

PROMOTING AUTONOMOUS LEARNING SKILLS THROUGH PROJECT-BASED ACTIVITIES IN ONLINE SETTINGS

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Abstract: Adult learners are conscientious learners. They are aware of their education in many ways: what they want to learn, goals they want to achieve, and how they will achieve their goals. What makes adult learners different is that they are expected to have autonomy in their own learning. However, not everyone can show their autonomous learning skills due to various factors, one of which is their experience in the teaching and learning process in the classroom. This research describes the application of project-based learning activities to foster autonomous learning skills among university students in the online classroom setting. The study is designed as qualitative research in which data is collected from online classroom observations and semi-structured interviews conducted with selective participants. There are 60 participants who are divided into two groups. The results of the data collection were analysed using a framework developed by Miles, Huberman, and Saldana (2014) which is divided into three stages: data reduction, data display, and conclusion drawing and verification. The result shows that project-based learning activity develops student skills to be autonomous learners.

Keywords: *autonomous learning, adult learner, project-based learning*

It is generally accepted that adults learn in a different way compared to children. One of the substantial differences is that adult learners are expected to show autonomy in their learning. They are supposed to be aware of their learning and are independent learners. They are considered as goal-oriented students who know that the purpose of their learning is to meet a particular aim or goal (Illes, 2019). However, it is important to note that students' learning autonomy regardless of their age is influenced by many aspects and one of them is how they have been taught from the early stages.

In the Indonesian context, educators are still trying to overcome the deeply ingrained habits of having teachers as the centre of teaching and learning. Teachers are considered as the main source of information; students are expected to listen to them, and less involvement in the classroom activity is considered to be acceptable. Furthermore, as Resnick (1987) noted schools are often unable to provide the learning experience that students need when they are out of the school context (as cited in Garcia, 2016). Students learn things in an isolated way that makes it hard for them to see a connection between what they learn and what they need in a real situation. When they can establish a connection, their learning experience will be more meaningful (Gohmann, 2017). The main purpose of education will no longer be to transfer knowledge but to prepare students to be ready as members of society.

A shift in the teaching and learning habits in Indonesia has been carried out at all educational levels, including the university level. More activities have been introduced to maintain students as the centre of teaching and learning in which they participate actively in their education. It is important to design classroom activities that will familiarise and encourage students to be active learners. This way, they will be able to discover a connection between what they learn and their daily life. Project-based learning activity is believed to be one way to achieve this connection.

Project-based learning is not a new method. Its principles are based on the constructivism learning approach. In earlier research, it has been found that project-based learning emphasises a learner-centred approach (Chanpet, Chomsuwan, & Murphy, 2018), student-driven activity (Gohmann, 2017; Bell, 2010), collaborative learning experience (Bell, 2010), authentic learning activity (Gracia, 2016) and social

skills practice (Mali, 2016). Strong emphasis is given to the learning process instead of the final product. A classroom that applies a project-based learning activity puts students at the centre of the activity guided by teachers. It is the opposite of the traditional classroom where teachers' abilities are the focus of teaching and learning. In project-based learning, students' abilities to respond to the issues discussed are highlighted. It is more contextual and less abstract (Garcia, 2016; Mali, 2016).

Project-based learning is an approach that allows students to develop in two ways: as an individual and as part of a team. As an individual, they will learn to take responsibility, be more independent of their learning and to be able to solve problems given to them. As part of a team, they will learn to work collaboratively and to enhance their communication skills. In addition, students are required to display multiple learning skills throughout the completion phases of a project (Liu & Lee, 2010). Learning is not a one-time process but a continuous process that involves ongoing discussions between students and teachers (Chanpet, Chomsuwan, & Murphy, 2018). Its two-way communication in teaching and learning establishes an understanding that students do not merely listen to teachers, but they need to have an active contribution to their learning. Knowledge is not given to students; they acquire it themselves by completing a project which means that it will stay with them longer. As described by Little (1995), when students are actively engaged in their learning, they will maintain their learning motivation better than others; thus, it is likely they will reach their goals. Garrison (2007) also explained that in project-based learning students will be the ones who make a plan, explore the issues given and decide on a solution for the issues. It is believed that it provides an opportunity for students to be involved and be more active in their learning. Furthermore, it encourages students to have a deeper understanding of the subjects they study (Bell, 2010). As students are required to use multiple skills in completing a project, Aldabbus (2018) also believed that project-based learning is not only about content understanding but also about developing students' attitudes and social skills.

