

# Why kids participate in physical education

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## 1. INTRODUCTION

I want to formally thank the President and the AIESEP board for the invitation to be the Cagigal Lecturer for the *International Seminar* in beautiful Lisbon. Although I have never met Jose I am aware of his great contributions to this organization. It is indeed an honor to be selected and I am deeply flattered.

The topic to which I will address: *Why Kids Participate in Physical Education*, is one that is of extreme interest to me and, I am sure, most of you. After all, what is more important than knowing how teachers and coaches can get kids to work hard during physical activity? As teachers and coaches, we have all confronted the problems of motivating kids to work at a given task. Since learning is a deliberate and dynamic process, the importance of knowing how motivating kids to participate is central to effective teaching and coaching. But even beyond the importance of looking at motivation, we must begin to begin to understand the idiosyncratic nature of kids' response to their learning experiences.

The topic of participation in physical activity is immense and therefore would be impossible to address all of the human and contextual ele-

ments that go into our understanding of it. Since all 28 years of my teaching and research have been relegated to school settings, much of my talk will be linked to this perspective. I know that we probably have other backgrounds represented in this audience, sport psychologists, sport and fitness scientists, and perhaps, administrators. I hope that my remarks will be relevant to most of you. But I know if I try to meet everyone's needs I will not be relevant to anyone!!

My lecture will focus on three main areas. The first describes the historical roots from which the study on student participation has emerged. The chronology begins with the work of Bill Anderson at Columbia University in the seventies. Anderson and his students focused primarily on ways to profile participation patterns of students in school gyms. Discussion about more recent attempts to measure participation levels (engagement or on-task time, ALT-PE, etc.) follows.

The second area focuses on two main themes related to the psychological and social aspects that impact on participation. In particular I will examine the research on *values and beliefs of children* and their *sense of hope for doing well* in physical education. These themes, I believe, are central to our understanding about children and youth's participation patterns.

The third area suggests future directions for research. This will include encouraging researchers to steer away from doing purely descriptive research. A case will be made that research must be action-based stuff where the researcher and practitioner can identify things that work and don't work.

I will also argue that commitment to study student participation must be steadfast. Understanding how kids respond to learning experiences cannot be guaranteed if researchers jump from population to population or from one hot topic to another. In other words, researchers must stay with an idea for the long haul. Along with this, personal involvement is a must. The researcher must work with the teacher/coach to better understand how and why kids participate during physical activity. "Going native" will no doubt require researchers to leave the high ground of academia and enter what Donald Schon (1987) calls the "swamp of practice."

## 2. HISTORICAL OVERVIEW

The study of student engagement in physical activity is traced to the seminal work of Bill Anderson at Columbia University (Anderson & Barrette, 1978). His Video Tape Bank Project catalogued a substantial number of videotapes of elementary, middle, and high school physical education classes. By pooling the artifacts of gym instruction researchers were provided a plentiful resource of data describing “what’s going on in gym (Anderson & Barrett, 1978)?”

Emerging from Anderson’s efforts was, among other things, the development of various tools to systematically describe and assess student engagement (i.e., Anderson, 1980; Costello, 1977; Laubach, 1975). It was Bill’s intent to give teachers a resource for examining the accounts of student activity. This would put them in a better position to determine whether the actions of their own students resembled the norms described from the Video Tape Bank. The data source also was a depot of broad strategies for teacher educators to use in working with undergraduate trainees.

Some important and disturbing profiles of school physical education also surfaced from the Video Tape Bank analyses. For example, it was shown that students in elementary physical education classes spent the largest amount of class time (35%) *waiting*. This student function was generally characterized as waiting in line for a chance to participate in a learning task or a game. Students also spent a large portion of time (25%) *receiving information* from the teacher. This shows, therefore, that the students were inactive approximately 60%. The data also indicated that less than one third of the time was spent practicing some type of motor skill.

