

Instructional Management Practices on Physical Education: Inputs for Instructional Development Program

Dennis N. Daran, PHD. and Aileen M. Daran, EdD.

dennisn.daran@gmail.com

aileenm.daran@gmail.com

Brgy. Bubukal Santa Cruz, Laguna 4009, Philippines

Abstract

Using descriptive quantitative approach through survey, this study was conducted to find out the Instructional Management Practices on Physical Education in the province of Laguna. Involved in the survey are 40 school heads and 74 teachers from Higher education institutions or HEIs offering the Senior High School Program in the said province. All areas of instructional management practices were described by both groups of respondents as frequent. Most areas recorded a very high positive correlation.

The findings of the study highlighted that there was no significant difference found in the ratings made by the two groups of respondents as regards the five areas of instructional management practices that were surveyed.

All areas of level of implementation of Instructional Management Practices on Physical Education were described by both groups of respondents as frequent. Most areas recorded a very high positive correlation.

Moreover, there was no significant difference found in the ratings made by the two groups of respondents as regards the five areas of the level of implementation of Senior High School program that were surveyed. A perfect positive correlation was found on between and among the ratings made by both coordinators and teachers on the extent of instructional management practices and the level of implementation of Senior High School program.

Keywords: Instructional Management; Instructional Development Plan

1. Main text

Introduction

Physical education is a formal content area of study in schools that is standards based and encompasses assessment based on standards and benchmarks. It is defined in Chapter 1 as “a planned sequential K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge, and behaviors of healthy active living, physical fitness, sportsmanship, self-efficacy, and emotional intelligence.”

As a school subject, physical education is focused on teaching school-aged children the science and methods of physically active, healthful living. It is an avenue for engaging in developmentally appropriate physical activities designed for children to develop their fitness, gross motor skills, and health. These findings

imply that Instructional Management Practices in Physical Education of school heads is a frequent task they perform as part of their functions. These findings fall short to Hallinger's (2011) notion that effective managers are only efficient at their task when they are always at it.

Furthermore, the findings in the study also imply that when students are engaged in appropriate, motivating learning activities, their opportunity to learn is obviously increased, and their opportunity to be off task is reduced. Given the challenge and variability in the physical education context, recommended best practices in physical education are more of a list of principles than prescriptions.

A School Development Plan for Physical Education was proposed to address concerns in the implementation of the Senior High School program. It is imperative that educators must unite in implementing a physical education program that is anchored on the following action agenda. Designing and implementing a physical education program with these characteristics in mind should ensure that the time and curricular materials of the program enable students to achieve the goals of becoming knowledgeable exercisers and skill movers who value and adopt a physically active, healthy lifestyle.

Theoretical Framework

This descriptive research is anchored on Triarchic Theory of Intelligence as formulated by Robert J. Sternberg of Yale University. According to Sternberg's Triarchic Theory of Intelligence, intelligence results from information processing components being applied to experience for the purposes of adaptation to, shaping of, and selection of environments.

According to this theory, intelligence and the intellectual skills that constitute it and form the basis of intellectual achievements are forms of developing expertise—they can be developed just like any other forms of expertise. Abilities are not fixed, but rather, flexible. According to the triarchic theory, three kinds of thinking are essential to problem solving, in particular, and to human intelligence, in general, and these are the following:

Analytical thinking refers to what individuals generally think of as academic ability. It enables people to solve problems and to acquire new knowledge. Problem-solving skills include encoding information, combining and comparing pieces of information and generating a solution.

This occurs when the components are applied to relatively familiar types of problems in their abstracted form. Analytical thinking is involved when people analyze, evaluate, judge, compare and contrast, and critique. For example, a student might be asked to evaluate the assumptions underlying a logical argument or to compare and contrast the themes underlying two short stories.

Creative thinking is the ability to cope with novel situations and to profit from experience. The ability to quickly relate novel situations to familiar situations (that is, to perceive similarities and differences) fosters adaptation. Moreover, as a result of experience, individuals are able to solve problems more rapidly. This occurs when the components of information processing are applied to relatively novel types of problems. Creative thinking is involved when people create, invent, discover, explore, suppose, and imagine. For example, a student might be asked to create a poem or to invent a better mouse trap.

