

# **AN EXPLORATION OF ENGAGEMENT, MOTIVATION AND STUDENT-CENTERED LEARNING IN PHYSICAL EDUCATION**

By: Barbara WARNER

---

## **Abstract**

This author examines the discrepancy between the known benefits of physical activity and the startling statistics of obesity in children between the ages of 12 and 17. She queries if it is time to look at educators as contributing to this problem and questions if our current teaching styles and curriculum are working for students. In addition, the author explores the question if by allowing our students autonomy, will this equate to engagement and motivation to continue to participate in physical activities? Through a discussion of her personal experiences and a literature review focusing on the areas of autonomy, engagement and motivation, the author shares input into how and why some students experience physical education in a negative manner, and some things that educators can do to improve student engagement and motivation. Her argument demonstrates that an autonomous, student-centered teaching approach will positively affect student engagement, which in turn causes motivation and a desire to participate in life-long physical activity.

---

**Keywords:** physical education, motivation, autonomy, engagement

## **Introduction**

Healthy babies, toddlers and children love to move, dance and play. Often, parents complain about their inability to keep up with their busy children, and one only has to spend an hour in a kindergarten classroom to see how active four and five year olds are. Yet as children grow, their zest for movement plummets and health problems begin. This is documented by Statistics Canada which shows that in 2009 23.9% of males and 15.5% of females between the ages of 12 and 17 are obese (Statistics Canada, 2010). Perhaps it is time that we ask ourselves what educators can do to assist in the establishment of life-long physical habits. Are our teaching styles and curriculum working for our students? Will allowing our students autonomy in physical education classes prove to equate to continued engagement and enjoyment in physical activity? With this understanding at the forefront, the focus of this paper will be a discussion and literature review around engagement, motivation and student-centered learning in a physical education setting.

The benefits of physical activity have been widely reported. Canada's Public Health Agency shares on its website that physical activity provides a wide range of benefits for individuals: healthy growth and development, prevents chronic diseases, makes us stronger, gives us energy, decreases stress and assists us in prolonging independence as we get older (as paraphrased from Canada's Public Health Agency, 2011). These benefits are in addition to combating obesity and at the school level providing many cognitive and academic benefits. The Ontario curriculum states that "Studies show that students who participate in physical activity each day exhibit improved memory, concentration, and communication, problem-solving, and leadership abilities" (Health and Physical Education Curriculum, 1998, p. 5). With this information in mind, physical educators should be concerned and examine the obvious

breakdown between known beneficial outcomes and actual practice. If students can experience an education system that is learner centered, and choose to participate in activities that excite them, they will see physical education as valuable in itself and simultaneously benefit from the health advantages.

### **Discussion and Literature Review**

If I take a look back at my physical education classes throughout high school, I remember a lot of basketball, volleyball, and soccer. I do not remember a lot of choices in activities (some choice in the higher grades), and I do remember doing basically the same activities year to year, with similar games and drills. Fortunately for me, I generally enjoyed phys. ed.; however, for many, the lack of choice and repetitiveness was enough for many of my peers to not take physical education past the mandatory single credit. Ennis et al. (1997) examined student engagement through the lens of 51 students in urban high schools and found that many students were put off by the multi-activity curriculum offerings of the same activities every year and by the lack of relevance of activity choices, leaving them with no desire to be active. Detached teachers concluded that students' resistance to dressing and participating meant that they were lazy, yet these teachers made no attempt to alter the content or curriculum delivery to better involve the students (as paraphrased in Rikard, 2009). We can see through this example a very teacher-directed style of teaching. The teacher is not taking into account the students interests or feelings, and as usual, blame is typically placed on the students as being "lazy" when in actuality, the problems lies in how the material is presented. Conclusions are drawn without there being any dialogue. Stork (2000) puts forth:

Eighty percent of classroom interaction is teacher speech. What little two-way interaction that does occur is part of a three-part sequential pattern dominated by the

teacher: (a) The teacher initiates the interaction in the form of a question (b) a student offers a reply to the question and (c) the teacher evaluates the reply. (p. 38)

There is very little room for student contribution, and basically the student shuts down.

Sun & Chen (2010) state that ‘in schools, important decisions are made by educators, including giving and taking away students’ opportunities to practice autonomy’ (p. 369). It is no wonder that there is a “sharp decline in physical activity throughout adolescence” (Prusak, Treasure, Darst & Pangrazi, 2004, p. 27); kids are not engaged or excited because they have no choices or input.

