

## Problematic analysis of assessment standards in physical education: Literature study

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### Abstract

Improving the quality of the assessment is needed because with an assessment process that meets the standards, student learning outcomes will be measured accurately. This article aims to analyze several studies on the problem of assessment standards in the physical education (PE) learning process so that knowing what factors have a relationship and influence on the occurrence of problems in physical education assessment standards and solutions that can be implemented in these problems. The method in this article is a *literature review* using flow chart PRISMA to identify articles through process filtering and data extraction. The results were obtained from 15 articles that meet the criteria, such as the subjects used are teachers and students in educational institutions and articles used in at least the last ten years. A total of 15 articles stated that the assessment process in physical education learning still needs a lot to meet the educational assessment standards. This is due to a lack of understanding of performance appraisal because teachers usually only see and use pre-existing assessments without evaluation and need to be adjusted to the character of student achievement and teachers' critical thinking without pedagogy.

**Keywords:** problematic, assessment, physical education.

### INTRODUCTION

PE classes must be included in the primary and high school curriculum (UU RI No. 20 of 2003 concerning the National Education System article 37). PE sessions aim to help students develop their knowledge, personalities, skills, health, and physical fitness through PE and other educational sports. (UU RI No. 3 of 2005 concerning the National Sports System Article 1, paragraph 11). PE benefits and positively impact students' academic achievement, readiness, and perceptual skills (Page et al., 2005). PE goals are classified into three psychomotor, cognitive, and affective domains (Lieberman & Houston-wilson, 2018). Accountability in education is increasingly emphasized, Graduate competency requirements, content standards, process

standards, and assessment standards make up the national education standards. In the learning phase, the *assessment process* is important because assessment is the education system's focus. To measure the effectiveness of instruction, subject assessment evaluation activities are employed. In addition to teachers, students' parents also serve as evaluators.

However, in PE in schools, The assessment standard has been disregarded and is even listed as optional, the tool used in evaluating student PE learning outcomes is not suitable for performance evaluation because its characteristics need to be adjusted to those in the lesson plan. In this case, the standards for achievement and evaluation of PE become a problem. Performance evaluation involves observing and evaluating students' skills, knowledge, and attitudes in a variety of real-world tasks and scenarios (Tomlinson, 2006). Through various measurements and observations, the instructor thoroughly evaluates the students' responses, products, and behaviour during the performance appraisal process. Despite such national initiatives, teachers still struggle with classroom evaluation of PE subjects in their teaching activities (Kang & You, 2013).

Several other countries also experience the same problems. Studies focusing on PE assessment have often brought up issues, including teachers' disregard for assessment, their ignorance of assessment, and their attitude in failing to accept assessment as a component of the PE learning process (Annerstedt, 2010; Carroll, 2005). PE evaluation presents a considerable challenge for primary school teachers tasked with teaching several disciplines, and they play a crucial role in fostering interest in and study into this topic. There is a need for research on the extent of teachers' assessment expertise as well as the effectiveness of their implementation and interpretation (Thompson & Penney, 2015). The many levels of suggestions made so far addressing the evaluation of PE learning have been disjointed and do not give a clear indication of the knowledge, skills, aptitudes, and attitudes required to do so. The teacher's familiarity with and comprehension of the normative criteria for success or

effective evaluation, both of which are crucial skills to master, are tied to their knowledge of and understanding of the assessment.

Research using a *literature review model* is important because many field studies have proven that there are many problems in the PE learning process, especially in aspects of assessment standards (Sofyan, 2016; Mustafa, 2021; Gunawan, 2017). Therefore, research with this model can collect the results of research that has been done previously in order to underline the findings and combine them into a conclusion. Many studies on evaluating problems in aspects of assessment standards in PE have been carried out (Mustafa, 2021; Mustafa et al., 2019; Oktaviani & Wulandari, 2021; Sofyan, 2016). It is necessary to conduct a *review* study to find important findings from these previous studies. In addition, the results of this review study can be used as evaluation material for teachers in conducting assessments in accordance with the provisions of national standards because this article will be explained solutions to different issues that teachers have while evaluating how well students are learning PE that can be implemented by teachers when conducting assessment process.

## METHOD

This study is a literature review that uses sources of information obtained from several research articles that have been published. The databases used are google scholar and eric. An online search was conducted to identify the relevant literature. Keywords that are used to identify relevant articles are "physical education problems", "assessment standard", "physical education problems", and "assessment standards".