Costello and Laubach’s (1978) early work indicated that the large amount of “down time” was due to the teachers concern about management and organization of the class. Getting kids lined up, taking attendance, orchestrating transitional patterns, and reinforcing the rules of the gym were examples of the management behaviors exhibited by the teachers. Siedentop (1991) contends that these findings reflect a lingering problem that exist in today’s physical education programs.

Subsequent to Anderson’s early work was the advent of numerous tools to look at other forms of student engagement. Engagement was

usually termed as *engagement time*, *active learning time*, or *time-on task*. A common shortcoming of these measures was that none of them took into account the quality of engagement or the nature of the task. In response to this concern, researchers developed ALT-PE (Siedentop, Tousignant & Parker, 1982). ALT-PE was defined as the time the student spent on learning a task and that there was a high rate of success. This measure of time on task proved to be the most significant predictor of achievement. It also altered the results of previous studies that only looked at student engagement time. When taking into account the amount of *functioning time* (ALT-PE) the average engagement time was no more than 10-20 percent (Metzler, 1989).

In summary, research has shown the following characteristics of ALT-PE:

·There are varied amounts of ALT-PE for different types of activities with physical fitness being highest, individual sports next, and team and gymnastics the lowest.

·Elementary students get more ALT-PE than do middle and senior high school students.

·There is no gender difference in ALT-PE.

·Low skilled students get lower amounts of ALT-PE than high skilled students.

·Handicapped students in mainstreamed classes get significantly less ALT-PE than do their counterparts.

·ALT-PE is greatest at the end of a lesson as compared to the beginning.

·Improving the management process can significantly increase ALT-PE. (Siedentop, 1991).

### **3. PROBLEMS WITH ENGAGEMENT-TIME RESEARCH**

While past research has given us objective images of what students do in physical education, they have done little in explaining why kids decide or not decide to engage in the learning process. At best, past research has only confirmed the obvious: if you give kids a learning task where they can be successful, they will, in all probability, learn somet-

hing. It is my view that such descriptive pictures do little in terms of changing the major issue at hand: how to get students interested in physical activity.

Like most fads in research, ALT-PE has experienced a relatively short life time. This has left a considerable void in our research efforts to once again focus on the learner. In 1983, at the Big Ten Symposium on Research in Teaching Physical Education, David Griffey (1983) and Mike Sherman (1983) urged us to focus on the learner rather than merely describing what teachers do or say during instruction. They felt this would give us a better handle on understanding why certain things work for children and others do not. It also would allow us to exploit the use of what they called *process models* where the interpretation of student's learning experiences could be gained.

It appeared then, that the path was paved to bring the researcher a bit closer to the learner. Unfortunately, the path has veered toward doing research on teaching and teacher education. One only has to examine the published research in our major journal within the last 15 years for support of this claim. For example, research published in the *Research Quarterly for Exercise and Sport* and the *Journal of Teaching of Physical Education* shows that only 10% of the articles published focus on the learner. It is only through special monographs such as George Graham's in last Summer's issue of JTPE that we see any evidence of inquiry into learner dispositions, thoughts, and values.

There are several reasons for this. First, studying dispositions, thoughts, and values of kid's is not easy to do. To understand the world of kids, and in particular, why they like or don't like to do things, requires a reinvestment in the learner. This requires the researcher to understand the idiosyncratic nature of students. Social economic position, race, gender identity, cultural beliefs and traditions are but a few of the factors that define the individuality of kids. Ignoring these will only perpetuate the production of knowledge that has not been very useful in making programs better in our gyms.

The second reason, is that most ideas about motivating kids to learn is based on conventional wisdom. These are usually garnered from methods classes or staff development workshops where long accepted pre-

cepts are given. For example, teachers and coaches are often told that making learning fun, holding high expectations, giving frequent praise, offering help, and showing sympathy will cure the ills of unmotivated behavior. Unfortunately, when it comes to motivational techniques, a little knowledge can be a dangerous thing (Martinek, 1997). Without understanding the subtle conditions in which strategies are applied, many of them will simply backfire. In fact, attempts to spur a student to work harder, may result in a decrease of the student's desire to put forth much effort in any learning task. I believe many of these pitfalls can be avoided by recasting the types of questions that are asked by researchers.

