

## IMPROVING SELF REGULATION THROUGH PORTFOLIO ASSESSMENT IN HIGHER EDUCATION

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### ABSTRACT

*The article aims to define the effectiveness of portfolio assessment to improve self regulation in higher education context. Portfolio assessment encourages students to build self regulation in the learning process. It allows students define their own content, objectives and learning strategies, then record documents, so that the lecturer's role is only to assist and provide feedback. This is a classroom action research consist of 3 cycles, held in apparel study program at universitas negeri Surabaya, with 70 research subjects. Data collected by observation and questionnaire, and analyzed by descriptive analyses. Result state that portfolio assessment influence in enhancing students' self regulation. This study conclude that portfolio assessment effective on students' self regulation improvement*

**KEYWORDS:** *Self regulation, Portfolio assessment, higher education.*

### 1. INTRODUCTION

Higher education plays an important role in generating new ideas, and in collecting and transmitting knowledge. (Unesco, 2007). Higher education system that requires students to be independent in learning without supervision of lecturers to make the role of student self regulation becomes the main determinant factor (Pardjono, 2007). It was found that self regulation in learning as an important factor and were related with approaches to learning and cognitive strategies to study success in higher education (Heikkilä & Lonka, 2006).

Self-regulation is not a mental ability or an academic performance skill; rather it is the selfdirective process by which learners transform their mental abilities into academic skills (Zimmerman, 2002). Self-regulatory process include attending to and concentrating on instruction; organizing, coding, and rehearsing information to be remembered; establishing a productive work environment; using resources effectively; holding positive beliefs about one's capabilities, the value of learning, the factors influencing learning, and the anticipated outcomes of actions; and experiencing pride and satisfaction with one's efforts (Schunk, 1994). Effective self-regulation depends on holding an optimal sense of self-efficacy for learning (Bandura, 1986). A self-regulatory learners is some one who able to learning better under self-control, able to monitor, evaluate, or manage learning effectively by attaching questions, able to reduce the learning time needed to complete the lesson, and able to manage their learning and time efficiently (Yang, 1993)

Efforts can be made to foster self-regulation of students facilitated with portfolio assessment. Portfolio assessment allows for feedback because the work recorded in the file is not only collected and just finished but will be collaboratively analyzed by involving lecturers and students and can be used to monitor progress and diagnose student learning difficulties. The benefits of the portfolio stand out from the written assessment because the portfolio involves learners in assessing their own progress and learning achievements and participating in developing a continuous learning objective (Stiggins, 1994). Portfolio assessment would be more appropriate if used in courses that have a lot of bill of duty and demands independence in learning (Hamzah, 2014). Portfolio assessment can productively foster self regulated learning (SRL) and, more specifically, it develops a conceptual model of SRL within the context of writing portfolios and iterative feedback processes (Lam, 2014).

In this reseach context, portfolio assessment is applied on the subject of woman's wear making in the apparel study program. In this subject the students prepare the project, making 3 types of women's clothing: work wear, party wear, and national dress of Indonesia. Students create designs, fashion patterns, materials and costs, work procedures, sewing procedures until evaluate the product. Individual processes within the groups and products produced are evaluated by portfolio assessment. The role of lecturers in developing self-regulated learning differs from their role in the traditional class. In traditional classroom emphasis on objectives and content of lessons, monitoring student progress, and modulation of learning speed for the whole class. While in self-regulated learning the lecturers are responsible to the students to self-monitoring, analyze their own data individually or in groups, and assist them in setting goals and choosing strategies to clarify self-monitoring results ((Zimmerman, Bonner, & Kovach, 1996

## **2. METHOD**

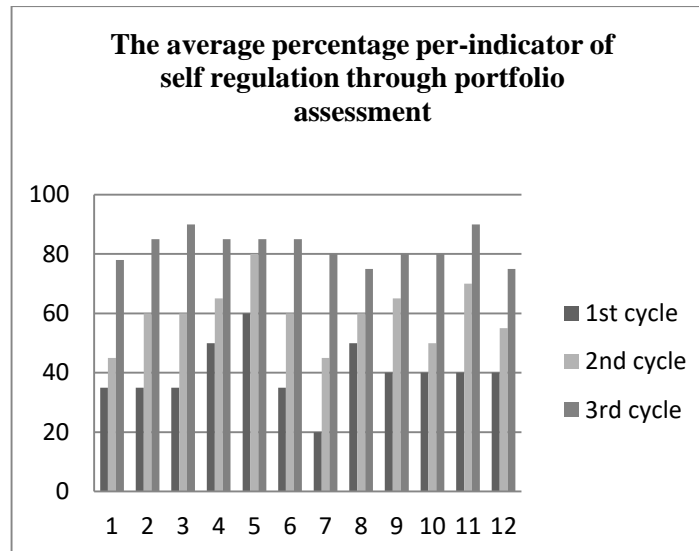
This is a classroom action research (car) consist of 3 cycles, held in apparel study program at universitas negeri surabaya, with 70 research subjects. data collected by observation and questionnaire, and analyzed with descriptive analyses. based on the car procedure, the learning steps was carried out cyclically. there are three projects done by students, consisting of two pieces of work clothes, party fashion and national dress. each project is done in one cycle of car.

