

The Student Perception of Self-regulated Learning in Vocational School

Nisrina Qurrotu'aini El Yusuf, Tjahyani Busono, Restu Minggra

Department of Architectural Education, Faculty of Technology and Vocational Education
Universitas Pendidikan Indonesia
Bandung, Indonesia
nisrinaqaey@student.upi.edu

Abstract—This research was conducted due to the lack of self-regulated learning in Skill Competence of Modeling Design and Building Information (DPIB) in 1 Sukabumi Vocational School, West Java, Indonesia. Self-Regulated Learning (SRL) is one of the internal factors that can affect the learning achievement and more. The SRL has three categories those are cognition, motivation and behavior. This research describes the student perception of SRL in Skill Competence of Modeling Design and Building Information. The purpose of this research is knowing the SRL perception of students from class X DPIB in 1 Sukabumi Vocational School. The research method that used in this research is correlation research method with quantitative descriptive approach. The result of the research showed that the student's perception about self-regulated learning based on class category are for class X DPIB 1 got a score 68.29 with strong criteria and for class X DPIB 2 got a score 69.92 with strong criteria. Then, for each category of SRL, cognition got a score 65 with medium criteria, motivation got a score 72 with strong criteria and behavior got a score 75 with strong criteria.

Keywords—*perception; self-regulated learning; student; vocational school; modeling design and building information*

I. INTRODUCTION

Vocational School 1 Sukabumi (SMKN) is one of the quality of formal education who prepares their students to being ready in the world of work after the graduated in accordance competency skills to which it belongs themselves.

Modeling Design and Building Information (DPIB) are ones of competency skills that is in Vocational School 1 Sukabumi that is part of technology and engineering fields of expertise and a derivative of The Program of Technological Expertise Construction and Property.

DPIB's expertise competency focuses on studying the planning of a building from the most basic to the middle. The activity is learning to draw buildings manually or digitally, learning to count that has to do with the development etc.

Based on the introduction research in Class X DPIB students at School Year 2017/2018 in SMKN 1 Sukabumi, there are 63% of students said the productive subjects are difficult. That four subjects are Engineering Drawing, Building Construction Basics, Science of Measuring Soil (IUT) and Technical Mechanics. Furthermore, based on the data from

Counseling Guidance Teachers, there are students who have not completed productive subject assignments in semester 1. Problems that have been presented previously can surely affect the learning achievement that would be obtained by students.

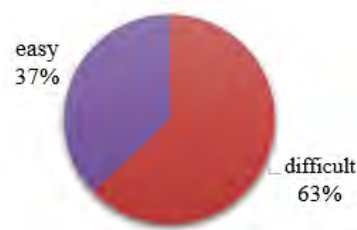


Fig. 1. Percentage of difficulty level of Productive Subject (Source: Research Data, 2018)

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Broadly, the factors can affect learning and learning achievements classified into two parts, are external and internal factors. The external factors could affect learning achievements include the family environmental factors, school environment and community environment. While the internal factors are physiological factors related to health and senses, psychological factors which include intelligence, attitude, motivation and also aspects of themselves regulation or self-regulated [1, 2]. Therefore, students will get the good learning achievements if they are responsible and knowing how to learn effectively or have a good self-regulated learning strategy.

Self-regulated learning (SLR) is an activity where the students learning actively as regulators of their own learning process, ranging from planning, monitoring, controlling and evaluating themselves systematically to achieve the learning goals, using the various cognitive, motivational and behavioral strategies [3].

The existing facts based on the observations indicate there are still many students who did learning activities without planning, monitoring, controlling and evaluating in their own learning. Consequently, the students prefer to procrastinate in carrying out the tasks, did the random assignments because they only assume the duty of an obligation is not a necessity, collecting assignments doesn't on time, learning with an overnight system "SKS" in the face of Midterm Exams (UTS) and Exams Class Increase (UKK). This phenomenon indicates that there still are many students who didn't have the ability and skills to regulate themselves in learning well, which may affect to the low learning achievements.

