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Sport Education, Tactical Games, and Cooperative Learning: Theoretical and Pedagogical Considerations

Ben Dyson, Linda L. Griffin, and Peter Hastie

The purpose of this article is to present Sport Education, Tactical Games, and Cooperative Learning as valuable instructional models in physical education. Situated learning is used as a theoretical framework and connection between Sport Education, Tactical Games, and Cooperative Learning. The structures of Sport Education, Tactical Games, and Cooperative Learning allow for participation to occur in a student-centered learning curriculum as opposed to a teacher-centered teaching curriculum. The teacher facilitates learning activities that have the potential to provide students with a holistic education that promotes social, physical, and cognitive learning outcomes. The emphasis is on active learning that involves the processes of decision making, social interaction, and cognitive understanding for students.

Many educators believe that students rather than the teacher should be at the center of the teaching and learning process. We present three student-centered models to learning: Sport Education (SE), Tactical Games (TG), and Cooperative Learning (CL), which hold specific assumptions about teaching and learning in physical education. The pedagogical implications of using SE, TG, and CL call for the teacher to serve as a facilitator of the learning within a student-centered environment. The teacher purposefully shifts responsibility to the student engaged in authentic, meaningful, and learning tasks.

SE, TG, and CL have the potential to move physical education beyond an activity-driven view of curriculum to a model-based instructional approach to teaching and learning (Metzler, 2000). With concerns regarding physical education as a subject matter in schools, it appears to be time to explore a reconceptualization of K-12 physical education through a models-based instruction (Carlson, 1995;

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Locke, 1992; O'Sullivan, 1989; Siedentop & O'Sullivan, 1992; Siedentop, Doutis, Tsangaridou, Ward, & Rauschenbach, 1994). In this paper we will argue that SE, TG, and CL have the potential to move physical education beyond a command style multi-activity approach to instruction (Metzler, 2000).

We argue that SE, TG, and CL can provide structures or instructional models for situated learning to occur within a community of practice based on the meaningful, purposeful, and authentic learning activities presented and practiced by students (Lave & Wenger, 1991). Situated learning has emerged as a framework to theorize and analyze pedagogical practices in physical education (Kirk & Macdonald, 1998; Kirk & MacPhail, 2002). Individuals are considered part of a holistic learning enterprise, not acting or participating in isolation. The assumptions and organizing structures of SE, TG, and CL allow for participation to occur in a student-centered "learning curriculum" as opposed to a teacher-centered "teaching curriculum" (Lave & Wenger, 1991, p. 97). This view of a learning centered curriculum moves the teacher off center stage and provides an opportunity for the student (i.e., learner) to help other students learn.

The purpose of this article is to (a) make theoretical connections from situated learning to Sport Education, Tactical Games, and Cooperative Learning; (b) describe Sport Education, Tactical Games, and Cooperative Learning as instructional models; (c) provide pedagogical implications of using these instructional models; and (d) offer challenges to physical educators. SE, TG, and CL each provide a set of structures that allows students to participate in meaningful learning activities.

Theoretical Foundations

Situated learning theory will be used as a frame for exploring the potential of SE, TG, and CL as valuable instructional models for physical education. As set forth by Kirk and Macdonald (1998), situated learning theory is conceptualized as one component of a broader constructivist theory of learning in physical education. Lave and Wenger (1991) posit that in this mode of learning, the mastering of knowledge and skills require that novices move toward more advanced participation (full participation) in the socio-cultural practices of the community. In this section, we will begin with a brief overview of constructivism and then discuss situated learning theory as it is applied to SE, TG, and CL.

Perkins (1999) emphasized three tenets of constructivism: the active learner, the social learner, and the creative learner. As active learners, students are not passive recipients of knowledge but are involved in tasks that stimulate decision making, critical thinking, and problem solving. As social learners, students construct knowledge through social interaction with their peers, facilitated by their teachers. As creative learners, students are guided to discover knowledge themselves and to create their own understanding of the subject matter. Individuals draw on prior knowledge and experiences to construct knowledge (Griffin & Placek, 2001).

Situated Learning

Situated learning provides an authentic framework in which to position teaching and learning in physical education. Situated learning theory investigates the relationships among the various physical, social, and cultural dimensions of

the context of learning (Lave & Wenger, 1991). Social and cultural contexts contribute to and influence what is learned and how learning takes place. Lave and Wenger (1991) discuss "legitimate peripheral participation within a community of practice" as a key concept for situated learning theory. Lave and Wenger (1991) refer to legitimate peripheral participation as participation that occurs within sets of relationships in which "newcomers" can move toward "full participation" by being involved in particular experiences or practices, and this develops new sets of relationships. Learning is not the reception of factual knowledge or information, but rather the legitimate (genuine), peripheral (complex inter-play of persons, activity, knowledge, and the social world), participation (activity toward a specific task/ goal). Lave and Wenger (1991) state that legitimate peripheral participation "obtains its meaning, not in a concise definition of its boundaries, but in its multiple, theoretically generative interconnections with persons, activities, knowing, and world" (p. 121).

