Chapter 9

Assessing Student Learning

# Summary

This chapter helps you with the second part of the backward design process—establishing acceptable evidence to show how well students have learned. It details what is assessed (student performance of standards in the psychomotor, cognitive, fitness, and affective domains), how students are assessed (using various methods and scoring tools), and when in the learning process students are assessed (before, in diagnostic testing; during, in formative testing; and after, in summative testing). The chapter also discusses grading as the expression of a collection of summative assessments.

# Key Objectives

* Distinguishing between psychomotor, cognitive, fitness, and affective assessments
* Describing the difference between product and process assessments and how they are used to assess progress toward psychomotor and fitness goals
* Distinguishing between methods of assessment and scoring tools and how they are used to assess progress toward psychomotor, cognitive, fitness, and affective goals
* Distinguishing between diagnostic, formative, and summative assessments and how they are used to plan and execute the learning process
* Describing the four-step process for designing summative assessments
* Explaining how to use standards-based grading

# Big Ideas

* Standards-based assessment is used to determine whether and to what degree students can demonstrate, in context, what they know and can perform relative to identified standards of learning. Demonstrating learning requires something tangible in the form of a performance that can be observed or a product that can be examined and assessed with predetermined criteria.
* Physical education assessments address standards from four domains:
  + Cognitive assessments measure how well students can demonstrate an understanding of movement concepts, principles, strategies, and tactics as applied to the learning and performance of physical activities. Cognitive assessments are differentiated based on levels of thinking and stages of cognitive development.
  + Psychomotor assessments measure how well students can perform motor skills, movement concepts, strategies, and tactics. More specifically, process assessments focus on describing how well students execute the movements of a skill, whereas product assessments focus on the outcome of the skill (e.g., how far, how high, how well a game tactic worked). Psychomotor assessments are differentiated based on stages of motor development and learning.
  + Fitness assessments measure students’ regularity of participation in physical activity and how well they have achieved and maintained health-related fitness. Fitness assessments are specific to the component of fitness being measured (e.g., muscular endurance, flexibility) and differ based on maturation of children’s body systems.
  + Affective assessments measure students’ personal and social responsibility and their identification of the benefits of physical activity. More specifically, process assessments are used to measure student performance of personal and social responsibility, whereas cognitive assessments are used to determine students’ ability to describe and reflect on their responsibility behaviors and on the feelings and benefits that they associate with participation in physical activity. Affective assessments are differentiated based on children’s levels of social and cognitive development.
* Psychomotor, cognitive, fitness, and affective goals are measured by means of various assessment methods and scoring tools. Assessment methods include, among other options, skill demonstration, game and movement sequence performance, quizzes, and reflection summaries. Assessment provides a way for children to demonstrate what they have learned. Scoring tools can take various forms, including answer keys, checklists, and rubrics—all of which are used to measure how well students perform on a given assessment.
* Student assessment occurs throughout the learning process, in which it is embedded from beginning to end. It can be diagnostic, formative, or summative.
* Diagnostic assessments, in the form of pretests, give teachers information about how well prepared students are to engage with new content. Formative assessments, on the other hand, are used periodically to determine students’ progress toward learning the new content. Teachers use evidence from diagnostic and formative assessments to differentiate and individualize learning experiences.
* Summative assessment is used at the end of a designated learning period (i.e., unit of instruction or marking period) to determine how well students have mastered the learning goal. Planning learning requires starting with the end in mind. Thus, summative assessments are designed first, so that the diagnostic and formative assessments and the learning experiences can be designed with an eye toward helping students prepare to reach the learning goal.
* Grades are based on students’ progress toward and achievement of standards-based learning goals. It is expected as a matter of course that students will be prepared for and participate in learning activities.

# Part 1: What Assessment Am I?

For each of the following tasks, identify the type of assessment—as either product or process and as either psychomotor or fitness—and explain why.

