



Strategies

A Journal for Physical and Sport Educators

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/ustr20>

Quality Assessment in Physical Education: Concepts, Examples and Recommendations

Eric Shea & Brent Heidorn

To cite this article: Eric Shea & Brent Heidorn (2022) Quality Assessment in Physical Education: Concepts, Examples and Recommendations, *Strategies*, 35:6, 46-48, DOI: [10.1080/08924562.2022.2120754](https://doi.org/10.1080/08924562.2022.2120754)

To link to this article: <https://doi.org/10.1080/08924562.2022.2120754>



Published online: 11 Nov 2022.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

Quality Assessment in Physical Education: Concepts, Examples, and Recommendations

By Eric Shea and Brent Heidorn



Assessing student learning is important in education, particularly in K–12 schools. Quality assessment includes collecting, synthesizing and interpreting information so that educators can make more informed decisions for continued teaching and student learning. With quality assessment, teachers can better evaluate the learning that has taken place among their students. When teachers effectively evaluate student learning, they are using the assessment information collected to make judgments on the quality of student work. In time, teachers can use the information gained to provide more in-depth instruction, revisit specific concepts needing improvement, and include new content in follow-up lessons. Recognizing that student learning is a process and that no assessment will be comprehensive enough to ensure all learning from only one measure, teachers should include multiple assessments throughout instruction in order to get a better grasp on student learning. Teachers should also use assessment to help motivate students for more learning. The purpose of this column is to provide a brief overview of assessment concepts and highlight examples and recommendations for quality assessment in physical education.

Formative and Summative Assessment

Teachers will often use assessment systems that incorporate multiple sources of data over time. These assessments can span the length of a lesson, a unit, or throughout an entire semester. Formative assessments (e.g., classwork, homework, quizzes, tests, assignments, skills, fitness work) can be used to determine students' current understanding of the material. Teachers can also use the knowledge gained from formative assessments to provide feedback to their students. Formative assessments are used while learning is still taking place (Tannehill, van der Mars, & MacPhail, 2015a). For example, students in a personal fitness class might begin a unit on the six classes of nutrients. A simple and effective practice would be to have the students match each nutrient with the specific roles they have in the body. For a volleyball unit, after the initial instruction on how to serve, students could be assessed on their performance using a checklist listing each step/cue needed for success. The performance would not only give the instructor an idea of what skills were learned during the lesson(s), but would also provide an opportunity to give appropriate feedback to students. Ultimately, data from formative assessments can help instructors modify learning experiences for students so they learn more effectively.

Summative assessments are used to better identify student learning of the content, unit(s) or semester-long material. These assessments are typically conducted after instruction is completed and are often used to determine one's final grade or to provide a final judgment on learning (Tannehill, van der Mars, & MacPhail, 2015a). Typically, once the summative assessment is delivered, instruction moves on to another content area, or the student is no longer in the same class. However, in some settings, teachers can use information learned from summative assessments to more appropriately plan content for the following unit/semester. An example of a summative assessment

would be a cumulative test on chronic diseases following the completion of the unit. The student achievement data from this specific assessment can assist the instructor in minimizing student areas of weakness the next time this unit is taught. Another example would be (Tannehill, van der Mars, & MacPhail, 2015a) for students to demonstrate their knowledge/skills after the completion of a badminton unit. Having students participate in a game situation (authentic assessment using a rubric with predetermined criteria) is an effective way to measure knowledge and performance.

Validity and Reliability

It is especially important that educators consider the accuracy of information gained from summative assessments, especially if comparisons will be made for future planning needs. To help ensure that a teacher is providing quality assessment, validity of the assessment must be included. Validity refers to the extent to which a particular assessment provides information that is accurate so that appropriate conclusions can be made about student learning (Metcalf et al., 2016). Validity may include not only the accuracy of the measure, but the source from where the assessment came and if it has been reviewed by others (i.e., experts in the field, national associations, etc.). For example, instructors might use a national fitness assessment, checklist of skills from a professional organization, or other previously validated instrument. Reviewing the assessment and gaining support from other specialists in the field is also a meaningful practice.

Another important concept for quality assessment of student learning is reliability. This relates to the level of consistency in the measure. Assessments that lack reliability produce results that do not accurately identify student understanding or ability due to process errors. Regardless of the time or place in which an assessment has been implemented, ideally results would be very similar. This shows a high degree of reliability. Teachers should use assessments that produce consistent results if the students were to engage in the assessment multiple times or successive trials (Tannehill, van der Mars, & MacPhail, 2015a). In fitness education, for example, teachers need to make sure they are consistently measuring students using the same criteria, and holding students accountable on the appropriate form, rules and processes. Failure to adhere to one or more of the testing procedures would significantly reduce any reliability of the results.