To clarify our thinking on motivation, I would like to address two basic themes that I believe will help explain the variability in participation among students in physical education. These themes are 1) *personal values and beliefs* and, 2) *optimism and hope for learning*. These themes emerge from what we know about how children and youth interpret their life experiences. In part, they are also connected to my own research and experiences as teacher, coach, and parent.

#### **4. PERSONAL VALUES AND BELIEFS ABOUT PHYSICAL EDUCATION**

Student participation is greatly influenced by their values and beliefs about their physical education program. In order to value physical education kids have to gain a clear sense of what is its purpose. Interestingly, research has shown students are not quite sure as to what physical education is supposed to be (Graham, 1995). One example is Steve Sanders (Sanders & Graham, 1995) study indicated that kindergarten children thought physical education was a time to play. Yet their teacher insisted on doing stretches before each class. He found that this routine conflicted with the children's value system for physical education. It also confounded their original impressions of the program's purpose. If it is true that kindergarten children explore their world through play, then it follows that less learning may take place when children are placed in situations that do not provide the play experiences needed for this process to occur.

Confusion as to the purposes of physical education also has been documented with older groups. For example, Hopple and Graham's (1995) investigation of fourth and fifth graders found that students thought fitness was the main goal of the physical education program. However, the activities provided by the teacher did little to provide any accelerated growth in levels of fitness. The students also did not understand why they were doing fitness activities, i.e., the mile run. In fact, many students viewed the activities as not being very meaningful or positive experiences. Rather they were painful, negative experiences that were actively "dodged" by the students. These attitudes could play an important role in future engagement in physical activity over a lifetime.

In the middle school we see physical education viewed as a time to just have fun. An early study by Judy Placek (1983) showed how teachers were preoccupied with keeping their kids "busy, happy, good." She found that teachers were concerned with whether the students would like physical education and that it would be fun and exciting.

Over a decade later these same attitudes seem to prevail. For example, Veal and Compagnone (1995) study of 151 sixth graders showed that students felt physical education class was a time to play around and that the main goal of the teacher was to be sure that the students were participating and having fun. In fact, the students reported that their grade was based on how much effort they put into the class.

While fun is important in learning it should not take its place. Instruction based on the "fun factor" implies that activities are a socially investing enterprise. Little attention is given to the teaching of skills. I believe this emphasis significantly blurs students' view of what skillfulness is. They cannot distinguish between skillful learning and just trying hard (Martinek, 1997). When the teacher does try to teach skills in a lesson, students become confused and often will "shut down" from doing what is expected.

One of the most provocative accounts of distorted values and beliefs about physical education was depicted in Teresa Carlson's (1995) research with high school students. In her survey of 105 high school students, she attempted to see how much they "enjoyed gym class." She found that a large number of the students felt alienated from gym class (as well as from

other school subjects) and that there was little personal meaning to their gym experiences. Students who were lower skilled felt they were isolated from their peers. These types of values and beliefs clearly show why many students avoid engagement in physical activity-even beyond their high school years.

## 5. HOPE AND OPTIMISM FOR LEARNING

Children who have a sense of hope and optimism are more likely to engage in learning than children who do not. Unfortunately, most teachers frequently create learning conditions that only have one criteria to determine whether the student is doing well or not. This approach to learning is based on the assumption that all students will interpret success the same way the teacher does and therefore will strive in a predictable way to meet the standards. Some students will eagerly persist while others will shy away from trying to meet the criteria set by the teacher (Martinek, 1996). I and several other researchers have found that this is due to the varied ways they view their chances of being successful (Carlson, 1995; Dweck, 1975; Fincham, Hokoda, & Sanders, 1989; Martinek, 1996; Martinek & Griffith, 1993, 1994; Portman, 1995; Stipek, 1993; Walling & Martinek, 1995). We have found that many students often feel that no matter how hard they try, they see little hope in achieving the goals set by the teacher. This is caused by low perceptions of ability. In fact, these low perceptions are often viewed as permanent and pervasive across a number of settings. This causes them to develop what John Nicholls (1984) calls an *ego orientation* where they place attention on themselves and how they are being evaluated by others. These students very often become what Martin Seligman (1990) calls *learned helpless*.

