The importance of context to learning: Physical education and outdoor education seeing eye to eye.

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Abstract

This paper draws on developments in educational learning theory to argue for the importance of the contextualised nature of learning, especially as this pertains to both physical education and outdoor education. In doing so it suggests that developments in physical education provide hope for addressing differences between it and outdoor education and for recognising some of the common ground that the two share.

Introduction

Outdoor education and physical education have a long history of connection. Notwithstanding this, and the continuing relation between the two areas in curriculum documentation, especially in Australia, many in outdoor education are moving away from physical education and further towards areas inclusive of cultural and environmental education (Lugg, 1999). The perception many in outdoor education have is that of physical education as a subject area with a major focus on sport related motor skill development. This perception has been strongly influenced by the mainstream practice of physical education in schools, rather than the developments which have occurred in model programs of physical education over the last twenty years. Much of this development has been underpinned by applications of advancements in learning theory.

Learning theory

Learning theory is of fundamental importance to pedagogy as it describes how learning occurs (Metzler, 2000). A teacher’s personal understanding of learning theory will therefore influence how he or she operates in the classroom in order to promote learning. There are many learning theories supported by differing views on the relative importance of both the mind and the environment to learning. Three categories encompass the basics of these theories: behaviourist; cognitive; and constructivist (Schunk, 1996). Behaviourism elevates the environment, and responses to it in the form of changes in behaviour, as the most important aspect of learning; cognitivist theories view the mind, exemplified as the thinking processes which result in learning, as the critical aspect upon which to formulate a theory of learning; constructivism takes on board the input from both behaviourist and cognitivist theories and “stresses the interaction between these influences. Learning must occur embedded in the context in which it occurs. Cognition is situated in contexts, and instruction must be presented in those contexts” (Schunk, 1996, p. 389). Kirk and Macdonald (1998) describe the central aspects of a constructivist orientation to learning as it being: (1) situated in social and cultural contexts; (2) developmental, involving both biological, environmental and
activity based influences; and (3) multidimensional rather than simplistic and linear in process, highlighting the influence of the hidden curriculum:

Learning is an active process in which the individual seeks out information in relation to the task at hand and the environmental conditions prevailing at any given time, and tests out his or her own capabilities within the context formed by the task and the environment [italics added]


Building on the tenets of constructivism, focusing especially on the importance of context to learning, situated learning theory views as central the idea that our lives consist of various ?communities of practice’ which provide meaning for our actions. A community of practice can be understood as “a set of relations among person, activity, and world, over time and in relation with other tangential and overlapping communities of practice” (Lave & Wenger, 1991, p. 98). We learn by participating with groups of others in these communities of practice. Lave and Wenger describe this process by saying that:

[L]earning as increasing participation in communities of practice concerns the whole person acting in the world. Conceiving of learning as participation focuses attention on ways in which it is an evolving, continuously renewed set of relations; this is, of course, consistent with a relational view, of persons, their actions, and the world, typical of a theory of social practice.

(Lave & Wenger, 1991, p. 49-50)

The cultural aspects of the community of practice are of paramount importance to learning. In fact the “activities of many communities are unfathomable, unless they are viewed from within the culture” (Brown, Collins & Duguid, 1989, p. 33). Brown et al. go on to observe that:

Unfortunately, students are too often asked to use the tools of a discipline without being able to adopt its culture. To learn to use tools as practitioners use them, a student, like an apprentice, must enter that community and its culture. Thus, in a significant way, learning is, we believe, a process of enculturation.

(Brown, et al., 1989, p. 33)

Learning becomes a form of enculturation in a community of practice conceived as a ?cognitive apprenticeship’ (Brown et al., 1989) or ?legitimate peripheral participation’ (Lave & Wenger, 1991), understandings which reveal learning as a relational, rather than an individual process (Linehan & McCarthy, 2000). Close connections to Vygotsky’s ?zone of proximal development’ (1978), which is that gap between what a learner can learn on their own and what they can learn with guidance or through collaboration, are also visible.