Kirk and Macdonald (1998) provide a useful explanation of community of practice. "We understand the notion of community of practice to refer to any collectivity or group who together contribute to shared or public practices in a particular sphere of life" (p. 380). The social and cultural situation of the teaching environment contributes significantly to what is learned and how learning takes place (Kirk & Macdonald 1998). We argue that SE, TG, and CL can provide structures or instructional models for situated learning to occur within a community of practice based on the meaningful, purposeful, and authentic tasks presented and practiced by students.

SE, TG, and CL develop activities, which provide learners with a structured framework for making sense of learning activities being presented. Legitimate peripheral participation is intended to convey the sense of authentic, meaningful, and purposeful participation by students in an activity. Learning takes place in the interactive social world within social practices or interpersonal relationships that are in the process of production, reproduction, transformation, and change (Lave & Wenger, 1991). Kirk and Macdonald (1998) have argued that "school physical education may regularly and consistently *fail* to provide young people with the opportunity for legitimate peripheral participation in a community of practice of exercise, and physical recreation" (p. 382).

Constructivist and situated learning perspectives have been endorsed as providing a potentially useful reconceptualization of existing approaches to teaching and learning in physical education (Chen & Rovegno, 2000; Dodds, Griffin, & Placek, 2001; Ennis, 2000; Rovegno & Bandhauer, 1997; Kirk & Macdonald, 1998; Rovegno & Kirk, 1995). Consistent with this line of thought, SE, TG, and CL have the potential to represent situated learning within a social constructivist theoretical framework. There are behavioral underpinnings, however, to each of these instructional models, but for this article we have chosen a constructivist perspective. The authors acknowledge that this is our theoretical representation of these models (our ontology) and that there are forms of SE (Alexander et al., 1993; Siedentop, 1994, 2002) and CL that are behavioral (Barrett, 2000; Slavin, 1990, 1996).

SE, TG, and CL have several similar pedagogical principles. First, all of these models advocate a student-centered approach in which learning takes place in a participation framework (Lave & Wenger, 1991). Second, learning activities have the potential to include social, physical, and cognitive learning outcomes. Third,

students work in small groups (i.e., communities of practice) and rely on each other to complete the learning activity (positive interdependence). Fourth, the teacher facilitates learning and shifts responsibility to students through learning activities designed to hold students accountable. SE, TG, and CL emphasize active learning within a social practice and involve the processes of decision making, social interaction, and cognitive understanding of various physical activities. The three models consider developmental factors that involve the modification of activities to meet the developmental needs of the learners in order to optimize the potential for success.

Sport Education

Sport education (SE) is an instructional model which links the sport taught in physical education to the wider sporting culture (Siedentop, 1994). Focusing essentially on the notion of authenticity, it is Siedentop's belief that the essential features of sport that lead to its attractiveness are rarely reproduced in physical education. Siedentop lists six key features of the sport experience that make it authentic: (a) sport is done by seasons; (b) players are members of teams and remain in that team for the entire season; (c) seasons are defined by formal competition, which is interspersed with teacher and student directed practice sessions; (d) there is a culminating event to each season; (e) there is extensive record keeping; and (f) there is a festive atmosphere in which the season (and particularly the culminating event) take place. Siedentop (1994) contrasts these features with the typical sports unit within physical education where units rarely last longer than three weeks, team selection is changed daily and is usually ad hoc, and very little (if any) of the particular sport's culture and ritual is transmitted through the experience. The aim of SE is to create competent, literate, and enthusiastic sports players. A system of tasks and learning activities are planned that will result in students not only becoming more skillful, but understanding the histories, traditions, and nuances of the sport, as well as becoming willing participants within the wider sport culture.

SE places students in small-sided teams and takes them through a series of skill practices (planned and carried out by teachers and peer coaches) and through developmentally appropriate games conducted as authentic competition. That is, in contrast to the more common ad hoc game context of physical education where students play in nonconsequenced matches, students in sport education become members of teams that stay together for the entire length of a season, and they play in games that are modified in the number of players per team (3-a-side volleyball).

During a SE season, students also take greater responsibility for the organization and management of the sporting experience. A typical SE season involves students not only in skill learning and game play, but also in adopting leadership positions and taking responsibility for the conduct of the unit. Student roles may include coaches, captains, referees, scorers, statisticians and members of the sports organizing board. Thus SE is designed to offer students a more *complete* sport experience than that of simply an isolated player.

As the season progresses, refining and practicing skills take less class time, and the focus shifts to a formal team competition in which the spirit of the competition is to compile points for winning matches, showing good sporting behavior and fair-play, being organized, and completing managerial duties. At the end of the formal competition, a variety of awards are presented such as final standings, referee, fair play, and participation awards.

The essential argument for SE lies in the belief that appropriately conducted sport experiences in community and interscholastic sport capture the enthusiasm of participants and provide experiences that are valued by participants, the significant adults in their lives, and the communities in which they live. Siedentop (1994) writes that skill practice in physical education is frequently decontextualized from how the skills are used in games. Tactical understanding and strategic performance are sometimes stated as goals, but few instructional tasks have this focus (Romar & Siedentop, 1994). Scrimmages, group tasks that simulate game conditions with frequent stop/starts, are fundamental to sport practice but seldom seen in physical education.

