

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter is expected to give important background information for the discussion of related literatures. The researcher is going to give some description related to the variables of this study.

2.1 Self-Directed Learning (SDL)

In the first variable, it explains about SDL which consists of four points: (1) the definition of SDL, (2) the characteristics of SDL, (3) the advantages of SDL, and (4) the measurement of SDL.

2.1.1 The Definition of SDL

Gibbons (2002) proposed that SDL is the combination between knowledge, skill, or personal development that individual achieves by their own efforts in any learning methods. It seems that SDL is a key of independent learning. SDL is a process in which the student takes their initiative and responsibility for setting their own learning goals, identifying gaps in the learning, deciding resources, selecting and carrying out learning strategies, and evaluating their own result (Loyens, 2008). Additionally, one of part from human nature is SDL, it comes from making decisions for their responsibility. Min and Pey (2010) indicated that SDL refers to the ability to control learning plan and other learning factors. They also considered that competence, resource, and power are the three crucial elements to stimulate SDL.

Related to those theories above, many experts have been defined the term of SDL in which most of them lead to the similar definition about it. In order to reach a common definition of SDL, this study deals with the definition which is carried out by Loyens (2008). It can be concluded that the student takes more role in learning process from setting the learning goal until evaluating their own result.

2.1.2 The Characteristics of SDL

Biggs (1999) stated there are three important skills in SDL including generic study skills for time managing and organizing, study skills for learning specific content knowledge, and meta-cognitive learning skills for handling new situation with or without other's direction. From adult education experts' perspective, SDL consists of three dimensions those are motivation, metacognition, and self-regulation (Ashraf and Kamisah, 2015).

Guglielmino (1978) has explained in her research that someone who has good SDL can be measured by looking at his/her attitudes, values, and abilities of learner. Then it has been developed by other experts such Lim (2014) developed that there are 7 characteristics of SDL. Those are curiosity, readiness, self-examination, autonomous, critical thinking, comprehension with little or no instruction, and persistence. According to Melissa (2007), curiosity is the feeling which the student has for exploring more to get the new related information as much as possible. Another characteristic is readiness which also needs self-motivation in it so that they can set their goal clearer and find out to deal with something (Min and Pay, 2010). The next is self-examination. By doing SDL, students are going to examine themselves. They also can strengthen the good

result from it. Then, according to Loyens (2008), autonomous is one of the most important characteristic. Students will be able to responsible for their own task. They realize what to do and start doing it on their own. Another characteristic is critical thinking, Self-Directed Student always thinks deeply before they decide to do something. Besides that, comprehension with or without instruction is also important. There are four comprehension skills those are reading, listening, writing, and speaking skill. All those can be used to compose a good result (Gibbons, 2002). The last is persistence in which the students try to do the best that they can and also build up their self-discipline in order that they can solve such problems faster and better.

To sum up, the main characteristics in a good SDL are having openness to learn opportunities, self-concept, initiative and independent in learning, enjoyment in learning, creativity, future orientation, and self-confident toward their learning skill.

2.1.3 The Advantages of SDL

Studying at school is one of most important components of learning in which SDL has an important key for all students. A person who tries to learn independently, he/she gets more knowledge (Carson, 2012). By having a good SDL, students get many benefits. One of them is they can be motivated to learn and try to get knowledge and skills to solve the problem that they face (Ana and Bianca, 2014). It will become a skill to gain success in educational field because the students includes directly in a learning process. SDL is one of natural process which can develop students' ability and responsibility in learning process.

According to Williams (2003), students who successfully take part in SDL are more creative and curious rather than the student who does not. They are more active and enthusiasm to improve their skills that can help them in solving the problems by using their own strategies, taking responsibility for their actions, and making their own opinion.

To sum up, there are many benefits that can be achieved by having a good SDL. One of them is the student who has a good SDL can be motivated to takes a role actively in learning process rather than the student who also sits and listens to what the teacher or lecturer says.