A teacher’s perspectives on behaviourism, cognitivism and constructivism will influence the ways in which they work to interpret the teaching and learning situation and present themselves and the relevant content material to students. A particular pedagogy is supported within a constructivist orientation:
From a constructivist perspective, teachers do not teach in the traditional sense of standing in front of a room of students and delivering instruction. Rather, they use materials with which learners become actively involved through manipulation or social interaction. Activities stress students’ observing, collecting data, generating and testing hypotheses, and working collaboratively with others. The class visits sites outside the classroom. Teachers integrate curricula by working together in planning. Finally, students are taught to be more self-regulated and take a more active role in their own learning by setting goals, monitoring and evaluating progress, and going beyond basic requirements by exploring interests.

(Schunk, 1996, p. 209)

Legitimate peripheral participation communicates that “the required learning takes place not so much through the reification of a curriculum as through modified forms of participation that are structured to open practice to nonmembers” (Wenger, 1998, p. 100). The world of the expert is a community of practice which has been cultivated mainly by experts and those striving to become experts. A student enters this situation as a novice, with the expert as teacher. The expert/teacher is a senior member of the community of practice, the novice/student, concomitantly, is a junior member. This notion of membership of the community of practice is central (Wenger, 1998). The experts are differentiated from the novices “not by their strategies but by their rich stores of knowledge” (Haskell, 2001, p. 107). This knowledge is made visible to students through practice in the community of which they are members.

The teacher is focused upon two main aspects of the teaching and learning milieu: (1) cultivating a community of practice within the class that provides a framework with which students can legitimately connect by giving meaning to the activities they are asked to participate in; and (2) cultivating a climate within which students are empowered, in real terms, to not only participate in the community of practice but to strive to be expert members of that community of practice.

**Sport as a community of practice**

The communities of practice most relevant to physical education are “the overlapping fields of sport, exercise and physical recreation” (Kirk & Macdonald, 1998, p. 382). Of these sport tends to be the most pervasive. Physical education has been dominated by the discourse “of traditional physical education’, and its key concern (and justification) the enhancement of sports performance, through teaching and coaching programmes, by the application of principles derived from scientific studies of human movement.” (Kirk, 1992, p. 160). Indeed, “games and sports are a large part of all physical education programs” (Rink, French & Tjeerdsema, 1996, p. 399). Currently, “physical education remains firmly associated with the wider world of sport” and “is regarded as a key foundation for ongoing involvement in sport.” (Penney, Clarke & Kinchin, 2002, p. 55). Beyond physical education, the community of practice of sport is “a pervasive part of life in contemporary society” (Coakley, 1994, p. 5) and “has become a social phenomenon of great magnitude and complexity” (McPherson, Curtis & Loy, 1989, p. 2).
Sport resonates strongly with contemporary physical education, however there are issues with regards to the ways in which the community of practice of school can embrace the community of practice of sport in its entirety. In many ways, sport and schooling mirror each other. Just as schooling is an institutionalised form of education, sport is an institutionalised form of physical activity (Phillips, 1993; Coakley, 1994). Just as the ways in which schools are organised carries with it a hidden curriculum (Jackson, 1968), the ways in which sport is organised also promotes certain cultural attributes beyond the more obvious outcomes. These cultural attributes are central aspects of the content of learning when learning is understood from a constructivist perspective, as in situated learning theory. Interestingly, many of the issues plaguing sport are also relevant in the discourse of schooling: racism and ethnicity; gender; commodification; and social class are all acknowledged issues for both sport (e.g., Kew, 1997; Lapchick, 1996) and schooling (e.g., McLaren, 1994; Apple, 1995). Physical education must operate within the overlap of these two communities of practice, sport and schooling, (see Fig. 1) and as such must attempt to critically question the cultural aspects of both in an effort to develop curricula which can reinforce the best of both worlds for the student, while acknowledging the difficulties created by the structures:

The learner’s active engagement with subject matter is embedded within and constituted by layers of physical, sociocultural, and institutional contexts. These contexts include the immediate physical environment of the classroom, gym, or playing field, social interaction between class members, the institutional form of the school, and aspects of culture such as media sport.