Anderson (2002) states that “engagement occurs when students feel they can interact with the content and feel that their lives are in some way “touched” or mirrored in the content” (p. 35). From the above discussion, we can see an overall lack of student engagement and participation in regards to physical activity. This lack of engagement then leads to poor carry-over into participation in physical activity outside of school or later in life; hence the disturbing health statistics put forth in the beginning of this paper. Teachers need to make radical changes in the areas of autonomy, motivation and individual caring in order to create spaces where students want and choose to participate in physical activity.

We need to begin to offer our students choices, input and autonomy in all areas of education in general, and for the purposes of this paper, physical activity. “Students, as active organisms, must be involved in the establishment of objectives for their own learning” (Noddings, 2007, p. 29). Sun & Chen (2010) cite that “an autonomy-supportive environment provides students with choices and opportunities for self-direction (Shen, McCaughtry, Martin, & Fahlman, 2009) and positive informational feedback and a context in which the students’ opinion is considered (Ryan & Deci, 2000b)” (p. 368). A study done by Prusak et al. (2004) on the effects of choice on motivation in adolescent girls found that ‘student motivation in the

physical education setting can be increased by including a variety of activities and then allowing students to choose which best suits them” (p. 27). Biddle (1999) and Ward, Wilkinson, Graser, and Prusak (2008) also suggested that student motivation in physical education is enhanced if teachers create an autonomy-supporting environment (as paraphrased in MacPhail, Gorely, Kirk & Kinchin, 2008). I can relate to this very much as I recall my best year of physical education in high school was in my grade eleven year, when I was actually given a list of activity options and was able to choose the ones that interested me. This year probably encouraged me to continue taking physical education through grades twelve and thirteen. This is supported by Ntoumanis (2005) who found that students who reported high satisfaction of autonomy, competence, and relatedness in PE were more likely to participate in optional PE classes during the subsequent school year (as paraphrased in Ntoumanis&Standage, 2009). Chatzisarantis and Hagger’s (2009) examination of 215 British students enrolled in autonomy-supportive conditions in a physical education class found that these same students reported stronger intentions to exercise during leisure time (as paraphrased in Ntoumanis & Standage, 2009). Interestingly, Ward et al. (2008) questions whether physical educators can make the physical education class truly autonomous because students are not given the choice to not participate and Sun & Chen (2010) argue that “physical education may not be able to provide opportunities to satisfy the need for autonomy due to potential conflict between control and autonomy” (p. 37). We need to allow students to incorporate their own strengths, opinions and interests into the curriculum to ensure that they are interested in what they are participating. By sticking only to the standard curriculum and focusing on the old stand-by’s of soccer, volleyball etc., we may be missing out on those students who may be more motivated/excited by the thought of Wii fits, pedometers, or on-line fitness videos. The research above demonstrates that it is indeed worthwhile to create

An exploration of engagement, motivation and student-centered learning in physical education physical education classes that include student input and are autonomy-supportive. Lee (2004) recommended that quality physical education in schools create “an environment where students choose to participate in physical activity with confidence, enthusiasm, and a desire to learn” (as cited in Cherubini, 2009, p. 42).

In addition to autonomous supportive settings, and allowing students input on curriculum, we also need to allow students to choose whether or not they want feedback from their teacher. Some students may get turned off by teacher feedback, while others flourish. For those students that ask for supportive feedback, it may be an influential source of engagement (Trouilloud, Sarrazin, Bressoux & Bois (2006); Sun and Chen, 2010). Schuldheisz and Van Der Mars’ (2001) study found that “a teacher’s effort in verbally promoting physical fitness behaviour of students, via encouragement, prompts, and feedback...directly affect the students MVPA (moderate to vigorous physical activity) levels” (p. 85). Likewise, “students suffer loss of self-esteem when teachers fail to care for or about them” (Rikard, 2009, p. 4). Wentzel (1997) examined the role of perceived caring from teachers in eighth grade students’ motivation and found that the students’ perception of their teachers caring was a significant predictor for students’ pursuit of social goals and academic achievement (as paraphrased in Sun& Chen, 2010). This verbal feedback, praise and encouragement shows the students that the teacher cares, that they are interested in what they are doing, and that they are there to be supportive. We need to be authentic and genuine in our caring to build our students self-confidence and self-esteem. When students are confident and secure and ultimately know that they have control over their own learning, then we know that we have created a learning space in which students will thrive and feel naturally engaged because they are following their own individual passions. As Noddings (2007) puts forth, “to secure such engagement, teachers must build relationships of