In the 21st century, students need to be able to put abstract knowledge into practical use in their daily life. Hakkinen, et al. (2017) mentioned several skills which are developed through project-based learning experience and are crucial in 21st century life. They are: critical thinking, problem solving, interpersonal communication, information and media literacy, cooperation, leadership and teamwork, innovation, and creativity. These are the skills which will be developed concurrently when students have the ability to be autonomous in their own learning. Learning autonomy involves students' awareness of what they learn, of themselves as an individual, their purpose and what they need to do inside and outside of the classroom context (Hendar, 2014). Students are responsible for their own learning and are capable of personalising their learning style (Littlewood, 1997, as cited in Illes, 2019). Students who have autonomy in their learning know how they learn best, are able to determine their goal and pursue their goal through a selection of steps that they decide for themselves (Ahmadzadeh & Zabardast, 2014). Autonomous learners are capable of taking responsibility and fully aware of their learning (Holec, 1980, as cited in Masouleh & Jooneghani, 2012). They are effective learners for they learn by doing, are able to work collaboratively, and are problem-solvers (Pinho-Lopes & Macedo, 2014).

Students' learning autonomy and project-based learning are highly compatible and are essential to one another. Both project-based learning and autonomous learning emphasise students as the centre of teaching and learning. Both believe that each student has the capacity to learn independently only if they are given chances to develop the skills. It is argued that autonomous learning skills should be activated and developed through teaching and learning activities in the classroom (Masouleh & Jooneghani, 2012). This view is in line with Holec (1980, as cited in Masouleh & Jooneghani, 2012) who proposed that with an appropriate learning environment even less independent students will be able to develop themselves through their learning. It suggests that to have a project-based learning activity to run successfully in the classroom, students should possess the ability to perform independently and in a team. Similarly, to ensure that autonomous learning skills are achieved by students, they should be exposed to activities that require them to do so, i.e. project-based learning activities.

The benefit of project-based learning is that it can be applied in any learning context and circumstance. Thus, it can be applied well even in the online classroom setting. This research looks at the application of a project-based learning activity in the online classroom and explains how the activity has the potential to build the students' autonomy in learning. The results of the study add practical information to the existing research about the application of project-based learning activities in a fully online classroom.

METHOD

Setting of the Research

This study was designed as a qualitative study to analyse the application of a project-based learning activity in the online classroom for university students. Exploratory descriptive method in defining, gathering and analysing data was used to support the research process. The major aim was to provide an illustration on how a project-based learning activity can be applied to encourage autonomy in students' learning. It supports the idea that project-based learning is one of the teaching methods that can be used to promote learning autonomy for students' independence. The study was conducted during the final semester of the 2020/2021 academic year. The participants of the research were 60 students from Mahasaraswati University which were divided into two classes. One class had five project groups and the other had eight project groups. The participants were selected using the purposive sampling method. The research covered seven main meetings provided by the university and six extra meetings were arranged due to the number of groups and limited time in each meeting to cover all group presentations and discussions. Data were collected in two ways: online class observations and semi-structured interviews.

Data Collection and Data Analysis

The study employed two data collection procedures: online class observations and semi-structured interviews. Figure 1 below illustrates how the project was conducted in the online class and how much involvement the lecturer and the students had in each step.

