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Understanding Physical Activity Engagement in Students: Skills, Values, and Hope
Comprender la participación de la actividad física en los escolares:
Competencias, valores y esperanza

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Abstract

Understanding why kids continue to engage or not to engage in physical activity is important to all practitioners. Student engagement becomes central to how teachers plan and deliver various types of learning experiences in school gyms and athletic fields. Understanding the complexity of this issue has been addressed through various forms of research as well as trial and error attempts by those who work with kids on a daily basis. This article attempts to help clarify our understanding of the factors that impact the motivational levels of children and youth when they are exposed to various physical activity learning experiences. We first describe the historical roots of research that have looked at life in the gym. Next, we provide three aspects of examining factors that influence physical activity engagement in school programs. One aspect is how skill level and perceived competence influence engagement in students. Following is a discussion of the personal and psychological factors that impact engagement. Specifically, we examine the values that students have toward physical activity programs and their engagement motive. We also describe the how kids' sense of hope for doing well in physical activity mediate their levels of engagement in various achievement situations. We conclude with some important considerations for doing research on children's and youth's thoughts and perceptions during physical activity engagement.

Key words: Motivation; hope; values; skill level; physical education.

Resumen

Comprender por qué los niños continúan participando o no, en las actividades físicas es de gran interés para todos los profesionales. El compromiso de los escolares es un elemento central para los profesores a la hora de planificar y ofrecer diferentes tipos de experiencias de aprendizaje en los gimnasios escolares y en los campos deportivos. La complejidad de este tema se ha abordado tanto a través de diversas formas de investigación, como mediante ensayo y error, por parte de aquellos que trabajan diariamente en Educación Física. Este artículo intenta ayudar a aclarar nuestra comprensión de los factores que afectan los niveles de motivación de los escolares, cuando están expuestos a diversas experiencias de aprendizaje en educación física. En primer lugar, se describe el origen de la investigación que ha analizado la vida en el gimnasio. A continuación, se presentan tres de los aspectos que influyen en la participación en educación física. En primer lugar, se analiza cómo el nivel de competencia y coordinación, así como la competencia percibida, influyen en el compromiso de los escolares. A continuación, se analizan los factores personales y psicológicos que influyen en dicho compromiso. Específicamente, se examinan los valores que los estudiantes otorgan a los programas de Educación Física y su motivación a participar en ellos. También se describe cómo la esperanza por alcanzar el éxito media en los niveles de participación en diversas situaciones de rendimiento. Se concluye con algunas sugerencias importantes para investigar sobre los pensamientos y percepciones de los niños y jóvenes durante su participación comprometida en Educación Física.

Palabras clave: Motivación; esperanza; valores; nivel de competencia; educación física.

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Introduction

Why kids engage in physical activity is a topic that is of extreme interest to all of us. It is also an area that would seem to align well with the spirit of this special RICYDE issue. After all, what is more important than knowing how teachers, coaches, and program directors can get kids of all skill levels to work hard during physical activity? Teachers, coaches, and community program directors, 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 to motivate kids is central to effective teaching and coaching. But even beyond the importance of looking at motivation, we must begin to understand the idiosyncratic nature of kids and their response to learning experiences.

The topic of participation in physical activity is immense and therefore would be impossible to address all of the human and contextual elements that go into understanding it. Since our combined 50 years of teaching, coaching, and research have been related to school settings, much of this article will be linked to this perspective. We are certainly aware that the readership of this journal may represent other back grounds (i.e., sport psychology, sport and fitness scientists, and perhaps, administrators). We hope that our perspectives on this topic will be relevant to most of them.