2.1.4 The Measurement of SDL

To measure how high or low students' SDL, we can use questionnaire such some experts did in the previous study. Self-Directed Learning Readiness (SDLRS) which was conducted by Guglielmino (1978) has been used in most study as the tool to measure SDL. The questionnaire measures the complex of attitudes, abilities, and characteristic in SDL that is defined in eight factors in it. Those eight factors are openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, self-responsibility in learning, love of learning, creativity, future orientation, and self-confident in abilities and skills in learning. SDLRS questionnaire consists of 58 items with 5 point-Likert format scale.

Guglielmino (1978) stated that SDLRS instrument is suitable for education institution and education facilitator for knowing the readiness in SDL and measuring their SDL whether they have a high or low SDL. This questionnaire

has been tested the validity and the reliability in some countries. So it can help the researcher to measure how high their SDL.

2.2 Students' Achievement

It is not easy to define, quantify, and measure students' achievement because all have different way to assess the students' performance. Every student has different academic achievement. According to Josh (2012) students perform differently based on factors such as grade level and subject. Academic Achievement can be measured from test scores or marks assigned by the teacher (Gania and Mir, 2013). It indicates the learning outcome of the students.

Based on Joshi and Srivastava (2009), academic achievement is the degree level of success indicator toward school-task in the general or specific one. Academic achievement can be measured by test score or average score. From this score, it can be seen that the students reach successful result or not. It is usually given by using number as a symbol (Lawrence and Vimala, 2012).

There are some factors which affect students' academic achievement. Irfan and Shabana (2012) stated that students' academic achievements are affected to social, psychological, economic, environmental, and personal factors. Lawrence and Vimala (2012) added that the factors are (1) non cognitive factors, such as: SDL, personality trait, self-concept, self-esteem, and others, (2) cognitive factor, such as: intelligence, style of thinking and learning, creativity, and others, (3) motivational factor which includes internal and external factor, (4) quality of school which includes teaching method, school environment, and others, (5) family factor, such as: family environment, family support, and others, (6) socio

economic status, such as: parents' education and their occupation, and (7) the combination between cognitive, emotional, and behavior.

Based on the explanation above, it can be concluded that academic achievement can be a tool for measuring students' academic goal. Academic achievement can be seen from students' performance which many factor affect it.

2.3 Project-Based Learning (PjBL)

Here, the researcher is going to review some study related to the PjBL. There are three points, those are: (1) definition of PjBL, (2) the steps of PjBL's implementation, and (3) the benefit of PjBL.

2.3.1 The Definition of PjBL

Based on Ruby (2014), PjBL is a strategy which focuses on students-center learning from making decisions about the way to solve the problem, the content, and the process to develop the project. In the end of the activity, the students can compose a product which will be demonstrated in front of the class. Patton (2012) agrees that the students are the ones designing the project, planning what need to do, and carrying out the output such as a product, publication, or presentation. Even it is decided by students' selves, they also need teacher's help to get the engagement in learning process. It provides learning activity engaging students using scientific method to acquire new knowledge (Sasithev and Orawan, 2015).

PjBL is an instructional strategy in which the students can do all things such driving the learning, creating the project based on their interest, and presenting what they have created. They cause the improvement of students'

content language (Joel: 8). According to Zeliha (2014) and; Patton (2012), the students learn by making connections between what they already know and what they can learn through various processes under the guidance from the teacher who helps the students achievement.

It can be concluded that PjBL is a learning strategy which begins from current problem and ends by producing an authentic product. It includes students-center learning which brings up to the real life task into the learning process.

