

Writing State Standards: Eight Common Problems
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Reviewed the physical education standards available from every state that has standards. Standards entered into a database for easy compilation and comparison.

Standards with verbs difficult to measure

Verbs such as “explain”, “describe”, “demonstrate”, and “list” clearly identify the assessment. “Explain” and “describe” point toward essay tests. “Demonstrate” points toward a structured observation. And, “list” points toward a short answer test. The selection of the verb for a standard should make it easy to select the assessment. However, in the review of state standards the following standards were found:

Explore various physical education/fitness careers and the important services they provide.

Review the elements of physical fitness.

Reinforce team sports as lifetime activities.

These “standards” actually seem more like learning activities than standards. It is difficult to find the actual learning in these standards that must occur for the student to be successful. Additionally, “review” and “reinforce” appear to be geared more toward the teacher than the student. Teachers tend to review information and reinforce learning. How would you measure “review”? How would you measure “reinforce”?

Standards that contain two or more verbs

It is much cleaner when developing standards to limit each standard to one verb. Including two or more verbs in a standard requires two or more assessments since there needs to be an assessment for each verb. It is much easier to just write a specific standard for each verb, then educators can clearly say whether a student has met the standard or not. Examples of standards that contain two or more verbs include:

Identify and describe key elements in the mature performance of dribbling (hand).

Develop and describe three short-term and three long-term fitness goals.

Identify, follow and when appropriate, create safety guidelines for participation in activities.

For the first two examples, using the second verb suffices. In the first example, if the student can describe the key elements then it is implied that they can identify the elements, since describe is a higher-level verb. In the second example, if the student can describe his/her personal fitness goals then it implies that he/she has developed them. For the third example, if the students can follow the guidelines it implies that they know (can identify) them. Additionally, including “when appropriate – create” makes it difficult to assess. If the situation does not require the creation, then you are in a situation where you can’t assess the student’s ability to create guidelines.

Standards that mixed domains

Building on the issue in the previous section, a more problematic issue is when the verbs are from two or more learning domains. For example:

Demonstrate and explain how movement patterns are influenced by space, force, and time.

Explain and demonstrate game strategies for invasion, net, fielding, and target games.

Describe and demonstrate the application of appropriate rules, strategies, and sportsmanship behaviors as a participant in and observer of physical activities.

The verbs “explain” and “describe” are from the cognitive domain, and align with National Standard 2. The verb “demonstrate” is from the psychomotor domain, and aligns with National Standard 1. Most states have adopted National Standards 1 and 2; therefore, these standards are either incorrectly aligned with National Standard 1 or 2. It would be much better to separate these standards into two separate standards, aligning the psychomotor standards with National Standard 1 and the cognitive standards with National Standard 2.

Standards that use the wrong verb

Some of the state standards reviewed simply used the wrong verb. In other words there wasn't a match between the content and the verb. For example:

Demonstrates critical elements of fundamental and specialized movement skills. [listed under National Standard 2]

Demonstrate movement principles (mechanics, force, speed) in performing skills related to a team activity and an individual or partner activity. [listed under National Standard 2]

The first two examples take cognitive information from National Standard 2 and use a psychomotor verb. A better writing of these standards would be the following:

Describe the critical elements of fundamental and specialized movement skills.

Explain movement principles (mechanics, force, speed) in performing skills related to a team activity and an individual or partner activity.

It would also be better to narrow the focus of these standards and rewrite them. For example:

Describe the critical elements of locomotor skills.

Explain the movement principles (mechanics, force, speed) used in the performance of striking skills.

Standards that contain too many concepts

The next two issues are two sides of the same coin, and both relate to what is called "grain size." Some standards contain too many concepts while other standards have a very narrow focus. Ideally, all standards should be the same "grain size;" not too broad and not too narrow. Several standards were found in the review that although they only included one verb, addressed many concepts or skills. Several examples of standards addressing too many concepts were provided in the previous section. Here are a few more examples with sample rewriting:

Apply rules, biomechanical principles, problem solving and concepts to traditional and non-traditional movement settings.