Aspects of self regulation observed in this study consist of 12 factors, including self evaluating, organizing & transforming, goal setting & planning, seeking information, keeping record & monitoring, environmental structuring, self consequences, rehearsing & memorizing, seek peer assistance, seek teacher assistance, review test/work, review notes (Zimmerman dan Martinez-Pons cited by Douglas, Hattie & Purdie, 1996)

## **3. RESULT AND DISCUSSION**

After exceeding the three cycles of learning by applying the assessment portfolio, the average value of the twelve aspects of self-regulation as shown in Figure 1. In general there is an increase in mean value, which is significant from the twelve aspects of self-regulation, with varying percentages of improvement ranging from the lowest 25% to the highest of 60%. The highest improvement was 60% in the aspect of goal setting & planning, and self-consequences; followed by an improvement 50% on organizing & transforming, environmental structuring, and review test/work aspects; improvement 44% on self evaluating; then improvement 40% on the aspect of seek peer assistance and seek teacher assistance; 35%

improvement in seeking information and review notes; 25% improvement in keeping record & monitoring aspect



**Figure 1: The Average percentage per-indicator of self Regulation Trough Portfolio Assessment**

Caption: 1. self evaluating, 2. organizing & transforming, 3. goal setting & planning, 4. seeking information, 5. keeping record & monitoring, 6. environmental structuring, 7. self consequences, 8. rehearsing & memorizing, 9. seek peer assistance, 10. seek teacher assistance, 11. review test/work, 12. review notes

After carrying out the assessment portfolio in the learning cycle 1 through the third, the highest grade of completion, the goal setting & planning and test / work achievement with 90% achievement of the total students in the class. 85% mastery level on organizing & transforming aspect, seeking information, keeping record & monitoring, environmental structuring. Next, the level of mastery 80% was on the aspects of self-consequences, seek peer assistance, a teacher assistance. Mastery level of 78% was in self evaluating aspect. Mastery level of 75% was on rehearsing & memorizing and review notes. This data shows that the portfolio assessment is capable of improving the highest self regulated learning particularly on goal setting and planning capability as well as the review of test / work in the learning of woman's wear making. At the intermediate level, the assessment portfolio is able to improve organizing & transforming capabilities, seeking information, keeping records & monitoring, environmental structuring, self-consequences, seek peer assistance, a teacher assistance, and self evaluating. While in the ability of rehearsing & memorizing, review notes, portfolio assessment in this research only able to increase 75% of all students.

#### 4. CONCLUSION

The portfolio assessment succeed to improve student self regulation on the students' competency of woman's wear making. This study proves portofolio assessment is very appropriate to be used in courses that have a lot of bill of duty

and demands independence in learning. Portfolio assessment requires students to be active participants in the learning process because they are in charge of every step of portfolio assessment, such as setting goals, selecting and organizing the content of portfolios, and evaluating their learning process. Similarly, self-regulated learning aims to make students active in their learning process by helping them to take responsibility for their own learning. Being responsible for one's own education enables them to control their own learning processes, which is another common thing between portfolio assessment and self-regulated learning.

Portfolio assessment provides students with artefacts that they can use to monitor their own learning process, and then they can assess and reflect on their own work, which can help to understand their strengths and weaknesses, what worked and what did not work, and improve learning according to those findings. Like portfolio assessment, self-regulated learning requires self-reflection that can allow students to find out their strengths and weakness, and whether the strategies they choose worked or not, and to improve their learning. In addition, both self-regulated learning and portfolio assessment can motivate students since they are individualized learning types and can enable students to monitor the development in their learning. In portfolio assessment and self-regulated learning, motivation to study can assist students in forming positive attitudes toward learning, as they can understand what they can achieve. Self-regulated learning and portfolio assessment can prepare students behaviourally, and motivationally for their learning processes. Consequently, the aim of this form of assessment is to enable students to individualize and personalize their learning by supporting and encouraging active participation, taking responsibility of one's own learning, observation and reflection of learning by students. This indicates that both of them can be connected to each other, and portfolio assessment can promote self-regulated learning.

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