This article will address three main areas. The first describes historical roots from which the study of 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 describe participation levels (e.g., engagement or active learning time—ALT-PE) follows. The second area focuses on three main themes. In particular, we will examine what we know about low skilled performers, the values and beliefs of children and youth, and their sense of hope for doing well in physical activity settings. All three of these areas will be considered in relation to their impact on student engagement levels. These themes, we believe, are critical to furthering our understanding about children and youth's participation patterns. The third area suggests future directions for research. This will include encouraging researchers and program evaluators to begin to not only look at what kids are doing (or doing) but to examine the reasons for participating. A case will be made that research should begin to examine the thought processes of kids and exploring the social and psychological motives for engagement. Case study, participant observation, and interview strategies will be described. This will enable both the researcher and practitioner to identify things that work and don't work in programs.

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 video tapes of elementary, middle, and high school physical education classes. By pooling the artifacts of gym instruction researchers were provided a plentiful supply of research data describing "What going on in gym" (Anderson & Barrette, 1978).

Emerging from Anderson's efforts were among other things the development of various tools to systematically describe and assess student engagement (i.e., Anderson, 1980; Costello & Laubach, 1978). 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% of the time. These 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 to line up, taking attendance, orchestrating transitional patterns, and reinforcing the rules of the gym were examples of the management behaviors exhibited by the teachers. Graham (2014) contends that these findings reflect a lingering problem that exist in today's physical education classes.

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-of-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 constructed the concept of *Academic Learning Time in Physical Education* or ALT-PE (Siedentop, Tousignant, & Parker, 1982). ALT-PE was defined as the time a student spent on a learning task where 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 (not looking at success rate). When taking into account the amount of functioning time (ALT-PE) the average engagement time was no more than 10 to 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 the 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 are no gender differences in ALT-PE.
- Low skilled students get lower amounts of ALT-PE than high skilled students.
- Handicapped students in the mainstream 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).

To date, there has been a plethora of ways of examining kids responses (growth) to program experiences. For example, a recent approach to look at kids engagement in physical activity was developed by Li, Wright, Rukavina & Pickering (2008). Their idea was to profile how they engaged in various social and personal interactions--among other kids as well as the group

leader. Skill related behavior was not the central focus of the observational format. However, the notion of how physical activity experiences focused on enhancement of personal and social qualities were profiled in an effective way. Similarly, the advancement and push to gain more perspective of how programs are impacting kids academically, socially, and physically have been seen in numerous program evaluation efforts (Chang & Jordan, 2013; Rasco, Cheatham, Cheatham, & Phalen, 2013; Simonton, 2018, Martinek, 2017). Attendance taking, attitude changes, and levels of engagement are just a few of the outcomes that have been highlighted by researchers. For example, Schilling, Martinek & Carson (2007) examined the levels of commitment of high school leaders that participated in a special after-school program. A primary finding of the study pointed to the relationship-building that prevailed during the program as main factor affecting levels of commitment. A later study by Melendez and Martinek (2015) looked at how past participation in values-based program affected them later in life. These were students who stayed with the program for multiple years. The study participants were interviewed several years after they had been in the program. The values taught in the program that impacted their life experiences were identified. Helping others, problem-solving, and persisting in life challenges were the most often program elements were cited.

To clarify our thinking on motivation, we would like to address three basic themes that we believe will help explain the variability in participation among students in physical education. These themes are 1) skill levels and participations rate, 2) personal values and beliefs, and optimism and hope for learning. In part, they are also connected to some of our own research and experiences as teachers and coaches.

Skill levels and program participation

One of the themes that affect participation and continuation in program involvement is the skill level of kids. The notion that skill levels of participants impacts physical activity participation is well substantiated by research. An examination of thirteen studies reported by Logan and her colleagues (Logan, Webster, Gretchell, Pfeiffer, & Robinson (2015) clearly showed that fundamental motor competence was a fundamental prerequisite to physical activity engagement. That is lower and high skilled kids appear to engage differentially in programs. This claim was somewhat supported by McIntyre, Chivers, Larkin, Rose, & Hands (2015). They found that a program that focuses on low skill students can change their self-perceptions. It is assumed that such changes will have a positive effect on their continued engagement in physical activity. On the other hand, other studies seem to point to how low motor skill levels impact persistent levels of engagement of kids--especially in competitive settings. Disengagement and frustration are often the by-products found in competitive game situations (Barnett, Dawes, & Wilmut, 2012). Other studies have shown somewhat similar results. One of these studies by Zhu & Chen (2013) showed that expectancy to do better in physical tasks was not related to physical activity participation in adolescent students. This finding was consistent regardless of the skill levels of students.