Practical thinking refers to being "street smart." It enables people to adapt to the demands of their environment. It is believed that learners can have distinctive intelligences, with an innate potential that they can be smarter through a series of exercises or performance.

In teaching, the teaching was affected by the such as Instructional delivery, Classroom management, Formative assessment, and, Personal competencies (soft skills). This occurs when the components of information processing are applied to highly contextualized, everyday problems. Practical thinking is involved when people apply, use, utilize, implement, and contextualize.

Statement of the Problem

This study was focused on the instructional management practices on the implementation of the Physical Education in the Senior High School program in the selected HEI's in Laguna. Specifically, it aimed

to answer the following questions:

1. What is the level of practice on the instructional management of the principal in the Physical Education (PE) program in Senior High School as assessed by the coordinators and teachers in terms of:
 - 1.1 Goal setting
 - 1.2 Supervision and evaluation of instruction
 - 1.3 Coordinating the curriculum
 - 1.4 Monitoring student's progress
 - 1.5 Professional development
2. What is the performance status of schools in Physical education in terms of?
 - 2.1 Instruction
 - 2.2 Learners materials/ school facilities
 - 2.3 Partnership and linkages
 - 2.4 Assessment/ work immersion
 - 2.5 Budget
3. What is the significant relationship between the level of practice on the instructional management of the principal in the Physical Education (PE) program in senior high school as assessed by the coordinators and teachers and the performance status of schools in Physical education?
4. What implication can be drawn from the results of the study?
5. What instructional program in Physical Education can be developed?

Research Methodology

The researcher has utilized the descriptive method of research in this quest for solution. Descriptive research is defined as a research method that describes the characteristics of the population or phenomenon that is being studied. This methodology focuses more on the “what” of the research subject rather than the “why” of the research subject.

In other words, descriptive research primarily focuses on describing the nature of a demographic segment, without focusing on “why” a certain phenomenon occurs. In other words, it “describes” the subject of the research, without covering “why” it happens. Descriptive research can be conducted by using specific methods like observational method, case study method and survey method. All major methods of data collection are covered which provides a lot of information. This can be used for future research or even developing hypothesis of your research object.

Results and Discussion

The significant relationship between the level of practice on the instructional management of the principal in the Physical Education (PE) program in senior high school as assessed by the coordinators and teachers and the performance status of schools in Physical Education.

Variables in the Study			Instructi on	Learners materials / school facilities	Partnersh ip and linkages	Assessme nt/ work immersio n	Budget
	Goal setting	Correlation Coefficient	-.002	.047	.018	.006	-.111
		Sig. (2- tailed)	.313	.216	.326	.459	.321
		N	105	105	105	105	105

	Supervision and evaluation of instruction	Correlation Coefficient	-.099	-.098	-.182*	-.132	-.195*
		Sig. (2-tailed)	.256	.314	.048	.067	.042
		N	105	105	105	105	105
	Coordinating the curriculum	Correlation Coefficient	.005	.011	-.083	.025	-.125
		Sig. (2-tailed)	.812	.786	.812	.567	.112
		N	105	105	105	105	105
	Monitoring student's progress	Correlation Coefficient	.051	-.044	-.080	-.143	-.059
		Sig. (2-tailed)	.712	.534	.215	.145	.245
		N	105	105	105	105	105
	Professional development	Correlation Coefficient	.066	.005	-.010	.036	-.095
		Sig. (2-tailed)	.412	.612	.478	.478	.267
		N	105	105	105	105	105

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

From the previous presentation of data, it can be deduced the significant relationship between the level of practice on the instructional management of the principal in the Physical Education (PE) program in senior high school as assessed by the coordinators and teachers and the performance status of schools in Physical education.

The aspects on the level of practice on the instructional management of the principal in the Physical Education (PE) program in senior high school such as Goal setting, Supervision and evaluation of instruction, Coordinating the curriculum, Monitoring student's progress, and Professional development has a significant relationship with the school's status of performance in terms of Instruction, Learners materials/ school facilities; Partnership and linkages Assessment/ work immersion, and, Budget.

Problem 5. What implication can be drawn from the results of the study?

Physical education is a formal content area of study in schools that is standards based and encompasses assessment based on standards and benchmarks. It is defined in Chapter 1 as "a planned sequential K-12 standards-based program of curricula and instruction designed to develop motor skills, knowledge, and behaviors of healthy active living, physical fitness, sportsmanship, self-efficacy, and emotional intelligence."