We can better understand what a learned helpless youngster is when we contrast them to those who are *mastery oriented*. These students have high perceptions of ability and feel they have what it takes to succeed at most anything (Dweck, 1986). Failure for them is only temporary and that further effort will eventually lead to success. In fact, these students tend not to dwell on the fact that they are experiencing any difficulty; they will focus their attention on problem-solving strategies (Diener & Dweck,



1978). This type of disposition profoundly influences a youngster's willingness to participate in physical activity or, for that matter, any achievement situation.

## 6. HOW DO KIDS LOSE HOPE?

Recently I published an article in *Quest* which described a model for explaining hopelessness in children during physical activity (Martinek, 1996). The model suggested that hopelessness (or hope) evolves from three processes.

The first is the inherent **need by individuals to gain some sense of control** over their lives. This need to have control is especially keen in young children, even infants. Children will do most anything for getting a response from significant adult figures. And for the most part, the responses from others is fairly predictable thereby reinforcing the child's sense of control. This sense of control is central to acquiring a feeling of optimism later in life. Seligman (1990) claims that most children in the early grades appear to be very optimistic and therefore will try anything. The sense of helplessness is rarely experienced. As children get older, however, feelings of helplessness and mastery become crystallized. This has been especially true for kids entering their middle school years (Martinek, 1997; Martinek & Griffith, 1993, 1994; Walling & Martinek, 1995). My guess is that by the time students reach this age many have experienced repeated failure and success and, therefore, have their own ways of interpreting achievement outcomes. It is little wonder then that we begin to see the high amount of sport drop outs (Roberts, 1984) and low participation levels in physical education classes (Siedentop, 1991) in the middle and secondary schools.

The second process that occurs in the **mediation of control**. There are two factors that influence the sense of control. These are the *influence of significant others* and *social context of the gym* (Martinek, 1996, Martinek & Hellison, 1997).

**Influence of significant others.** Children are adept at observing how they respond to their own life circumstances (Masten, Best, & Garmezny, 1990). All children look to adults for guidance. They will frequently ask

“why?” in order to understand their world around them. Interacting with adults allows children to mature intellectually and to develop problem-solving capacity. When the answers from parents are not available they will seek other ways of getting information. A common way is by observing and listening (Martinek, 1996).

They use what they see and hear from adults to assess ways in which they should respond to similar situations. This has special implications when a parent or significant other is explaining the reasons for an occurrence in their life. If their responses are negative and reflects a hopeless mind set, the child will, in all likelihood, respond in a similar way.

Defusing negative self images will require heightened sensitivity on the part of the parent or care giver in the way they respond to their failures. Teachers and coaches should assist parents in making them mindful of what they say and do in front of their children. Self-derogation will only reinforce the child's self-doubt about his or her ability (Martinek, 1996).

Another force that influences self-perceptions of control is the parent teacher's (or coach's) expectations for the child. Over two decades of personal research has shown me that teacher expectations can have a profound influence on the student's self-concept and feeling of control. High and low expectations sustained over time can be self-fulfilling.

There are many constellations that communicate expectations to children in classroom and gym settings [See T. Martinek (1995) for a review of this research]. Along with teacher behavior, there are less overt influences on students. These are, however, just as powerful. For example, some students receive enriched, more challenging activities while some get activities that are too easy and designed to keep low ability students in a “holding pattern.”

A second way in which expectations are conveyed is by ability grouping. This type of practice heightens comparisons among students and implies lower expectations for low skilled students (Brophy & Good, 1990).