Rewritten: *Explain the biomechanical principles used in aquatic activities.*

Utilize knowledge, skills, and strategies to participate in a variety of sports and game activities.

Rewritten: *Explain the strategies used in invasion sports.*

Develop manipulative skills of throwing, catching, kicking and striking while developing motor skills for use in games and other activities lead to more complex games and sports.

Rewritten: *Demonstrate the correct technique for kicking in game situations.*

Standards that are really objectives

The other side of the coin is standards that have such a narrow focus that they should be considered objectives. Examples include:

Keep accurate score during a contest.

Describe the role of water as an essential nutrient for the body.

Travel hand-over-hand along a horizontal ladder

The inclusion of these "objectives" leads to the inclusion of too many standards. Some states include 50-60 grade level standards at each grade level. An appropriate number of grade level standards ranges between eight and 16.

It also is important for the standards to be consistent "in grain size" from grade level to grade level. Some states had a very broad standard at one grade level, such as:

Demonstrate mature technique for the following patterns: overhand, sidearm, and underhand throwing; catching; kicking/punting; striking, trapping, dribbling (hand and foot); and volleying.

and at the next grade level a very narrow standard, such as:

Volley an object repeatedly with a partner, using the forearm pass.

Redundant standards

Another reason for a large number of standards at any grade level is the inclusion of redundant standards. Here are several examples:

Fourth Grade:

Change direction quickly to increase spacing between two players.

Change direction quickly to maintain spacing between two players.

Fifth Grade

Demonstrate a variety of locomotor and combination skills in a movement pattern.

Use non-locomotor, locomotor and combination skills to demonstrate movements in creative sequences and in simple pattern dances, games and other activities.

Seventh Grade

Identify physical activities that are effective in improving each of the health-related physical fitness components.

Identify and apply principles of overload in safe, age-appropriate activities.

Develop a one-week personal physical fitness plan specifying the proper warm up and cool down activities and the principles of exercise for each component of health-related physical fitness.

Eighth Grade

Assess the components of health-related physical fitness (muscle strength, muscle endurance, aerobic capacity, flexibility, and body composition) by using a scientifically based health-related physical fitness assessment.

Assess periodically the attainment of, or progress toward, personal physical fitness goals and make necessary adjustments to a personal physical fitness program.

The fourth grade example contains two standards that could easily be combined: *Change direction quickly to increase or maintain spacing between two players.* With the fifth grade examples, the second example should read *Demonstrate non-locomotor, locomotor, and combinations skills in creative sequences and in simple dances, games, and other activities.* Now comparing this standard to the first example, *Demonstrate a variety of locomotor and combinations skills in a movement pattern*, it can easily be seen that the two standards address the same learning. The seventh grade example shows three standards that could be one standard. The first and second examples are included in the third example. If a student can develop a one-week plan, then they have *identified physical activities that are effective in improving each of the health-related physical fitness components.* Additionally, the third example states *Develop a one-week personal physical fitness plan specifying the proper warm up and cool down activities and the **principles of exercise for each component** of health-related physical fitness.* The bolded part of the standard includes the second example: *Identify and apply principles of overload in safe, age-appropriate activities.* The two standards noted for eighth grade again show an overlap in the content to be learned. These two standards should be combined to read: *Assess progress on the components of health-related physical fitness (muscle strength, muscle endurance, aerobic capacity, flexibility, and body composition).*

Lack of sequence in the grade level standards

The selection of the verb should increase the difficulty of the learning from grade level to grade level. Bloom's (1956) taxonomy provides the necessary information and examples for this task. During the review of the state standards, several examples of using a higher-level verb (analyze, explain) in lower grade levels and a lower-level verb (identify, list) in a higher grade level were observed. For example:

Kindergarten – Explain base of support.

First Grade– Identify the base of support of balanced objects.

Additionally, there were examples of prerequisite knowledge (e.g., names of muscles) coming after the application of that knowledge (e.g., identify muscles being strengthened). For example:

Second Grade - *Identify muscles being strengthened during the performance of particular physical activities.*

Third Grade - *Name and locate the major muscles of the body.*