

McCullick, B., & Byra, M. (2002). Spectrum teaching styles and the national standards for physical education: Introduction. *Teaching Elementary Physical Education*, 13(2), 6-7.

Introduction

This year marks the 36th anniversary of the publication of Muska Mosston's *Teaching Physical Education* (1966). Since the original publication, three additional editions have been published (1981, 1986, & 1994). A fifth edition of the text is forthcoming in 2002. Many in the field of physical education and education alike have embraced the Spectrum of Teaching Styles as a framework for delivering instruction in schools (Byra & Jenkins, 2000; Gerney & Dort, 1992; Greenspan, 1992; Mellor, 1992).

In 1995 the National Association for Sport and Physical Education (NASPE) published national standards in physical education (NASPE, 1995). This document, *Moving into the Future: National Standards for Physical Education*, was published for two purposes: "to establish content standards for the physical education school program that clearly identify . . . what a student should know and be able to do as a result of a quality physical education program" (NASPE, 1995, p. viii); and "to establish teacher-friendly guidelines for assessment of the content standards" (p. viii). Given the recent nation wide movement towards standards-based instruction, *Moving into the Future* has been used extensively in the development of state, regional, and local physical education standards and benchmarks.

The special feature herein serves two purposes: (a) to provide readers examples of how Spectrum teaching styles can be employed in the everyday instructional world of elementary physical education teachers; and (b) to describe how the Spectrum of Teaching Styles and national standards of physical education are interconnected. First, a description of the Spectrum is presented to initiate the unacquainted reader with the teaching styles, then a description of the development of the national standards in physical education follows.

Spectrum of Teaching Styles

The Spectrum of Teaching Styles is a framework of instructional models that is based on teacher and learner decision-making (Mosston & Ashworth, 1994). The Spectrum is framed by two landmark styles: style A, where the teacher is the primary decision-maker, and style K where the learner is the primary decision-maker. Between are nine additional landmark teaching styles each defined according to who makes what decision when.

Mosston and Ashworth (1994) indicate that decisions related to any teacher-learner transaction can be categorized into three sets: pre-impact, impact, and post-impact. The pre-impact set of decisions relates to the planning of an episode. The authors identify this as "the statement of intent or lesson plan" (p. 19). Major decision categories within the pre-impact set include the specific tasks to be taught, the lesson objectives and outcomes, and the lesson logistics.

The impact set of decisions relates to the face-to-face transactions that occur between the teacher and students in the learning environment. Mosston and Ashworth describe the impact decision-making phase as "putting the intent [pre-impact decisions] into action" (p. 22). There are three components of the impact set of decisions: (a) teacher and learner role expectations, (b) demonstration of the task to be performed or presentation of the problem to be solved, and (c) explanation of logistical procedures (order of performing tasks, time decisions, interval, posture, quantity, attire/appearance, and location) to follow when performing the task or solving the problem.

The focus of post-impact set of decisions is assessment of and feedback about learner performance and providing assessment of the overall teaching-learning experience. Each teaching style in the Spectrum is based on the "systematic shifting of [pre-impact, impact, and post-impact] decisions between teacher and learner" (Goldberger & Gerney, 1986, p. 215).

The Spectrum is divided into two clusters of teaching styles, reproductive and productive. The reproductive cluster reflects the capacity to reproduce known knowledge and skills while the productive cluster reflects the capacity to produce new knowledge and skills (Mosston & Ashworth, 1994). The reproductive cluster includes the Command, Practice, Reciprocal, Self-Check, and Inclusion teaching styles. These teaching behaviors are referred to as Styles A, B, C, D, and E, respectively. In the reproductive teaching styles a variety of teacher-learner expectations are represented. Specific content is acquired through a number of decision-making approaches, practice of specific skills, and feedback.

The productive cluster includes the Guided Discovery, Convergent Discovery, Divergent Production, Individual Program-Learner's Design, Learner Initiated, and Self-teaching styles of teaching, and are referred to as F, G, H, I, J, and K, respectively. In the productive teaching styles, the learner is presented a problem or question and then given time to discover solution(s) to the problem. When engaging in discovery, either convergent or divergent, the learner is traveling beyond the known and producing new knowledge. Thus, cognitive processes beyond memory and recall

are triggered. Often this discovery process produces intrinsic motivation. Descriptions of each teaching style, reproductive and productive, are included in the second article (Garn & Byra).