As an outgrowth of studies that focus on individual skill levels and participation, there has been investigations into the role that programming plays in developing competence in learners. A growing body of evidence has focused on the intervention of physical activity programs for improving the motor skills, and the teachers' role for motor skill development (Lander, Eather, Morgan, Salmon, & Barnett, 2017). This is important since a high level of competence appears to be associated with kids' physical activity engagement. From a developmental perspective this research can be categorized into preschool and school-based physical activity programming.

Some of the research on preschoolers (3-5 years) showed that fundamental motor skill and perceived physical competence significantly impacts youths' participation in physical activity programs. The relationship between motor skills competence and physical activity are different by gender, physical activity intensity, and type of motor skill (Figueroa & An, 2017). Even if preschoolers do not perceive their motor skills competence, they are likely to develop their fundamental motor skills and therefore continue participating in physical activity. It was concluded that "planned motor skill programs" at preschool and early learning centers contribute to the improvement of motor skills of preschool-age children compared to simple play/game programs. This shows that young children have an opportunity to participate (and should partake) in instructionally planned physical activity programs to improve motor skills competence.

In school settings, physical education programs can help school-aged children's motor competence and physical fitness. The common intent of PE programs is to stimulate motor skill competence and physical activity participation. Thus, it can have a significant impact on kids' engagement in later programs. Lopes, Stodden, & Rodrigues (2017) explored the effectiveness of primary school physical education on motor skill competence and found that the program played a critical role in improving skills and fitness. Dudley, Okely, Pearson & Cotton (2011) also found that physical education was effective in developing movement skill proficiency in primary school children. Active participation in other programs was also indicated.

All These studies appear to highlight the important role that physical education programs play in improving motor skill competence. The implication here is that this will eventually influence enjoyable and ongoing sport participation out of school. However, it is important to note that all children do not acquire adequate skill competence due to inadequate amounts of physical activity and insufficient instruction in the physical education (Castelli, & Valley, 2007; Graham, 2015). Furthermore, children perceive their motor skill competence as they grow up. Obviously, the major implication of improving youth's physical activity engagement is this: teachers must take into account ways of increasing their motor skill competence and levels of physical activity in their school program. This will be contingent on the quality of the program and the instruction.

Personal values and beliefs about physical education

Students' motivation to stay active is often connected to their values and beliefs about physical activity. We believe that students' participation is greatly influenced by their values and beliefs about the physical education program (and sport programs). This means that individual thoughts and dispositions affect the dynamics of the teacher-student relationships and the motivation to engage in physical activity. We also know that researching these concepts is a challenge to explore for a couple of reasons First, studying dispositions and thoughts 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 kids. Social economic position, race, gender identity, cultural beliefs and traditions are a few of the factors that define the individuality of kids. Ignoring these only perpetuates the production of knowledge that has not been very useful in getting kids to participate.

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 percepts are given. For example, teachers 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. We believe many of these pitfalls can be avoided by recasting the types of questions that are asked by researchers.