As a school subject, physical education is focused on teaching school-aged children the science and methods of physically active, healthful living (NASPE, 2012). It is an avenue for engaging in developmentally appropriate physical activities designed for children to develop their fitness, gross motor skills, and health (Sallis et al., 2003; Robinson and Goodway, 2009; Robinson, 2011). These findings imply

that Instructional Management Practices in Physical Education of school heads is a frequent task they perform as part of their functions. These findings fall short to Hallinger's (2011) notion that effective managers are only efficient at their task when they are always at it.

The findings in the study implies that when students are engaged in appropriate, motivating learning activities, their opportunity to learn is obviously increased, and their opportunity to be off task is reduced. Given the challenge and variability in the physical education context, recommended best practices in physical education are more of a list of principles than prescriptions.

Effective instructional managers take time to develop and practice rules and routines, start class on time with an engaging task, plan equipment use as well as transitions, and carefully manage the challenge and pace of the lesson (Siedentop & Tannehill, 2000). The study has given highlight to effective practices in teaching such as:

- **Creating routines** for entering the gym or outside play area, getting out equipment, beginning games, putting equipment away and exiting class. Once students know what to expect, they will be able to channel their excitement and energy into meaningful action.
- **Learning your students' names.** This is the singular most important tactic in ensuring an efficient classroom. Teachers who take the time to learn the names of all students can provide timely feedback (positive or corrective) as needed from across the gym and often stop off-task behavior before it involves other students
- **Back to Wall.** When teaching, circulate around the gym with your back to the wall. This allows you to always face the students and stop off-task behavior as it is getting started. Turning your back on students might encourage students to engage in off-task behaviors.
- **Proximity Control.** Teachers who are successful with class management are constantly moving. If, as a result of scanning the classroom, the teacher sees behavior that is detrimental to the learning environment, the teacher can move within proximity to the perpetrator(s) and undesirable behavior will often cease. It is said that good teachers have eyes in the back of their heads. The ability of teachers to know what is going on even if they are not watching a student or group of students is a skill that comes from knowing the students you teach. You need to be scanning the learning environment and processing what is happening in the gym. With practice you will be able to watch one student while talking with another.
- **Verbal Positive Reinforcement.** "I like the way Susie and Mark walked to put away their equipment. Susie and Mark, please put the equipment away again so we can all watch." Positively pinpointing students reinforces the students who are on task and encourages students who are off task to do what is asked.
- **Consequences for Behavior.** Having consequences clearly posted next to the gym rules and consistently enforcing them, is a strong step for encouraging students to take responsibility for their own actions.

As is true with many management practices, the core is in the details of how a teacher accomplishes these tasks. makes recommendations about approaches for strengthening and improving programs and policies for physical activity and physical education in the school environment.

This study lays out a set of guiding principles to guide its work on these tasks. These included: recognizing the benefits of instilling life-long physical activity habits in children; the value of using systems thinking in improving physical activity and physical education in the school environment; the recognition of current disparities in opportunities and the need to achieve equity in physical activity and physical education; the importance of considering all types of school environments; the need to take into consideration the diversity of students as recommendations are developed.

The goal of the model is to "educate students to be players in the fullest sense and to help them develop as competent, literate, and enthusiastic sportspersons" (2011, p. 4, emphasis in original). The model entails a unique instructional structure featuring sport seasons that are used as the basis for planning and

teaching instructional units. Instead of focusing exclusively on having children move constantly to log activity time, a new curricular approach emphasizes teaching them the science behind why they need to be physically active in their lives.

The K to 12 curriculum is designed so that the children are engaged in physical activities that demonstrate relevant scientific knowledge. The goal is the development and maintenance of individual student fitness. In contrast with the movement education and sport education models, the underlying premise is that physical activity is essential to a healthy lifestyle and that students' understanding of fitness and behavior change result from engagement in a fitness education program.

It is imperative that educators must unite in implementing a physical education program that is anchored on the following action agenda. Designing and implementing a physical education program with these characteristics in mind should ensure that the time and curricular materials of the program enable students to achieve the goals of becoming knowledgeable exercisers and skillful movers who value and adopt a physically active, healthy lifestyle.

1. **Universal access:** Design programs that are effective for every child, including those who face the most barriers to participating in physical activity.