Pre- and Postassessment

Pre- and posttest assessment provides a good opportunity for teachers to examine or measure student learning and growth over time. Teachers may assign an assessment prior to instruction so they can more fully understand in what areas student knowledge or application is lacking. Instruction is then more appropriately planned based on the pretest results. Further, teachers can implement the posttest (often the identical measure as the pretest) to highlight specific ways/areas in which students have significantly learned. This is often a great motivator for students and their future learning efforts.

In quality physical education programs, perhaps one of the most common examples of pre- and posttesting is related to student fitness levels. Ideally, students diligently put forth effort on the pretest of a fitness assessment (e.g., FitnessGram Progressive Aerobic Cardiovascular Endurance Run [PACER]) at the beginning of a unit. The teacher then provides instruction, several opportunities for practice throughout the unit, and other ways to motivate students to develop fitness. Finally, after instruction and related experiences, students are again assessed using the same measure. This would be a good method for evaluating student learning and/or development as a direct result of the unit, assuming all other things are equal (e.g., work effort, nutrition, weather). If assessed properly, and if the assessment includes a high level of reliability, teachers can identify progression or regression from their students and modify instruction accordingly.

While there is no one-size-fits-all method for assessing students in physical education, following the state and national standards (SHAPE America – Society of Health and Physical Educators, 2022) is essential. This means that teachers plan and deliver learning experiences using the standards and performance-level outcomes, regularly assess students with the purpose of demonstrating student learning, and reflect on the experiences for continued progression and next steps (Metzler, 2005). Assessments can include both traditional and authentic experiences. Traditional assessment often displays cognitive or psychomotor gains in students’ knowledge or skills (e.g., process, product), while authentic assessment provides opportunities for students to demonstrate learning in real-life situations (e.g., while playing the game) (Tannehill, van der Mars, & MacPhail, 2015b; Wood, 2002).

Conclusion

Overcoming classroom logistics can be a challenge. Physical education classes often have more students than other content-based classrooms, which can provide quite the dilemma for assessing student learning. To help ensure learning and hold students accountable for learning, physical educators have often used sampling, rating scales, observation tools, checklists, portfolios, journals, skill tests, written tests, peer assessment, and self-assessment strategies. Using multiple forms of assessment can increase student motivation, provide quality feedback for students and the teacher, and help focus planning efforts based on student learning needs. While there are many options for appropriately teaching and assessing student learning, the important thing to remember is that providing evidence of student learning is best practice for quality physical education

programs. Implementing quality, standards-based assessment is a huge step in the right direction.

References

- Metcalf, K. K., Cruickshank, D. R., & Jenkins, D. B. (2016). Assessing student learning in model-based instruction. In K. K. Metcalf, D. R. Cruickshank, & D. B. Jenkins (Eds.), *The act of teaching* (pp. 273–316). Kendall Hunt Publishing Company.
- Metzler, M. (2005). Assessing student learning in model-based instruction. In M. Metzler & C. Colquitt (Ed.), *Instructional models for physical education* (pp. 165–183). Routledge, Taylor & Francis Group.
- Tannehill, D., van der Mars, H., & MacPhail, A. (2015a). Assessment considerations for promoting meaningful learning in physical education. In *Building effective physical education programs* (pp. 209–220). Jones & Bartlett Learning.
- Tannehill, D., van der Mars, H., & MacPhail, A. (2015b). Appropriate assessment instruments in physical education. In *Building effective physical education programs* (pp. 221–247). Jones & Bartlett Learning.
- SHAPE America – Society of Health and Physical Educators. (2022, February 17). *Grade-level outcomes (GLOS) for K–12*. <https://www.shapeamerica.org/standards/pe/upload/Grade-Level-Outcomes-for-K-12-Physical-Education.pdf>
- Wood, T. (2002). Assessment in physical education: The future is now! In S. J. Silverman, C. D. Ennis (Eds.), *Student Learning in Physical Education: Applying Research to Enhance Instruction* (pp. 187–203). Human Kinetics.

Eric Shea is a health and physical education teacher in the physical education department at Newman High School in Newman, GA.

Brent Heidorn (bheidorn@westga.edu) is a professor in the College of Education at the University of West Georgia in Carrollton, GA.

Submissions Welcome!

Readers are encouraged to send “Theory into Practice” submissions to column editor Anthony Parish at aparish@georgiasouthern.edu.

The purpose of the Strategies Theory into Practice column is to distill high-quality research into understandable and succinct information and to identify key resources to help teachers and coaches improve professional practice and provide high-quality programs. Each column (1,000 –1,300 words or roughly four typed, double-spaced pages) summarizes research findings about a timely topic of interest to the readership to enable practitioners to apply research, knowledge and evidence-based practice in physical education and sports.

Advertiser Index

SHAPE America National Convention & Expo	Inside back cover
Skate in School	Inside front cover