2.3.2 The Procedure of Implementing PjBL

The first procedure of implementing PjBL comes from Vlasta (2008). There are six stages, here the follows:

a. Bridging/ Lead-in activities

The topic which is dealt by students and teacher is introduced to the students by demonstrating a guided visualization, image, dialogue, dramatization, simulation, information-gap, or role-play.

b. Planning

From the demonstration in the first stage, the students and teacher discuss for the idea about what problem appears on it and make a plan what they should do in a project. In this stage, the students need to find out the ideas, topics, and themes so that they can develop their project from it.

c. Carrying out the project

After preparing all the need and make arrangement, the students begin to look for the needed information from any sources. The students allow gathering the fact that happen by conducting interview and survey or

observing specific environment. In this stage, the teacher monitors and checks the progress of students' project.

d. Creating the final project

After the student gather the needed information and then they discuss to create the final project. The final project can be shown such in posters, wall displays, charts, portfolios, leaflets, brochures, booklets, magazines or newspapers, video cassettes, exhibitions, or parties. They are also allowed to use a multimedia such PowerPoint presentation to show the final project.

e. Presentation and final evaluation

The students show their result in the presentation. It should well-organized, attractive, and not too long.

f. Evaluation

In the end of activities, the teacher evaluates by giving a valuable feedback toward the process of learning and the final product. Teacher should give comment, advice, and award to motivate the students. The students may give a comment or advice toward their own project and friends' project. Students also may tell the feeling and the difficulty during doing the project. This stage is important to improve the next projects.

Bell (2010) stated that there are four stages in implementing PjBL. The first is speculation in which teacher provides the choice of project topics initially based on curriculum and their real-goal life. The second stage is designing the project activities, referring to organizing the structure of a project activity that includes group formation, role assigning, concerning methodology decision, information

sources. The third is conducting the project activities in which the students work as what had been planned and designed in the previous stage by collecting the information, discussing with others friends, consulting the problems in their work with the teacher, and presenting their final products that can be in form of presentation, performance, product, or others. The forth is evaluation. The teacher and students evaluate the project organization, problems, or students' attitudes.

It is not quite different with the previous stages but it only has three stages in implementing PjBL (Rudy, 2014). The following are the stages:

a. Getting started

In this stage, the students make focus from the topic and predict the finding by connecting between what they had read or heard in other areas and in their daily lives.

b. Field work

The students collect the related information by observing the event, object, or place, constructing the model, and verifying their new understanding.

c. Culminating and debriefing events (Demonstrating and discussing section)

The students present their result in front of the class then open discussion to the class. After finishing, the students and teacher give feedback toward what the students have done during the activity at the day.

The forth step comes from *Permendikbud* (2013) conducts six steps in implementing PjBL, such the follows:

Start with the essential question



Design a plan for the project



Create a schedule



Monitor the students' project



Assess the project



Evaluate

Figure 2.1 (The stages of the implementation PjBL)

Firstly, the students are given an essential question of a particular phenomenon then the students choose a topic by investigating the question deeper. Secondly, the design is done collaboratively between students and teacher. This stage involves the role of project, the plan of activity, and the resources for helping them to do the project. Thirdly, the students and teacher create the schedule collaboratively. It involves the timeline and deadline for doing the project. Fourthly, teacher has responsibility in monitoring the progress of students' project. A rubric may become a tool for helping the teacher to be easy in monitoring them. Fifthly, the teacher can assess the outcome with the students, evaluate the progress of each student, and give a feedback about what they do.

From the stage, the teacher can compose the next appropriate learning strategy. Sixthly, the students and teacher reflect toward the activities and project which is done. It can be done individually or group. In this stage, the students may say their feeling and experience during doing the project. This stage is to improve the performance in teaching and learning process (Nugroho, 2014).

This study conducts in the class which uses PjBL as the learning strategy in order to the result of study can be more effectively and it can promote students' SDL and students' achievement more.

2.3.3 The Advantages of PjBL

According to Prarthana (2013) PjBL activity has many benefits both teachers and students. For the teachers, it can help them to enhance their professionalism through developing their learning process and perform in PjBL activity. For the students, PjBL does not only motivate them but also it can develop their skill in thinking critically and communicating with collaborative learning and SDL. Chiang and Lee (2015) agree that PjBL can enhance the students' motivation and give positive effect on the students' problem solving skill.

