The Effect of Creative and Educative Games on Project-Based Learning on Students' Learning Spirit in the Pandemic Period

Eka Kurniasih[✉], Ulfi Ukhrowati, Novi Utami, Tazkiyah Himmatul Ulya, and Mohammad Givi Efgivia

Magister of Educational Technology, Ibn Khaldun University, Bogor, Indonesia
`ekakurniasih70@gmail.com`

Abstract. Indonesia is one of the countries affected by the Covid-19 pandemic and this condition has a significant impact on the world of education, including from basic education to higher education. The next face-to-face learning is dominated by distance learning (PJJ) which is better known as online learning. The application of physical distancing rules is also the reason for the emergence of innovation in adjusting the learning process so that the learning productivity of students develops. The choice of Project-Based Learning with a combination of games in the learning process is carried out to optimize the learning process by dominating online for students. Writing objectives are taken from the learning process experience of class VIII students of SMP SMART Ekselensia Indonesia. The assessment process is carried out through games activities with an assessment score arranged in an assessment rubric and socialized online to students. Begins from the experience gained, online assessments can develop student productivity. It can be seen from the content of creativity and the score obtained learning of project-based is an appropriate alternative to online learning models compared to old learning models.

Keywords: online assessment · Project-based learning · pandemic period

1 Introduction

Learning that is applied to students is expected to always be able to improve the competence of students in existing conditions. Especially during the Covid 19 pandemic which has not ended yet, students are still predominantly learning at home with a distance learning system. This is according to the statement of the Circular of the Minister of Education and Culture R1 number 3 of 2020 which contains the Prevention of Corona Virus Disease (COVID-19) for the Education Unit, and number 4 of 2020 concerning Learning from Home through Distance Learning. Regarding the impact of the pandemic, learning activities are adapted online to address this problem. Online learning or the concept of distance learning is one solution.

The distance learning process which is carried out by utilizing the internet network is a step to ensure the learning process continues to run well. Teachers or educators also

face challenges to be able to create interesting and fun learning. The process of adapting to this change will be a positive solution for the distance learning process. Learning online (online) to be significant must be accompanied by an appropriate learning pattern strategy. Learning of based project through of distance learning or online. Abidin said that project-based distance/online learning will increase the productivity of students so that it becomes a solution to problems. Yuliani (2020) conveyed regarding the learning of project-based as an appropriate online learning activity because of the involvement of students in collaborating, being independent, researching, and carrying out a good evaluation.

This writing aims to determine the differences in higher-order thinking skills between students who are taught with the learning of project based (PjBL) model and students who are taught using conventional models in terms of achievement motivation. (Fitri et al. 2018). One learning model that is appropriate scientific characteristics and a high level of thinking is the learning of project based (PjBL) model. In line with this, Zubaidah (2017) states that project-based learning is an ideal model to meet the goals of education in the 21st century because it involves the 4C principles of critical thinking, communication, collaboration, and then creativity (Fitri et al. 2018).

In the field of Integrated Science, students of class VIII SMP SMART Bogor are given a project task, namely designing a creative and educational game tailored to the given topic. Regarding the assignment, the teacher assesses the creative and educational game work of students. This assignment is done in an effort to explore the creative spirit of students and avoid boredom in learning. It is hoped that online learning does not reduce the quality of students' competencies, so the learning pattern is adjusted to the character of the students.

Learning of Project-Based can provide participation in efforts to develop the talents and creativity of students, enthusiasm and interests, obligations, the ability to correspond with the environment, social skills, and efforts in solving problems. Next, students who get assignments through the learning project-based are given authentic assignments that are expected to accommodate students to design concepts that have been obtained and try to apply these concepts in real life (Shin 2018). Learning activities have transitioned to distance learning or online so that online media policies are needed to streamline the implementation of learning activities until the final process of assessing students' creations.