(Kirk & MacPhail, 2002, p. 184)

![Figure 1. A representation of the overlap between the communities of practice of sport and school, within that of society, and the place of physical education.](image-url)
There are four approaches applied in physical education, the content of which engages with the community of practice of sport to varying degrees (see Fig. 2).

![Figure 2. Four approaches to physical education and their relationship to each other with respect to the communities of practice of sport and society.](image)

### Development of sport skills

At the most narrow is the approach which focuses on the development of psychomotor skills. These are often presented and contextualised for students as sport skills (Gallahue & Ozmun, 1995). This approach has been at the centre of physical education practice for many years as “traditionally, physical educators have taken at face value the notion that before one can play the game, an individual must have at least some level of proficiency in the motor skills that are part of that game” (Rink et al., 1996, p. 399). When considered with respect to learning theory, the teaching of sport specific psychomotor skills, even when situated within the context the community of practice of sport, is often based in behaviourist understandings of learning (Evans, 1990).

The role of the teacher in the development of sports skills tends to fit that represented by “direct instruction” model of teaching, a model notably founded upon behaviourism (Metzler, 2000). In this model “the teacher will have a distinct set of learning goals in mind; present students with a model of the desired movement, skill or concept; and then organise student learning activities into segmented blocks of time, providing high rates of augmented feedback as learners practice each task or skill” (Metzler, 2000, p. 162). This equates with the direct teaching styles of Mosston and Ashworth (1994, p. 5) which “foster reproduction of past knowledge” and which “are designed for the
acquisition of basic skills”. This model of teaching and the ways in which the content material is often structured, i.e. objectively as competencies, relates well with traditional conceptions of the community of practice of school. School as an institution values objective forms of assessment, to which sport skills are relatively easily assimilated.

**Teaching games for understanding**

A broader approach to teaching physical education in terms of the community of practice of sport is Teaching Games for Understanding (TGfU) (Bunker and Thorpe, 1982) also known as the Tactical Games approach (Griffin, Mitchell, and Oslin, 1997) or Games Sense (Australian Sports Commission, 1997). The main focus of this approach is students’ interaction with the game form, which is that version of the game structured by the teacher to assist students at a particular developmental level to understand the tactics involved in the game (Bunker and Thorpe, 1982). TGfU involves a sequential method which incorporates an introduction to the game, including its classification and an overview of how it is played; promotion of student interest in the game by teaching students its history and traditions; development of students’ tactical awareness by presenting the major tactical problems within the game; game-like learning activities that teach students to recognize when and how to apply tactical knowledge; combination of tactical knowledge with skill execution, again in game-like activities; and development of proficient performance ability, based on this combination of tactical and skill knowledge (adapted from Metzler, 2000, p. 342). This approach has been acknowledged as constructivist in orientation:

> In our view the games sense approach may be consistent with constructivist approaches to learning, particularly due to the emphasis placed on active learning; the involvement of processes of perception, decision making, and understanding; and the developmental factors involving the modification of the games to suit the learner.

(Kirk & Macdonald, 1998, p. 377)

A point further supported by Rink, French and Tjeerdema:

> The games for understanding approach has attracted a variety of educators for a variety of reasons, not the least of which is the more current emphasis in education on hands-on, authentic, meaningful learning that more fully involves the learner. In this respect the games for understanding approach takes on a more developmental approach to learning and is particularly associated with a developmentalist constructivist orientation to learning and curriculum that emphasizes ‘experiential learning’ and ‘discovery learning’.

(Rink, French & Tjeerdema, 1996, p. 400).

The detail of the relation between TGfU and situated learning has been explored by Kirk and MacPhail (2002) who accentuate certain aspects of the principals of situated learning within Bunker and Thorpe’s original model. Emphasized is the importance of connecting the learning tasks with the students’ conceptualisation of the game, “this means that the tasks set by the teacher need to be seen as authentic and connected to the game from the learner’s point of view” (Kirk & MacPhail, 2002, p. 185). Also
important is that students’ performance be situated performance, allowing them to act as legitimate peripheral participants within the community of practice of sport.