2. **Age appropriate:** Physical activities and tasks that are systematically designed for a child's physical, social, and emotional development, as well as his or her physical and emotional safety, are a non-negotiable component of good program design.

3. **Dosage and duration:** Maximum benefit for school-aged children and adolescents comes from group-based activity for at least 60 minutes per day that allows for increased mastery and skill level over time.

4. **Fun:** Create early positive experiences that keep students coming back for more, and let them have a say in what "fun" actually is.

5. **Incentives and motivation:** Focus on the "personal best" versus winning or losing.

6. **Feedback to kids:** Successful programs build group and individual goal setting and feedback into programs.

7. **Teaching, coaching, and mentorship:** Teachers of physical education, coaches, and mentors can make or break the experience for students. They should be prepared through proper training and included in stakeholder conversations. A well-trained physical activity workforce shares a common commitment and principles that promote physical activity among children. Great leaders create positive experiences and influence all learners.

This study will be of interest to local and national policymakers, school officials, teachers, and the education community, researchers, professional organizations, and parents interested in physical activity, physical education, and health for school-aged children and adolescents.

The instructional management practices in physical education can be improved following the principles highlighted in this study: leadership that sets the vision, assigns accountability, ensures structural support and resources, and sets policy; relevance to needs and interests that optimizes participation and is tied to long-term engagement; partnership with both internal and external stakeholders; comprehensiveness; implementation, which involves having a planned, coordinated, and fully executed work plan; engagement, including the promotion of respect and trust and of co-ownership, the leveraging of company culture, and the use of incentives that optimize intrinsic motivation; a formal communication strategy that is linked to goals and objectives and the use of multiple delivery channels and modes; data-driven monitoring and learning; and compliance with regulatory standards and requirements.

Aside from serving as the instructional leader for physical education, physical education teachers and specialists can serve as expert resources for classroom teachers in the implementation of classroom physical activity breaks and recess. Their expertise in age-appropriate physical activity helps ensure that students are participating in activities that are fun and engaging.

Additionally, as the catalyst for a healthy school environment, the physical education teacher specialist can assist in the design and delivery of intramural programs provided before and after school, as well as serve as a community outreach specialist for onsite activity partnerships.

Problem 6. What institutional program in Physical Education can be developed?

In order to effectively address concerns on the implementation of physical education in the Senior High School programs, this study believes that program should be treated like college degree programs. An accreditation process for this will soon be out as accrediting agencies are yet to come up with their mechanics for accrediting Senior High Program much as they have already done with elementary, high school, college and graduate education.

A forward-looking plan would help school managers ready for the challenges that the future hold. It is therefore fitting that as early as today; strategic planning be done in Senior High School in order that the challenges of the future would not become a burden but rather as avenue for growth and further learning.

Presented in this study is a strategic School Development Plan For Physical Education based on the result of the study. The plan can be taken as a template where stakeholders can input their own data to suit the needs of their respective schools. The strategic School Development Plan for Physical Education and template is provided in the next page as it requires a different page lay-out and orientation. The goal of the plan is to “educate students to be players in the fullest sense and to help them develop as competent, literate, and enthusiastic sportspersons” (2011, p. 4, emphasis in original).

It entails a unique instructional structure featuring sport seasons that are used as the basis for planning and teaching instructional units. Instead of focusing exclusively on having children move constantly to log activity time, a new curricular approach emphasizes teaching them the science behind why they need to be physically active in their lives.

Future Plans

- Develop Agility, Balance and Co-ordination in all our children.
- Develop the skills and confidence of all staff to deliver good PE lessons.
- Raise aspirations for all pupils so that they may develop further their active and healthy lifestyles.
- Continue to work in partnership with the other HEIs offering Senior High School for strengthened Sports Partnership.
- Give all children opportunities to participate in out of school competitions.

