

Introduction to Mosston's Spectrum of Teaching Styles

A Brief Review of Literature about the Spectrum of Teaching Styles*

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Mosston's Spectrum of Teaching Styles provided comprehensive and coherent ideas link theories about teaching and learning that are useful for teachers to implement in their gymnasiums (Ashworth, 2008a & b; Cothran et al 2005; Metzler, 2000). Theories about teaching directly influence teacher's perceptions, beliefs, and behaviors in their understanding and implementation of teaching. Throughout the years, there have been numerous advances to the ways of teaching in school physical education and in the physical education teacher education (PETE) major program. One original and significant development emerged forty-five years ago by a man named Muska Mosston; he formulated *The Spectrum of Teaching Styles (STS)*, which educators all over the world currently implement into their teacher training programs and classroom lessons on a daily basis (Ashworth, 1995). Mosston's *STS* designates eleven landmark teaching styles –each style can be recognized by a specific name or a corresponding letter. The appeal of this framework is that it offers different teaching and learning approaches that assist in the development of a variety of educational goals and they help teachers meet the needs and interests of each student. In addition, this framework offers an instructor the opportunity to see how to constantly modify his or her curriculum to meet different educational goals. Since students do not have the same motivations and do not learn the same, the Spectrum allows the instructor to differentiate instruction (Ashworth, 2008b). Mosston's Spectrum may be used as a guiding principle and an opportunity for constant growth as a physical educator (Ashworth, 1992).

Since the *STS* were introduced to the field of teaching physical education (Byra, 2002; Mosston & Ashworth, 1994, 2002, 2008b), it has been recognized by educators in many countries around the world and widely applied in their PETE programs.

Conceptually, the STS have continuously been refined since the first edition in 1966. (Boschee, 1972; Byra & Marks, 1993; Ernst & Byra, 1998; McCullick & Byra, 2002; Mosston & Ashworth, 1994, 2002, 2008b). Validating selected theoretical frameworks associated with the STS continues to be critical in the search for knowledge in regard to various instructional styles (Hurwitz, 1985; Metzler, 1983; Mariani, 1970; McCullick & Byra, 2002; Mosston & Ashworth, 1994, 2008; Seifried, 2005). As Ashworth (2008) indicated, "The Spectrum is a unified theory about teaching and learning behavior; and a comprehensive framework for understanding the teaching-learning process." (Ashworth, 2008b).

