs needed to express the music. Parson (1977) states that there are two types of musical ability, i.e. *gift* and *talent*. A gift is related to the above-average potentials from one domain of intelligence, while a talent shows more on the extraordinary skillful ability on a specific field. Interpersonal and environmental factors function as catalysts in forming the talent. Group ability is the ability of the ensemble group in keeping the cohesiveness and balance. Cohesiveness involves the ability to keep compact in starting a song, maintaining the tempo, and end the song, while balance involves the balance among the melody, rhythm, harmony and bass, and the balance of sound volume of all the musical instruments.

1. **Portfolio**

Budimansyah (2002: 1) states that portfolio can be understood as a form of physical material, and as a process of social pedagogy. As a form of physical material, a portfolio is a bundle, a collection or documentation of works resulted by a student which is filed in a bundle, consists of, among other things: pre-test result, tasks, anecdotes, individual notes, certificates, statements declaring of performing structured tasks, and result of post test. As a socio-pedagogical process, a portfolio is a collection of learning experience exists in the mind of a student in the form of knowledge, skills, value, and attitudes.

A portfolio can then be defined as a collection of works of a student selected accordingly for a specific intention and integrated according to a certain standard. A portfolio can be selected works of a student, but can also be selected works of the whole class. As a collection of selected works, the portfolio should reflect the accumulation of everything found out by the students based on a certain topic. Therefore, a portfolio is not a collection of works which are not interrelated to one another.

Belanoff & Dickson (1991) state five characteristics of portfolio, i.e. first, portfolio is a part of meta-cognitive awareness. Both the teacher and student can reveal and reflect the progress of a student every week based on the student’s real work. Second, portfolio can be used as a real proof for the student’s achievement if there is a disagreement on it someday later. Third, standard evaluation of a portfolio is made based on the interaction between the teacher and the student themselves. Fourth, the assessment system for a portfolio is individually important for every student because each student may have their own specific ability which is different from one another. Fifth, portfolio is a system of measurement which is extensive and comprehensive, so that it can reveal both the process and the product of a learning system.

Based on the discussion above, it can be said that a portfolio is a document consists of the description of student’s works during the process of learning. As a consequence, the teacher must have the ability to make notes of all events taking place in the class effectively and efficiently so that the time allocated for learning is not taken for describing the learning process as required in the portfolio.

Portfolio-Based Learning is based on the principle of active-student learning, cooperative learning, participatory learning, and reactive learning (Budimansyah, 2002: 8). This way of learning makes use of the active-student learning. Students’ activity takes place at almost all of the learning process, including the reporting. In the planning phase, the brain storming method is used, i.e. every student may present an interesting problem related to the learning material. After all the problems are collected, students will vote to decide one problem to discuss in the class. In the field-activity phase, students collect data and information to answer the problems to be discussed in class. While in the phase of reporting, students are focused on making the class portfolio.

The process of portfolio-based learning also applies cooperative learning principle, i.e. the learning process based on cooperation. The teacher must be able to utilize the social facilities so that every student has a different responsibility but based on one collaborative effort, so that all students will be satisfied because they have contributed their own thoughts and work for the success of the group.

Portfolio-based learning also uses the *learning by doing* principle. It means that all the learning process is based on learning by doing some certain tasks.

The last principle of portfolio-based learning is reactive learning. Therefore, it is important for the teacher to create a suitable learning strategy so that students will have a high learning motivation, by making them aware that the material or skill they are about to learn will be useful and meaningful for their real life later.

1. **Discussion**
2. **Treatment**

The method used here was Classroom Action Research or empirical treatment, i.e. doing something and make notes on what is done and what happens by doing it (Madya, 1994: 24). Classroom Action Research was carried out on the subject of Advanced School Musical Ensemble at Musical Education Department, Faculty of Languages and Arts, Yogyakarta State University, from March to June 2007. It was performed in two cycles. The dependent variable was the portfolio, while the independent variable was the students’ learning achievement of school musical ensemble subject.

Data collection was done through the test and non-test techniques. The test was used to collect the learning achievement, while the not-test technique, including observation and interview, was meant to collect the data during the process of learning.

The result of factor analysis to the instrument of learning achievement of musical ensemble showed that there were three factors which had the *eigenvalue* more than one. Therefore, the instrument was in fact contained three variable components and was able to explain 87.36%. It means that there was 12.64% ability measured constituted variables outside the competence of learning achievement of school musical had the alpha coefficient of 0.9292, meaning that the instrument had meet the condition for good reliability and validity.

The second instrument, i.e. the observation sheet of portfolio, adopted from the classification of learning achievement, consisted of the three cognitive, psychomotor, and affective aspects as developed by Bloom, Gagne, Simpson, and Krathwolf. Due to the fact that this classification has been standardized, the instrument was not tested previously.

The Action Research was carried out for 16 meetings, divided into two cycles. Each cycle consisted of the steps of Planning, Actualizing, Observation, and Reflection. In general, the lesson plan on Cycle I covered the three activities, i.e. first, setting up the committee, second, training for mastering the material of songs, consisting of sectional step and gathering step, and third, adjusting the harmony of musical ensemble, including cohesiveness, balance, and performance.

The observation step was carried out together with the Actualization step. In these steps, monitoring and evaluation towards the students’ attitudes in the aspects of cognitive, psychomotor and affective was also conducted.

Starting from the second up to the eighth meetings, the teacher informed students with the achievements they had obtained in all the cognitive, psychomotor and affective aspects. Assessment was carried out both qualitatively and quantitatively. Qualitative assessment was in the form of teacher’s comments on the good performance and responses shown by the students as well as the weakness that should be eliminated. The quantitative assessment was in the form of measuring the students’ achievement in learning the musical ensemble, including the aspects of attitude, cohesiveness, balance, and performance.