## Task 1: Underhand Throw

One partner performs the underhand throw 10 times while the other observes and records check marks in the appropriate boxes. The observer considers two criteria for each throw.

|  |  |  |
| --- | --- | --- |
| Criteria: underhand throw | Yes | Needs work |
| Positions feet together and shoulders square to target. |  |  |
| Swings throwing arm straight back. |  |  |
| Steps forward onto opposite foot. |  |  |
| Swings throwing arm forward. |  |  |
| Releases with arm outstretched toward target. |  |  |
| Scoring:  Proficient = yes for all  Developing = needs work for one or more | | |

Process or product? \_\_\_\_\_\_\_

Psychomotor or fitness? \_\_\_\_\_\_\_

Why?

## Task 2: Fitness Activity Challenge

Partners take turns performing activities and recording scores for each other.

|  |  |  |  |
| --- | --- | --- | --- |
| Activity | Challenge | Completed? | Actual |
| Modified push-up | 5 reps |  |  |
| Bent-arm hang | 1 minute |  |  |
| Horizontal ladder | 2 crossings |  |  |
| Medicine ball self-catch | 10 catches |  |  |
| Scoring:  Advanced = exceeded challenge on ≥2, met challenge on others  Proficient = met challenge on all 4  Developing = met challenge on 2 or 3  Beginning = met challenge on 0 or 1 | | | |

Process or product? \_\_\_\_\_\_\_

Psychomotor or fitness? \_\_\_\_\_\_\_

Why?

## Task 3: Game Activity Challenge

In a group of eight, four members play and the other four observe. The players play 2v2 keep-away for three minutes, while their respective observers (one assigned to each player) make a check mark in the table each time the assigned performer executes an indicated tactic. Group members then switch roles.

|  |  |  |  |
| --- | --- | --- | --- |
| Student | Moves to get open. | Passes to open teammate. | Positions self to block passing lane. |
|  |  |  |  |
|  |  |  |  |
| Scoring:  ≥5 for each skill = great offense and defense (keep it up!)  ≥3 for each skill = good offense and defense (keep trying!)  <3 for any skill = good start (keep working!) | | | |

Process or product? \_\_\_\_\_\_\_

Psychomotor or fitness? \_\_\_\_\_\_\_

Why?

## Task 4: Jogging

One partner jogs outside of a set of cones set up as an oval track in half the gymnasium while the other partner stands inside the cones to observe and record check marks in the appropriate boxes. The observer considers two criteria at a time.

|  |  |  |
| --- | --- | --- |
| Checklist: jogging form | Yes | Needs work |
| Runs tall and leans slightly forward. |  |  |
| Swings legs from hips and bends knees. |  |  |
| Lands on heels with weight rolling along the outside portion of foot to toes. |  |  |
| Points toes straight ahead. |  |  |
| Swings arms straight forward and backward with hands relaxed. |  |  |
| Breathes from stomach in an even rhythm. |  |  |
| Scoring:  Proficient = yes for all  Developing = needs work for one or more | | |

Process or product? \_\_\_\_\_\_\_

Psychomotor or fitness? \_\_\_\_\_\_\_

Why?

# Part 2: When to Assess

Students complete the chart by indicating when each type of assessment is used and the purposes of each type. Students use the word bank for assessment methods to identify examples for each type of assessment.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Diagnostic | Formative | Summative |
| When |  |  |  |
| Purposes |  |  |  |
| Examples |  |  |  |

**Assessment Method Word Bank**

* Skill test
* Fitness test
* Project
* Peer checklist
* Self-checklist
* Journal
* Journal summary
* GPAI (Game Performance Assessment Instrument)
* Final performance

# Review Questions

1. Describe what is assessed when evaluating achievement of psychomotor goals (including the use of product and process assessments).
2. Describe what is assessed when evaluating achievement of fitness goals (including the use of product and process assessments).
3. Describe what is assessed when evaluating achievement of cognitive goals (including the use of the levels of thinking).
4. Describe what is assessed when evaluating achievement of affective goals (including the use of process and cognitive assessments).
5. Describe the difference and connection between methods of assessment and scoring tools.
6. Give examples of assessment methods and scoring tools that could be used to collect evidence of student learning for each: cognitive, psychomotor, fitness, and affective learning goals.
7. Distinguish between diagnostic, formative, and summative assessment and how they are used to plan and execute the learning process.
8. Explain how to use standards-based grading.