SE's conceptual roots were derived from play education, with Siedentop (1980) arguing that the meaning and potential of physical education was best explained in reference to the concept of play. Sport education evolved from play education and is based upon two assumptions. First, that sport, properly understood, is a form of play, and second, that in more mature society, more people are engaged in play and a mature sport culture. "The model is, and always has been, rooted in sport and play" (Siedentop, 2002, p. 415). Siedentop suggests that play can absorb participants in a powerful and complete manner. He argues that play can motivate student engagement and encourage them to be physically active throughout their lives. Emerging from this notion of play education a body of research has emerged to support the implementation of SE in New Zealand (Grant, 1992), Australia (Alexander, Taggart, & Medland, 1993) and the United States (Carlson & Hastie, 1997; Hastie, 1996, 1998; Hastie & Siedentop, 1999).

Kirk and Macdonald (1998) have suggested that by recasting physical education lessons as matches and training sessions, sport education reproduces aspects of the contemporary community of practice, as it exists outside the school. In this aspect of the model, then, SE fits within Lave and Wenger's (1991) theory of situated learning. That is, SE presents students with forms of legitimate peripheral participation in a community of practice. This legitimate participation "... is intended to convey the sense of authentic or genuine participation, where a person's involvement in the practices of a community are meaningful to them as individuals and also holds significance for other community members" (Kirk & Macdonald, 1998, p. 380). SE is an example of authentic participation in physical education since it involves participation in some form of "real sporting performance or experience." Wiggins' (1993) notion of bringing a performance to the capability to "execute a task or process and to bring it to completion" (p. 202) is an inherent part of sport education.

Tactical Games

Bunker and Thorpe (1982) proposed Teaching Games for Understanding (TGfU) as a shift from a content-based approach with highly structured lessons to a more student-based approach that links tactics and skills in game context. They argued that by reducing the technical demands of the game through appropriate modifications, participants are able to first develop an understanding of the tactical aspects of the game and then build on this understanding with technical or tactical practice to progress toward the advanced game. Tactical Games (TG; Griffin, Mitchell, & Oslin, 1997), which extends TGfU, advocates similar principles and the authors proposed a variety of levels of tactical complexity as well as a more

authentic framework for assessing game performance. Griffin et al. (1997) proposed a simplified three-stage model, which focuses on the essential lesson components of the model, namely modified game play, development of tactical awareness and decision making through questioning, and development of skill.

As an instructional model, the goal to be achieved through TG is for students to become improved games players by foregrounding the decision-making process (i.e., tactical awareness). Within games, tactical problems are foregrounded thereby allowing the students multiple opportunities to problem solve and practice the appropriate tactical response (French & McPherson, 2003). In a TG model, students first play a modified game that highlights a particular tactical problem, which becomes the instructional focus. Second, questions are designed to develop tactical awareness (i.e., understanding of what to do to solve a problem). Third, situated practices guide the learner to practice essential skills or movements to solve tactical problems presented by the initial game or game form. Finally, the final game provides students with the opportunity to apply their practice in an authentic setting (Mitchell, Oslin, & Griffin, 2003).

Promoters of the tactical games model (i.e., TGfU, game sense, play practice, and concept-based-games) believe that games are highly motivating and thus can be an important part of a physical education curriculum (Thorpe et al., 1984; Griffin et al., 1997). In fact, students in games units usually long to get to game play and in requesting the game they take the position that games, as compared to skills practice, are fun! Games help students develop a sufficient level of skillfulness so that they experience the joy and pleasure of games that will perhaps afford them continued motivation and increased competence to continue to play later in life (Allison, Pissanos, & Turner, 2000; Corbin, 2002; Griffin et al., 1997).

There are three major assumptions about games that underpin TG. First, games can be modified to be representative of the advanced game form and conditioned (i.e., exaggerated by rule changes) to emphasize tactical problems encountered within the game. The use of small-sided games helps to slow down the pace and momentum of the game so there is a better chance for the development of game appreciation, tactical awareness, and decision making. Teachers should view the small-sided games as building blocks to the advanced form, not as ends in themselves. Second, games provide an authentic context for assessment. Assessing students during a game is the most meaningful way for them to receive formative feedback and help the learner's development toward skillfulness and competence as a games player (Corbin, 2002). Third, games have common tactical problems, which form the basis of the games' classification system and serve as the organizing structure for the tactical games model.

The classification system has four major categories: target, fielding/run score, net/wall, and invasion games. Classifying games provides students with a thematic way to view games in which they identify the similarities among games. Advocates of the model argue that many games within each category have similar tactical problems, and understanding these similar tactical problems can assist in transferring performance from one game to another (Bunker & Thorpe, 1982; Griffin et al., 1997). In using TG, teachers may explicitly teach students to transfer knowledge they have about one game to another, simply because they are in the same classification. For example, it needs to be pointed out that pickle ball is a net/wall game, sharing tactical similarities with tennis and badminton.

In the context of TG, questioning is a critical teaching skill the teacher uses to guide students in identifying solutions to the tactical problem presented in the game. As facilitators, teachers will need to know when to use questions and when to provide answers. Literature on tactical games teaching has been consistent in emphasizing the importance of high quality questions (Bunker & Thorpe, 1982; Australian Sports Commission, 1997; Griffin et al., 1997). The quality of questions is critical to problem solving in a tactical games model and should be an integral part of the planning process.

