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PARALYMPIC ATHLETES

The Relationship Between Quality of Life Level and Social Appearance Anxiety Level of Physically Handicapped Boccia Athletes

T. Atasoy and Aydın Pekel

Abstract

This study investigated the relationship between quality of life level and social appearance anxiety levels of physically disabled boccia athletes. The population of 2018–2019 Boccia Championships for the Physically Disabled Turkey was invited to participate (N = 97 athletes), and sampling was determined by simple random sampling (n = 83); data from 80 athletes were used. The quantitative study was performed by applying the linkage method to the screening model. Questionnaire technique was used as the data collection method. The descriptive form, quality of life scale, and social appearance anxiety scale were applied to the participants. Correlation and regression analysis were used for statistical analysis. When the direction and level of the relationship between quality of life and social appearance anxiety were examined, a high level and positive relationship between quality of life and social appearance anxiety was found. There is a significant relationship between quality of life and social appearance anxiety. Regression coefficient values of quality of life level contribute to social appearance anxiety level. As a result, a high and negative relationship was found between quality of life and social appearance anxiety. This study found that the quality of life level of the physically disabled individuals engaged in boccia sport contributed to social appearance anxiety level. In other words, it has been determined that the determinants of quality of

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life are an important or priority variable in social appearance anxiety of physically disabled boccia athletes.

Being disabled affects a person physically and mentally and makes it difficult for them to participate in social life. In this context, the inability of physically disabled people to perceive themselves as inadequate due to their disabilities leads to low perception of quality of life and lack of motivation and affects social anxiety levels in case of not using their existing potential (Duman et al., 2011). Regardless of the disability status and degree of disability of the individual, being able to move, exercise, and participate in sport activities gives pleasure to the individual, and the mobility they develop through these activities positively affects their quality of life and motivation.

Especially the intensity of urban life and the disability of the society toward the negative ideas and behaviors toward individuals can negatively affect the adaptation process of the individual to social life. In this case, sport is an important factors contributing to the individual's participation in social life, besides physical and mental development. For this reason, it is thought that sport phenomenon will have a positive effect on all individuals as well as a positive effect on disabled individuals. Sport, which is an educational activity, reveals the power of individuals to express their common goals and the sense of appreciation (Erkal, 1992). It is thought that meeting the disabled people with sports in the city life and creating suitable sports areas for these individuals, providing accessibility and accessibility of these areas, and making sports branches suitable for all the disabled groups within these areas will accelerate the process of adaptation to social life and increase the quality of life of individuals. Boccia stands out among the sports branches developed for individuals with new and developing physical disabilities.

In the light of this information, the following definitions of "Boccia, Quality of Life, Social Appearance" are important for the integrity of this study. Boccia is an appropriate branch developed for all disability groups, especially for individuals with severe physical disabilities (cerebral palsy or neurological conditions requiring wheelchair use), aiming to improve their quality of life and facilitating the integration of the disabled individual into the society.

Boccia is played on a smooth surface where these players play by throwing or rolling the colored balls as close as possible

to a white target ball known as a "jak." The pitch of the game is 12.5 m × 6 m and the shooting area is divided into six throwing boxes. All measurements of the boundary lines are measured through the corresponding line (Foundation of Health Social and Education in Soma, n.d.). The player who places the most balls near the jak ball wins the game. Individual or doubles matches consist of four chapters, with six chapters in team matches. After each episode, the athlete who sends the ball closest to the jak gets a double or team point and receives an additional score for each ball that is closer to the jak than the opponent's ball. Each athlete throws six balls per pair or team and the game continues (Foundation of Health Social and Education in Soma, n.d.). Quality of life is the totality of emotion, thought, and consciousness levels based on subjective evaluation of the individual's own life (Tekeli, 2010). Individuals' anxiety levels in social life can directly affect their quality of life. While the concept of quality of life is defined as the totality of subjective perception, emotion, and cognition processes based on the evaluation of the individual's own life, it is an expression of individual well-being and includes the expressions of subjective satisfaction related to various aspects of life. The quality of life scale provides information on psychological health, general health and life satisfaction, general health and quality of life, physical health, and social and environmental domains (Çivi, 2011).

Social appearance concerns how individuals evaluate outside individuals, including their physical appearance. It also covers anxiety situations from height to clothing style. According to Harter (1983), how an individual feels about their appearance, that is, physical respect, is the most important factor that affects all self-esteem. However, the meaning given to appearances and evaluations about appearances may vary according to the time and culture of the society (Özcan et al., 2013).

For this reason, it is thought that sport plays an important role in eliminating movement deficiencies based on mobility limitation for physically disabled people. This is because it provides the individual the opportunity to develop self-confidence through sports, to develop perception skills, to strengthen communication, and to develop a sense of self-confidence (Eroğlu & Acet, 2017). Many researchers have examined behaviors that affect quality of life level and social

appearance anxiety level, and although it is thought that physical activity constitutes positive components in self-assessment, the relationship between these two components and physical activity is still unclear (Fox, 2000; McAuley & Rudolph, 1995).

It is expected that the results from this study may provide suggestions for strengthening the quality of life and social appearance anxiety levels of physically disabled individuals doing boccia sports.

Method

Participants

The participants in this study came from the population of athletes from the 2018–2019 Boccia Championships for the Physically Disabled Turkey ($N = 97$), and sampling was determined by simple random sampling ($n = 83$). After the participants were informed about the study, participation in the study was conducted on a voluntary basis. After the answers given to the scales were examined, the scales that were filled in incomplete or incorrectly were not considered and the scales of 80 participants were considered.