National Standards for Physical Education

The development of national standards for physical education was formally begun in the mid 1980s by a group of physical education specialists and teacher educators established by the NASPE, an association of the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD). This group, identified as the Outcomes Committee, was charged with the task of defining a physically educated student through the development of grade-specific outcome statements. In 1992, the committee clearly defined a physically educated person and presented it in the publication titled *Outcomes of Quality Physical Education Programs* (NASPE, 1992). Following this publication, the Standards and Assessments Task Force, a second group of physical education specialists and teacher educators, was formed by NASPE to develop content standards and assessment materials based on the outcomes document. The work of the Standards and Assessment Task Force resulted in the publication titled *Moving into the Future: National Standards for Physical Education* (NASPE, 1995), which elaborated on the outcomes document. The development of national physical education standards paralleled the national education reform movement to clarify and establish important educational outcomes in other areas of the K-12 school curriculum. The seven national standards are presented in Table 1.

Place Table 1 About Here

Feature Articles

The first article in this special feature section, titled "Psychomotor, Cognitive, and Social Development Spectrum Style," written by Garn and Byra, keys into the relationship that exists between the Spectrum of Teaching Styles and the national physical education standards. The purpose of this article is to illustrate how the Spectrum of teaching styles naturally aligns with the seven national standards in physical education. In the second article, titled "Maximizing Quality Teaching Time Through Reciprocal Style Teaching," Dorgo and Jackson describe how the Spectrum Reciprocal Style of teaching can be used by elementary teachers to reduce and even eliminate problems associated with class size and lack of equipment. In addition, the authors describe how several of the national standards relate to the Spectrum Reciprocal style of teaching. Jenkins and Todorovich describe, in the third article, the usefulness of the Inclusion style of teaching (Style E) when working with learners who exhibit different ability and motivational levels. This article is titled "Inclusion Style of Teaching: A Powerful Relationship with the National Standards." The relationship between Style E and the national standards is also addressed. Finally, Hall and McCullick describe the essence of the Divergent Production Style of teaching and how it facilitates the achievement of certain national standards and provides students with opportunities to be creative. This article is titled "Providing Students the Opportunity to Discover, Design, and Invent: The Divergent Production Style of Teaching."

Table 1
National Standards for Physical Education

Standards	A physically educated person . . .
1	demonstrates competency in many movement forms and proficiency in a few movement forms.
2	applies movement concepts and principles to the learning and development of motor skills.
3	exhibits a physically active lifestyle.
4	achieves and maintains a health-enhancing level of physical fitness.
5	demonstrates responsible personal and social behavior in physical activity settings.
6	demonstrates understanding and respect for differences among people in physical activity settings.
7	understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction.

Reference List for the Special Feature Articles

- Byra, M., & Jenkins, J. M. (1998). The thoughts and behaviors of learners in the inclusion style of teaching. Journal of Teaching in Physical Education, 18, 26-42.
- Byra, M., & Jenkins, J. (2000). Matching instructional tasks with learner ability: Inclusion style of teaching. Journal of Physical Education, Recreation, and Dance, 71(3), 26-30.
- Gerney, P., & Dort, A. (1992). The Spectrum applied: Letters from the trenches. Journal of Physical Education, Recreation, and Dance, 63(1), 36-39.
- Goldberger, M., & Gerney, P. (1986). The effects of direct teaching styles on motor skill acquisition of fifth grade children. Research Quarterly for Exercise and Sport, 57, 215-219.
- Graham, G., Holt/Hale, S.A., & Parker, M. (2001). Children moving: A reflective approach to teaching physical education. (5th ed.). Mountain View, CA: Mayfield.
- Greenspan, M.R. (1992). The Spectrum introduced: A first year teacher's project. Journal of Physical Education, Recreation, and Dance, 63(1), 40-41.
- Mellor, W. (1992). The Spectrum in Canada and Great Britain. Journal of Physical Education, Recreation, and Dance, 63(1), 47.
- Metzler, M. W. (2000). Instructional models for physical education. Needham Heights, MA: Allyn & Bacon.
- Mosston, M. (1966). Teaching physical education. Columbus, OH: Merrill.
- Mosston, M. (1981). Teaching physical education (2nd ed.). Columbus, OH: Merrill.
- Mosston, M., & Ashworth, S. (1986). Teaching physical education (3rd ed.). Columbus, OH: Merrill.
- Mosston, M., & Ashworth, S. (1994). Teaching physical education (4th ed.). New York: Macmillan.
- NASPE. (1992). Outcomes of quality physical education programs. Reston, VA: American Alliance for Health, Physical Education, Recreation, and Dance.
- NASPE. (1995). Moving into the future: National physical education standards - A guide to content and assessment. St. Louis, MO: Mosby.
- Rink, J.E. (1998). Teaching physical education for learning (3rd ed.). Boston: WCB McGraw- Hill.
- Runco, M. A. (1994). Problem finding, problem solving, and creativity. Norwood, NJ: Ablex.
- Siedentop, D., & Tannehill, D. (2000). Developing teaching skills in physical education (4th ed.). Mountain View, CA: Mayfield.