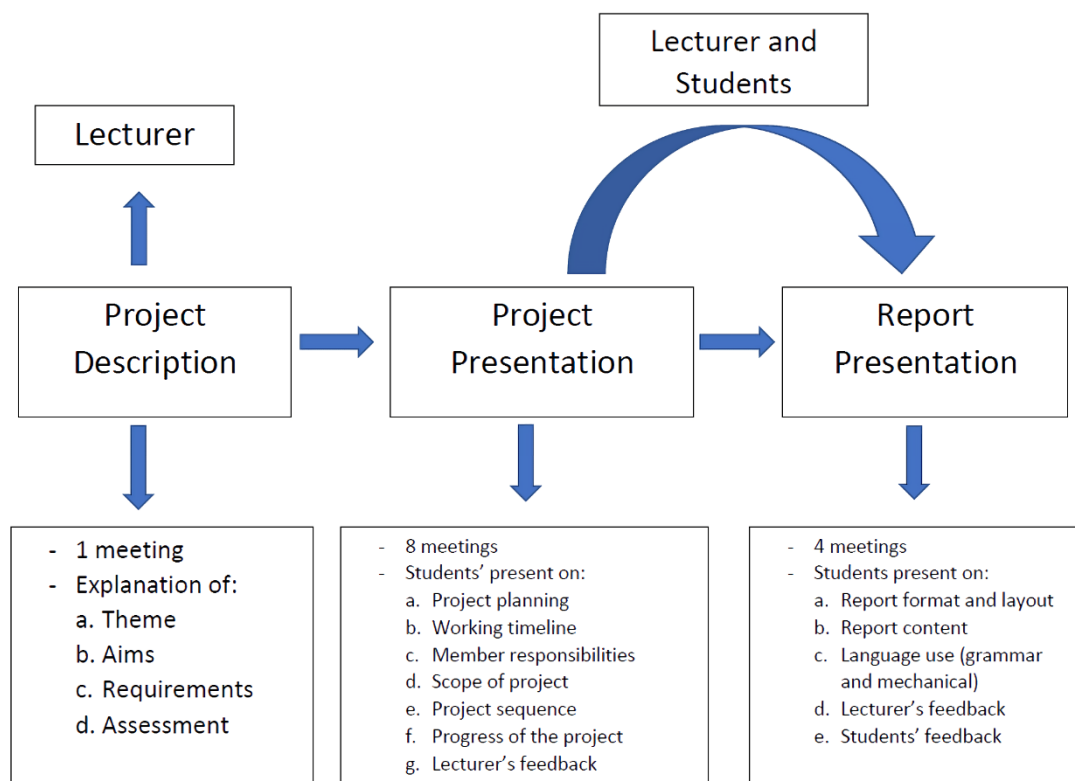


Figure 1. Project Procedure

The project was divided into three procedures which had different time allocations. The project was initiated by the lecturer who explained the requirements. In this part, the involvement of the lecturer was more than the students. Even though there were discussions at the end of the session, the session was mostly conducted to provide a general idea on what the students could do for the projects. At this point, the teaching and learning in the classroom were more into a teacher-centred approach. The second stage was the main activity of the project. In these sessions, the students presented their plans and the progress of their project. At the same time, their presentations were evaluated by the lecturer and other students. In this part of the research, the involvement of the students was greater than the lecturer. In this stage, the students' autonomous learning skills, activeness and interaction with peers were also observed. Thus, it is suggested that this part of the research encouraged a student-centred approach to teaching and learning. The final stage in the project was report presentations. Similar to the second stage, the involvement of the students was higher in this section than the lecturer. The same aspects were also observed in this final stage. From these three procedures, primary data for the research was collected.

All of the primary data was gathered through thirteen online class observations. Secondary data was gathered after completion of the project from those who agreed to join the interviews. The interviews were conducted to get a more personalised explanation from the students who experienced completing the project and its impact on their learning. The result of the interview would also enrich the result of the primary data collection and analysis.

The primary data collected from the online class observations was analysed using a framework developed by Miles, Huberman, and Saldana (2014) which is divided into three stages: data reduction, data display, and conclusion drawing and verification. During the initial data analysis procedure, the raw data was examined to allocate similar activities that can be put into groups of themes. Once categories of data were determined, they were displayed visually. Figure 2 provides a summary of the findings in which three themes were identified: independent learning, collaboration skills, and active learning. The result of the interviews was used to support any findings found in the primary data analysis. Lastly, a conclusion of the findings was drawn.

FINDINGS AND DISCUSSION

From thirteen online classroom observations, the first meeting was established to provide information about the project. It was necessary to avoid the students being confused and to allow them to initiate their project by forming groups. How the students learned and constructed their knowledge was analysed through the remaining twelve meetings. Findings of the research show that there are three main themes related to autonomous learning skills that appear from the application of the project-based learning activity in the online classroom, namely independent learning skills, collaboration skills, and active learning skills. These themes were obtained from the result of the online classroom observations which were supported by the participants' responses during the interviews. Figure 2 below shows the findings from the online classroom observations. It is shown that learning did not mainly happen inside but outside the online classroom through communication about the projects to the wider student audience. Through their presentations, the students showed their capability in undertaking independent learning, working in a team, and being actively involved in their learning. It is necessary to note these skills were not presented in an isolated way, but the students simultaneously showed them as one learning procedure.