Measurements and Procedures

The aim of this study was to evaluate the relationship between quality of life and social appearance anxiety of physically disabled boccia athletes. In this direction, the relational screening method was used to determine the presence and/or degree of co-change between two or more variables (Ekici & Hevedanlı, 2010; Karasar, 2008).

A descriptive form created by the researcher consisted of three questions: age, gender, and participation in the competition. The data were collected by questionnaire technique. The scales were applied to the participants on a voluntary basis. The 16-item, 5-point Likert-type one-dimensional scale developed by Doğan (2010), SSIQ, consists of cognitive, affective, and behavioral expressions related to appearance anxiety of individuals. Doğan determined the reliability coefficient of the scale as 0.88. In this study, the reliability coefficient of the scale was 0.87. It was developed by Rand Corporation

in 1992 to measure the quality of life of the participants. Koçyiğit et al. (1999) used the short-form 36 (SF-36) of the Turkish Quality of Life Scale. Nine items of the scale were used to measure emotions as a single dimension (Aksungur, 2009). The scale is a 5-point Likert rating, graded as (1) *I disagree*, (2) *rarely*, (3) *sometimes*, (4) *most of the time*, and (5) *always*.

Statistical Analysis

The data obtained from the descriptive information form and social appearance anxiety scales were analyzed in SPSS 25. Personal information about the candidates, inventory averages, and factor scores were given by determining frequency and percentage values. Parametric and nonparametric distribution of scores, parametric and nonparametric distribution curves, and skewness-kurtosis values were examined. Data show parametric distribution. Pearson correlation and regression analysis were used for statistical analysis.

Results

Table 1 shows the Cronbach's alpha values for each scale; the overall scales are reliable enough. The data provided by the participants with the scales show an acceptable level of consistency.

When the direction and level of the relationship between quality of life and social appearance anxiety were examined (Table 2), a high level and negative relationship between quality of life and social appearance anxiety (r = -0.803, p = 0. 000) was found.

Table 3 shows a significant relationship between quality of life and social appearance anxiety (R = -0.803, R^2 = 0. 644; p < 0. 001). A regression coefficient value of 1.582, t value of 11.883, p value of 0.000 of quality of life level contribute to social appearance anxiety level. In other words, it was found that quality of life is a determining or important variable in determining social appearance concerns of physically disabled boccia athletes. The 644 R-squared value, which was determined as a result of statistical analysis, reveals that quality of life is a predictor of social appearance anxiety level and explains about 64.4% of the total variance.

Table 1

Results of Reliability Analysis of Scales

Variable	No. of items	Cronbach's alpha coefficients
Quality of life	9	0.77
Social appearance anxiety	16	0.87

Table 2

Relationship Between Quality of Life and Social Appearance Anxiety

Variable	Quality of life	Social appearance anxiety
Quality of life		
r	1	
p	–	
n	80	
Social appearance anxiety		
r	-0.803	1
p	0.000**	–
n	80	

Note. $n = 80$ ($r = -0.803$, $p = 0.000$, $p < 0.001$).

**$p < 0.01$.

Table 3

Regression Analysis of Prediction of Social Appearance Anxiety

Variable	β	*t*	*p*
Quality of life	1.582	11.883	0.000**
	$R = -0.803$	$F(1, 78) = 141.195$	
	$R^2 = 0.644$	$p = 0.000$	

Note. $n = 80$. $r^2 = 0.644$, $F(1, 78) = 141.195$, $p = 0.000$, $p < 0.001$.

**$p < 0.01$.

Discussion

A high level and negative relationship between quality of life and social appearance anxiety has been found. In other words, as the quality of life of physically disabled boccia athletes increases, it is seen that social appearance anxiety decreases. In the literature examination, there were studies examining the relationship between quality of life and social appearance anxiety, but no study examining the quality of life and social appearance anxiety of physically disabled individuals was found. Göksel et al. (2018) found a negative correlation between subjective happiness and social appearance anxiety scores of individuals. Toprak and Saraç (2018) found no statistically significant relationship between weight phobia and social appearance anxiety levels of male and female athletes. Erdemir et al. (2013) found a significant correlation between acne quality of life and social appearance anxiety in patients with acne vulgaris. Özkatar and Pekel (2019) found a negative correlation between life satisfaction and alienation, weakness, and irregularity subdimension, and a high positive relationship between life satisfaction and social isolation subdimension. It is known that sport plays an important role in the development of quality of life, self-esteem, socialization levels of individuals, and social appearance anxiety levels of individuals in terms of inclusion of individuals with physical disabilities. Therefore, sportive activities are an important activity for the disabled (Kalyon, 1997).

There is a significant relationship between quality of life and social appearance anxiety. It is seen that quality of life level contributes to social appearance anxiety level. In other words, it was found that quality of life is a determining or important variable in determining social appearance concerns of physically disabled boccia athletes. Inadequate level of studies investigating the quality of life and social appearance anxiety of physically disabled athletes in the literature has limited the discussion of the research findings.

As a result, a high and negative relationship was found between quality of life and social appearance anxiety. As the quality of life of physically disabled boccia athletes increases, it is seen that social appearance anxiety decreases.

It was found that the quality of life level of the physically disabled individuals engaged in Boccia sport contributed to the social

appearance anxiety level. In other words, it has been determined that the determinants of quality of life are an important or priority variable in social appearance anxiety of physically disabled boccia athletes.

In addition to the importance of making sports for people with disabilities, it is thought to be useful to determine whether there is any difference in the quality of life and social apprehension concerns of these people with the sport phenomenon.