care and trust, and within such relationships, students and teachers construct educational objectives cooperatively” (p. 234). Cherubini (2009) states that “it is necessary for physical educators to focus on providing immediate, consistent, and encouraging motivational feedback to all students in the class” (p. 43). In addition to benefitting students, teachers who “provide feedback and encourage students find their teaching to be more enjoyable and their relationships with students more pleasant” (Siedentop and Tannehill, 2000 as cited in Schuldheisz & Van Der Mars, 2001, p. 86). Thus, for those that ask for feedback, we can see that genuine and authentic encouragement and caring creates motivation and enjoyment of activity. If our goal is to create spaces where students can thrive and become life-long participators in physical activity, we need to look at data such as the above that considers the important contribution that teachers can make.

Motivation for and engagement in physical education is also driven out of fun, an important element that would seem like a basic element; however, it often gets lost in the need to present or “get through” the curriculum, or ensure the teaching of the mechanics of movement. When I look at my own and neighbourhood children playing, it is rare that they require an adult to intervene. Generally, they make up their own rules, competencies and mechanics when playing games. They decide where the nets are, if you are allowed to use your hands, how hard you can throw, kick etc. They may or may not choose to keep score and may change rules as the game progresses. On occasion, they may ask for an adults input into rules or procedures. In my observation, this sort of system works efficiently as they are having fun, skills progress and rules are decided upon by those involved. Perhaps we should follow a similar model in our school systems and allow students, when desired, to ask for adult instruction in rules or body mechanics rather than forcing this on students by making it a mandatory part of their curriculum. While in

An exploration of engagement, motivation and student-centered learning in physical education

university, one of the most fun activities I took part in was learning to play cricket. This was fun and none of us had ever played cricket before, so we all began at a level playing field and we were able to laugh at each other's mistakes and enjoy a variety of variations on the actual game of cricket. Having said this, I am fairly certain I could still walk someone through the mechanics of a great "bowl" (pitch). "To maximize enjoyment is not to trivialize physical education; enjoyment has consistently emerged as an important motive for participating in physical activity or sport" (MacPhail et al., 2008, p. 345). This is also reiterated by Carlson & Hastie (1997) who found that students reported that winning is not as important as fun (as paraphrased in MacPhail et al., 2008), and Standage et al., (2003) who found that an over-reliance on game play in which success is viewed in terms of winning or losing, can have a negative effect on student engagement in physical education (as paraphrased in Bevans, Fitzpatrick, Sanches & Forrest (2010). It was also found that fitness testing reduces opportunities for students to be physically active and may produce negative attitudes toward physical activity (as paraphrased in Schuldheisz & Van Der Mars, 2001). We need to move away from examination of the end-product and examine the process. Are the students having fun, and are they physically active while having fun? It is time to put the "play back into the playground" (Cherubini, 2009, p. 46). This topic can be summarized very nicely with Prochaska's et al., (2003) argument that enjoyable physical education may increase student engagement, which in turn may increase or maintain participation in physical activity out of school (as paraphrased in MacPhail et al, 2008).

Student engagement in physical activity can be established in a variety of interests or activities; however, there was research on a couple of areas that seemed particularly interesting: sport education and adventure. Sidentop (1994) puts forth that sport education (SE) is an instructional model which links the sport taught in physical education to the wider sporting

culture (as paraphrased in Dyson, Griffin & Hastie, 2004). SE involves skill learning and game play, but also allows the students to take on other roles such as coaches, captains, referees, scorers, statisticians, and members of the sports organizing board (Dyson et al., 2004). This seems to be a more authentic experience as the students are working together to make the team function. If they want to have the experience, they need to assign and work the roles, turn-take and delegate for the greater good. MacPhail et al. (2008) states that “Sport Education has demonstrated the positive experiences pupils gain when physical education is more student-centered than teacher-centered” (p. 346). SE seems far more applicable to real-life sporting and general day to day life than contrived physical education classes and round-robin tournaments. Learners do not need grades, marks, credits etc., and can decide how deeply they choose to pursue the sport and what they may or may not need from a coach, or if they need one at all.