Assessment of assignments that are also carried out online. Yuliana (2020) said that the task assessment process begins with the planning, implementation, and appraisal process as a result of project work. The teacher also determines several stages to arrive at the assessment, namely making game design (creativity), game testing (education), and product delivery (presentation). Next is to support the distance learning process or online using media, such as Whatsapp, google meet, and other social media. The process of assessing the work and assignments requires careful supervision through a factual assessment of the work that students collect in a structured manner. The assessment process can be carried out through the Whatsapp facility to monitor the implementation of tasks or google form.

2 Method

The measuring instrument in this writing is done through testing or using games on students in groups. The group carries out a pattern of learning activities with learning of project-based. Meanwhile, the control group carried out learning activities using task based learning. In this assignment, the authors conducted a project appraisal as a posttest and differentiated it from using the learning project-based.

SMP SMART is the location for the implementation of learning of project-based which will be held in the 2020/2021 school year in the Integrated Science study field. Students in class VIII SMP SMART for the 2020/2021 school year as many as 40 students will be used as subjects for this experiment. The author chooses this subject due to the similarity of characteristics of students and the same treatment process will be carried out by the educators.

The data collection that was carried out was primary data obtained from scoring the assignments of students using the scoring rubric. Meanwhile, secondary data will be obtained from the results of applications using student product games as learning of project-based. The experimental instrument to assess students' creativity in the form of a product scoring rubric was taken from adapting the journals of Herlina (2018) and Saputri (2017) which then adjusted the discourse and content in the scoring development process, which used four scoring aspects with each having the criteria as sub scoring aspect. The scoring rubric uses a range of numbers 1–4 where each score contains aspects and indicators that are described of the products that are produced gradually (Putri, 2014).

3 Results and Discussion

The implementation of teaching and learning activities with learning of project-based is carried out in several levels, namely dialogue with peers and guidance from the teacher, preparation of learning schemes that are synchronous with the learning of project-based model then carrying out tasks according to their respective productivity, namely designing creative and educational games. In the process of actualizing work assignments, each student does it in groups. The scoring technique is carried out in each phase of the learning project-based. The teacher scores through social media, namely WhatsApp.

Munawaroh in Yensy (2020) explains that dialogue can be carried out between students and teachers through the use of existing social media to send game products and also ask about problems related to the task. The problems that arise can be found a solution through WhatsApp by starting with a photo or taking a picture and then sending it via the WhatsApp group. It is hoped that other students will have the opportunity to participate in finding these solutions. The teacher can also provide direction at each step of the assignment carried out, then provide advice and direction to students when there are problems while doing assignments.

Learning project-based is capable elaborate on students' understanding better than the (traditional) class-based learning process and capable to increase the productivity of students (Bhagi 2017). The productivity of students when making learning game designs will display good scoring results if a comparison is made with face-to-face

learning models. The productivity in the learning of project-based was also conveyed by Talat and Caudry to Astawa (2017) who said that the application of learning project-based can increase productivity and generate creative creativity. The discovery of new ideas from students will improve the quality of the project and also involve students as initiators.

Students in developing new ideas are actually developing knowledge obtained from teachers through the teaching and learning process (Sari, 2018). Students will produce new works for other educational game models. This product is expected to show substantial value so that it can be concluded that the influence of creative and educational games on learning of project based on students' learning enthusiasm.

4 Conclusion

Assessment of the learning process during the pandemic inspires educators or teachers to adapt to the development and use of technology. Online learning and assessment activities or known as distance learning cause students to have the opportunity and be motivated to develop their creativity for the purpose to produce new works. Scoring learning taken online by optimizing the Whatsapp facility is considered to be able to foster the ability of students to always be involved in the learning process and work on assignments. Through the selected learning of project-based model, making creative and educational games becomes a challenge and encouragement for the creativity of students. The use of learning of a project-based model requires good preparation, choosing the right topic, and giving confidence to good students for the purpose to obtain optimal results, especially in the field of Integrated Science. Students are inspired to produce beautiful and original creations. The hope is high, this writing will continue its refinement to obtain optimal results.

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