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PEDAGOGY

Adapting: A Study of Implementing Adaptive Personalized Instruction, Innovation, and Technology From an Instructor's Perspective

Dustin Duren, Todd Estel Layne, Niki Bray, Carol C. Irwin

Abstract

As time transforms education, methodology also needs to adapt to course instruction. However, instructors face a challenge to be effective while meeting each student's learning needs. One such need for students today is the implementation of technological approaches to learning. The purpose of this study was to determine the perceptions of a new instructor in higher education of implementing adaptive learning into their coursework, curriculum, and instruction. Data were collected quantitatively through the Stages of Concern Questionnaire, which showed the participant's concerns about the implementation of adaptive learning. Qualitative data were collected via interviews with the participant that followed the Levels of Use protocol. The interviews allowed the participant to provide their views and beliefs about adaptive learning. Results show the participant was curious and interested in learning more about adaptive learning and its benefit in their classroom. Future research should focus on how universities can develop approaches to help faculty effectively learn and implement new instructional strategies.

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From the very beginning, instruction has continually developed to help meet the multiple learning styles of students. Instructional approaches have been researched, leading to new advancements in instruction and continual change in the presentation of information in the classroom. As learning and instructional material and courses have evolved through time, so has the technology used. For some instructors though, it can be a daunting task to use technology or work with the extreme effort needed to personalize their instruction for every student. As technology continues to evolve, today's instructors must continually seek ways to improve the delivery of content for the benefit of students.

This study observes an instructor's feelings and concerns about implementing adaptive learning technology that allows students to learn at their own pace, not to simply know information, but to be able to retain it and apply it. Incorporating some aspects of the Concerns-Based Adoption Model (CBAM; Hall et al., 2011) with a Stages of Concern Questionnaire (SoCQ) and Levels of Use (LoU) interview protocol can provide insight into possible areas of concern and focus areas that instructors may have pertaining to technology implementation. Furthermore, implementation of technological approaches could follow the RIPPLES model (Surry et al., 2005) in allowing faculty the opportunity to begin the process of personalized learning.

Adaptive Learning

The basic principle of instruction is to facilitate learning (Guilbert, 1998). Instructional strategies continually evolve with the goal of meeting the learning needs of students. Instructors can choose an instructional approach based on personal experience or the influence of other teachers (Layne et al., 2016). Although technological strategies may be innovative, they present an effective way of meeting the needs of learners today. One such instructional approach is known as adaptive learning. Lavieri (2015) defined adaptive learning as "a type of learning instantiated by computer software that adapts,

in real-time, to learner actions in order to maximize learning outcomes" (p. 5). Students can review course material that is presented using technological strategies (i.e., pictures, charts, videos) and then answer questions about the content. Next, students receive the opportunity to implement their knowledge through course activities. This approach engages the student with the materials and prepares them for more in-depth discussion when returning to the classroom.

Research has touched on the topic of adaptive learning and how to implement adaptive learning as a medium or framework. Ruiz et al. (2006) described adaptive learning as a revolution in education and the ultimate learner-centered experience. Wolf (2002) explained that adaptive models are built around a central learner model. However, despite there being information on what defines adaptive learning, research specifically describing faculty perceptions of implementation was not found.

Concerns-Based Adoption Model

The CBAM allows for a person to understand the reality of implementation and how some follow a pattern of concerns that must be addressed for change and innovation to be properly implemented. "CBAM offers several research-based constructs and tools that can be used to understand, facilitate, and evaluate the more complex efforts entailed with introducing technology innovations in classrooms and schools" (Hall, 2010, p. 234). Those tools are the SoCQ and LoU. Some believe change needs to happen immediately, whereas Hall believes differently, as noted in previous research (Hall et al., 1973):

> An important beginning point with the CBAM perspective is the assumption that change is a process, not an event. Rather than assuming use is dichotomous (use/nonuse), in this perspective becoming a competent and confident innovation user is a developmental phenomenon that takes time. (Hall, 2010, p. 234)

CBAM takes four simple questions about implementation and develops them to be more specific to the innovation. To begin, CBAM (Hall, 2010) asks the following questions:

Simplicity	More complex
1. Is it [the innovation] being used?	1. How can the change process be facilitated to achieve high levels of implementation in classrooms and across a school?
2. How well is it being used?	2. What factors and approaches can be applied for achieving widespread use?
3. What factors are affecting its use/nonuse?	3. What is the extent of implementation with each individual and school?
4. What are the outcomes?	4. How do outcomes vary with extent of implementation?

These questions help the focus of this study transform from simple usage to the thought of how implementation can become a reality for courses and spread throughout a program. In this study, the more complex questions allow for a glimpse of how more faculty can implement adaptive learning and what questions about adaptive learning need answers.

Stages of Concern Questionnaire

The SoCQ is a well-used tool for consultants who observe attitudes and feelings faculty could have toward innovation (Roach et al., 2009, p. 304), or more plainly put, "The Stages of Concern describe 'the affective dimension of change: how people feel about doing something new or different, and their concerns as they engage with a new program or practice,'" according to Horsley and Loucks-Horsley (as cited in Roach et al., 2009, pp. 304–305).

Levels of Use Interview Protocol

Another instrument for gathering insight on implementation is the LoU protocol. LoU allows for the description of actions through

verbiage. The primary focus of the LoU is on the actions within the classroom and the LoU allows for accountability for decision makers, according to Ellsworth (as cited in Roach et al., 2009, p. 309). The SoCQ focuses more on quantitative aspects and data, whereas the LoU examines "the behaviors and actions of teachers and other educators as they implement a research-based practice" (Roach et al., 2009, p. 309).