A basic tenet follows here--in order to value physical education kids, have to gain a clear sense of what is its purpose. Interestingly, early research has shown students are not quite sure as to what physical education is supposed to be (Graham, 1995). One example of this was found in a study by Steve Sanders and Sandra Graham (Sanders & Graham, 1995) study. They reported that kindergarten children thought physical education was a time to play. Yet their teacher insisted on doing stretches before each class. They 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 children explore their own 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 have been documented with older groups. For example, Hopple & Graham's (1995) investigation of fourth and fifth graders found that students thought fitness was a main goal of the physical education program. However, 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, students viewed the activities as not being very meaningful or positive. 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 Placek (1983) showed how teachers were preoccupied with keeping their students "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 values and attitudes seem to prevail. For example, Veal & Campagnone (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 often they showed up for 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. We believe this emphasis significantly blurs students' view of what skillfulness is. They cannot distinguish between skillful learning and just trying (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 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.

More recent studies showed that the motivation to move was strongly related to physical activity (Chen, 2015; Chen, Sun, Zhu, & Chen, 2014). These studies with both children and adolescents underscored the importance of positive attitudes and their relationship to motivation levels in a physical education setting. Their findings clearly support the idea that inspiration was a key factor in the fostering feelings of students' investment in those experiences that fostered competence building and determination for positive skill development (Martinek & Ruiz, 2005). Interpretation of these studies must take into account the context in which kids participate. Few would argue that the contexts play a crucial role in motivation and positive outcomes from participating in physical activity. The context involved was not only physical space but the characteristic/mission of the physical activity program. Therefore, It is crucial to understand how the context of a physical activity program influences the improvement of youth motor skill competence.

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 (Dweck, 2006; Martinek, 1996; Lopez, 2013; Marton, 2015). We and other researchers have found that this is do to the various ways students view their chances for being successful (Carlson, 1995; Cohen & Honigsfeld, 2013; Dweck, 2006; Fincham, Hokoda & Sanders, 1989; Lopez, 2013; Martinek, 1996; Martinek & Griffith, 1993, 1994; Stipek, 1988; Walling & Martinek, 1995). We have found that many students often find 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 produces a mindset where they place attention on themselves and how they are being evaluated by others. These students very often become what Seligman (2002) calls learned helpless.

We can better understand what learned helpless youngsters are like when we contrast them to those who are mastery oriented. Mastery oriented students have perceptions of high ability and feel they have what it takes to succeed at most anything (Dweck, 2006). Failure for them is only temporary and that further effort will eventually lead to success. 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 an individual's willingness to participate in physical activity or, for that matter, any achievement situation.

How do kids do lose hope?

Past research has identified many ways to explain hopelessness (or hopefulness) in children during physical activity. One of the models that help to explain this phenomenon highlights 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 response 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 (2002) 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 (Dweck, 2006; Martinek, 1997). Our guess is that by the time students reach this age many have experienced repeated failure or 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 out (Gould, 2016) and low participation levels in physical education classes (Graham, 2015) in the middle and secondary schools. The second process that occurs is 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, 2004),

Influence of significant others. Children are adept at knowing how to respond to their own life circumstances (Masten, Best, & Garnezy, 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 develop problem-solving capacity. When the 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 reflect a hopeless mindset, 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 caregiver in a 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 only reinforces the child’s self-doubt about his or her ability (Martinek, 1996). Another force that influences self-perceptions of control is the parent and teacher’s (or coach’s) expectations for the child. Research has shown that teacher expectations can have a profound effect 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 the classroom and gym, along with teacher and coach 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 in a “holding pattern.”

A second way in which expectations are conveyed is by ability grouping. This type of practice heightens comparison among students and implies low expectations for low skilled students (Brophy & Good, 1990; Brophy, 2010).

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 responsibility for their own learning. As mentioned earlier, 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; Bernstein, Gibbone, & Lysiak, 2013). Consequently, social and normative

comparisons in competitive circumstances tend to accentuate low ability. A study by Bernstein, Phillips and Silverman (2011) examined how the competitive nature of physical education classrooms affected the perceptions of ability of the participating students. They found that the structure of the competitive experience significantly impacted the way student perceived the nature of the activities. In many cases the more competitive the activities were the more the students—especially the low skilled students—felt excluded from the experience. Over time such comparisons will eventually erode confidence and hope for being successful. In contrast, individualized instruction will give the opportunity to problem solve and readjust actions. Such self-regulation will increase what Ames (1992) terms skill tolerance. This can have far reaching effects on 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.