Search data secondary have a limited time certain, so they could look for novelty, the author limits the time of publication of articles starting in 2013 to 2022. The diversity in this research is quite a lot of domains, therefore the researcher limits the articles with a certain design that is reviewed from the following inclusion criteria: (1) research taken with a minimal reference list of 50% from articles, (2) study which taken is research conducted at least ten years final, (3) of course the research

taken contains relevant references according to the needs of the article, (4) samples or research subjects, namely students and teachers in school institutions. Analysis article used for determining the Research question using the PICO approach. Following framework work, PICO could be seen on the table lower this.

**Table 1.** Framework work PICO.

Population/ patient/ problem (P)	Interest (I)	Context (Co)
Factors that influence the occurrence of problems in physical education assessment standards	Problems with physical education assessment standards	Problems with physical education assessment standards in educational institutions

The PICO approach aims to define clear objectives and scope so that it can formulate a research question that is problematic on the standard of PE assessment and factors that influence the occurrence of problems in PE assessment standards in educational institutions. Formulating a research question can facilitate the next step, namely analyzing the article. The stages of article analysis can be done using the PRISMA method. According to Swartz (2021), the prism method has four stages, namely (1) identification, (2) screening, (3) eligibility, and (4) included (Included). Following the diagram by using the method PRISMA.

