



Alternative Assessment for Movement Skills in Physical Education: The Effectiveness of Online Self and Peer Assessment

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Abstract. The purpose of this study was to determine the effectiveness of online self- and peer-assessment for movement skills in physical education in responding to the health crisis due to the COVID-19 pandemic, to ensure an effective assessment in the “new normal” period. Online assessments conducted by students themselves and peers will be compared with teacher assessments. 73 students of class XI of SMA Negeri 2 Situbondo became the research subjects. Data were collected from the results of self-assessment, peers and teachers on lay-up shooting skills. The results showed that self-assessment ($p = 0.444$) and peer assessment ($p = 0.671$) were effective in assessing movement skills. Based on the findings of this study, the use of instructional videos and assessment training for students should be considered to make the assessment more effective.

Keywords: COVID-19 · Assessment · Physical Education · Movement Skills

1 Introduction

Assessment is an important factor in educational attainment. Education can achieve success if it uses appropriate assessment. The domains of attitudes, knowledge, and skills are areas of assessment that must be assessed by teachers according to the 2013 curriculum. The teacher as an assessor of students by adjusting the type of assessment used and the level of assessment in the three domains must be the same or balanced. Teachers play an important role in learning and assessing student learning outcomes. Value is one of the characteristics of knowing the level of ability of students, therefore as educators must make appropriate assessments.

Physical Education (PE) is a compulsory subject from elementary to high school. According to Le Masurier & Corbin, PE is the only subject that gives students the opportunity to learn, gain knowledge and to participate in physical activities [1]. PE is a subject to develop the ability of students by involving motor skills, in which it provides opportunities for students to carry out movement activities. Movement activities of students become aspects of assessment in the psychomotor realm. PE is called a

subject that is very dominant in the realm of skills compared to the realm of attitudes and knowledge.

During the Covid-19 pandemic, learning activities are carried out online. To reduce the spread of the Covid-19 virus, activities are limited, one of which is in the context of education. The government has instructed the implementation of learning from home. Online learning activities from home are carried out so that students get educational services during the Covid 19 emergency. Thus, teachers are more challenged in conducting learning activities and assessing students. Learning is done online, so the assessment is automatically done (online assessment). Adjusting current conditions with online learning from home and online assessment in the realm of skills is carried out by self-assessment (SA), peer assessment (PA) and portfolio assessment.

Learning about the use of self-assessment and peer evaluation has long been applied as evidenced by the many studies that already exist discussing this matter. Research on the application and effectiveness of the use of self-assessment and peer assessment has been carried out. However, research on the effectiveness of self- and peer-assessment that exists is only in the realm of attitudes and knowledge, while in the realm of skills there is still no available, especially in PE subjects. The following existing research on self- and peer-assessment: (1) a study on perceptions and challenges of self- and peer-assessment whose results stated strong results on self-assessment and peer assessment as formative assessments between teachers and students learners [2, 3]; (2) regarding the effect of using self-assessment and peer assessment, the results of which state active learning because it uses the assessment itself, in addition to research on perceptions, challenges and the effect of using self-assessment and peer online, research on the application already exists as follows:; (3) “Self-Assessment in Massive Open Online Courses” [4]; (4) “Improved Peer Assessment in MOOC Evaluations Through Assignment and Review Analysis” [5]; (5) “Independent and Peer Online Assessment as a Tool to Improve Student-Teacher Assessment Skills” [6]; (6) “Massive Online Peer and Self-Assessment Classroom” [7]. The article above shows that research on online self-assessment and peer evaluation has often been carried out and the level of effectiveness can be concluded as good. However, this research on the effectiveness of online self- and peer-assessment was not conducted in the skills domain. Especially in PE subjects which are very thick in the realm of skills, research on the effectiveness of online self-assessment and peer assessment has not been carried out.

2 Method

This research is a comparative causal research design using a quantitative approach. Comparative causal research aims to find a relationship between variables without changing a variable (Winarno. M. E, 2013). In accordance with the title of this study, namely the Effectiveness of Online Self and Peer Assessment on Learning Outcomes of Lay-Up Skills. The research procedure has 4 stages including: (1) subject selection, namely the researcher selects students as subjects in all classes in one batch; (2) online learning, namely students doing online learning according to the application at school due to the Covid-19 pandemic; (3) implementation video instructions, namely the teacher provides detailed implementation instructions in the form of videos; (4) the provision of direction

and training, namely the direction given by the teacher and the training carried out by students before conducting the assessment; (5) the assignment is that students perform the basketball lay-up skill by recording it in the form of a video; 6) assessment, namely students conduct self-assessment and peer assessment. The subjects of this study were all classes in one batch at SMA Negeri 2 Situbondo. Incident sampling technique as a sample of 73 students from a total sample of 244 students throughout class XI. Data collection techniques used in the form of questionnaires or questionnaires. The data analysis technique used is a different test using the Wilcoxon test.