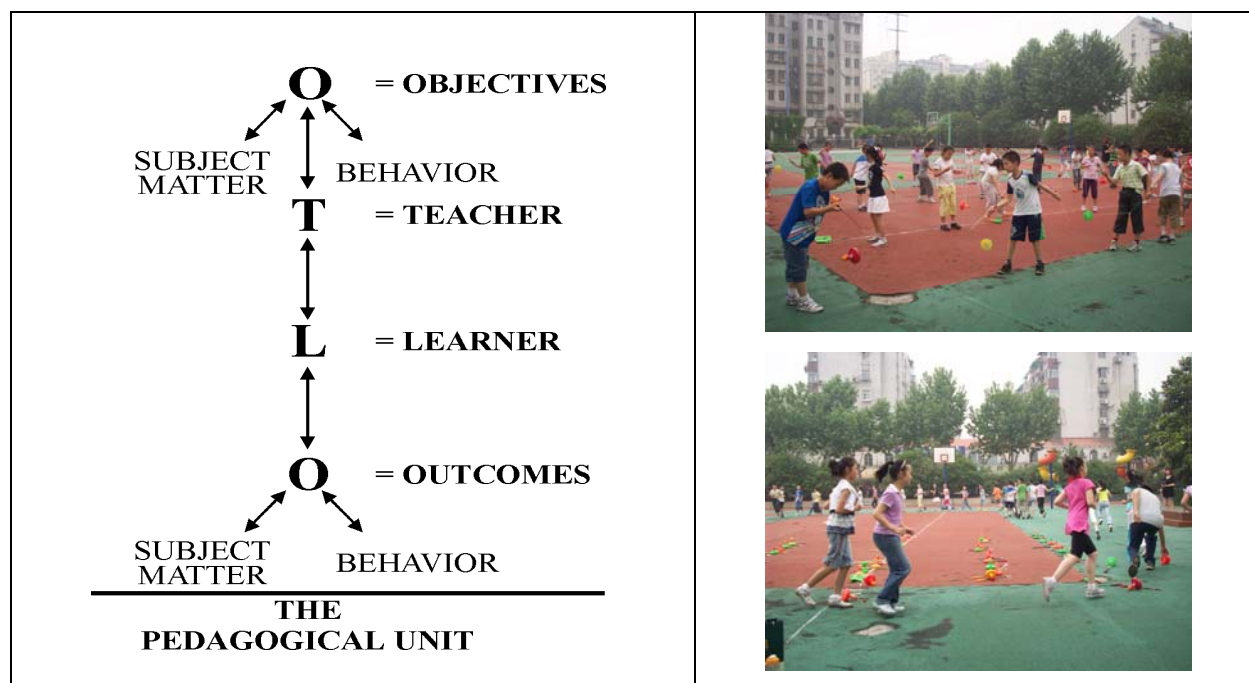
After Mosston's unfortunate passed away in 1994, his long-time colleague Dr. Sara Ashworth, a distinguish professor, researcher and leader in the field of teaching physical education (She is the copyright holder of the First Online Edition of *Teaching Physical Education*, 2008), continued the quest to further delineate the Spectrum theory. Moreover, from 1980 to 2010, Dr. Ashworth has continued to present and conduct workshops throughout the USA, Canada, Europe, the Middle East, South America and Taiwan.

As researchers have pointed out, there is no single, perfect style of teaching that could be utilized within the framework of teaching physical education. Verifying the effect of the STS is always an interesting topic in the research of pedagogical inquiry (Byra & Jenkins, 2000; Gerney & Dort, 1992; McCullick & Byra, 2002; Mosston & Ashworth, 2008; Zeng et al., 2009). As a result, teachers and scholars in the field of teaching physical education apply the STS as a framework for delivering instruction and conducting research at different school levels (Byra & Jenkins, 2000; Gerney & Dort, 1992; Greenspan, 1992; Mellor, 1992; Metzler, 2000; Zeng et al., 2009).

The findings of those pedagogical studies provided valuable information that enabled teachers to purposefully prepare and implement their teaching to match with various teaching objectives and the characteristics of their diverse learners (Byra & Jenkins, 2000; Greenspan, 1992; Metzler, 2000; Seifried, 2005; Zeng et al., 2009). Mosston's STS is based on the notion that teaching is a chain of decision-making events for both the teachers and students. Mosston's identification of the specific decisions and the clustering of these decisions produced the Spectrum, that is various

landmark teaching-learning styles, each embracing different learning objectives significantly. The Spectrum allows for the learner to develop in unique ways by creating diverse experiences through each landmark style. Every teaching episode provides the learner an opportunity to focus on different attributes along each of the five developmental channels: cognitive, social, emotional, physical, and moral/ethical. (Ashworth, 2008b).

Physical education is a unique subject that allows for growth of the whole individual. The Spectrum's non-versus approach (meaning: no one teaching-learning approach is better than another) allows the student to be an integral part of his/her learning outcomes. In Mosston's Spectrum, each episode has a pedagogical unit that consists of a flow of objectives, teaching behavior, learning behavior, and outcomes The O-T-L-O (Mosston & Ashworth, 2008). As the O-T-L-O diagram shows below:



Teaching objectives and outcomes have both subject matter and behavioral components. The subject matter consists of the task being performed (e.g. learning tennis serving, basketball shooting, volleyball bumping, soccer dribbling; and learning offensive and defensive plays, etc.). The behavioral component consists of the human behavior actions of the learner (e.g., How do we want the learners to participate or interact while performing

the task? Cooperating with fellow students, self-assessment which relies on cognitive skills and honesty in evaluation of oneself or others, self-control, etc.). It is through these subject matters and behavior outcomes that a student develops cognitive, social, emotional, physical, and moral/ethical attributes (Ashworth, 2008b).