Conclusions

In the view of the foregoing findings, the study makes the following conclusions;

- (1) The school heads admit that they do not always practice the functions of instructional management. Hence, a forward-looking plan would help school managers ready for the challenges that the future hold. It is therefore fitting that as early as today; strategic planning be done in Senior High School in order that the challenges of the future would not become a burden but rather as avenue for growth and further learning.
- (2) The teachers perceive the implementation of SHS programs to be only frequent in practice which speaks that are areas needing attention so that the SHS programs maybe implemented better if not best. Aside from serving as the instructional leader for physical education, physical education teachers and specialists can serve as expert resources for classroom teachers in the implementation of classroom physical activity breaks and recess. Their expertise in age-appropriate physical activity helps ensure that students are participating in activities that are fun and engaging.
- (3) The extent of instructional management practices is independent of the level of implementation of SHS programs which opens an issue as to why school heads managers cannot always be at their instructional management functions.
- (4) The extent of instructional management practices is perceived as frequent with a grand mean of 3.81. The study further reveals an average weighted mean (AWM) ratings of 4.16 for Supervision and Evaluation of Instruction, 4.12 for Goal Setting, 3.69 for Coordinating the Curriculum, 3.69 for Monitoring Student Progress, and 3.41 for Professional Development.

- (5) As to the level of implementation of SHS programs, teacher respondents perceive the practices to be frequent on the average with a grand mean of 3.94. The survey shows an AWM rating of 4.78 for Assessment/Work Immersion, 4.11 for Budget, 3.66 for Learners Materials, 3.64 for Partnership and Linkages, and 3.54 for Instruction.
- (6) There was also found a high positive correlation between the extent of instructional management practices and the level of implementation of SHS programs as evidenced by the Pearson r correlation coefficient of 0.88. The p -value of 0.18 for this relationship was however found to be not significant as it is greater than the threshold p -value of 0.05 which prompted the study to accept the null hypothesis that there is no significant relationship between the extent of instructional management practices and the level of implementation of SHS programs.

Recommendations

Based on the conclusions made, the study offers the following recommendations;

- (1) The findings in the study implies that when students are engaged in appropriate, motivating learning activities, their opportunity to learn is obviously increased, and their opportunity to be off task is reduced. Given the challenge and variability in the physical education context, recommended best practices in physical education are more of a list of principles than prescriptions.
- (2) Effective instructional managers take time to develop and practice rules and routines, start class on time with an engaging task, plan equipment use as well as transitions, and carefully manage the challenge and pace of the lesson
- (3) An in-depth inquiry is suggested to be made on what makes school head fail to always practice their instructional management functions so that a more responsive and productive job delineation and streamlining of functions in an educational organization maybe crafted to aid in the attainment of maximum performance from all personnel concerned. Qualitative studies on this are of academic inquiry is suggested.
- (4) As the SHS programs are yet new in the field and HEIs were not originally made for this, it is no surprise that the level of implementation is not at its maximum. It is suggested to make scholarly inquiries both quantitative and qualitative to document the challenges experienced by schools in offering and maintaining SHS programs. These studies can help frame a more dynamic operations plan for institutions offering SHS programs.
- (5) The perceptions of school heads and teachers appear to vary as they were made to answer two different sets of instruments. It is suggested that studies of this nature in the future accomplish the task of accounting for perceptions in a parallel manner among respondents so as to achieve utmost validity and reliability.

References

- Baker, S. K., & Good, R. H. (1995). Curriculum-based measurement of English reading with bilingual Hispanic students: A validation study with second-grade students. *School Psychology Review*, 24, 561–578.
- Deno, S. L. (2003). Developments in curriculum-based measurement. *Journal of Special Education*, 37, 184–192.
- Fuchs, L. S., Deno, S., & Mirkin, P. (1984). Effects of frequent curriculum-based measurement and evaluation on pedagogy, student achievement, and student awareness of learning. *American Educational Research Journal*, 21, 449–460.
- Fuchs, L. S., & Fuchs, D. (1998). Treatment validity: A unifying concept for reconceptualizing the identification of learning disabilities. *Learning Disabilities Research & Practice*, 13, 204–219.
- Fuchs, L. S., & Fuchs, D. (2002). What is scientifically-based research on progress monitoring? (Technical report). Nashville, TN: Vanderbilt University.
- Good, R., & Jefferson, G. (1998). Contemporary perspectives on curriculum-based measurement validity. In

M. R. Shinn (Ed.), *Advanced applications of curriculum-based measurement* (pp. 61–88). New York: Guilford Press.

Good, R. H., Simmons, D. C., & Kameenui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high stakes outcomes. *Scientific Studies of Reading*, 5, 257–288.