Adventure is another authentic way to ensure engagement. Brendtro and Strother (2007) state that, “Without any stress, the brain becomes bored and seeks out excitement. By nature, youth have more adventurous brains than their staid elders. Children constantly search for new experiences by exploring their sensory and social world” (p. 3). Though certainly we cannot assume that this applies to all children, outdoor adventure and education programs may be another powerful tool in the field of physical education for creating fun, motivation and engagement. When I was in my undergraduate program, I went on a canoe/camping trip. This particular trip was very physically demanding and required a lot of portaging. On the longest portage, I remember feeling like I wanted to give-up, I felt that I could not move on and go any further. I had a burning pain in my neck from the weight of the canoe, but I did not want to let down my peers. Eventually, I reached a point where the pain began to plateau and it turned to excitement, as I realized that I could do it. I wish I could say that the view was beautiful at the

An exploration of engagement, motivation and student-centered learning in physical education end, but it was not; however, I learned that I could persevere and the eustress caused me to be completely engaged in the activity. Although Rukavina (2009) suggests that “using only one teaching approach is limiting” (p. 17), it is evident through the discussion above that a student-centered approach to the teaching of physical education with appropriate feedback (if asked for by the learner), choice making and fun options would make for an engaging learning environment.

The difficult in applying a student-centred approach is that many teachers feel overwhelmed at the prospect of giving up the upper hand as students take control of their learning, and worry about the loss of control or discipline issues. Stork (2000) states that “the number one concern among new teachers is their ability to maintain control of their students” (38). Dewey (1859-1952) however, positioned that “children whose interest was actively engaged in their studies did not need policing” (as cited in Handlin, 1958, p.222). Interestingly, Deci & Ryan (1987) found that controlling events can lead to compliance or defiance (as paraphrased in Ward et al., 2008), so the control and chaos becomes a vicious cycle. A teacher tries to attain control, the students defy the teacher, and in turn the teacher feels forced to become more restrictive. Does this ongoing, observable cycle not indicate to us that it is time to put the issue of control behind us? While running the risk of sounding strident, perhaps it is time that our Faculty of Educations begin to educate our new teachers more about student-centred learning, by allowing them time to explore spaces and places where children can be observed creating their own paths to learning.

## Conclusion

It is time for us to make sweeping changes to our physical education curriculum, content, and teaching methodologies. We need to make our teaching more student-centered by listening to our students, watching our students and asking them about their interests. We need to have their input on choice making and develop relationships with our students. We can use this information to create spaces and places which will allow students to lead their own learning in an individualized desired path. Students who can choose their own path of learning will have more fun and be more engaged, and as evidence has shown through this paper, should then reflect in increased active participation. After all, I am fairly certain kids inherently know how to have fun. When left to their own devices, I often witness my own children being active in a variety of ways: bike riding, tag, building forts, splashing in the ditch, climbing trees etc. With our ultimate goal of wanting to improve the health of our youth, perhaps the simple answer is to allow the student to lead their own learning in the area of physical education. It is particularly powerful to listen to our students and so, I will end this paper with a quote from Rhonda Singer (2004) who conducted research on fun in four teams in a Youth Recreational Basketball league.

Many of the players commented on how much more fun they had when coaches left them alone and did not make them do a bunch of drills and learn plays. For instance, Alex (seventh grade), echoing comments made by a number of his teammates, talked about the desirability of coaches turning over a third of every practice to the players so they could do whatever they wanted: “Yeah, wouldn’t that be awesome? We would just shoot around. Just shooting around is fun. Not like playing crappy plays. I don’t think we really learn anything from that because we aren’t really paying attention. We would pay attention if we got a lot more time shooting and doing what we want to. It’s fun to just come in and shoot.” (p. 214)

An exploration of engagement, motivation and student-centered learning in physical education

**Barbara Warner** holds a M.Ed. through Nipissing University. She also holds a B.P.H.E. from the University of Toronto, a B.Ed. from OISE and a Diploma as a Teacher of the Deaf and Hard of Hearing from York University. She currently works as Preschool Home Visiting Teacher for the Provincial School Branch – Sir James Whitney School for the Deaf. Her interests include Deaf/DeafPlus Education, Special Education, Holistic Education and working within the home environment. Barbara currently lives in Newcastle, Ontario and has a busy family life with three lovely children.