RIPPLES Model

Once the concerns and usage of the innovation are identified, there needs to be a method to implement technology based on results, thus the RIPPLES model. RIPPLES stand for the elements identified: Resources, Infrastructure, People, Policies, Learning, Evaluation, and Support (Surry et al., 2005). Sometimes there are barriers to overcome so that innovation can be implemented in higher education settings. Therefore, the RIPPLES model provides an outlook into what areas to pinpoint to smooth out implementation and reduce the concerns of oneself and move more toward the concerns of student engagement with the innovation. This section provides a description of each element. Although the RIPPLES acronym suggests a linear order, the elements do not need to occur in a specific order.

Resources

Surry and Ensminger (2006) believe that instructors would need to secure resources, or financial backing, to support innovation. The RIPPLES model looks more broadly at integrating technology, but with technology comes the expense of purchasing new supplies. There needs to be adequate funding to obtain the resources needed to implement a variety of instructional approaches. New technology comes at a cost. Some faculty and even administration could have concern, but for innovation, financial situations should be accounted for within the department or school.

Infrastructure

Infrastructure refers to the hardware, software, facilities, and network capabilities and "should include five components - teaching resources, production resources, communication resources, student resources, and administrative resources" (Surry & Ensminger, 2006,

p. 9). In implementation, there may be some familiarity regarding the software and system specifications, but training may be required. The resources listed are necessary to faculty, categorizing how they can facilitate a classroom or maximize potential student learning. For example, classrooms that come with desks for students, modern technology, and a projector would serve students in a different capacity than those that are more exploratory in nature (i.e., without desks; more books and tangible manipulatives).

People

To incorporate use of the innovation, faculty will need to believe if the innovation is worth it. They will also need to be committed to having it help students in their learning.

Policies

An effective measure for increasing technological usage in the classroom could be related to school policy. To encourage learning of new technology for faculty, policy may need to be written to incentivize faculty to begin innovative teaching. Policy can exhibit the priority for an administration and help faculty share in the possible urgency and importance of interacting with students through personalized instruction.

Learning

Teachers today are faced with the challenge of implementing technological innovations in the classroom with the goal of accomplishing learning goals (Flanagan & Jacobsen, 2003). This area represents an important piece pertaining to the student–teacher relationship. Adaptive learning, and the included technology, involves how students absorb and retain information. Surry and Ensminger (2006) outlined two principles to the learning aspect, in which all apply to implementation and its importance:

> First, technology can have pedagogical benefits. Technology can allow teachers and students to interact in dynamic new ways, resulting in increased cognitive or motivational outcomes. Second, technology can have access benefits. Technology can allow a college of education to reach new student populations or to serve current students in new ways. (p. 12)

Evaluation

Although the RIPPLES model is not linear, evaluation should come subsequent to learning. Evaluations here would be in the form of one main question: "Is web based learning allowing faculty members to do a better job teaching their students or to reach new populations?" (Surry & Ensminger, 2006, p. 12). Innovations, methods, and technologies should always be evaluated and compared to the goals pertaining to the implementation. As Surry and Ensminger's (2006) question exhibits, evaluations of the innovation should be done to further strengthen the teaching, which will result in strengthened learning.

Support

With proper support and encouragement, instructors can feel as if they can implement adaptive technologies and understand the task at hand. Faculty can receive support through their administration, other instructors, and experts in the field, whether it be subject matter or technology.

Based on the needs of implementing technological instructional approaches, the purpose of this study was to determine the perceptions of a new instructor in higher education of implementing adaptive learning into their coursework, curriculum, and instruction. By doing this, the instructor will express their concerns and levels of use as measured by a pre- and postcourse assessment. Results from this study could provide a framework for preparing new faculty for implementing adaptive learning in higher education.

Method

Research Design

The participant was a first-year instructor in higher education and at the university. Regarding adaptive learning, this was the participant's first time implementing such a program. The participant was chosen to be involved in this study because it was their first opportunity to teach in higher education and it provided a new method of instruction. Therefore, the data could predict the participant's concern in trying something new and teaching at a new level (higher education).

The method of study for this analysis was a case study. A case study was chosen because the data received was from a selected class, mainly highlighting the perceptions of the participant and their view of adaptive learning. This approach allowed for an investigation in more detail of the benefits and potential difficulties of implementing adaptive learning (McLeod, 2014). Horner et al. (2005) stated that single-subject research is "appropriate when one wishes to understand the performance of a specific individual under a given set of conditions" (p. 172). The criteria for this case study were the following: They must be employed by the university conducting the study, be teaching Psychosocial Aspects of Sport, and be willing to implement the adaptive learning model in their course. The study design used qualitative and quantitative methods, also known as a mixed-methods design. Data were collected quantitatively through the SoCQ, which showed the participant's concerns about implementing adaptive learning into Psychosocial Aspects of Sport.

Qualitative data were collected via interviews with the participant that followed the LoU protocol (Hall et al., 2006). Through the interviews, the participant provided their views and beliefs about adaptive learning.

Approval was obtained from the Institutional Review Board (IRB) of the university from which the study was conducted. We retained the data on our computer for one year from the date the data were first obtained.

Procedure

In the beginning of the study, we assigned the participant based on being new faculty. The participant was approached about the study and then agreed to participate and provided consent. Before the course began, a SoCQ was sent to the participant to answer to the best of their ability; as well, an interview was completed in the format of the LoU protocol. The same was done for a postcourse assessment, and the views of the participant were compared from before and after the course. The SoCQ provided percentiles for the different stages in which those responses were compared with percentiles in the corresponding stage to see if the responses were aligned or not.