3 Result and Discussion

3.1 Result

The results of the different self-assessment test with the teacher showed a score of $P = 0.444$ and the peer assessment with the teacher showed a score of $P = 0.671$, then the data stated that there was no significant difference between the self-assessment and peer assessment with the teacher's assessment (Table 1).

3.2 Discussion

The findings of this study can be declared effective, judging from the results of the analysis which explains that there is no significant difference between self-assessment and peer assessment conducted by students and teacher assessments. The degree of effectiveness of the use of self-assessment and peer-assessment online is strengthened from existing research, (1) the study entitled "Massive Online Peer and Self-Assessment in Classroom" the result is that the difference in assessments made by students and teachers is not much different, the average percentage of students rated 7% higher than the teacher's assessment, 9.9% of student assessment errors [7]; (2) research entitled "Independent and Peer Online Assessment as a Tool to Improve Student-Teacher Assessment Skills" states the results that students produce grades closer to the grades produced by teachers [6]; (3) research entitled "Self-Assessment in Massive Open Online Courses" states that not only peer assessment can be an alternative online assessment as a formative assessment between teachers and students but self-assessment is the only assessment that is also appropriate to use [4]; (4). This agrees with the research entitled "Academics' Perceptions About the Benefits and Challenges of Self and Peer Assessment in Higher Education" the results state the strong results of self-assessment and peer assessment as formative assessments between teachers and students to determine the extent of students' abilities [2]; (5) research entitled "Online Self and Peer Assessment for Group

Table 1. Result

Assessment	<i>P-value</i>
Self Assessment (SA)	0.444
Peer Assessment (PA)	0.671

Work” Discusses the advantages of online self-assessment and peer assessment over paper-based offline self-assessment and peer-review [8]; (6) the application of online self-assessment and peer-to-peer assessment is also applied in universities such as a study entitled “The Role of Self and Peer Assessment in Higher Education” shows that students perform well as evaluators of strong congruence between student and teacher assessments [9]. From the results of this study and according to the findings of previous research, it is concluded that self- and peer-to-peer online assessments are effective to use.

The results of this study indicate that self and peer assessments are effective in assessing basketball lay-up skills. There are several factors that make the assessment effective, including detailed implementation instructions and providing direction and training before the assessment is carried out by students. Implementation instructions are references or guidelines in doing something so that it goes according to plan. Implementation instructions have a positive influence in increasing student understanding so as to make learning outcomes increase [10]. With the implementation instructions make it easier for students to do an activity. Students read the instructions for implementing self-assessment and peer assessment and the teacher provides direction to students on self- and peer-assessment.

The teacher provides detailed direction and training for students before conducting an assessment so that students can better understand how to do self-assessment and peer assessment. In conducting self-assessment and peer assessment, in addition to the importance of providing direction, students also need extra training or practice before conducting an assessment in order to obtain accurate and consistent results [11]. Giving direction is a process that gives instructions to work according to a specified plan (Siswanto, 2021) and achieve the planned goals (Hasibuan, 2016). From the directive process, it will lead to the same thoughts or perception similarities to achieve a goal.

In conducting self-assessment and peer-to-peer equality, the perception is very influential on the results of the assessment. The common perception equates different points of view and thoughts for the same goal (Hidayah, 2022). The following is the definition of perception according to experts: (1) perception is information received by the human brain (Goh et al., 2017); (2) According to Desiderato perception is the inference of information obtained from the experience of events (Rakhmat, J., 2007); (3) If the perceptions between individuals are more the same, the result will be a cultural group or identity group. A similar opinion was conveyed by John and William, namely the way someone gives meaning is called perception (Deddy Mulyana., 2007, h 167–168). From this understanding the perception obtained by students is obtained from the teaching teacher during learning.

In conducting self and peer assessments carried out by students, it is the teacher’s job to explain in detail. The teacher plays an important role, in this case in line with the opinion (Rahyubi, Heri. 2014) that the motor learning process is the influencing factor, one of which is the teacher. Detailed implementation instructions and giving directions before the assessment is carried out by students so that there is a common perception, this is a factor in the results of this study, the results of which there is no significant difference between self-assessment and self-assessment.

4 Conclusion

Based on the results of the research and discussion, it can be concluded that the use of online self-assessment and peer assessment instruments in the realm of basketball lay-up movement skills is declared effective. Suggestions for further research to test whether the procedure for this research is correct, namely implementation instructions and giving directions which are factors in the results of this study, there is no difference between self-assessment, peer assessment and teacher assessment.

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