Based on Lisa and Jason (2014), the advantages of PjBL are the students' problem solving skill, practice skill, analytic skill, independent learning skill, SDL and reasoning skill can enhance. While, the disadvantages of it is PjBL is not suitable for sequential learning subjects, such as engineering, and needs to be adapted to meet the needs of the specific subject. Not only that It can motivate the

students and help the students to increase their communicative, cooperative, and creative skills (Olga and Aivar, 2015).

It can be concluded that by implementing PjBL as learning strategy, the students and the teacher get many benefits. One of them is the enhancement of their SDL skill.

2.4 Previous Study

There are some researchers who have conducted the similar study about the correlation between SDL and students' achievement. The researcher needs guideline in conducting this study that can help to get the better and more effective result of the study.

The first previous study was conducted by Ashraf and Kamisah (2015), this study examined the relationship between SDL skill and students' achievement in Malaysia. 83 students were randomly selected from 10th and 11th of secondary school as the sample. The students' SDL was measured by Self-Directed Learning Readiness Scale (SDLRS) and their achievement was determined by the science subject National Exam (NE) scores. There were 58-items which contain 41 positively stated items and 17 negatively stated items. Each items had 5-point Likert scale with the description "1 = almost never true of me", "2 = usually not true of me", "3 = sometimes true of me", "4 = usually true of me", and "5 = almost always true of me". The researcher used alpha-cronbach coefficient for measuring the validity and reliability of the items. In the end, Spearman-rho correlation coefficient was used for correlating both variable scores. The finding

of study is proved that there is significantly correlated between SDL and students' achievement.

Another study is more specific with adding the variable in it. It comes from Ana and Bianca (2014), this study examined the correlation between SDL and personality traits toward students' academic achievement. The researcher conducted in 121 undergraduate students from Romanian University. They used Self-Rating Scale of Self-Directed Learning (SRSSDL) to measure students' SDL. Students' academic achievement was measured by the academic result collected at the end of the academic year. There are 60 items of SRSSDL. There are five board areas of SDL, each area comparing 12 items: 1) awareness (explores students' understanding of the factors contributing to becoming self-directed students), 2) learning strategies (measure the various SDL strategies), 3) learning activities (measure the essential learning activities), 4) evaluation (measures students' specific attributes in monitoring the learning activities, and 5) interpersonal skills (measure students' skills in inter-personal relationships). The researcher used Five-point scale with the descriptions "5 = always", "4 = often", "3 = sometimes", "2 = seldom", and "1 = never". The researcher also used alpha-cronbach coefficients for measuring the validity and reliability and Spearman-rho correlation coefficient was used for correlating both variable scores. The result of this study is SDL and personality traits are strongly correlated and predicted a good students' academic achievement. As the explanation before that the study which is more specific by conducting with other related aspects or using any certain learning strategies has more effective and better result (Klotz, 2011).

From the previous studies above, it seems that students' SDL correlates with students' achievement. It encourages the researcher to conduct and enlarge the research about the correlation both of them. There are some differences between the previous study and this study. First, this study focuses on examining between SDL of English subject and students' achievement, meanwhile both previous studies examined between SDL and students' achievement out of English subject. Second, the place where the researchers conduct is also different. The last is about the learning strategy. In this study, the researcher wants to correlate SDL and students' achievement by using PjBL as the supporting learning strategy in it, but the first previous study is conducted in general learning strategy. The second was also different by adding the other related aspects that is personality traits.

Even this study and both previous studies have similar variables in SDL and students' achievement, the result of this study may be different because it has different focus and setting. As long as this study carries out the different focus and setting, it still comes up the problem statement whether there is correlation between SDL and students' academic achievement through PjBL at university students.