Previous research on self-regulated learning shows that self-regulated learning has a significant influence on learning achievement, especially at the junior and senior high school level [4]. Therefore, self-regulation is considered much needed for vocational students who in fact have more demands. This is in accordance with the objectives of the main Vocational High Schools as explained in Article 15 of Law No. 20 of 2003 concerning the national education system is to prepare students to be able to work in certain fields.

Based on the results of previous SRL research and factual problems as described above, the researcher conducted a study entitled: "The Influence of Self-Regulated Learning Perceptions (SRL) on Student Learning Achievement Modeling Design and Information Design Competence Skills (DPIB)".

II. RESEARCH METHODS

Research design is a model or method used to conduct a research that gives direction to the course of research. In this study, researchers used a quantitative approach with descriptive research methods which will describe the results of data obtained from the sample or study population and analyzed according to statistical methods using simple correlation analysis on the effect of students' self-regulated learning perceptions of student achievement Building Modeling and Information Design.

A. Research Variable

In this study, the independent variable (independent) used is the perception of self-regulated learning denoted by variable X. Furthermore, the dependent variable used is learning achievement denoted by variable Y.

1) Population and Sample

a) *Population*: In this study the population used as the object of research is class X DPIB at Vocational School 1 Sukabumi, totaling 67 students, with details; class X DPIB 1 totaled 33 students and class X DPIB 2 numbered 34 students.

b) *Sample*: In this study, the sample used is saturated sampling, namely all students of class X DPIB in Vocational School 1 Sukabumi, totaling 67 students with the aim of knowing participants' perceptions about SRL.

B. Instrument Test Results

The quality of instruments in a study is very important because the conclusions of the research are obtained from the

data obtained with the instrument. To get a quality instrument, an instrument is tested. Because valid and reliable instruments are absolute requirements for obtaining valid and reliable research results.

1) *Validity Test*: Appraisers in this study are called validators who are experts or someone who is competent and has the ability to understand the relevance of each item with its indicators [5]. In this study there were three experts, as follows:

- Dr. Johar Maknun, M.Si, Chair of the Study Program and Lecturer of the Department of Architectural Engineering, Indonesia University of Education.
- Fitri Dewi Romadona, S.Pd, Teacher Counseling Guidance (BK) Vocational School 1 Sukabumi.
- Tanti Mugi Muliawati, S. Pd, Chair of Modeling Design and Information Design Competence Competencies (DPIB) of Vocational School 1 Sukabumi.

The items contained in research instruments that are considered appropriate and appropriate must be proven by content validity, which is concluded against the feasibility of item content using CVR statistics [6] and V statistics [7] results of static analysis [5]. In this study, validation using V statistics is then developed based on the results of the assessment of experts as many as n people on the assessment of an item representing the construct measured can be said that the item is relevant to the indicator, because the indicator is an operational translator of what want to be measured [5]. Statistics V can be formulated as follows:

$$V = \frac{\sum s}{n (c - 1)}$$

C. Data Analysis

Data analysis in quantitative research is an activity after data from all respondents or other data sources is collected [8]. In quantitative research, data analysis activities include data processing and data presentation, performing calculations to describe data and testing hypotheses using statistical tests. As for this study, data analysis is used with the method:

- Cross Taboo (Crosstab)
- Average trend

III. RESULTS AND DISCUSSION

A. Characteristics of Respondents

Respondents in this study were all students of class X DPIB in Vocational School 1 Sukabumi totaling 67 people. The characteristics of this research are class origin and gender.

1) *Characteristics of Respondents by Gender and Class Origin*: The results of data processing of the number of respondents based on gender and class origin get the following results:

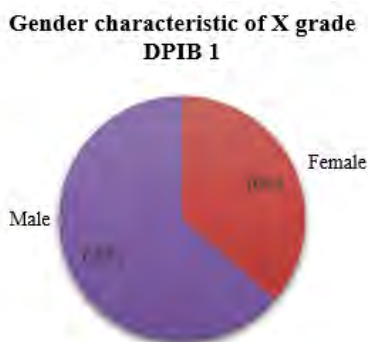


Fig. 2. Gender Characteristics Class X DPIB 1.