A third communicator of expectations is through the locus of responsibility for learning. Low ability students are typically allowed little or no input or self-direction, while high achievers are more often given respon-

sibility for their own learning. As mentioned earlier in this paper, the sense of ownership in the learning process is critical for self-involvement and increased engagement (Martinek, 1997).

**Social context of the gym.** The social context of achievement situations can also have an impact on perceptions of competence and control (e.g., Ames, 1984; Fincham, Hokoda, & Sanders, 1989). Competitive and individual learning conditions usually predominate our gyms. Although individual ability is a central requirement for both conditions, competitive climates tend to socially compare ability levels. Individual climates, on the other hand, tend to enhance them (Ames, 1992). Consequently, social and normative comparisons in competitive circumstances tend to accentuate low ability. Over the long haul, such comparisons will eventually erode confidence and hope in being successful. In contrast, individualize instruction will give the opportunity to problem solve and readjust their actions. Such self-regulation will increase what Ames (1992) terms *skill tolerance*. This can have far reaching effects implications for the way teachers work with poorly motivated students. Student contracting, cooperative learning, and choices will help students set personal goals and deflect win-loss orientations toward mastery ones. This eventually motivates them to try at other learning tasks and even seek the challenge of other ones.

I do have a word or caution about goal setting. For some students, the type of goals you try to set may not fit a student's value system. I have found this especially true with kids who are having a very difficult time in school overall. In many cases their values have lead them to buck the system (Hellison, Martinek, & Cutforth, 1996). Understanding these values have important implications for teachers who are trying to get kids back on the right track. I feel that this is a *requirement* for teaching mastery skills. For some kids, skipping classes, not participating, and being disruptive are critical behaviors that legitimize their status in school. In their mind, they are mastery oriented. Their behavior has connected them to their "culture." Consequently, it is important first to teach them ways to accommodate without disconnecting them from their value system (Martinek & Hellison, 1997).

## 7. DIRECTION FOR FUTURE RESEARCH

If we are truly concerned as a community of researchers in getting kids to enjoy and invest their energies in physical activity, then I believe we must make fundamental changes in the way we do research. One change is to do small group or case-type research. This is very helpful for action research studies where the researcher is interested in studying how individuals and/or small groups respond to certain types of teaching and coaching programs. By doing this, researchers and practitioners are in a position to spontaneously “try out” things, something that is extremely difficult to do with large groups.

We also need to go beyond merely describing what is going on in the gym. Simply describing what teachers (and kids) do in physical activity and sport is not going to get us where we ought to be. I believe we have “beat a dead horse” in our present efforts to describe “life in the gym.” If change in kids’ attitudes and levels of motivation is going to be tenable, we must develop research programs that are action based. Tapping into our vast storehouse of knowledge, however, is a must. This will enable us to try and retry different approaches to teaching, content development, assessment, policy making, and dialogue with outsiders (i.e., parents, coaches, administrators, & peers). It will require the researcher to ask (him)herself this question: “what should research do?” Answers to this question should be weighed against their own values and beliefs about kids. Don Hellison and I (Martinek & Hellison, in press) have suggested that research should be bonded to service. This would require researchers to work directly with kids and teachers. Such an approach will require the following:

- A commitment to making a contribution to the betterment of physical activity programs for kids.
- Resistance against short-term stays in the gyms-staying with an idea for the long haul.
- Using a “ready-fire-aim” approach (Siedentop & Hellison, 1995) in planning.
- Embracing traditional and non-traditional data collection and dissemination practices.

The requirements for this type of research may not be for everyone. You must be comfortable with them and with kids!!! Clearly, the question of looking at why students participate in physical activity will be with us for decades. The complex world of practice will certainly push us to struggle with new and ever changing conditions of the gym and values of children. But if we are to make any headway, we must be prepared to re-think how we view and do research. This will depend on how badly we want to make a difference in kids' and teachers' lives. I for one have made this commitment and ask you to join me. Thank you.

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