Central to TG are the tactical problems that each classification presents, which must be overcome (solved) in order to score, to prevent scoring, and to restart play. Through games, students identify the various tactical problems a game or game form presents and explore solutions to these problems by making decisions and applying particular movements and skills. Levels of game (i.e., tactical) complexity can help teachers match game complexity with students' game play development. Proponents of a TG model believe that all students can play a game if that game is modified to enable meaningful play to occur (Ellis, 1986; Mitchell, Oslin, & Griffin, 2003; Thorpe, 2001). Games may need to have few skills, few rules, and as few players as possible.

Kirk and MacPhail (2002) have offered a connection between TG and situated learning. They present a modification and extension of the original TG model that draws on a situated learning perspective within a constructivist perspective. Kirk and MacPhail (2002) provide constructs for conceptualizing the teaching and learning of games while rethinking the TG instructional model from a situated learning perspective. Concerning situated learning and the TG model, Kirk and MacPhail (2002) suggest "explicit attention to the learner's perspective, game concept, thinking strategically, cue recognition, technique selection, and skill development as the clustering of strategies and techniques, and situated performance as legitimate peripheral participation in games" (p.189).

Cooperative Learning

Cooperative Learning (CL) is an instructional model that also shifts the focus of learning to the student. A primary goal in CL is that each student becomes a meaningful participant in learning. Students work together in small, structured, heterogeneous groups to master the content. The students are not only responsible for learning the material, but also for helping their group-mates learn (Antil, Jenkins, Wayne, & Vadasy, 1998; Putnam, 1998).

There is a growing body of research in education that reports the benefits of cooperative learning (Cohen, 1994; Johnson & Johnson, 1989; Kagan, 1990; Slavin, 1990, 1996). Substantial evidence exists to support the idea that students working in small cooperative groups can master material presented by the teacher better than students working on their own (Cohen, 1994; Johnson & Johnson, 1989; Slavin, 1990, 1996). CL also has social outcomes such as positive inter-group relations, the ability to work collaboratively with others, and the development of self-esteem (Cohen, 1994; Johnson & Johnson, 1989; Slavin, 1990, 1996).

There are four major CL approaches: (a) conceptual, (b) structural, (c) curricular, and (d) complex instruction. First, Johnson and Johnson (1989) have developed the conceptual approach, which is based on the premise that teachers

can learn the key elements of structuring effective cooperative learning activities. Johnson, Johnson, and Johnson-Holubec (1998) have presented five main elements that they believe are necessary for cooperative learning to be successful. First, positive interdependence refers to each group member learning to depend on the rest of the group while working together to complete the task. Second, individual accountability is defined as practices teachers use to establish and maintain student responsibility for appropriate behavior, engagement, and outcomes. Third, promotive face-to-face interaction is literally head-to-head discussion around the group in close proximity to each other. Fourth, interpersonal skills and small group skills are developed through the tasks and include listening, shared decision making, taking responsibility, learning to give and receive feedback, and learning to encourage each other. Finally, group processing refers to time allocated to discussing how well the group members achieved their goals and maintained effective working relationships.

Second is the structural approach (Kagan, 1992). "The structural approach to cooperative learning is based on the creation, analysis, and systematic application of structures, or content-free ways of organizing social interaction in the classroom" (Kagan, 1990, p. 12). The structural approach to cooperative learning is based on different strategies that Kagan (1990) referred to as structures, such as Jig-saw and Learning Teams. To ensure success when using the structural approach, Kagan (1992) highlighted two main elements, positive interdependence and individual accountability.

Third is the curricular approach, which differs from the content-free structural approach in its grade level-specific and subject-specific curricula (Slavin, 1990). In Slavin's (1996) highly structured approach, he defined group goals as students working together to earn recognition, grades, rewards, and other indicators of group success. The focus is on team rewards, equal opportunity for success (they work on material appropriate to their own grade level), and individual accountability. Individual accountability is assured because students take quizzes and complete assignments that contribute to the team score. Slavin (1996) found that cooperative learning could be an effective means of increasing student achievement, but only if the essential elements of specific group goals and individual accountability are integrated into the cooperative learning methodology.

Finally, Cohen's (1994) complex instruction approach focuses on group work as a strategy for enhancing student social and academic development. Complex instruction is a method of small group learning that features open-ended discovery or a conceptual task that emphasizes higher order thinking skills. Of the four approaches, Cohen's curricula and grade-level nonspecific approach is the least structured in her adherence to a formalized prescription of cooperative learning. Cohen and Lotan (1997) argued that group work is a powerful method for conceptual learning by creating problem-solving situations to facilitate intellectual and social goals and hold students accountable. Group roles such as material manager, harmonizer, and resource person are assigned to students. The teacher's role is to facilitate the group work and emphasize that all skills and abilities are important and relevant for completing the task (positive interdependence).

One of the most appealing attributes of cooperative learning is its dual focus on social and academic outcomes (Antil et al., 1998; Cohen, 1994; Putnam, 1998).