A word of caution is needed here. For some students, the type of goal you try to set may not fit a student's value system. This is 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, 2011). Understanding these values has important implications for teachers who are trying to get kids back on the right track. This seems to be a requirement for teaching master skills. For some kids, skipping classes, not participating, and being disruptive are critical behaviors that legitimizes their status in school. In their mind, they are mastery oriented. Their behavior has connected to them to their "culture." Consequently, it is important to first teach them ways to accommodate without disconnecting them from their value system (Martinek & Hellison, 1997).

Directions for future research

If we are truly concerned as a community of researchers in getting kids to joy and invest their energies in physical activity, then we must make fundamental changes in the way we do research. The focus of this issue was to address the nature of low skilled students and their engagement in physical activity. This requires us to delve into the "black box" of kids' thinking and interpretations. After all, a researcher's or teacher's interpretation of why a student disengages may be quite different from the student's motives for doing that. It's not just looking at what kids are doing. Rather it's knowing what they experience and how they are interpreting various program experiences. It is also being aware of what kids see and hear. Also, it's being able to translate that knowledge in ways that inform us about how programs need to function and how teachers and coaches need to behave. In a way it provides the researcher and practitioner a cause and effect connection between behaviors and reasons for them. As Ference Marton (2015) suggests it unveils the "triggers" that cause certain perceptions and behaviors to occur in kids.

So what approaches allow the researcher to uncover these triggers? Certainly, issuing questionnaires or rating forms may get at general profile of what kids think. Of course, two approaches are to do small group or case-type research. One common way to accomplish this is to interview kids either individually or in small groups of kids (i.e., focus group interviewing). Asking the right questions, effective probing, and having a set of "listening ears" become important requirements for using these strategies. To be effective in interviewing kids it will be important for the researcher to make a "connection" with them. This may require that the researcher spend time in the gym. One must be comfortable with kids. Doing this also gives the researcher a sence of what experiences are being provided by the teacher--thus providing some context to the research efforts. Going "native" will mean that the researcher may need to

leave the "high ground" of academia and enter what Donald Schon (1987) calls the "swamp of practice."

Other data sources can also provide the insights and thoughts of kids. Written narratives produced by student journaling or from essay writing can also produce important data related to program experiences. Questions like "what was I doing in class today?" "what were my thoughts about the tasks?" "what were things I really liked about what we did today and why?" "what were things that I didn't like and why?" "what would I rather be doing and why?" can serve as prompts for writing? Responding to these questions will often serve to be important gateways to identifying the broader question--what was the student thinking about and during the experience?

An important point is that there will no doubt be variability among students who will interpret the same experience. Here in lies the importance of case study approaches. Both the student interpretations/perceptions and the context in which they were collected can be taken into account. This creates a holistic profile for each student and the opportunity to identify similarities and differences across students.

Final thoughts

We are reminded that simply describing what teachers (and kids) do in physical activity and sport is not going to get us where we ought to be. If changing kids attitudes and levels of motivation is going to be tenable, we must develop research programs that tap into that Black Box of kids' thinking. We also argue that commitment to the study of student participation must be steadfast. Understanding how kids respond to their learning experiences cannot be guaranteed if researchers jump from population to population or from one "hot topic" to another. In other words, researchers and evaluators must stay with an idea of inquiry for the long haul.

This will require the researcher to ask (him) herself this question: "what should my research be able to do?" Answers to this question should be weighed against the researcher's own values and beliefs about kids. The requirements for this type of research may not be for everyone. One must be comfortable with kids!!

Clearly, the question of looking at why students participate in physical activity will be with us for decades. The complex nature 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 rethink how we view and do research. This depends on how badly we want to make a difference in kids' and teachers' lives.

