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USING PROJECT-BASED LEARNING TO PROMOTE DIGITAL LITERACY: STUDENTS' PERCEPTIONS

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Abstract

Project-based learning has been studied and believed as one of the approaches that are effective to be used in teaching. This study aimed at finding out students' perceptions of the use of PjBL in promoting digital literacy. The study was framed under a qualitative case study in which observation, questionnaire, and interview were administered. The data was taken from a private university in West Java. The findings show that students have positive perceptions of PjBL. It is believed that PjBL has helped students not only in achieving the goal of the learning process but also in extending their knowledge and point of view. Further study on a bigger scale on PjBL is suggested.

INTRODUCTION

A broad range of skills relating to the use of digital media, computers, and ICTs are referred to as "digital literacy" (ICTs). It is frequently believed to include (or to have absorbed) a variety of other forms of literacy, including media literacy, information literacy, computer literacy, and internet literacy. It is stated that it is possible to pinpoint a future, critically oriented route for digital literacy by taking into account how various sectors have developed and may align in the future.

The experience of an educational curriculum evolves with time. The ongoing digital revolution is a factor in the current curricular revisions (Lamers & Van Den Oetelaar, 2012). One's perception of learning resources is also impacted by the effects of such changes. This point of view starts with the idea that the instructor is the only source of information. Learning materials can now be gleaned from a variety of sources, including textbooks, print and electronic media, the natural world, and other pertinent learning resources (Permendikbud RI 2016 No. 22). Also, this is consistent with the ongoing industrial revolution, which calls for all school administrators to be ready to adjust to changes driven by information technology as the change agent (Fraillon, Ainley, Schulz, Friedman, & Gebhardt, 2013). A learning resource is anything that has to do with people, information or other things that students can utilize as a tool for learning as effectively as possible (Ely & Gerlach, 1978). The availability, the capacity for learners to refer to themselves, and the ability to satisfy the learners' needs for independent learning are some criteria in the selection of relevant learning resources (Percival & Ellington, 1984; Warsita, 2018). As a result, it is crucial to ascertain that teachers understand the use of digital literacy as a crucial learning resource.

One of the ways to promote it is by using project-based learning. It is argued that students should be given the chance to engage in actual problem-solving and knowledge-building in legitimate professional situations. Project-based learning is a desirable strategy for achieving this objective (PjBL). The impacts of PjBL and instructors' direct instruction on students' academic progress in elementary, secondary, and university education (Chen & Yang, 2019) review. This study aims to discover students' perceptions of project-based learning in promoting digital literacy.

LITERATURE REVIEW

Digital Literacy

There is a lot of interest in the definition of digital literacy. As was already said, the phrase is typically used to describe a group of skills connected to the expert use of computers and information technology. Digital literacy, according to a definition provided by Paul Gilster that is frequently used, is "the capacity to comprehend information and—more crucially—to assess and integrate knowledge in a variety of formats that the computer can convey" (Gilster as cited in Pool, 1997, p. 6).

Gilster's (1997, p. 15) claim that the emphasis should be on "mastering concepts, not keystrokes" further distinguished digital literacy from alternative, technology-focused approaches and had a significant impact on how the discipline developed. By distinguishing between standardized operational approaches (where the emphasis is upon assessing inconsistent abilities connected with the operation of computers and digital media), Lankshear and Knobel (2006, 2015) further define the concept. For instance, Jones and Hafner claim that digital literacy is related to interacting with the "affordances and limits" of digital tools and conceptual approaches, where the emphasis is on creating strategies for interacting with digital media (2012, p. 13).

Gilster, for instance, believes that "knowledge assembly" is related to digital literacy (1997, p. 9). As a result, many people believe that digital literacy is a set of talents rather than a

single action or set of skills. A number of authors (such as Pangrazio, 2016) urge a reconsideration of digital literacy in light of the diversity of foci. An idea for moving forward is to connect digital literacy to the larger subject of literacy. Such methods have attempted to employ a social philosophy of digital literacy, which sees literacy as being realized through social activities (Bhatt & McKenzie, 2019).