Research has shown that CL can have a positive impact on social variables including inter-group relations, ability to work collaboratively with others, and self-esteem (Johnson & Johnson, 1989; Sapon-Shevin, 1994; Slavin, 1996).

Cooperative learning works to place the student at the center of learning. In a cooperative learning lesson, all students contribute to group work, and students rely on each other to complete the task. The teacher acts as a facilitator and works to shift the responsibility to the students while holding them accountable. Putnam (1998) pointed out that educators are not typically aware of the conditions that are essential for cooperative learning to lead to positive outcomes. Putnam (1998) suggested that “simply placing students in groups and asking them to cooperate will not ensure higher achievement or positive interpersonal outcomes” (p. 18). The implementation of cooperative learning is a complex process (Antil et al., 1998; Cohen, 1994; Cohen & Lotan, 1997; Dyson, 2002; Putnam, 1998) and it may take three or more years for a teacher to feel comfortable with this instructional model.

In physical education, CL has enhanced students’ goals of the lessons, helped students take responsibility through roles, improved students’ motor skills and strategizing, enhanced students’ communication skills, improved students’ working together, and held students accountable through the use peer assessment and task sheets (Dyson, 2001, 2002). Barrett (2000) found that cooperative structures increased students’ trials in sports skills units. In addition, low-skilled male and female students also showed improved performances.

In physical education the structure “Learning Teams” have been used to apply cooperative learning in the gymnasium (Dyson, 2001, 2002). Learning Teams is based on Student Teams-Achievement Divisions (Slavin, 1990) and Learning Together (Johnson & Johnson, 1975). Learning Teams provide students with the opportunity to share leadership and responsibility roles and use collaborative skills to achieve group goals. Learning Teams are useful for teaching any physical education content, although this structure can be readily applied to sports skills and tactics. Student roles and practice tasks are written on a task sheet (Dyson & Rubin, 2003). For example, students could be in groups of four, in roles such as coach, organizer, recorder, and encourager, actively providing feedback to each other. Students could work on the tactical problem “creating space in attack” in soccer using a “give and go” practice task. Students in their groups/teams rely on each other to practice, monitor, and assess their group mates’ skills and strategies. At the end of class students discuss their skills and strategies in a group processing session facilitated by their teacher.

In teacher preparation, faculty often use different cooperative learning structures in their programs. For example, in a sport-related games course focused on volleyball, the instructor could set up a CL jigsaw structure to teach the students’ skills or tactics. Students could be placed into four even groups and each group could practice a basic skill or tactic: passing a free ball, receiving a serve, setting, or a penetrating setter offense. Each group would then be expected to establish a plan to teach the critical elements of their assigned skill or tactic. Once quality of performance is verified by the instructor, one student from each group (now the expert/coach) would rotate around to each group to teach the other groups the critical elements of the skill or tactic.

Cooperative learning could also be considered an instructional model that represents “legitimate peripheral participation” with student-centered tasks that

require student input and experiences that are meaningful, challenging, and authentic for students. The group dynamic in cooperative learning allows for students to take on roles and responsibilities and provides students with the opportunity to achieve tasks while they are socially interacting. Therefore, the situated learning perspective could provide a theoretical construct for conceptualizing cooperative learning.

Pedagogical Implications

We argue that SE, TG, and CL can provide structures or instructional models for situated learning to occur within a community of practice based on the meaningful, purposeful, and authentic learning activities presented and practiced by students (Kirk & Macdonald, 1998; Kirk & MacPhail, 2002; Lave & Wenger, 1991). Practitioners need to take into account several pedagogical considerations when implementing any of these three instructional models: (a) the teacher is a facilitator, (b) students are active learners, (c) students work in small groups and modified games, (d) learning activities are authentic and developmentally appropriate, (e) learning activities are interesting and challenging, and (f) students are held accountable.

The Teacher is a Facilitator. As the facilitator, the teacher sets problems or goals, and students are given an opportunity to seek solutions to these problems. Solutions to the problem are identified through a questioning process and these solutions then become the focus of a situated practice. The teacher also facilitates the practice by either simplifying or challenging based on student abilities. In this way, the teacher is working with the students' prior knowledge to develop new knowledge. The teacher guides the instruction and curriculum as a facilitator of learning.

Students Are Active Learners. In SE, TG, and CL, students have a high rate of engagement. Students take responsibility for organization and management and take on leadership roles. Teachers delegate responsibility so that more students can talk and work together on multiple learning tasks. Therefore, students have positions of responsibility. The teacher is not at the center of instruction and students are active learners, creative learners, and social learners (Perkins, 1999).

Students Work in Groups or Modified Games. Grouping is usually heterogeneous in small groups or teams. The behaviors required in cooperative small groups are radically different from the behavior required in traditional classroom settings (Cohen, 1994). Therefore, it is not surprising that developers of CL recommend that prior to implementing cooperative learning, teachers use team-building or social skill-building activities that are designed to develop the appropriate behaviors for cooperation as well as some specific skills for working successfully with others (Antil et al., 1998; Dyson, 2002; Dyson & Rubin, 2003).

Modifying the games allows students to practice their skills and decision-making in "real" game-like situations. Having the teacher emphasize authentic performance puts students in an active learning situation (Darling-Hammond, 1997). For an activity to be considered as authentic in physical education, it must involve some form of observable performance (Wiggins, 1993).