The central axiom of the Spectrum theory is that ***teaching behavior is a chain of decision making*** (Mosston & Ashworth, 2008). This axiom might produce the question: what is the best way to teach? The Spectrum of teaching gives teachers various options on how to teach based on the decision making behaviors of the teacher and student. The increasing awareness of the constructionist nature of learning suggests that the teacher centered (versus) style of learning may be ineffective in maximizing student learning (Cothran and Kulinna, 2003).

The STS is composed of eleven interconnected styles, and each style possesses a unique structure determined by the decision-making of the teacher and the learner O-T-L-O. Specific styles are developed by gradually shifting decision-making from the teacher making maximum decisions (Styles A – Command) to the learner making maximum decisions (Style K – Self-Teaching). Mosston and Ashworth (2008) indicated that different teaching styles are suitable for achieving different learning outcomes and the different outcomes are associated and can be connected to the five Developmental Channels: physical, social, emotional, cognitive, and ethical. In order to select a style of teaching, Mosston and Ashworth (2008) suggested that physical educators first select the subject matter they want to teach; second, they determine the objectives to be accomplished when engaged in the task; third, they must select an appropriate teaching style that enable the learners to accomplishes the learning intent. A constant consideration when selecting a style is the type of learners in the class; this ensures that the teaching style selected is congruent with the developmental level of the learners (Mosston & Ashworth, 2008). If the primary task requires imitating of a model and receiving specific feedback from the teacher, a style from the reproduction cluster of styles A-E should be selected; because these styles elicit reproduction and practice of knowledge and skills. These tasks have a performance correctness associated to them.

Mosston and Ashworth (1994) identified four reasons for developing the Spectrum of Teaching Styles. The first reason relates to the fact that individual teachers

rely on a favorite way of teaching based on their personal values and experiences. The second reason relates to student individual differences and uniqueness. Students learn in different ways, come from different cultural backgrounds, and enter physical education with different levels of movement experiences and motivations. The third reason that leads to the development of the Spectrum relates to the wide array of objectives that are associated with the delivery of physical education activity and how to accomplish them. The fourth reason that lead to the development of the Spectrum of Teaching Styles was the realization that ideas about teaching were presented in opposition, in a “versus” approach---one idea against another.

Garn and Byra (2002) pointed out that implementing the STS is framed around the idea that learners can reproduce (mirror or replicate) and produce (discover or create) movements and knowledge. All activities presented in physical education have components that can be taught using either the reproductive teaching styles (A-E) or the productive teaching styles (F-K).

Although each teaching style on the Spectrum develops objectives connected to each Developmental Channel — physical, cognitive, social, emotional, and ethical, domains of learning, each individual teaching style has its unique set or it’s specific profile of learning objectives on the Developmental Channels. This suggests that one Spectrum teaching style may be more desirable to use than another when working towards a specific learning domain (Garn & Byra, 2002).

Throughout the years, the STS have provided physical educators and scholars with a set of alternative instructional styles, a widely accepted and understood language, a model for decision-making, and a potential resource for conducting research studies in physical education teaching settings (Beckett, 1991; Byra & Jenkins, 2000; Ernst & Byra, 1998; McCullick & Byra, 2002; Metzler, 1983, 2000; Zeng et al., 2009). The STS also provides an inclusive approach aimed at teaching the “whole person”. Within the Spectrum, teacher and learner’s behaviors are influenced by the teacher-learner relationship (McCullick & Byra, 2002).