References

- Ames, C. (1984). Achievement attributions and self-determination under competitive and individualistic goal structures. *Journal of Educational Psychology*, 76, 478-487.
<https://doi.org/10.1037/0022-0663.76.3.478>
- Ames, C. (1992). Classrooms: Goals, structures, and motivations. *Journal of Educational Psychology*, 34, 261-271.
<https://doi.org/10.1037/0022-0663.84.3.261>
- Anderson, W. (1980). *Analysis of teaching physical education*. St. Louis: C.V. Mosby.
- Anderson, W., & Barrette, G. (1978). What's going on in gym. Descriptive studies of physical education classes. *Monograph 1. Motor Skills: Theory into Practice*, 25-38.

- Barnett, A.; Dawes, H., & Morgan, Wilmut, K. (2012). Constraints and facilitators in participation in physical activity in teenagers with developmental coordination disorder: An exploratory interview study. *Child: Care, Health and Development*, 39, 393-403.
<https://doi.org/10.1111/j.1365-2214.2012.01376.x>
- Bernstein, E.; Gibbone, A., & Lysniak, U. (2013). Competition and considerations: The use of active gaming in physical education class. In A. Cohan & A. Honigsfeld (Eds.). *Breaking the mold in education* (pp.101-106). NY: Rowman & Littlefield Education.
- Bernstein, E.; Phillips, S. R., & Silverman, S. (2011). Attitudes and perceptions of middle school students toward competitive activities in physical education class. *Journal of Teaching in Physical Education*, 30, 69-83.
<https://doi.org/10.1123/jtpe.30.1.69>
- Brophy, J. (2010). *Motivating students to learn*. (3rd Ed). New York: Routledge.
- Brophy J., & Good, T. (1990). *Educational psychology (2nd ed.)* New York: Longman.
- Carlson, T. B. (1995). We hate gym: Student alienation from physical education. *Journal of Teaching Physical Education*, 14, 467-477.
<https://doi.org/10.1123/jtpe.14.4.467>
- Castilli, D. M., & Valley, J. A. (2007). Chapter 3: The relationship of physical fitness and motor competence to physical activity. *Journal of Teaching in Physical Education*, 26(4), 358-374.
<https://doi.org/10.1123/jtpe.26.4.358>
- Chang, H. N., & Jordan, P. W. (2013). Building a culture of Attendance: Schools and afterschool programs together can and should make a difference! In T.K. Peterson's (Ed.) *Expanding minds and opportunities* (pp. 56-61) Washington, DC: Collaborative.
- Chen, A. (2015). Operationalizing physical literacy for learners: Embodying the motivation to learn. *Journal of Sport and Health Science*, 4(2), 125-131.
<https://doi.org/10.1016/j.jshs.2015.03.005>
- Chen, S.; Sun, H.; Zhu, X., & Chen, A. (2014). Relationship between motivation and learning and after-school physical activity. *Research Quarterly for Exercise and Sport*, 88(4), 468-477.
<https://doi.org/10.1080/02701367.2014.961054>
- Cohen, A., & Honigsfeld, A. (2013). *Breaking the mold of education*. New York: Rowman & Littlefield Education.
- Costello, J. A., & Laubach, S. (1978). Student behavior. In W. Anderson and G. Barrette's (Eds.) *What's going on in gym?* (pp. 11-24). Newton, CT: Motor Skill: Theory into Practice.
- Diener, C. I., & Dweck, C. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy and achievement cognitions following failure. *Journal of Personality and Social Psychology*, 36, 451-462.
<https://doi.org/10.1037/0022-3514.36.5.451>
- Dudley, D.; Okley, A.; Pearson, P., & Cotton, W. (2011). A systematic review of the effectiveness of physical education and sport interventions targeting physical activity, movement skills and enjoyment of physical activity. *European Physical Education Review*, 17(3), 353-378.
<https://doi.org/10.1177/1356336X11416734>
- Dweck, C. (2006). *Mindset: The new psychology of success*. New York: Ballantine
- Figuera, R., & An, R. (2017). Motor skill competence and physical activity in preschoolers: A review. *Maternal and Child Health Journal*, 2(1), 136-146.
<https://doi.org/10.1007/s10995-016-2102-1>