Learning Activities Are Interesting and Challenging. When learning activities are either interesting or challenging to students, they are more likely to be satisfying or even enjoyable. The discovery of solutions to various learning activities requires that students contribute to the group or team task. Students will need

to rely on each other to complete the learning activity or score the point, which is an example of positive interdependence. Learning activities can also include one or more physical, social, and/or cognitive goals that are aligned with the national standards (NASPE, 1995).

Students Are Held Accountable. Assessment is an ongoing part of instruction, and students are provided with continuous feedback for reflecting on and problem solving about games or physical activity experiences. Assessment should be authentic and therefore aligned with the national standards and specific instructional objectives. Students are held accountable in different ways, which match the basic assumptions of each model. For example, in CL students could be held accountable by having all group members sign task sheets after the learning tasks are completed. In SE, students can be held accountable by both teacher and peer assessments using portfolios (e.g., folders) to keep track of various learning activities students record. Finally in TG, students could be held accountable in game play by using teacher and peer assessments such as the Games Performance Assessment Instrument (Mitchell & Oslin, 1999).

The implementation of any of these instructional models is a complex and labor-intensive enterprise and it may take two or more years for a teacher to be comfortable and effective. Teachers should start by implementing one or two learning activities using their strongest content knowledge. Physical education teachers need guidance and on-going professional development to be successful with any of these instructional models.

The Intersection of SE, TG, and CL Instructional Models

In this paper we have provided situated learning as the theoretical connection between Sport Education, Tactical Games, and Cooperative Learning. Figure 1 provides a representation of the intersection of these pedagogical models. Generally these models are considered as mutually exclusive approaches to teaching.



Figure 1 — The intersection of sport education, tactical games, and cooperative learning.

However, if we look at them as examples of situated learning, we can see that each may actually inform practices within the other models.

SE, TG, and CL can intersect in various ways. For example, SE can provide a structure to allow students to organize their own tournament within a TG unit. CL structures can teach students to cooperate in activities and game play so that students can compete more effectively working as a team against another team in a SE unit. TG can foreground the decision-making aspect of the games and encourage students to use their problem solving skills in a SE unit. Alternatively, CL or SE could provide the structure for a TG unit by keeping students in small teams for the entire unit and providing clearly defined roles and responsibilities for students. Depending on the teacher's objectives, SE could focus more on competitive games and CL can provide more cooperative games.

We are concerned with the activity-based instruction that predominates our field (Metzler, 2000; Hastie & Siedentop, 1999). It is time to move away from the activity-based instruction that plagues us and develop more sophisticated understandings and practices for our field. It is time to think differently and time to challenge our university programs to develop undergraduates that can be true "change agents" in the field. There are too many innovations that have ended as "innovation without change" (Sparkes, 1991). It is time to challenge teachers to move beyond a "busy, happy, and good" (Placek, 1983) activity-based instruction to provide more educative experiences for their students. It is time for our field to engage in reconstruction of the culture of physical education through models-based instruction that uses pedagogical models, such as Sport Education, Tactical Games, and Cooperative Learning, which can restructure the way teachers do their work. This will not come easily for university faculty or teachers in the field and will require a "conceptual shift" in the way we think about and operationalize our curriculum and instruction. Fullan (1999) has stated that educational change is always messy, chaotic in nature, non-linear, labor intensive, and complicated work. There are no short-term fixes and no one model is a panacea for the complicated myriad of problems that plague physical education in our schools. We believe that Metzler's (2000) models-based instruction is the wave of the future. It is our responsibility as academics to guide this complex and no doubt chaotic process. SE, TG, and CL can be integrated as important components of a teacher preparation program (Oslin, Collier, & Mitchell, 2001; Dyson & Wright, 2003).

Kirk and Macdonald (1998) provided new possibilities for theorizing learning in physical education by presenting situated learning as a theoretical model. They suggested that through exploration of innovative ideas "we might better understand the subject [physical education] and what might contribute to the education of young people who face new challenges, risks, and opportunities in the new millennium" (p. 385). The challenge for our field is to move beyond superficial engagement with these instructional models and for educators to tease out the theoretical constructs, contradictions, and articulations among and between these models to better inform practice (Rink, 2001). This process has the potential to ultimately provide a more comprehensive experience for students in their physical education classes.

SE, TG, and CL represent situated learning in physical education as meaningful, purposeful, and authentic learning activities presented and practiced by students. To gain the full benefits of these instructional models, teachers need to make a conceptual shift and move beyond an activity-driven view of curriculum to

model-based instruction (Metzler, 2000). First, the assumptions and organizational structures of SE, TG, and CL provide a student-centered learning curriculum as opposed to a teacher-centered teaching curriculum. A student-center learning curriculum puts students in the role of active learner in which students work together and help each other in the process of learning. Second, the teacher shifts from director (i.e., transmitter) to the facilitator of learning activities. Third, learning activities promote social, physical, and cognitive learning outcomes thus have the potential to provide students with a holistic education. Finally, SE, TG, and CL emphasize active learning that is socially situated, which involves decision making, social interactions, and cognitive understanding of various physical activities.