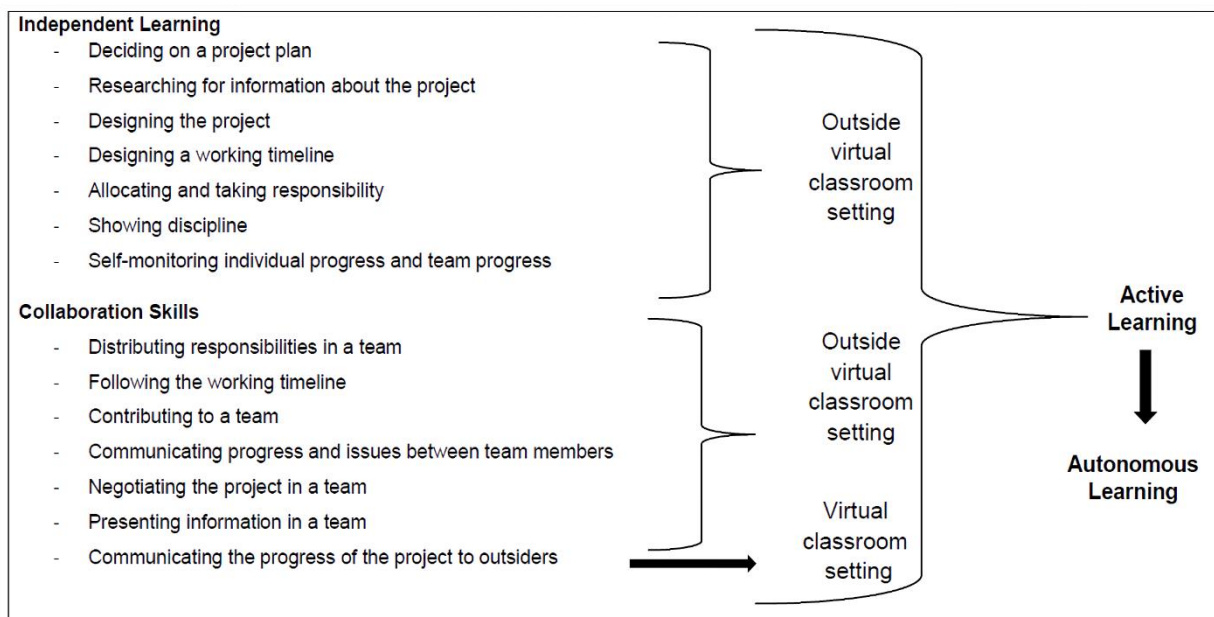


Figure 2. Classroom Observation

Having the ability to learn independently is a major requirement for completing a project-based learning activity. In this study, the students' independence was observed in how they prepared for their project. During their project presentations, the students demonstrated ability to make a plan, elaborate information to support their project, design a product for the project, and work on time management. Liu and Lee (2010) looked at this as a way to enhance students' ability in comprehensive skills. Meanwhile, Gohmann (2017) named these skills as life skills that students need to have once they are out of the school environment. The participants also showed that they were aware of the responsibilities given to them. These learning experiences helped them in completing their project. As English and Kitsantas (2013) explained, responsibilities and participation are necessary to be active in a project-based learning activity. Furthermore, the students' awareness of their responsibilities and consequences for not taking the

responsibilities is captured in one of the extracts from the interview results, “What I realised about the project was that my grade did not come from my efforts only. It came from all efforts given by all team members. If one member did not make any effort, the work would automatically be transferred to the other members. Otherwise, we would not be able to properly work on the project” (St.2).

Another noticeable finding related to the students’ independent learning skills based on the results of classroom observations was that each group demonstrated an original and authentic project plan which was divided systematically into several sections throughout their presentation meetings. This authenticity provides a chance for students to connect what they learn to a real-life situation. “... It helped me in exercising my practical knowledge regarding applied linguistic in the internet setting. Planning and curating learning media required creative thinking so that the target audience could accept it well and I as the content creator was able to vary and enrich my learning experience” (St.5). This finding is in line with Gracia’s (2016) idea that when students experience authenticity in their learning, their learning outcome will be influenced in a more effective way as well. As the learning process was originally initiated by students, it means that they will be more motivated to learn. “It was interesting as I had better learning experience” (St.2); “It was motivating as in this project I could learn to develop my own idea and there was no wrong or right idea. It’s a matter of how you developed the idea” (St.3). It means that as well as adding onto their content knowledge understanding, having full involvement in their learning also stimulates their confidence as a learner (Liu & Lee, 2010).