The teacher undertaking the TGfU approach adopts a more indirect style of teaching than that prevalent within teaching sport skills (Mawer, 1999). Teachers structure the learning situation using modified games “to encourage students to think tactically” (Griffin et al., 1997, p. 15). The cognitive aspect of game play is a major focus and teachers use a discovery style of teaching (Mosston & Ashworth, 1994) in order to raise tactical and strategic problems relevant to the game with questions such as “What must I do to succeed in this situation?” (Griffin et al., 1997, p. 15), which students are asked to solve. Student decision making is contextualised within the game form itself.

Important to note here is that while the TGfU approach is situated within the community of practice of sport, the major focus is the game form and the approach only superficially attends to further aspects of the community of practice of sport within physical education.

Sport education

Sport education aims to reproduce the contemporary community of practice of sport and “offers young people opportunities to engage in the community of practice of sport as legitimate peripheral participants” (Kirk & Macdonald, 1998, p. 383). It was originally developed by Siedentop (1994), who saw that the links between school based physical education and sport in the community needed to be strengthened:

Siedentop’s work clearly indicates that it was a model that had connections between learning in school and experiences and opportunities beyond school at its heart. It was developed specifically to facilitate enhanced and explicit links between experiences in physical education and the wider world of sport. A major motivation for Siedentop was what he regarded as the notably ‘decontextualised’ nature of much learning in physical education and the need to enhance the ‘authenticity’ of the experiences offered in the subject.

(Penney, Clarke, and Kinchin, 2002, p. 56)

While attempting to develop a program linking physical education to sport beyond the school, Siedentop also acknowledged that a direct reproduction of community sport in physical education would bring with it some problems, acknowledged earlier, and so designed sport education to differ from institutional sport in three ways: participation requirements that demanded “full participation at all points in the season by all students” (Siedentop, 1994, p. 12); developmentally appropriate involvement with modified games and small team sizes, and more diverse roles, beyond that of performer, including coaches, referees and scorekeepers (Siedentop, 1994).

The major focus of sport education is sport (Hastie and Buchanan, 2000). The context of sport is broader than that of sport skills and the tactical aspects of games, in fact it encompasses them both (Siedentop, 1994). The teacher implementing the sport education approach incorporates game related skills and strategies into their teaching,
contextualising them not only within the game but within a well developed sporting competition.

**Teaching personal and social responsibility**

Teaching personal and social responsibility (TPSR) is an approach developed by Hellison (1985, 1995) who, via personal experience working with difficult students in physical education, determined that “helping my students to take more responsibility for their well-being and helping them to be more sensitive and responsive to the well-being of others was perhaps the best contribution I could make, especially given the personal and social problems my students faced” (Hellison, 1995, p. 4). The TPSR approach is not meant to replace other physical education content, but it “provides a program framework for the content” (Hellison, 1995, p. 52):

These programs use taking **responsibility** as the theme for teaching a variety of physical activities (e.g. basketball or martial arts club). Program participants are taught to take **self-responsibility** for their effort and goals and **social responsibility** for respecting the rights of others, for being sensitive to the needs of others, and for the group’s welfare. Instructional strategies include awareness of these responsibilities, experiences in becoming responsible, and individual and group reflection and decision making (empowerment) [italics in original].

(Martinek & Hellison, 1997, p. 45)

Hellison’s TPSR model is structured around five levels which “present a coherent set of progressive challenges to students” (Miller, Bredemeier & Shields, 1997, p. 124). These levels range from irresponsibility, through self-control, active involvement, and self-responsibility, to caring (Hellison, 1985). The model “presents another new form of physical education that attempts to reproduce the community of self-regulating citizens by providing young people with opportunities to learn to be accountable for their actions using sport as the medium” (Kirk & Macdonald, 1998, p. 383). The community of practice embraced within TPSR is thus not only that of sport but extends beyond sport to encompass the cultural aspects of citizenship within the wider community.

Hellison makes it clear that the community of practice of school is ineffective. He accuses schools of “having a confused mission, being unsuccessful at efforts at inclusion, and suffering from specialization and fragmentation because of size” (Hellison, 1985, p. 166). Teachers of physical education must understand this and work towards mitigating the negative effects of the culture of schools, while also empowering students to take on the same task (Evans 1990).