Figure 2 shows the gender characteristics of the class X DPIB 1 that is equal to 36% with a total of 12 people are female students and 64% with a total of 21 people are male students.

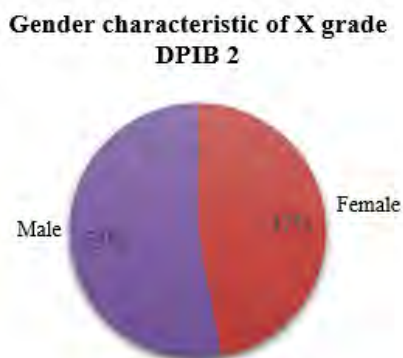


Fig. 3. Gender Characteristics Class X DPIB 2.

Figure 3 shows the characteristics of the sexes from the origin of class X DPIB 2 that is equal to 47% with the number of 16 people is female students and by 53% with the number of 18 people are male students.

B. Processing and analysis of data

1) *Overview of Self-Regulated Learning Perception Variables:* The following is a description of the variable (X), namely the perception of self-regulated learning which is divided into two classes, namely X DPIB 1 and X DPIB 2 through Crosstab analysis with Microsoft Excel 2016. The description is as follows:

TABLE I. OVERVIEW OF SELF-REGULATED LEARNING PERCEPTIONS IN CLASS X DPIB 1

| Category | Male | Female | Total |
|------------|-------|--------|-------|
| Cognitive | 56.11 | 59.64 | 57.87 |
| Motivation | 70.41 | 75.89 | 73.15 |
| Behaviour | 74.80 | 72.92 | 73.86 |
| Average | 67.11 | 69.48 | 68.29 |

Based on the table above obtained data on the perception of self-regulated learning based on sex in class X DPIB 1. As for the assessment of the perception of self-regulated learning is divided into three categories, namely for the category of cognition obtained the highest score derived from female

students get a score of 59.64 with sufficient criteria. Furthermore, for the motivation category, the highest score was obtained from female students getting a score of 75.89 with strong criteria. Whereas for the behavior category, the highest score was obtained from male students with a score of 74.80 with strong criteria. As for the total value of self-regulated learning perceptions students of class X DPIB 1 get a score of 68.29 with strong criteria.

TABLE II. OVERVIEW OF SELF-REGULATED LEARNING PERCEPTIONS IN CLASS X DPIB 2

| Category | Male | Female | Total |
|------------|-------|--------|-------|
| Cognitive | 64.76 | 64.45 | 64.61 |
| Motivation | 71.23 | 71.54 | 71.39 |
| Behaviour | 71.99 | 75.52 | 73.76 |
| Average | 69.33 | 70.50 | 69.92 |

Based on the table above obtained data on the perception of self-regulated learning based on gender in class X DPIB 2. As for the assessment of the perception of self-regulated learning is divided into three categories, namely for the category of cognition obtained the highest score derived from male students get 64.76 with strong category. Furthermore, for the motivation category, the highest score was obtained from female students getting 71.54 in the strong category. Whereas for the behavior category, the highest score was obtained from female students getting a score of 75.52 in the strong category. As for the total value of self-regulated learning perceptions, students of class X DPIB 2 get a score of 69.92 with strong criteria.

2) *Average Trend Test:* Percentage analysis is used to obtain information about the tendency of respondents' answers. This percentage analysis is used to analyze student characteristics. The percentage results are then clarified based on certain categories.

As for the tendency of the average perception of self-regulated learning overall students get a value of 0.71 with high information.

IV. CONCLUSIONS

Students' perceptions of self-regulated learning based on their original class characteristics and gender as a whole are satisfactory in the strong category. As for the tendency of the average perception of self-regulated learning is high, meaning self-regulated learning in accordance with the needs of students in order to achieve good learning achievement. Self-regulated learning has three categories, namely cognition, motivation and behavior. Of the three categories the cognitive category has a low value while the other two categories, namely motivation and behavior, have high values. The description of students' self-regulated learning perceptions is based on two criteria, namely class origin and gender. Respondent's perception based on class origin, X DPIB 2 has a higher perception than X DPIB 1. Furthermore, based on female gender has a higher intensity than male.

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