Benefits the Spectrum of Teaching Styles can bring to both teacher and students

Mosston and Ashworth (2008) further indicated that the Spectrum of Teaching Styles (STS) offer a range of options to teachers that can accommodate students' diverse learning styles and meet the learning intentions of a teaching session more accurately. Regarding this concern, Doherty (2010) described that: the STS provides a sound basis for analysis of one's teaching and the effectiveness of selected styles to meet particular learning intentions. Coates, (1997) also indicated that the STS emphasizes relationships between the different styles, rather than their differences; it follows that effective instruction in physical education takes account of this variety in teaching styles and the ability to use the style that is most suited to the situation. By the same symbol it would be misplaced to assume that a given style is associated with a particular physical activity skill or sport technique. The Spectrum permits a wide range of freedom and celebrates the creativity of the individual teacher by encouraging deliberate decision making canopy designs and combinations of different styles between and among the eleven different landmark styles. In this way, teaching is both an art and science (Doherty, 2010).

Doherty (2010) further described that: in teaching physical education, the effective teacher is involved in adjusting and reviewing tasks according to the needs and responses from their students. Being able to use different styles of teaching identified in Mosston's framework and being able to design new *canopy* learning experiences creates an optimum working environment, maintains good discipline, sets high standards, facilitates learners' thinking and achieves the multiple learning objectives that serve as our professional challenge. That is truly worthy of serious consideration in our teaching.

Last, Dr. Ashworth (2008b) pointed out, "All teaching methods or approaches attempt to support an educational intent that benefits learning. However, the Spectrum is unique in its "decision making" framework. This framework makes possible the delineation of eleven landmark teaching-learning styles, the identification of the specific learning objectives in each teaching option, and the detailed application procedures for implementation of each teaching-learning option. The Spectrum is a system that embraces a range of teaching-learning options. No one behavior is more valued than another—each contributes a portion to the mission and goals of education." (<http://www.>

spectrumofteachingstyles.org/faq). This is known as “**non-versus approach**”. Such a non-versus system honors the full range of educational ideas, thus rejecting none (p. 2. Mosston & Ashworth, 2008).

As a distinguish Spectrum scholar, Dr. Goldberger (2008) described that: *The Spectrum of Teaching Styles—a unified theory of teaching. Any theory attempts to explain a phenomenon based on a set of principles. In this case, the phenomenon is teaching, and the organizing principle is that teaching can be defined in terms of decision-making. Other theories about teaching exist, but none is as intuitive or as elegant as the Spectrum. You will learn about a continuum, a spectrum, of teaching styles, each of which is defined by who, teacher or learner, makes which decisions. Each style is unique in terms of the learning conditions it engenders; yet each is connected to an integrated whole—a spectrum. You will learn about the relationship of each style to the three essential elements of any teaching transaction: teacher, learner and content (pp. 10, in Mosston & Ashworth, 2008).*

In introducing the Spectrum I’ve used the word elegant advisedly. This adjective implies richness, grace, and refinement. It implies, simultaneously, simplicity and complexity. A spider’s web and a snowflake are elegant structures. As you will see, the Spectrum is indeed elegant. Yet it is also practical, intuitive, and fundamentally humane. Intuitive in the sense that it is user-friendly. Humane in the sense that it clarifies and amplifies that essential human-to-human interaction we call teaching. (pp. 10-11, in Mosston & Ashworth, 2008).

In summary, Dr. Ashworth (2008b) stated that “The Spectrum is a unified theory about teaching and learning behavior; a comprehensive framework for understanding the teaching/learning process. The Spectrum paradigm originated in the 1960s and has continued to be researched, developed, and implemented in the reality of classrooms around the world” (<http://www.spectrumofteachingstyles.org/>).

In the next chapters you will see the “**Descriptions of Landmark Teaching Styles: Style Descriptions Inventory**” – written by Dr. Ashworth; and follow that you will see many implementing examples for each of the styles in the settings of secondary school physical education classes.

LANDMARK STYLES

Command (A)

Practice (B)

Reciprocal (C)

Self-Check (D)

Inclusion (E)

Guided Discovery (F)

Convergent Discovery (G)

Divergent Discovery (H)

Learner-Designed Individual Program (I)

Learner-Initiated (J)

Self-Teaching (K)