We agree with Kirk and Macdonald (1998) concerning the need to explore innovative approaches to the practices of school physical education. Siedentop (1992) stated, "we need to think differently about what we do in the name of physical education" (p. 70). Perhaps it is time that we give Sport Education, Tactical Games, and Cooperative Learning a closer examination.

References

- Alexander, K., Taggart, A., & Medland, A. (1993). Sport education in physical education: Try before you buy. *ACHPER National Journal*, **40**(4), 16-23.
- Allison, P. C., Pissanos, B. W., & Turner, A. P. (2000). Preservice physical educators' epistemologies of skillfulness. *Journal of Teaching in Physical Education*, **19**, 141-161.
- Antil, L.R., Jenkins, J.R., Wayne, S.K. & Vadasy, P.F. (1998). Cooperative Learning: Prevalence, conceptualizations, and the relation between research and practice. *American Educational Research Journal*, **35**, 419-454.
- Australian Sports Commission (1997). *Game sense: Developing thinking players*. Belconnen: ASC.
- Barrett, T. (2000). *Effects of two cooperative learning strategies on academic learning time, student performance, and social behavior of sixth grade physical education students*. Unpublished doctoral dissertation, University of Nebraska, Lincoln.
- Bunker, D. & Thorpe, R. (1982). A model for the teaching of games in the secondary schools. *Bulletin of Physical Education*, **10**, 9-16.
- Carlson, T.B. (1995). We hate gym: Student alienation from physical education. *Journal of Teaching in Physical Education*, **14**, 467-477.
- Carlson, T. & Hastie, P. (1997). The student social system within sport education. *Journal of Teaching in Physical Education*, **16**, 176-195.
- Chen, W. & Rovegno, I. (2000). Examination of expert teachers' constructivist-orientated teaching practices using a movement approach to physical education. *Research Quarterly for Exercise and Sport*, **71**, 357-372.
- Cohen, E.G. (1994). Restructuring in the classroom: Conditions for productive small groups. *Review of Educational Research*, **64**, 1-35.
- Cohen, E.G., & Lotan, R.A. (1997). *Working for equity in heterogeneous classrooms: Sociological theory in practice*. New York: Teachers College Press.
- Corbin, C. B. (2002). Physical activity for everyone: What every physical educator should know about promoting lifelong physical activity. *Journal of Teaching in Physical Education*, **21**, 128-144.
- Darling-Hammond, L. (1997). *The right to learn*. San Francisco: Jossey-Bass.
- Dodds, P., Griffin, L. L., & Placek, J. H. (2001). A selected review of the literature on the development of learners' domain-specific knowledge. *Journal of Teaching in Physical Education* [Monograph], **20**, 301-313.
- Dyson, B. (2001). Cooperative learning in an elementary school physical education program. *Journal of Teaching in Physical Education*, **20**, 264-281.

- Dyson, B. (2002). The implementation of cooperative learning in an elementary school physical education program. *Journal of Teaching in Physical Education*, **22**, 69-85.
- Dyson, B., & Rubin, A. (2003). How to implement cooperative learning in your elementary education program. *Journal of Physical Education, Recreation, and Dance*, **74**, 48-55.
- Dyson, B., & Wright, P. (2003). *Social Responsibility and Cooperative Learning: Comparative and contrasting perspectives*. Paper presented at the Physical Education Special Interest Group, Research on Learning and Instruction in Physical Education at the American Education Research Association, Chicago, IL.
- Ellis, M., (1986). Making and shaping games. In R. Thorpe, D. Bunker & L. Almond (Eds.), *Rethinking games teaching* (pp. 61-65). Loughborough, UK: University of Technology, Department of Physical Education and Sports Science.
- Ennis, C.D. (2000). Canaries in the coal mine: Responding to disengaged students using theme-based curricula. *Quest*, **52**, 119-130.
- French, K.E., & McPherson, S.L. (2003). Development of expertise. In M. Weiss and L. Bunker (Eds.), *Developmental sport and exercise psychology: A lifespan perspective*. Morgantown, WV: Fitness Information.
- Fullan, M. (1999). *Change forces: The sequel*. London: Falmer Press.
- Grant, B. C. (1992). Integrating sport into the physical education curriculum in New Zealand secondary schools. *Quest*, **44**, 304-316.
- Griffin, L.L., & Placek, J.H. (2001). The understanding and development of learners' domain specific knowledge: Introduction. *Journal of Teaching in Physical Education*, **20**, 299-300.
- Griffin, L.L., Mitchell, S.A., Oslin, J.L. (1997). *Teaching sport concepts and skills: A tactical games approach*. Champaign, IL: Human Kinetics.
- Hastie, P.A. (1996). Student role involvement during a unit of sport education. *Journal of Teaching in Physical Education*, **16**, 88-103.
- Hastie, P. (1998). The participation and perceptions of girls within a unit of sport education. *Journal of Teaching in Physical Education*, **17**, 157-171.
- Hastie, P.A., & Siedentop, D. (1999). An ecological perspective on physical education. *European Physical Education Review*, **5**, 9-29.
- Johnson, D., & Johnson, R. (1975). *Learning together and alone*. Englewood Cliffs, NJ: Prentice Hall.
- Johnson, D.W., & Johnson, R.T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book.
- Johnson, D.W., Johnson, R.T., & Johnson-Holubec, E. (1998). *Cooperation in the classroom*. (7th ed.). Edina, MN: Interaction Book.
- Kagan, S. (1990). The structural approach to cooperative learning. *Educational Leadership*, **47**, 12-16.
- Kagan, S. (1992). *Cooperative learning*. (2nd ed.). San Clemente, CA: Kagan Cooperative Learning.
- Kirk, D., & Macdonald, D. (1998). Situated learning in physical education. *Journal of Teaching in Physical Education*, **17**, 376-387.
- Kirk, D. & MacPhail, A. (2002). Teaching games for understanding and situated learning: Rethinking the Bunker-Thorpe model. *Journal of Teaching in Physical Education*, **21**, 117-192.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Locke, L (1992). Changing secondary school physical education. *Quest*, **44**, 361-372.
- Metzler, M. (2000). *Instructional models for physical education*. Boston: Allyn and Bacon.
- Mitchell, S.A., Oslin, J.L., & Griffin, L.L. (2003). *Sport foundations for elementary physical education: A tactical games approach*. Champaign, IL: Human Kinetics.