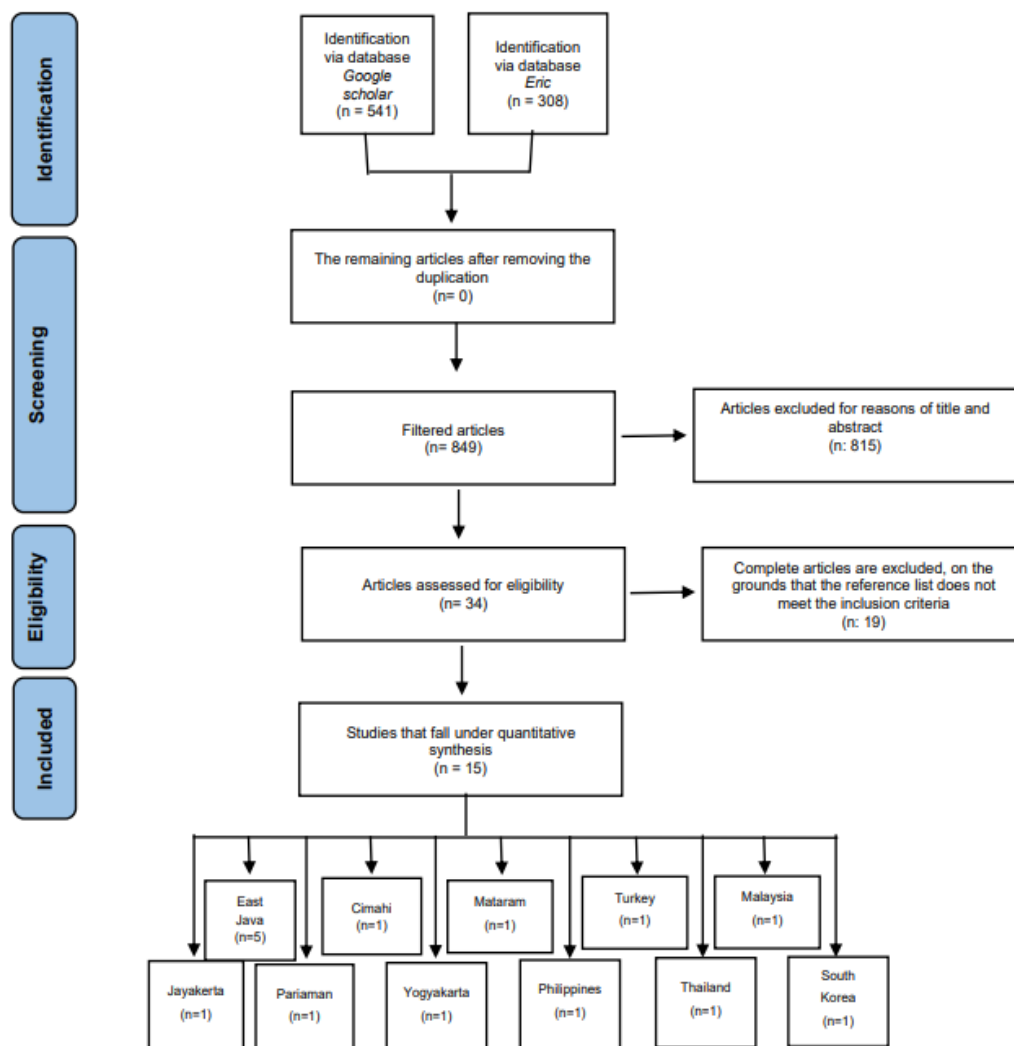


Figure 1. PRISMA Flow Diagram of the Systematic Search and Data Extraction

In carrying out data extraction, to search for articles with keywords on easy access, previously mentioned. A total of 849 articles from Google Scholar and Eric were identified based on year and title. A total of 815 articles were eliminated or screened for reasons of title and abstract. Thirty-four articles were tested for eligibility, so 19 were excluded due to the list of references that did not meet the criteria previously mentioned inclusions. Fifteen articles fall into the required category in this research. The number of articles database by google scholar is ten, and the database by eric is five.

## RESULT

After reducing the articles that did not meet the inclusion criteria, 15 studies met the criteria. It can be seen in the picture above, which explains the PRISMA flow diagram. Delete articles that are not in accordance generally have a reason because the subject and variable need to follow criteria. The article study was taken from a number of locations like Jayakarta (n = 1), East Java (n = 5), Pariaman (n = 1), Cimahi (n = 1), Yogyakarta (n = 1), Mataram (n = 1), Philippines (n = 1), Turkey (n = 1), Thailand (n=1), Malaysia (n=1), and South Korea (n=1).

In research that has met the criteria for inclusion, nothing has been published before 2013. Meanwhile, the most recent research was published in 2022 by a whole international journal, which was published in credible journals indexed by Scopus, and all reviewed national journals were published in credible journals indexed by sinta. The following is the literature obtained by the author after doing a review.

**Table 2.** Analysis of the reviewed articles

No.	Author /year	Subject	Method	Problem Identification	Solution (Result)
1	(Gustiawati et al., 2019)	60 students at SMPN 2 Jayakarta	Qualitative and quantitative	The learning evaluation program conducted by the teacher needs to be more comprehensive for the assessment of each material indicator and cannot be generalized as learning outcomes in three domains, namely psychomotor, cognitive, and affective.	Evaluating student participation in the learning process includes three aspects: attitudes, knowledge, and accounts of how kids' knowledge of PE, sports, and health has significantly improved.
2	(Sugiharto, 2017)	22 PJOK teachers in Malang City Elementary School	Qualitative research	The comparison of the number of PJOK teachers and students needs to be balanced, making it challenging to implement effective learning and	One of the main things to worry about should be the teacher-to-student ratio. No matter how well the teacher understands the PJOK concept and curriculum, it will only be applied properly in the learning process if the

No.	Author /year	Subject	Method	Problem Identification	Solution (Result)
				authentic assessment.	number of students is within the capacity of effective learning standards.
3	(Parma, 2022)	Pariaman City Elementary School Students.	Qualitative.	During the learning process during the pandemic, teachers have difficulty assessing students' skills and abilities in carrying out a movement.	Teachers must act creatively and innovatively in providing learning.
4	(Mustafa, 2021)	Teachers and students of grades VII and VIII at nine public junior high schools in Malang City	Evaluation Research	<ul style="list-style-type: none"> <li>The teacher does not assess skills according to the assessment rubric in the lesson plan.</li> <li>Project and portfolio based in a standard way.</li> </ul>	<ul style="list-style-type: none"> <li>Teachers should take into account the amount of study time, school facilities, the number of students in each class, and the characteristics of students so that the planning of skills assessment can be carried out.</li> <li>Perform various assessment techniques in assessing aspects of student skills, namely practical tests, projects, and portfolios.</li> </ul>
5	(Aji & Winarno, 2016)	60 students of MTs Negeri Malang class VIII	Research and development	The teacher's ability to make assessment instruments does not meet the criteria for a good test assessment because there are still invalid questions, reliability is still in the sufficient category, the level of difficulty of the questions still does not meet the standards, many discrepancies are in a bad category, and	Make criteria for a good assessment instrument, namely validity, reliability, and the level of difficulty of the instrument, is evenly distributed, and the cognitive domain is also evenly distributed.