The result of the student’s independent learning skills also highlighted the idea that each student learned in a different way and their different styles contributed to the project differently. Differentiation means that every student has an equal chance to develop their interest for an in-depth learning experience (Bell, 2010; Cintang, Setyowati, & Handayani, 2018). Instead of looking at these differences as negative factors, in project-based learning students are given a choice for their learning. Having a choice is important for students as it helps them to better understand their learning styles and motivates them to learn better (Aksela & Haatainen, 2009). This can be seen in the projects proposed by the students. The projects differed in content knowledge and presentation. They showed a personalised project based on each group’s characteristics. Even so, the students’ learning experiences were quite similar. Regardless of their final product, each student experienced the same learning process which consisted of planning, decision making, researching, collaborating, and communicating information. It means that learning does not focus on the final product but on the ongoing process that students experience during the course of time they need to complete their project. As Chanpet, Chomsuwan, & Murphy (2018) highlighted, through regular discussions and feedbacks during the learning process, students are fully guided to construct their knowledge and understanding.

The second theme that emerges from the study is collaboration. In the twenty-first century, collaboration is something that we should nurture. Society starts to see things from the perspective of the community not the individual (Laal & Laal, 2012). “I learned to work in a team” (St.5), a straightforward answer was given by one of the participants. “During the preparation time, I had to explore my ability to work in a team at the same time to work on my own responsibility” (St.10). “The project did not give an option to work on it alone. For me, learning how to work in a team was the most I could get from the project. To be part of a team means that I need to communicate my ideas to them, to adjust my time and to learn to compromise things” (St.3). It is clear from the responses that the activity given provided a chance for the students to elaborate their social skills. These skills were applied throughout their preparation and presentation time in the classroom. This is in accordance with Bell’s idea (2010) that project-based learning will help students to practice their skills in ‘communication, negotiation, and collaboration’ (p. 40). It means that students not only learn about the content of the knowledge but also the process to get the knowledge and finally to communicate that knowledge to others so they will understand. According to Aldabbus (2018) this type of learning is recommended for long life learning.

As students develop their independent learning and collaboration skills, they will also foster an ability to be active in their learning. It is a situation when students are no longer passive learners in their learning (Paulson & Faust, 2010, as cited in Fayombo, 2012). As can be seen from the online classroom observations, the majority of the learning process happened not inside but outside the online classroom. The online classroom was designed as a platform for the students to communicate their projects to others and gather feedback for the continuation of the projects. In other words, the project allows students to take an active role in their learning (Cintang, Setyowati, & Handayani, 2018). Furthermore, the study showed that the lecturer is also seen not as the major source of information, rather as a facilitator, guide, and motivator. “This project was not an easy task. Yet, having regular meetings with the lecturer and other groups member ensure me about the project that we worked on. They helped me see things that needed to be improved” (St.1), explained by one of the interview participants.

Both independent learning and collaboration skills are essential skills that students need to have to be able to have autonomy in their learning. As what O’Malley and Chamot (1990) proposed, autonomy in learning consists of “cognitive strategy, metacognitive, and social mediation strategy”. In the current

study, these three strategies were demonstrated well by the students during their presentations. Cognitive and metacognitive strategies can be seen through independent learning undertaken by the students. Meanwhile, social mediation was reflected in the students' ability to collaborate with others. Therefore, during their participation in the project-based learning activity, the students gradually showed their capability as autonomous learners.

CONCLUSION AND RECOMMENDATION

In the future, students will leave school and university and be part of society. They will not be judged on how good their grades are on their certificate. They will be valued on their ability to work independently, in a team, negotiate, plan, or organise things. Based on the findings above, it can be summarised that project-based learning is a teaching method that allows students to develop as individuals and as members of society. The project-based learning activities employed in this study emphasized the mastery of two major skills for students. These are the active learning and autonomous learning skills. The findings show that project-based learning activities will help students to be independent learners by providing chances for them to decide on a plan, research information, execute a plan, and take responsibility for their learning and the task given. Furthermore, students' social skills are also developed throughout the course of the project. Students learn to work collaboratively in a team and to communicate their understanding to others. When students are able to develop these skills, they are considered to be active in their learning and are conscious of their learning. Thus, they are no longer passive learners but active learners. In conclusion, project-based learning activity promotes students' academic understanding, students' emotions, and students' social skills. When these three skills are developed well by students, autonomous learning can be achieved.

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