The role of the teacher working with the TPSR approach is “to live the levels, to ?embody’ the levels” (Hellison, 1995, p. 54). The teacher is an ?expert’ member of the community of practice and as such acts as a role model for those who are novices.

Although these approaches to physical education have been presented as separately existing entities, as one follows the progression from sport skills to TPSR the ways in which the approaches interrelate becomes more obvious. TGfU acknowledges the teaching of sport skills as well as some aspects of the community of practice of the sport
such as history and traditions (Metzler, 2000). Sport education incorporates the teaching of sport skills and strategies as well as personal and social development objectives (Siedentop, 1994). TPSR can be applied as a framework within most other approaches to physical education, but is best supported by a pedagogy which is based upon constructivism. TGfU and Sport Education can work well within a TPSR framework (Hastie & Buchanan, 2000).

**Physical education and outdoor education**

Outdoor education began outside the jurisdiction of schools via movements such as Outward Bound, which began in the 1940s in Scotland (Hahn, 1957), and organised recreational camping in the United States (Mitchell, 1938). In schools, outdoor education has a close affiliation with physical education, and in some senses grew from within physical education. The roots of outdoor education, as associated with school physical education, lie in the perceived benefits of outdoor recreation for health and fitness and the development of values, as exemplified in Outward Bound and organised recreational camping. Through the 1950s and 1960s these understandings of outdoor recreation in physical education formed the foundation for the eventual development of outdoor education as an area existing in its own right. This occurred in Australia and in Britain in the 1970s, and outdoor education became a subject in the upper levels of secondary schools in Australia in the 1980s.

The discourse of ‘traditional physical education’ which elevates sports performance, and specifically the skill aspects of sport performance, to a dominant position (Kirk, 1992) does not connect well with contemporary understandings of outdoor education (Lugg, 1999). The direction of development in outdoor education in many ways reflects the developments in approaches in physical education which have been outlined above. As a part of physical education, outdoor education began with a focus on the development of skills relevant to the practice of recreational activities such as canoeing, bushwalking, camping and skiing, but a persistent and growing realisation existed amongst teachers that there was more to the outdoor recreation context than simply a mastery of the relevant psychomotor skills. This same contextual understanding supported the development of TGfU, Sport Education and TPSR within physical education.

As games (TGfU), sport (Sport Education) and the wider community of citizens (TPSR) form the ever broadening communities of practice for these approaches to physical education, so they represent similar communities of practice within outdoor education (see Fig. 3).
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<tr>
<th>PHYSICAL EDUCATION</th>
<th>OUTDOOR EDUCATION</th>
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<td>Sport skills</td>
<td>Recreation activity (sport) skills</td>
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<td>Tactical games (TGfU)</td>
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<tr>
<td>Wider society of citizens (TPSR)</td>
<td>Wider society of citizens</td>
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Figure 3. A juxtaposition of approaches in physical education and outdoor education that exhibit similarities.

Games and outdoor education

Outdoor recreation activities can be construed as games. Within outdoor education, recreational activities such as bushwalking, canoeing, skiing and others are often conducted as journeys or expeditions (Gair, 1997) which can range in time span from a few hours to weeks. The journey concept creates a meaningful context within which the activities can be experienced, and as such there are various ‘tactical’ strategies which support better achievement of the aims of the journey, similar to a game as approached via TGfU. These journeys aims focus on the success of the group, as it is the whole group that must complete the journey safely. Many of the tactics revolve around notions of group support and students taking into consideration the needs of others as well as themselves. Issues in bushwalking such as ‘How fast should the group walk?’ , ‘When should the group have rests?’ , ‘Who should lead?’ , and ‘Where are we going?’ become emergent problems which the student group is asked to consider and develop solutions for.