No.	Author /year	Subject	Method	Problem Identification	Solution (Result)
				some are very bad.	
6	(Robby Kurniawan et al., 2018)	Teachers from 8 public high schools in Banyuwangi Regency.	Analytical descriptive	The implementation of the assessment carried out by the teacher was not standardized with the results of the eight schools studied only one school carried out the attitude assessment, while the implementation of the skills and knowledge assessment was not in accordance with the assessment plan in the RPP.	<ul style="list-style-type: none"> <li>Using authentic assessment combines assessment from aspects of attitude, knowledge and skills.</li> <li>Carry out the assessment in accordance with the guidelines or lesson plans made.</li> </ul>
7	(Gunawan, 2017)	2 teachers of SMKN in Cimahi	Qualitative research	The process of implementing authentic assessment for the affective domain has not gone well and still needs to be in accordance with the assessment guidelines for the attitude domain due to the teacher's lack of understanding, so they have difficulty in assessing the attitude aspect.	Assessment of the attitude aspect should not be fully charged to the PE teacher because if it is charged to the PE teacher to assess the attitude domain, it will impact a biased assessment. The assessment of the attitude domain should involve classroom teachers, religion teachers or BK teachers to help PE teachers make assessments.
8	(Yuniartik & Hidayah, 2017)	SLB C physical education teacher throughout Yogyakarta	Evaluation research	The learning assessment is typically observed from observations made during the learning process and does not integrate the assessment of attitudes, knowledge, and skills as a whole to evaluate the input, process, and	Learning assessment uses tests in written and oral forms, non-tests in the form of work observations, attitude measurements, work assessments, portfolios, and self-assessments.



No.	Author /year	Subject	Method	Problem Identification	Solution (Result)
				outcomes.	
9	(Wardhana et al., 2017)	Teacher of SMPN 6 Malang and Deputy Head of Infrastructure Affairs	Evaluation research	<ul style="list-style-type: none"> <li>Teachers rarely conduct oral tests on students.</li> <li>Teachers rarely give assignments.</li> <li>Self-assessment and peer assessment should be used more by students.</li> </ul>	Hold oral tests, give portfolio assignments, and urge students not to abuse self-assessment and peer assessment.
10	(Mustafa, 2021)	Class XI Mataram	Descriptive	<ul style="list-style-type: none"> <li>Teachers need to understand how to analyze assessment instruments, they do not understand good assessment instruments, and the assessment instruments used every year are the same (cognitive).</li> <li>The question instrument does not meet the validity, reliability, and practicality objectives, the level of difficulty of the questions still needs to meet the standards.</li> </ul>	<ul style="list-style-type: none"> <li>There needs to be training in the preparation of good assessment instruments</li> <li>Appropriate assessment instruments need to be developed to measure affective, cognitive, and psychomotor</li> </ul>
11	(Tabuena, 2021)	20 Manila Middle School students, Philippines	Pre-experimenta l	Lack of knowledge about the characteristics of appropriate and good evaluative measures in formative or summative assessments. Few PE teachers, regardless of academic discipline, are aware and knowledgeable of the important considerations in constructing an appropriate assessment	<ul style="list-style-type: none"> <li>Classroom assessment techniques are a better alternative to traditional formative or summative tests.</li> <li>Find out through assessment and evaluation other classroom assessment techniques that might help to improve</li> </ul>

No.	Author /year	Subject	Method	Problem Identification	Solution (Result)
				process. Teachers always face the challenge of evaluating student success in teaching.	teaching in the teaching and learning process. <ul style="list-style-type: none"> <li>Teachers should have sufficient background on how to use formative assessment.</li> </ul>
12	(Özgül et al., 2018)	Three hundred eighty physical education teachers in Turkey. 116 girls and 264 boys	Quantitative	The PE teacher in this study stated that it was still difficult to implement the assessment platform provided by the Turkish Ministry of National Education. Even though PE teachers take part in the measurement training for the Physical Activity Report Card Application, it can be claimed that they do not think of themselves as experts in this field. Additionally, PE instructors who desire to advance their knowledge of Physical Activity Report Applications lack the necessary resources.	<ul style="list-style-type: none"> <li>This study can be reproduced with the widespread usage of the Physical Activity Report Card Application. The findings of the study can be compared to subsequent studies.</li> <li>This research can be applied to a larger sample group.</li> <li>School-based PE instruction The Physical Activity Report Application is a platform for assessments that educators may integrate into their curriculum.</li> </ul>
13	(Boonsem & Chaoensupmanee, 2020)	1,000 students in Thailand, with 558 boys and 442 girls	Survey	According to survey findings, the analysis of measurement and evaluation in the learning process of PE receives the lowest proportion. Has the lowest percentage of 45.53%.	Teachers use this study to control instruction better using the research findings. Activities related to teaching and learning are done to meet both teachers' and students' needs for effectiveness and benefit. Management must be given the findings of the research.
14	(Zulkifli & Danis,	30 students in Malaysia	Quantitative and	Pre-service PE teachers (ages 20-26) often grow	Enhancing the development of a