Instrumentation

Concerns-Based Adoption Model

In the 1970s, the CBAM was developed by the University of Texas at Austin's Research and Development Center for Teacher Education. George et al. (2008) believed that CBAM was one of the leading programs for measuring how new technology brings about the way teachers teach and learners learn in their classes. There are three tools involved with CBAM and assessing the level of faculty concern regarding implementing new technology: (1) SoCQ, (2) LoU interview protocol, and (3) innovation configuration. For the purpose of this study, innovation configuration was not necessary, because the participant was not the course developer nor making changes within the adaptive aspect of the course.

Stages of Concern Questionnaire

The SoCQ survey is made up of 35 questions with answers on a Likert scale from 0 to 7. The closer an answer is to 0, the more likely the participant is unconcerned with the subject matter or with the question asked. Likewise, the closer an answer is to 7, the more likely the participant is extremely concerned with the question asked. Upon completion, the answers are placed into an area of concern for the participant (0, unconcerned; 1, informational; 2, personal; 3, management; 4, consequence; 5, collaboration; and 6, refocusing) and can then give researchers a better understanding of where that concern lies. Participants complete the questionnaire twice: once at the beginning of the course and once after the course has been completed. This survey was administered online and took the participant about 10 to 15 min to complete.

Levels of Use Protocol

We conducted interviews with the participant to gather information on implementing adaptive learning in their course. Using the LoU protocol (Hall et al., 2006), we asked questions in the correct order and verbatim. Other questions to probe, or gather more information, were also used. The responses from the participant provided data on the eight components of this protocol: nonuse, orientation, preparation, mechanical use, routine, refinement, integration, and renewal.

Trustworthiness

The participant was asked to check if their responses were accurate for the SoCQ and the LoU interviews. Data for this study were collected through a questionnaire (SoCQ) and interviews (LoU).

Researcher's Perspectives and Biases

As this was our introduction to adaptive learning, there were no biases. Without prior knowledge, no opinions or views were formed influencing the outcome of this study.

Ethics

The participant was made aware of the study and understood their participation was voluntary. Because of the extent of the law, confidentiality was maintained, and the participant signed an informed consent form prior to participation.

Results

Stages of Concern Questionnaire

The composite scores were placed into a percentile and into the stage of concern for the participant (see Table 1).

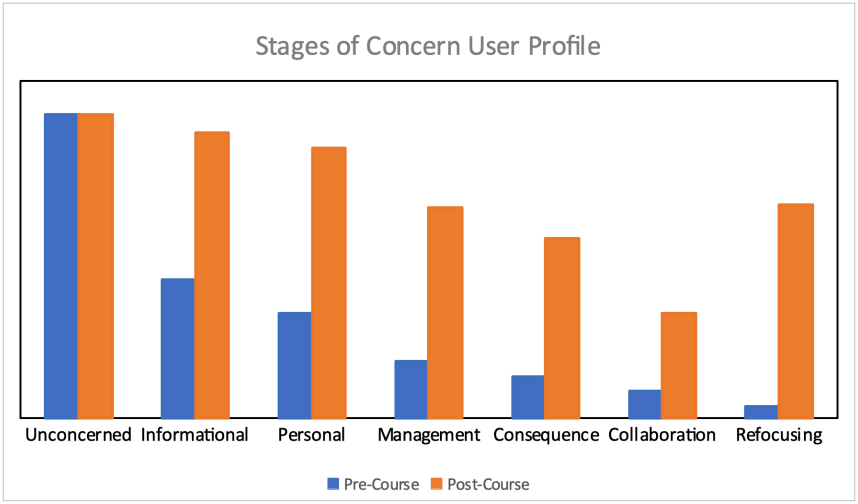
Table 1
Stages of Concern Questionnaire Percentiles

Stage	Criteria	Precourse	Postcourse
0	Unconcerned	81	81
1	Informational	37	76
2	Personal	28	72
3	Management	15	56
4	Consequence	11	48
5	Collaboration	7	28
6	Refocusing	3	57

Pre- and Postcourse Profiles

Figure 1 provides a visual representation of data for each assessment and a clearer picture of how the concerns changed.

Figure 1
Stages of Concern User Profile



Stage 0: Unconcerned

A high score in this stage indicates there are other priorities in terms of presenting instruction, whereas a lower score represents a desire for implementing adaptive learning for this course. The participant registered their highest scores in this stage for pre- and postcourse assessments, suggesting their priority would not have been with adaptive learning, but rather with another method of instruction.

In the precourse LoU interview, the participant stated it was their first semester to use adaptive learning, meaning it was more of a learning process than a process of implementation. As the course finished up, the participant plainly stated, "Yes, I used adaptive learning for my future class."

Stage 1: Informational

The higher the score in this stage indicates a strong desire to know more about adaptive learning. In the postcourse assessment, the participant's desire to learn about adaptive learning more than doubled.

When asked about seeking more information in the precourse interview, the participant stated, "Other than what I will be working with for this class, I am not." This aligns with the evidence from the precourse SoCQ. After the course finished, the response to the same question was "Not at the moment," which was not supported by the postcourse SoCQ, because there was no change in interview responses, yet a significant difference in percentiles.

Stage 2: Personal

A high score in this stage indicates the participant would have questions and uncertainties pertaining to things such as status or rewards and the effect of adaptive learning on those. The participant scored a 28% on the precourse and a 72% on the postcourse. Even though the participant had no experience with adaptive learning, there were no questions from the participant in the beginning. But, by the end of the course, the participant developed curiosities and raised concerns based on the overall change in percentiles.

Stage 3: Management

The higher the score in the stage of management indicates concerns for management, time, or logistics that involve adaptive learning. The score from the participant's precourse assessment was a 15% and the postcourse assessment was at 56%.