Recreation as a community of practice

Outdoor recreation activities take place within the community of practice of recreation. Students have preconceived understandings of activities such as canoeing, bushwalking and skiing which are often strongly influenced by the media. The outdoor education teacher reproduces this recreation community of practice, with notable differences very similar to those developed by Siedentop (1994): maximum participation aligned with activities structured to be developmentally appropriate, small group sizes, and more diverse roles, including cook and cleaner. Some outdoor recreation activities are perceived as risky. Selecting activities and structuring them so that they will be appropriate to the students involved is an inherent skill of the outdoor education teacher, as it is of the physical education teacher. The journey concept is a key aspect of the recreation community of practice, especially where activities such as bushwalking, canoeing and cross country skiing are concerned, and this is reproduced within outdoor
education. This structure relates to outdoor recreation as the game fixture relates to sport.

**Personal and social education in outdoor education**

Outdoor education has long been known for its strengths in personal and social education (Ainley, Batten, Collins & Withers, 1998; Hargreaves, Baglin, Henderson, Leeson and Tossell, 1988), a point well supported by Hopkins and Putnam:

> The outdoors is ? a powerful medium for exploring the nature of community. When on a sail training boat, or a mountain expedition we are also engaged in constructing intricate and intense social relationships. In the pursuit of challenging physical objectives we are often engaged in creating social structures which underpin our physical successes. These temporary societies are a microcosm of the wider community. In many ways these situations are experimental social laboratories where we can explore social relationships at a level of intensity unusual in more sedate settings. This gives us the opportunity at times to behave differently, to try out a variety of social roles and see very clearly the impact we can have on others and to experience the support that is part of community living.

(Hopkins & Putnam, 1993, p. 12)

The framework provided by TPSR relates very well to similar conceptions in outdoor education. Caring has been promoted as a value central to the outdoor education context (Quay, Dickinson & Nettleton, 2000), as it has been by Hellison in the physical education context (Hellison, 1985).

**Some differences**

The outdoor education context, while similar in many ways to the physical education context, does differ in special ways:

> Outdoor pursuits are felt to be closer to real life and certainly closer to nature than are games. The operations are more various and the problems more compelling. Survival is sometimes at stake. Adventure arises not only from the element of physical danger but from the constant opportunities or travel and new experience.

(Morgan, 1974, p. 82).

Outdoor education, because of the concentrated and extended period of time over which many camping based journeys are conducted, encompasses a living context which is quite different to any achievable within the normal structures of schools (Priest and Gass, 1997; Ewert, 1989; McRae, 1990). The journeys usually take place within relatively natural environments such as National or State Parks, allowing students time living within relatively undisturbed (by human means) nature. The meaning of the journeys also recreates a more 'real life' experience for many students, especially when juxtaposed with their normal existence in school (Wattchow, 2001).
This highlights the challenge for physical education teachers, identified by Hellison, to cultivate a learning context that is situated within the community of practice of the school, but which is able to deal with the difficulties created by the institutionalised structures.

**Conclusion**

Physical education and outdoor education don’t currently see eye to eye in the mainstream practice of these subjects in schools. The hold of ‘traditional physical education’ on the hearts and minds of physical education teachers makes it difficult for those involved in outdoor education, who have moved beyond a focus on psychomotor skills, to feel that there is a place for them within contemporary physical education.

The links between theory and practice are crucial to the ongoing development of physical education. The new forms of physical education which have developed over the last twenty years do move beyond the narrow focus on sport skills, acknowledging a constructivist orientation to learning, well theorised within situated learning. The notion of community of practice allows teachers to look past sport skills and to notice the broader context within which these skills are situated, and the ways in which this broader context influences their students’ understandings of sport skills and physical education more generally. Acknowledging the impact of this context allows teachers to begin to reformulate their ideas about learning and the ways in which their teaching supports it. Penney and Chandler outline a vision for physical education which builds on this awareness and which connects well with the developing vision of teachers in outdoor education (Quay et al., 2000):

> In education and physical education specifically, we are seeking curricula and pedagogical practices that are directed towards the development of critically informed citizens who are committed to playing a part in establishing more equitable societies in which all individuals are valued; in which individual, social and cultural influences are celebrated as a richness of society; and in which knowledge is something to be collectively, collaboratively and creatively advanced, rather than predefined and ?delivered’.

(Penney & Chandler, 2000, p. 73)

An understanding of the importance of context to learning may bring physical education and outdoor education teachers back to a position where they can see eye to eye.

**References**