Project-Based Learning

Studies demonstrate that pupils in PjBL classes and institutions outperformed their peers on tests of content knowledge (Hernandez-Ramos & De La Paz, 2009; New Tech Network, 2015; Tretten & Zachariou, 1995; Vega, 2012). PjBL also increased students' motivation and engagement, and they displayed better critical thinking and problem-solving abilities (New Tech Network, 2015; Tretten & Zachariou, 1995). Lastly, PjBL has aided pupils in enhancing their teamwork abilities (Barron & Darling-Hammond, 2008; ChanLin, 2008; Horan, Lavaroni, & Beldon, 1996; New Tech Network, 2015).

In project-based learning, students transform the information they learn into more meaningful understanding in their activities. Students don't necessarily need to memorize facts in order to learn. However, it pushes pupils to create information in their thoughts in order to stimulate creativity and activity and find solutions to the issues they encounter. Under the PjBL paradigm, students work on a project that helps them solve challenges (Sani, 2014). Students can expand their creativity through this learning by planning and creating projects that can be used to address issues in the classroom. According to research findings (Surya et al., 2018), project-based learning (PjBL) model science instruction is superior to traditional instruction.

RESEARCH METHOD

This study is framed under a qualitative case study. According to Yin (2003, p. 219) a case study design should be considered when: (a) the focus of the study is to answer "how" and "why" questions; (b) the researcher cannot manipulate the behavior of those involved in the study; (c) the researcher wants to cover contextual conditions because the researcher believes they are. relevant to the phenomenon under study; or (d) the boundaries are not clear between the phenomenon and context. The participants of the study consist of 25 students from one of the private universities in West Java. Data were collected through three stages, observation, questionnaire, and interview. Observation is done to get some information during the learning processes in which the project-based learning was applied. After the observation was completely done, the researchers shared a questionnaire consisting to check respondents' perceptions about project-based learning in promoting digital literacy. The result of both observation and questionnaire was then followed up with an interview. All data collected were then analyzed and a conclusion was derived.

FINDING AND DISCUSSION

Project-based learning is fun

From the data analysis, it is found that PjBL is seen as a fun way of learning. It can be seen from the respondent's response during the interview. It is depicted in the following excerpt.

> *"the learning process (using PjBL) is not boring. It is colorful and I enjoy the process"*
> Excerpt 1.

The excerpt above informed us that PjBL can create an atmosphere during the learning process to become conducive in which students can cooperate and process well the activity. The respondent even mentioned that the class had a colorful process. This is in line with the study

of Bucholz & Sheffler (2009) that the environment of a learning process has a big impact on learning processes.

Project-based learning is effective

PjBL is said to be effective because some respondents find it easy for them to update information and scaffold their knowledge. This can be visualized from one of the respondent's sentences from the interview.

> *"I think (that PjBL) it is more effective and easier for me (having project using digital media) because I can update myself by knowing the latest information at international level"* Excerpt 2.

Working on the project was something that is seen effective activity from which students could work in more effective ways. In addition, they could also update themselves with the information that was up to date when they were working on the project. The project itself exposed them to much information from which they got scaffolded in terms of knowledge. This finding has supported a study by Sarkar (2009).

Project-based learning is eye-opening

Some respondents mention that PjBL helped them to get more information that made them realize the knowledge available in the world. One of the sentences mentioned is as the following.

> *"by doing it (working on the project), I knew many things and I could access anything I want"* Excerpt 3.

The sentence from the excerpt above describes the experience of some respondents. Working on the PjBL enable them to get to know new things. They also access many information that help them to open their eyes to the world. This PjBL facilitates the students to open their point of view to the world. This is similar to the study conducted by Li & Lee (2016).

CONCLUSION

The implication of this study is that teachers should use project-based learning in their teaching which can make the learning process more effective and fun. PjBL offers spaces to allow authentic language use in real-life contexts since PjBL starts with a problem presented in the same context as it will be encountered in real life (Kumaravadivelu, 2001). Teachers can adjust the kind of projects that they want to apply in their classrooms, to make the learning process more colorful. This study itself has its limitation, the setting, which is in a small scope. Further studies are suggested to focus on a bigger scale to get bigger effects.

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