Although there were no direct LoU questions that pertained to this stage, the response was practically the same when the participant was asked if they would make any changes or modifications to this course: "No" (pre-course) and "No. I plan to use it for the same class in the fall" (postcourse).

Stage 4: Consequence

A high score translates to concerns about the potential consequences and effects of adaptive learning on students. The participant's precourse assessment score proved to be low (11%) and only increased moderately (48%). The increase in percentile expresses that over time the participant became more concerned for the consequences.

This stage was addressed in the LoU precourse interview with a question about the participant seeing the effects of adaptive learning. The participant responded,

> I think one of the effects I will see is how the students will respond to this type of learning. So much of our time is spent in front of the computer, tablet, or phone that this is how students want to learn.

This response seems to be a general observation of learning for the culture and how technology is involved, which correlates to the small percentile recorded for the precourse assessment.

For the postcourse assessment, after being asked the same question the participant said,

> One of the effects I see is how the students respond to using this tool. Students do not want to spend hours in a classroom when they can do the same work from their phone or tablet. I determined this from the comments I receive from students on how they like using RealizeIt. Another effect is possibly negative. One-on-one time with students and even face-to-face time with students is so important. Using adaptive learning takes away from building relationships with your students and it also doesn't allow you to get to know your students. Many of the people I teach are future teachers and building relationships as well as getting to know your students are [two] important characteristics of effective teachers.

The concern about the class wanting to get only one source of information (i.e., face-to-face versus online) is cause enough for a jump in percentile. However, the consequence of losing face-to-face time from the perspective of the teacher would be enough to raise the percentile even more, which does not describe the SoCQ data of only being in the 48th percentile.

Stage 5: Collaboration

This stage focuses on how to collaborate and work together with others when implementing adaptive learning. The higher the score, the more concerned the participant is about working with others. The participant scored a 7% in the precourse and a 28% in the postcourse questionnaires.

In the LoU interview, when asked if they were working with others, the participant replied, "I do have a coworker that I can ask for help when I come across an issue or have a question" (precourse) and

"Not currently" (postcourse), which would coincide with the scores for this stage. One reason for the low scores could be the availability of someone with adaptive learning experience. If someone is navigating a teaching approach for the first time without the availability of an experienced teacher, there is greater potential for concern.

Stage 6: Refocusing

Within the stage of refocusing, a high score indicates the participant has thought about ideas and ways to improve how to use adaptive learning in their course. The score jumped from 3% precourse to 57% postcourse, which was the largest jump in any of the stages from pre- to postcourse.

The extremely low score in the precourse indicates the lack of experience of the participant in implementing adaptive learning; a person does not have many ideas if they do not have prior experience or knowledge in dealing with that technology. When asked in the precourse LoU interview, the participant had a succinct *"No"* pertaining to any changes or modification they would make. However, in the postcourse, the participant responded to a question about looking ahead to the next time they would teach the course: "I plan to focus more of my time on the student outcomes of RealizeIt. I plan to familiarize myself more with the program." This comment confirms that the participant is planning for future semesters and having a better focus when implementing adaptive learning.

Discussion

The results, as pertaining to implementing adaptive learning, show that there was not much change in the SoCQ or the LoU. The participant had more curiosity when it came to adaptive technologies and implementing those; however, the percentile from the SoCQ indicates the participant is still in the beginning stage of implementation. Upon the completion of this study, we believe that over time faculty are curious and have a desire to implement adaptive learning into their higher education courses. From the onset, instructors, like the participant in this study, are new to the process and trying to figure out the correct way to implement adaptive technologies. In the postcourse LoU interview, as related to strengths and weaknesses of the innovation, the participant said,

> I used it to view students' progress with each chapter and take a grade from the quizzes they took after each chapter. There was so much more I could have done, and I am disappointed I did not. [The weakness is] that I did not use RealizeIt like I should have to look at the student data. I could have looked at what topics they struggled with from week to week. I found teaching a new course and developing material to be overwhelming at times and did not use the information like I could have.

Seeing a problem but wanting to rectify it in the next iteration does not show the participant's desire or willingness to give up on adaptive learning. It does help explain an increase in postcourse scores and the spike in the Refocusing stage.

The lack of face-to-face interaction among the students and the participant was an important aspect to implementing adaptive learning. There needs to be a balance in technology and face-to-face time, as both exemplify that any faculty member cares about the student's learning through social interaction and using tools that can go beyond a lecture or overall assignment. However, solely relying on one style could hinder the experience rather than help it. On the basis of the data, the participant was willing to change their course to implement adaptive learning, although they had no experience with the innovation of adaptive learning. The feelings expressed by the participant indicate a desire for technology to help students learn, but the participant could also learn about themselves and how willing they are to make sure students get the complete learning experience.

With the findings from this study, implementing adaptive learning and technologies can help teachers as well as students, but it will take training and time. In discussion with an expert in adaptive technologies at the university, it was revealed that the participant had no prior training, nor was offered, which was opposite of other colleagues in the School of Health Studies. Furthermore, training on new methods, such as implementing adaptive learning, is an asset for instructors in making sure students are receiving the best learning experience possible.

As introduced, the RIPPLES model (Surr et al., 2005) can assist with introducing new aspects for implementation across a whole program, which will benefit teachers and students. The rest of this section gives examples, based on this study, of how implementation can occur.