No.	Author /year	Subject	Method	Problem Identification	Solution (Result)
	2021)	(i.e., 16 boys and 14 girls	qualitative	bored with academic material. In addition, the assessment tools need to be more adequate and accurate. Most educators only provide verbal feedback. As a result, The majority of students frequently need more content, pedagogy, and technology-related information concerning sports.	combination of student-centred approaches, Exercise will assist generate meaningful and interesting learning experiences, and well-used study tools (including mobile devices) will aid in this.
15	(Park, 2017)	Eight elementary school teachers in South Korea	Qualitative	Teachers do not understand the concept of assessment, so it is difficult to conduct an effective assessment, assessment is carried out by exchanging and imitating what is used in other classes, thereby reducing its effectiveness, There are teachers that think critically without using pedagogy, and there is a lack of feedback. This is a major problem in the assessment of PE in primary schools.	The need for diversification of teacher education is currently directed at improving their assessment literacy skills, providing on-site guidance for building student assessment literacy, and evaluating assessment procedures.

The analysis of the articles that have been carried out shows that there are still many problems in the PE learning process, especially in assessment standards. Research conducted by [Gustiawati et al. \(2019\)](#) states that only some PE teachers, regardless of academic discipline, know the important considerations in constructing an appropriate assessment process. Further research by [Sugiharto \(2017\)](#) shows the need for more training to deepen teachers' understanding of concepts in this increasingly developing technology era. In the research conducted by [Parma \(2022\)](#), PE assessment and evaluation criteria had the lowest percentage, This is because students can see how boring exams are. ([Rama Kurniawan, 2018](#); [Mustafa, 2021](#); [Wardhana et al., 2017](#)) in his research stated that the teacher did not assess skills according to the assessment rubric in the lesson plan. [Aji & Winarno \(2016\)](#) explain that some teachers still need to understand the assessment concept. The research conducted by [Yuniartik & Hidayah \(2017\)](#) PE assessment has yet to be carried out comprehensively.

All the problems faced in the PE process will significantly affect the quality of student learning achievement. Performing various assessment techniques in aspects of learning is very necessary to be mastered by the teacher. The use of assessment tools also meets the criteria for validity and reliability. The instrument's difficulty level is evenly distributed, and the cognitive domain is also evenly distributed and must be carried out according to the guidelines or lesson plans.

## **DISCUSSION**

Through the review process that has been carried out, it is found that there are still many disputes in the PE learning process. PE learning is still not running as it should, even though PE subjects contribute to making 21st-century skills. As in the research conducted by [Park \(2017\)](#), there are still teachers who still need to understand the clarity of the assessment concept. Understanding assessment refers to a teacher's familiarity with and comprehension of assessment in a learning environment. Assessment understanding is a fundamental tenet of assessment efficacy. It refers to

the degree to which individual teachers are knowledgeable about assessments and how they decide on the overall assessment process and outcome (Hay & Penney, 2009). It is the starting point that determines the extent to which the assessment results in impact students.

One must first comprehend what "assessment" means before having proper assessment knowledge. Due to a complete lack of understanding of performance appraisal caused by this lack of understanding of appraisal, measurement-oriented evaluation has come to be prioritized in culture even after performance appraisal was introduced. Common issues include sports teachers needing more opportunities than educators of knowledge-based disciplines. Teachers have been unable to improve their assessment literacy due to such issues with teacher education. As a result, teachers engaged in "teaching without assessment" and gave assessment skills a lower rating than instruction. The training programs now offer one-day training sessions with thorough instruction-oriented PE content (Henze & Driel, 2009).

Assessment is a procedure that collects data on both instructor and student teaching behaviour in addition to student learning behaviour (Tomlinson, 2006; Apthorp et al., 2022). As a result, effective assessment procedures can enhance teachers' capacity to instruct. In addition, there are strong connections between instruction (or pedagogy) and various assessment types in South Korea, where the national-level PE curriculum is defined in terms of its design, planning, and evaluation. This is so that curriculum conformity tests can closely match educational programs, classes, and evaluations to actively embrace what national education programs intend to achieve (Penney et al., 2009).