Cothran, D. J., & Kulinna, P. H. (2007). Students' reports of misbehavior in physical education. *Research Quarterly for Exercise and Sport*, 78, 216–224.

Cothran, D. J., Kulinna, P. H., & Garn, A. (2010). Classroom teachers and physical activity integration. *Teaching and Teacher Education*, 26, 1381–1388.

Cothran, D. J., Kulinna, P. H., & Garrahy, D. A. (2003). "Th is is kind of giving a secret away. . .": Students' perspectives on eff ective classroom management. *Teaching and Teacher Education*, 19, 435–444.

Cothran, D. J., Kulinna, P. H., & Garrahy, D. A. (2009). Attributions for and consequences of student misbehavior. *Physical Education and Sport Pedagogy*, 14, 155–167.

Curtner-Smith, M. D., Kerr, I .G., & Hencken, C. L. (1995). Teacher behaviors related with pupil psychosocial development in physical education: A descriptive-analytic study. *Educational Research*, 37, 267–277.

Darst, P. W., Pangrazi, R. P., Sariscsany, M. J., & Brusseau, T. A. (2012). *Dynamic physical education for secondary school students* (7th ed.). Boston: Benjamin Cummings.

Doyle, W. (1986). Classroom organization and management. In Merlin C. Wittrock (Ed.), *Handbook of Research on Teaching* (4th ed.). New York: MacMillan. Dyson, B. (1995). Students' voices in two alternative elementary physical education programs. *Journal of Teaching Physical Education*, 14, 394–407.

Kulinna, P. H., Stylianou, M., Lorenz, K., Martin, J., Hodges, M., & Houston, J. (2013). Using social cognitive theories to investigate teacher behavior change in integrating physical activity breaks. Paper presented at the American Educational Research Association 2013 annual meeting, San Francisco, California, April.

Larson, A., & Silverman, S. (2005). Rationales and practices used by caring physical education teachers. *Sport, Education & Society*, 10, 175–193.

Lavay, B. W., French, R., & Henderson, H. L. (2006). *Positive behavior management in physical activity settings* (2nd ed.). Champaign, IL: Human Kinetics.

Lavay, B., Henderson, H., French, R., & Guthrie, S. (2012). Behavior management instructional practices and content of college/university physical education teacher education (PETE) programs. *Physical Education and Sport Pedagogy*, 17, 195–210. Lund, J. (1992). Assessment and accountability in secondary physical education. *Quest*, 44, 352–360.

MacPhail, A., Kirk, D., & Kinchin, G. (2004). Sport education: Promoting team affiliation through physical education. *Journal of Teaching in Physical Education*, 23, 106–122.

Martin, J. J., Kulinna, P. H., McCaughtry, N., & Barnard, S. D. (2005). Influences of professional development on elementary students' personal and social development. *Research Quarterly for Exercise and Sport*, 76 (March), A16–17.

McCormack, A. (1997). Classroom management problems, strategies and influences in physical education. *European Physical Education Review*, 3, 102–115. Michigan Fitness Foundation. Michigan's Exemplary Physical Education Curriculum (EPEC). (2002). EPEC lessons: Grades K, 1, 2, 3, 4, 5, and user's manual .

Lansing: Author.

Misner, J., & Arbogast, G. (1990). Strategies for improving student learning and the status of physical education. *Physical Educator* , 47 , 50–54.

Van der Mars, H., Vogler, E.W., Darst, P., & Cusimano, B. (1995). Novice and expert physical education teachers: Maybe they think and decide differently . . . but do they behave differently? *Journal of Teaching in Physical Education* , 14 , 340–347.

Vidoni, C., & Ward, P. (2006). Effects of a dependent group-oriented contingency on middle school physical education students' fair play behaviors. *Journal of Behavioral Education* , 15 , 81–92.

Ward, P. (2006). The philosophy, science and application of behavior analysis in physical education. *The Handbook of Physical Education* (pp. 3–20) London: Sage.

Ward, P., & Barrett, T. (2002). A review of behavior analysis research in physical education. *Journal of Teaching in Physical Education* , 21 , 242–266.

Ward, P., & Dunaway, S. (1995). Effects of contingent music on laps run in a high school physical education class. *Physical Educator* , 52 , 2–7.

Watson, D., & Clocksin, B. (2013). Using physical activity and sport to teach personal and social responsibility . Champaign, IL: Human Kinetics.