Resources

Final decisions dealing with fiscal resources are out of the hands of teachers, but they can make requests to their administration. If faculty are adamant about new ways of teaching and helping students learn the subject matter, then administration will make efforts to acquire the resources needed. Administration is more likely to champion a movement, such as implementation, when well informed. Educating the decision makers (providing examples, seeing it live, etc.) can allow informed decisions and more curiosity, as seen in research with instructors. If administrators can see adaptive learning in action, they too might be more inclined to further research the benefits of implementation.

Infrastructure

The participant was a nonuser before the course began and moved toward beginner, with greater or equal percentiles on every level of the SoCQ. One-on-one training with the software engineers was provided to other faculty members so they could become familiar with the schematics. A familiarity with the technology allows faculty to show less concern for self (Stages 1–3) and more for students' needs with learning (Stages 4-6). The results can pinpoint a correlation between training and effectiveness in using the technology. As a nonuser, the participant spent more time exploring the innovation, as opposed to someone who had experience with the program.

People

The stakeholders would need to work as a team for successful implementation and for concerns to be taken from self to student performance. From students to instructors, deans to software engineers, every person involved has a vital role. Having experts within a faculty provides for troubleshooting and can allow other instructors to brainstorm ideas to enhance the learning process.

Policies

Some instructors are set in their ways and can resist any type of change. Furthermore, the implementation of technology cannot necessarily be forced, but should be encouraged through policy created by school administrators. If the reasoning behind instructing in higher education is about preparing students for a future professional career, policy should push for implementation of a learning style that is personalized to meet individual student's needs.

Learning

Adaptive learning, and the technology around it, involves how students absorb and retain information. For instructors (and administration), this should be at the forefront of implementation. Allowing students to have personalized benefits to learning is paramount and should be the overall goal of professors, instructors, and teachers.

Evaluation

Like any lesson, the use of technology should be evaluated for reliability and validity. For the participant, they were in an evaluation frame of mind, especially coming off their first iteration of the course and trial with adaptive learning. While the results show the participant is a beginning level teacher, there is hypothetical growth based on the rise in the Refocusing stage of concern, which shifted the concern from self (meaning more comfortable with the technology) to student use.

Support

Regardless of experience, higher education instructors will need support to help improve instructional strategies for their classes. More importantly, new teachers will need an environment that provides encouragement, instructional tips, and an abundance of resources to help them succeed. Most new faculty will have a learning curve, some bigger than others; however, implementation can be more efficient with proper supports in place, whether they come from inside or from a third party, such as a contracted software company.

How Results Benefit

RIPPLES is not designed to be linear but can be inferred to start with resources and move through the process. Results from this study show teachers can implement adaptive technologies and help students succeed in their academic career. The process takes time and requires proper training and support. The goal each year is for growth to occur. As teachers reflect on their classes and evaluate their productivity and effectiveness, they can consider and implement new ideas. Over time, the product will improve with continued effort given to their approach to teaching the class with adaptive learning. Again, if learning is the goal, then the motivation for doing something to benefit students will be present.

Future Research

With results of this study now present, further research can help organizations in implementing adaptive learning. Another study to help explore implementation and faculty perceptions could examine faculty perceptions of training. As mentioned, policy change can help in progressive implementation; however, the response from instructors may be mixed. Some may welcome the change in approach, whereas others will want to continue with their current teaching approach. Another possible study could examine potential incentives for implementing adaptive learning. Researchers would need to determine what would increase faculty motivation to consider the program. Finally, examining administrators' point of view and line of reasoning would provide researchers with an understanding of how leadership help improves their overall faculty effectiveness. With their knowledge of the fiscal situation and what would make their programs better for students and instructors, measuring their willingness and curiosity could generate some interesting findings. Nevertheless, more research surrounding implementation and the concerns of those implementing programs needs to be done to further promote the value of a personalized learning experience.

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PEDAGOGY

Effects of Music on Mood During Basketball Play in Junior High School Physical Education

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Abstract

The incorporation of music in the physical education (PE) environment during physical activity has been shown to be beneficial for participants. Karageorghis et al. (1999) created a conceptual framework focusing on asynchronous music, identifying four factors important to a given piece of music: rhythm response, musicality, cultural impact, and association. The purpose of this study was to investigate the effect of two conditions, with and without the incorporation of music, in the PE environment on student moods in 948 junior high school students (501 males, 447 females). The conditions were measured using the Profile of Mood States (POMS) Short Form. Significant differences were observed in the mean scores of POMS between preintervention (without music) and postintervention (with music) for total mood disturbance, tension, anger, fatigue, depression, and confusion (all p values < 0.0001), as well as significantly higher mean scores for esteem-related affect and vigor (p values < 0.0001). Results from this study, and others, provide an impetus for PE teachers and PE teacher education to incorporate music during games/activities for the purpose of improving student moods and subsequent activity levels.

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A goal for education across all content areas is to create a positive learning environment that will give students opportunities to learn. One opportunity educators have, and continue to use, to assist in student learning is music. Wilkinson (2013) stated that having the "right kind of music" in educational settings has great promise in aiding students in retention and learning. Wilkinson maintained that the right kind of music has the potential to reduce stress, lessen depression and anxiety, improve mood, and enhance a sense of comfort and relaxation. Hallam and Price (1998) found a significant difference, t (-4.7) = 8.0, $p < .002$, in math performance mean score when background music was playing (M = 38.5, SD = 15.1) compared to the absence of background music (M = 21.5, SD = 8.91).

O'Sullivan (2009) reviewed research related to the Mozart Effect in the classroom and its effects on student moods in relation to learning. The Mozart Effect is associated with the temporary enhancement of spatial-temporal reasoning abilities immediately after listening to a piece of music by Mozart (Ivanov & Geate, 2003). After review of Mozart Effect studies, O'Sullivan established that the original premise of the Mozart Effect could not be verified, yet there was considerable evidence that background music may impact the learning environment. O'Sullivan continued by stating that judicious choices should be made based on the audience (i.e., students) interaction.