The lack of interpretive feedback in the assessment is also a problem in the standard of PE assessment. Teachers must be proficient in assessment literacy in order to gauge their student's proficiency, design a course for their future involvement, and serve as a foundation for the necessary curricular and pedagogical modifications. The process of analyzing the data acquired during the execution of the assessment is

known as assessment interpretation. Students receive the outcomes of the assessment interpretation as feedback, so teachers must provide timely feedback that contains these indications. When given promptly, feedback is most effective. The feedback that is given on time and in the right context improves students' performance abilities and helps teachers decide what to teach, how to teach it, and how to assign future assignments to students. It is possible to establish timely and suitable feedback when teachers use a formative assessment viewpoint to record student achievement and give feedback to their pupils in each unit (Earl, 2014). When a teacher develops into an effective mentor, a good mentor, and an accurate reporter, an assessment can have an impact.

Teachers must engage critically with assessment, but many PE teachers still need to engage critically with pedagogy. Recognizing the significance and influence of assessment is the major goal of teacher literacy with regard to crucial PE assessments. "Process-oriented assessment" needs more attention. The emphasis should be on how far pupils have come since their first behaviour in the assessment process, even though it is not part of the assessment outcomes (Gaetano, 2016). Assessment for learning is a requirement for true process-oriented evaluation. To develop classroom activities for students with no prior experience, one must think pedagogically from the assessment-to-learn perspective. This will enable the students to participate in their performance improvement assessment. It is also possible to use peer assessment, self-assessment will enable learners to engage in critical thinking, and deliberate self-reflection about their learning (Gordon, 1992; Wiggins, 1991), and peer assessment can strengthen the relationship between the evaluation and learning process (Layne et al., 2016). Making pupils assessment literate is an alternative to addressing teachers' scepticism of student-led assessment (Gillespie, 2013). Teachers should work to increase the literacy of their students' assessments because of this. It is crucial to give students more opportunities for peer assessment

and include them in every step of the assessment process, from articulating the exam's goals to using the results.

Several studies raised concerns about assessing students' PE, especially on neutrality-related problems (Brennan, 1992; Freeman, 2015; Judith, 1990). Research (Tabuena, 2021) states that few PE teachers, regardless of academic discipline, are aware and knowledgeable of the important considerations in constructing an appropriate assessment process. Lack of knowledge about the characteristics of various appropriate and good evaluative measures in the assessment is also an obstacle. (Tabuena, 2021) explains that Classroom evaluation is an advanced continuous feedback technique with particular consequences for teaching and learning. Effective teaching is a systematic process that uses the analysis and interpretation of data gathered via specific procedures to provide advice for the teaching process. Basic assessment and evaluation of learning and teaching play a significant part in this.

Further research by (Özgül et al., 2018) found the lack of training to deepen teachers' understanding of the concept of assessment in this era of increasingly developing technology. The intensity of training needs to be added, such as "tutorial training" for the head teacher of PE in schools with training videos. In the research conducted by (Boonsem, 2020), The lowest percentage was found in the measuring and evaluation criteria for PE, This is because students can see how boring exams are. To develop evaluation skills and abilities, to evaluate the outcomes of improving the quality of students and ensure their success, the evaluation criteria must be transparent, equitable, and consistent with the learning content created by students. The primary goals in measuring and evaluating learning at all levels are to educate students and conduct assessments in accordance with indicators to accomplish learning standards, representing significant competencies and desired student characteristics. To effectively create and implement a PE curriculum or to work with athletes, instructors and coaches must be ready to meet their individual learning needs. In other words, once the needs of young people are recognized, they can

determine what inspires them to participate, taking into account the impact and reality of their participation in physical activity in daily life. In terms of promoting or discouraging involvement in physical activity and sports, there is a strong correlation between youth. (Wright et al., 2010).

## CONCLUSION

From the results of the *review*, it can be concluded that the assessment process in PE learning still needs to meet the educational assessment standards. Many educational institutions still need to apply the five assessment criteria, which include assessment principles, mechanisms, procedures, and instruments. This is due to a lack of understanding of performance appraisal because teachers usually only see and use pre-existing assessments without evaluation and are not adjusted to the character of student achievement, and the lack of pedagogy in teachers' critical thinking. This *review* process adds to the evidence supporting the need to develop quality assessments for teachers and students in PE. The standard of assessment is very influential in the learning process because it determines the next learning. Improving the quality of the assessment is needed because with an assessment process that meets the standards, student learning outcomes will be measured accurately.

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