Email: [barbwarner3@gmail.com](mailto:barbwarner3@gmail.com)

## References

- Anderson, Andy. (2002). Engaging Student Learning in Physical Education. *Journal of Physical Education, Recreation & Dance*, 73, 7, 35-39.
- Bevans, Katherine; Fitzpatrick, Leslie-Ann; Sanchez, Betty; Forrest, Christopher B. (2010). Individual and Instructional Determinants of Student Engagement in Physical Education. *Journal of Teaching in Physical Education*, 29, 399-416.
- Brendtro, L.K., Strother, M.A. (2007). Back to Basics Through Challenge and Adventure. *Reclaiming Children & Youth*, 16, 1, 2-6.
- Canada's Public Health Agency (2010). *Physical Activity*. Retrieved in February, 2010 from [www.phac-aspc.gc.ca](http://www.phac-aspc.gc.ca).
- Cherubini, Jeffrey. (2009). Positive Psychology and Quality Physical Education. *Journal of Physical Education, Recreation & Dance*, 80, 7, 42-47 & 51.
- Dyson, Ben; Griffin, Linda L.; Hastie, Peter. (2004). Sport Education, Tactical Games, and Cooperative Learning: Theoretical and Pedagogical Considerations. *Quest*, 56, 226-240.
- Handlin, O. (1958). Are Today's Public Schools Failing to Serve The Best Interests of The Nation? Con. *Congressional Digest*, 37,8/9, 221-223.
- MacPhail, Ann, Gorely, Trish, Kirk, David & Kinchin, Gary. (2008). Children's Experiences of Fun and Enjoyment During a Season of Sport Education. *Research Quarterly for Exercise and Sport*, 79, 3, 344-355.
- Ministry of Education and Training. (1998). *The Ontario Curriculum Grades 1-8: Health and Physical Education*.
- Noddings, N. (2007). *Philosophy of Education: Second Edition*. Boulder, Colorado: Westview Press.
- Ntoumanis, Nikos; Standage, Martyn. (2009). Motivation in physical education classes: A self-determination theory perspective. *Theory and Research in Education*, 7(2), 194-202. Doi: 10.1177/1477878509104324
- Prusak, Keven A.; Treasure, Darren C.; Darst, Paul W.; Pangrazi, Robert P. (2004). The Effects of Choice on the Motivation of Adolescent Girls in Physical Education. *Journal of Teaching in Physical Education*, 23, 19-29.
- Rikard, G. Linda. (2009). The Significance of Teacher Caring in Physical Education. *Journal of Physical Education, Recreation & Dance*. 80, 7, 4-5.
- Rink, Judith E. (2001). Investigating the Assumptions of Pedagogy. *Journal of Teaching in Physical Education*, 20, 112-128.
- Rukavina, Paul B., Foxworth, K. R. (2009). Using Motor-Learning Theory to Design More Effective Instruction. *Journal of Physical Education, Recreation & Dance*. 80, 3, 17-23 & 37.

An exploration of engagement, motivation and student-centered learning in physical education

Schuldheisz, Joel M., van der Mars, Hans. (2001). Active Supervision and Students' Physical Activity in Middle School Physical Education. *Journal of Teaching in Physical Education*, 21, 75-90.

Singer, Rhonda. (2004). Are We Having Fun Yet? In Peter B. Putfall & Richard P. Unsworth (Ed.), *Rethinking Childhood* (p. 207-225). New Jersey: Rutgers University Press.

Statistics Canada. (2010). *Body mass index, overweight or obese, self-reported, youth, by sex*. Retrieved in February, 2010 from <http://www40.statcan.ca/101/cst01/health83b-eng.htm>

Stork, Steve. (2000). Play and Teacher-Directed Learning. *Teaching Elementary Physical Education*, 38.

Sun, Haichun & Chen, Ang. (2010). A Pedagogical Understanding of the Self-Determination Theory in Physical Education. *National Association for Kinesiology and Physical Education in Higher Education*, 62, 364-384.

Trouilloud, David; Sarrazin, Philippe; Bressoux, Pascal; Bois, Julien. (2006). Relation Between Teachers' Early Expectations and Students' Later Perceived Competence in Physical Education Classes: Autonomy-Supportive Climate as a Moderator. *Journal of Educational Psychology*, 98(1), 75-86. Doi: 10.1037/0022-0663.98.1.75

Tzue, Pei Wen. (2007). The Tension between Teacher Control and Children's Freedom in a Child-centered Classroom: Resolving the Practical Dilemma through a Closer Look at the Related Theories. *Early Childhood Education Journal*, 35(1), 33-39. Doi: 10.1007/s10643-007-0166-7

Ward, Jillian; Wilkinson, Carol; Graser, Susan Vincent; Prusak, Kevin A. (2008). Effects of Choice on Student Motivation and Physical Activity Behavior in Physical Education. *Journal of Teaching in Physical Education*, 27, 385-398.