- Mitchell, S.A., & Oslin, J.L. (1999). *Assessment in games teaching. NASPE assessment series*. Reston, VA: National Association of Sport and Physical Education.
- National Association of Sport and Physical Education (NASPE). (1995). *Moving into the future: National standards for physical education*. St. Louis, MO: Mosby.
- Oslin, J., Collier, C., & Mitchell, S. (2001). Living the curriculum. *Journal of Physical Education, recreation and Dance*, **72**(5), 47-51.
- O'Sullivan, M. (1989). Failing gym is like failing lunch and recess: Two beginning teachers' struggle for legitimacy. *Journal of Teaching in Physical Education*, **8**, 227-242.
- Perkins, D. (1999). The many faces of constructivism. *Educational Researcher*, **57**, 6-11.
- Placek, J. (1983). Conceptions of success in teaching: Busy, happy, and good? In T. Templin, and J. Olson (Eds.) *Teaching in Physical Education* (pp. 46-56). Champaign, IL: Human Kinetics.
- Putnam, J.W. (1998). *Cooperative learning and strategies for inclusion: Celebrating diversity in the classroom*. (2nd ed.). Baltimore, MD: Brookes.
- Rink, J. (2001). Investigating the assumptions of pedagogy. *Journal of Teaching in Physical Education*, **20**, 112-128.
- Romar, J., & Siedentop, D. (1994). *Case studies in teaching physical education*. Paper presented at the World Congress of the Association Internationale d'Ecoles Supérieures d'Education, Physique. Berlin.
- Rovegno, I., & Bandhauer, D. (1997). Norms of the school culture that facilitated teacher adoption and learning of a constructivist approach to physical education. *Journal of Teaching in Physical Education*, **16**, 401-425.
- Rovegno, I., & Kirk, D. (1995). Articulations and silences in social critical work on physical education: Towards a broader agenda. *Quest*, **47**, 447-474.
- Sapon-Shevin, M.K. (1994). Cooperative learning and middle schools: What would it take to really do it right? *Theory into Practice*, **33**, 183-190.
- Siedentop, D. (1980). *Physical education: Introductory analysis*. Dubuque, IA: W.C. Brown.
- Siedentop, D. (1992). Thinking differently about secondary physical education. *Journal of Physical Education, Recreation, and Dance*, **63**(7), 69-72, 77.
- Siedentop, D. (1994). *Sport education*. Champaign, IL: Human Kinetics.
- Siedentop, D. (2002). Sport education: A retrospective. *Journal of Teaching in Physical Education*, **2**, 409-18.
- Siedentop, D., & O'Sullivan, M. (1992). (Eds.). Secondary school physical education [Special Issue]. *Quest*, **44**.
- Siedentop, D., Douts, P., Tsangaridou, N., Ward, P., & Rauschenbach, J. (1994). Don't sweat gym. An analysis of curriculum and instruction. *Journal of Teaching in Physical Education*, **13**, 375-394.
- Slavin, R. (1990). *Cooperative learning: Theory, practice, research*. Englewood Cliffs, NJ: Prentice-Hall.
- Slavin, R.E. (1996). Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary Educational Psychology*, **21**, 43-69.
- Sparkes, A.C. (1991). The culture of teaching, critical reflection and change: Possibilities and problems. *Educational Management and Administration*, **19**, 4-19.
- Thorpe, R. (2001). Rod Thorpe on teaching games for understanding. In L. Kidman (Ed.) *Developing decision makers. An empowerment approach to coaching* (pp. 22-36). Auckland, New Zealand: Innovative Print Communication Ltd.
- Thorpe, R. D., Bunker, D. J., & Almond, L. (1984). A change in the focus of teaching games. In M. Pieron & G. graham (Eds.), *Sport pedagogy: Olympic Scientific Congress proceedings, Vol. 6* (pp. 163-169). Champaign, IL: Human Kinetics.
- Wiggins G. (1993). Assessment: Authenticity, context, and validity, *Phi Delta Kappan*, **75**, (3), 200-214.