- Finchum, F. D.; Hokoda, A., & Sanders, R. (1989). Learned helplessness: Test anxiety and academic achievement. *Child Development*, 60(1), 138-145.
<https://doi.org/10.2307/1131079>
- Gould, D. (2016). Leadership as a life skill in youth sports. In Nicholas L. Holt's (Ed.) *Positive youth development through sport* (151-167). NY: Routledge.
- Graham, G. (1995). Physical education through students' eyes and in students' voice. Introduction. *Journal of Teaching in Physical Education*, 14, 364-371.
<https://doi.org/10.1123/jtpe.14.4.364>
- Graham, G. (2015). The fall and rise of physical education. *PE Central-What Works in Physical Education* (Special Issue), 1-8.
- Hopple, C., & Graham, G. (1995). What children think, feel, and know about physical fitness testing. *Journal of Teaching in Physical Education*, 14, 408-417.
<https://doi.org/10.1123/jtpe.14.4.408>
- Lander, N.; Esther, N.; Morgan, P. J.; Salmon, J., & Barnett, L. M. (2017). Characteristics of teacher training in school-based physical education interventions to improve fundamental movement skills and/or physical activity: A systematic review. *Sport Medicine*, 47(1), 135-161.
<https://doi.org/10.1007/s40279-016-0561-6>
- Li, W.; Wright, P.; Rukavina, P., & Pickering, M. (2008). Measuring students' perceptions of personal and social responsibility and its relationship to intrinsic motivation in urban physical education. *Journal of Teaching Physical Education*, 27, 167-178.
<https://doi.org/10.1123/jtpe.27.2.167>
- Logan, S. W.; Webster, E. K.; Gretchell, N.; Pfeiffer, K. A., & Robinson, L. E. (2015). Relationship between fundamental motor skill competence and physical activity during childhood and adolescence: A systematic review. *Kinesiology Review*, 4(4), 416-426. <https://doi.org/10.1123/kr.2013-0012>
- Lopes, V.P.; Stodden, D. F., & Rodrigues, L.P. (2017). Effectiveness of physical education to promote motor competence in primary school children. *Physical Education and Sport Pedagogy*, 22(6), 589-602.
<https://doi.org/10.1080/17408989.2017.1341474>
- Lopez, S. (2013). Making hope happen in the classroom. *Kappa*, 5(2), 19-22.
<https://doi.org/10.1177/003172171309500205>
- Martinek, T. (1996). Fostering hope in youth: A model to explain learned helplessness in physical activity. *Quest*, 48, 409-421.
<https://doi.org/10.1080/00336297.1996.10484206>
- Martinek, T. (1997). Myths and realities of motivating kids to learn. *Strategies*, 10(4), 32-35. <https://doi.org/10.1080/08924562.1997.10591267>
- Martinek, T. (2017). Enhancing youth development programs through logic model assessment. *RICYDE. Revista Internacional de Ciencias del Deporte*, 13(49), 302-316.
<https://doi.org/10.5232/ricyde2017.04908>
- Martinek, T., & Griffith, J. B. (1993). Working with the learned helpless child. *Journal of Physical Education, Recreation, and Dance*, 64(6), 19-20.
<https://doi.org/10.1080/07303084.1993.10609995>
- Martinek, T., & Griffith (1994). Learned helplessness in physical education: A developmental study of causal attributions and task persistence. *Journal of Teaching Physical Education*, 13, 108-122.
<https://doi.org/10.1123/jtpe.13.2.108>