Based on the result of observation on Cycle I, it was shown that all students improved their cognitive aspect, although the improvement was not the same for every student. However, the improvement had similar characteristic, i.e. when a student had achieved a higher level of cognitive level, the student would never got back to the lower level.

The development of psychomotor aspect could only be seen on the third meeting, i.e. when the school musical ensemble was practiced. At the beginning of the learning, students had achieved the psychomotor aspect at the level of guided response (P4). It means that the students were unable to play musical ensemble in group, but able to play in sections first. But at the end of the third meeting, the students had achieved the psychomotor aspect at the level of mechanism (P5). It could be seen from their ability to play musical ensemble together, although still not in a good performance. On the next meetings, their learning achievement improved incrementally. At the end the eighth meeting, the students had achieved the psychomotor aspect at the level of adaptation (P7).

From the affective aspect, the initiative and discipline of students were low at the beginning of the learning. It was shown by the fact that many students came late and not all of them showed active participation in the discussion in designing the program of musical performance. But after the description of students’ portfolio was given on the first meeting, the students’ attitude changed. On the second meeting, all students took part in the discussion and in making decisions. From the third up to the eighth meetings, students had achieved the affective aspect at the level of valuing (A3).

Reflection to the learning process of Cycle I showed that the improvement achieved by students on the aspects of cognitive, psychomotor, and affective was resulted from the condition that the students knew for sure their achievement from time to time, and the achievement that they should have obtained. In that case, both the lecturer and the students knew for clear what objectives to be obtained, and what weaknesses to be omitted.

In general, the learning achievement obtained in the first cycle was that the students were able to play and organize the process of mastering the songs. However, there were still some things to be considered, i.e. their careful attention in reading the rhythm, accessory tones, filler, balance, and performance, including interpretation and expression. Therefore, on the next cycle, they should not only master the songs comprehensively, but also the subtle details of the songs.

The lesson plan on Cycle II was mostly focused on mastering the technique and performance of musical ensemble, with specific stress on details of the songs, cohesiveness and balance on the songs with higher level of difficulty, i.e. on the practice of advanced school musical ensemble. The actualization of Cycle II was a bit different from the plan, but not diverged from the substance of learning. For example, on the tenth meeting, students should still practiced musical ensemble on the intermediate level, but on the second meeting of Cycle II the students had played musical ensemble of advanced level. This was due to the fact that their ability increased faster than the estimation, so that they could play to the songs of the higher level of difficulty.

Observation on the second cycle shows that on the cognitive aspect, the average students achieved the level of evaluation (C5), and synthesis (C6). It was shown by their ability in correcting the practice of musical ensemble that they played, either on the aspects of attitude, techniques, cohesiveness, balance, and performance.

The average level achieved on the psychomotor aspect on the second cycle was complex response (P6) and adaptation (P7). Students were able to play the songs fluently according to the expression symbol given as the requirements. However, their balance was not yet optimal. The level of originality (P8) had not yet been achieved. It can be understood, because the learning process only took place for one semester, while to obtain the level of group originality it needs adjustments for approximately four years.

On the second cycle, students had already understood the rules to obey in learning musical ensemble, so that the lecture could run quite smoothly, since the students had already prepared the musical instruments and song partitions before the class started. Besides that, students had already studied previously so that the songs could be mastered quite well.

Positive response was also shown by the students by their responsibility in considering and participating in doing the performance. It could be seen from their being busy in preparing the transportation, accommodation, and setting up the musical instruments during the lectures and on stage. From the affective aspect, the average students achieved the level of organization (A4).

Observation on the second cycle shows that the aspects of cognitive, psychomotor and affective achieved by the students tended to remain the same on the sixth, seventh, and eighth meetings. An interesting thing found was that the affective aspect was more stable compared to the cognitive and psychomotor aspects. It then can be said that to change the students’ attitude needs a relatively longer time than to change their cognitive or psychomotor aspects.

On June 16, 2007, the result of their learning musical ensemble was performed at SMP Negeri (State Junior High School) 2 Cangkringan, Sleman, Yogyakarta. This school was located on the highest position possible on the top of Merapi Mountain. The performance was expected to be able to show the learning achievement of the students as well as a media for musical appreciation for the students of SMP Negeri 2 Cangkringan.

1. **The Impact of Portfolio-Based Learning to the Achievement of Learning Musical Ensemble**

The impact of portfolio-based learning to the students’ achievement on learning musical ensemble was measured by comparing their achievement before and after the learning process. Using the t-test with the SPSS version 10 software, the analysis shows the significant level of 0.00. It means that there is a significant difference between the students’ achievement before and after the learning. So that it can be said that portfolio-based learning can improve the learning achievement of musical ensemble subject.

Based on the description of the research data, it was known that portfolio-based learning can improve the students’ achievement in all aspects of cognitive, psychomotor and affective. In the musical performance as well, the ability of the students treated with portfolio-based learning improved significantly. It is due to the fact that students can understand clearly what they should achieve in the learning process. Transparency in the evaluation step makes the students able to focus their objective clearly. Besides, there is a similar perception on evaluation between the lecturer and the students because the result of evaluation was informed to the students continually.

1. **Conclusion**

Based on the discussion above it can be concluded that:

1. Classification of learning achievement in the cognitive, psychomotor and affective aspects can be precisely used as the components of portfolio in learning musical ensemble, because those components can describe the development of students’ achievement in learning musical ensemble hierarchically and comprehensively.
2. Portfolio-based learning can improve the learning achievement of school musical ensemble at the level of significance 5%.