- Martinek, T., & Ruiz, L.M. (2005). Promoting positive youth development through a values-based sport program. *RICYDE. Revista Internacional de Ciencias del Deporte*, 1(1), 1-13. <https://doi.org/10.5232/ricyde2005.00101>
- Marton, F. (2015). *Necessary conditions of learning*. NY: Routledge.
- Masten, A. S.; Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2, 425-444.
<https://doi.org/10.1017/S0954579400005812>
- McIntyre, F.; Chivers, P.; Larkin, D.; Rose, E., & Hands, B. (2015). Exercise can improve physical self-perceptions in adolescents with low motor competence. *Human Movement Sciences*, 42, 333-343.
<https://doi.org/10.1016/j.humov.2014.12.003>
- Melendez, A., & Martinek, T. J. (2015). Life after Project Effort: Applying values in a responsibility-based physical activity program. *RICYDE. Revista internacional de Ciencias del Deporte*, 41(11), 258-280.
<https://doi.org/10.5232/ricyde2015.04105>
- Metzler, M. (1989). A review of research on time in sport pedagogy. *Journal of Teaching in Physical Education*, 8, 87-103.
<https://doi.org/10.1123/jtpe.8.2.87>
- Placek, J. (1983). Conceptions of success in teaching: Busy, happy, and good? In T. Templin and J. Olsen's (Eds.) *Teaching in Physical Education* (pp. 46-56), Champaign, IL: Human Kinetics.
- Rasco, C. H.; Cheatham, J.B.; Cheatham, S.H., & Phalen, E.M. (2013) Using after-school and summer learning to improve literacy skills. T. Peterson (Ed.). *Expanding minds and opportunities* (pp.42-48). Washington, DC: Collaborative Communications Group.
- Sanders, S., & Graham, G. (1995). Kindergarten children's initial experiences in physical education: The relentless persistence for play clashes with the zone of acceptable responses. *Journal of Teaching in Physical Education*, 14, 372-383.
<https://doi.org/10.1123/jtpe.14.4.372>
- Schilling, T.; Martinek, T., & Carson, S. (2007). Youth leader's perceptions of commitment to a responsibility-based physical activity program. *Research Quarterly for Exercise and Sport*, 78, 48-60.
<https://doi.org/10.1080/02701367.2007.10599403>
- Schon, D. (1987). *Enhancing the reflective practitioner*. San Francisco, CA: Jossey Bass.
- Seligman, M. (2002). *Authentic Happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.
- Siedentop, D. (1991). *Developing teaching skills in physical education*. Mountain View, CA: Mayfield.
- Siedentop, D.; Tousignant, M., & Parker, M. (1982). *Academic learning time-physical education coding manual*. Columbus OH: School of Health, Physical Education and Recreation, Ohio State University.
- Simonton, S. (2018). Youth workers can navigate in turbulent times. *Youth Today*, (Winter Issue), 6-8.
- Stipek, D. (1988). *Motivation to learn*. Boston: Allyn and Bacon
- Veal, M. L., & Campagnone, N. (1995). How sixth graders perceive skill and effort. *Journal of Teaching in Physical Education*, 14, 431-444.
<https://doi.org/10.1123/jtpe.14.4.431>

Martinek, T.; Holland, B., & Seo, G. (2019). Understanding Physical Activity Engagement in Students: Skills, Values, and Hope. *RICYDE. Revista internacional de ciencias del deporte*. 55(15), 88-101.
<https://doi.org/10.5232/ricyde2019.05506>

Walling, M. D., & Martinek, T. (1995). Learned helplessness: A case study of a middle school student. *Journal of Teaching in Physical Education*, 14, 454-466.
<https://doi.org/10.1123/jtpe.14.4.454>

Zhu, X., & Chen, A. (2013). Adolescent expectancy-value motivation, achievement in physical education and physical activity participation. *Journal of Teaching in Physical Education*, 32(3), 287-304.
<https://doi.org/10.1123/jtpe.32.3.287>