Incorporation of Music in the Physical Education Learning Environment

Music incorporated in a physical activity setting has been shown to be beneficial for the participant (Barney et al., 2012; Karageorghis et al., 2008; & Karageorghis & Terry, 1997). In reviewing music's role in physical activity, Karageorghis et al. (1999) created a conceptual framework focusing on asynchronous (i.e., absence of conscious synchronization between physical movement and accompanying musical rhythm) motivational (i.e., stimulates or inspires physical activity) music in the context of exercise and sport. Within this framework, four factors that contribute to the qualities of a given piece of music have been identified: rhythm response, musicality, cultural impact, and association. Rhythm response is the response to the rhythmical elements of music—key characteristics of music for eliciting a bodily response. Musicality is the response to the pitch-

related elements of music, specifically harmony and melody. Cultural impact is the pervasiveness of the music within society (i.e., the more culturally central music is within society). Association is specific to music evoking physical activities in individuals. Karageorghis et al. (2006) proposed asynchronous motivational music leads to three psychophysical responses, namely, arousal control, reduced ratings of perceived exertion, and improving moods.

Listening to music during physical activity has been associated with longer workout times and training at higher intensities. Barney et al. (2012) explored in a survey the relationship of music during workouts in college-aged students. Results indicated college-aged students participated in activity for longer periods and at higher intensities when listening to music. Barney and Prusak (2015) further investigated the relationship of music during physical activity. They examined the effects of music on physical activity rates in an elementary physical education (PE) class (third, fourth, and fifth graders), measured with pedometers, during walking and Frisbee activities. Results indicated that on average for walking activities, males took 377 more steps than their female student counterparts when music played. For Frisbee activities, male students took an average of 604 more steps than female students (370 steps) throughout the lesson when music played. Brewer et al. (2016) conducted a similar study with music and no music with junior high school–aged PE students participating in volleyball and basketball. On average, male students acquired 41 more steps during volleyball and 220 more steps during basketball while music was playing. On average, female students acquired 380 more steps during volleyball game play and 345 more steps during basketball with music playing.

Music during physical activity may also affect a person's mood. Hayakawa et al. (2000) identified the association of music to physical activity and mood state. They evaluated the mood state of 16 subjects aged 32 to 60 years ($M = 49.9$, $SD = 7.5$), using the short form version of the Profile of Mood States (POMS; Grove & Prapavessis, 1992). Hayakawa et al. compared synchronous music and Japanese traditional folk song to no music during exercise. Their study identified significant scale items related to the type of music (or no music) and exercise, specific to vigor, $F(2.30) = 3.64$, $p < .001$; fatigue, $F(2.30) = 5.72$, $p < .01$; and confusion, $F(2.30) = 3.12$, $p < .10$.

Participants reported more positive mood traits when synchronous music played compared to when no music played. Hayakawa et al. continued by saying that between the two types of music (synchronous and traditional Japanese music), synchronous music generated more positive moods in participants. Barney et al. (2016) also investigated the effects of music on fourth-grade students' enjoyment in two activities during PE class. Fourth-grade students participated in two lessons, one with music and one without music. These students perceived PE as more enjoyable when music was playing during the lesson, compared to lessons without music. However, qualitative follow-up data from student interviews indicated the association of music to mood. From the qualitative results, one student stated, "I love PE class, but when the music was playing it made what we were doing in class funner." Another student stated, "The songs were awesome. I was singing along." Students did not specifically mention mood, yet they mentioned factors that would impact mood, such as having fun and singing. Barney and Pleban (2018) qualitatively examined 26 PE teachers' (1 to 25 years of teaching experience) perceptions of using contemporary music in the classroom. Transcript reviews revealed four major themes regarding the incorporation of music in the PE environment: classroom management, student learning, class climate, and music as a motivational tool. Within the major themes, Barney and Pleban identified additional subcontent factors—11 across all four major themes (Table 1). The purpose of this study was to investigate the effect of two conditions, with and without the incorporation of music, in the PE environment on student moods.

Method

Participants

For this study, 948 junior high school students (501 males, 447 females) from one intact junior high school in the Intermountain West were sampled. Student ages ranged from 11 to 15 years. Junior high grade levels comprised seventh, eighth, and ninth grades. Stratified by grade level, 330 seventh graders, 322 eighth graders, and 296 ninth graders participated in this study. Across all grades, stratified by race/ethnicity, students self-identified as 669 (70.6%) Caucasian,

Table 1
List of Major Physical Education and Music Interview Themes With Subcontent Factors

Major themes	Subcontent factors
Classroom management	• Starting activities • Stopping activities • Student listening queue
Student learning	• Student focus on learning • Student comfort with learning activity
Class climate	• Student preference for contemporary music • Creation of a positive classroom atmosphere • Establishment of positive student mood
Music as a motivational tool	• Behavioral reward • Student engagement • Positive messaging

Note. From "An Examination of Physical Education Teachers' Perceptions of Utilizing Contemporary Music in the Classroom Environment: A Qualitative Approach," by D. Barney and F. Pleban, 2018, *The Physical Educator*, *75*(2), p. 202 (https://doi.org/10.18666/TPE-2018-V75-I2-7447).

205 (21.6%) Latino/Hispanic, 32 (3.4%) Pacific Islander, 13 (1.4%) African American, and 10 (1.1%) Native American.

Instrumentation

The instrument used for this study was a short form version of the POMS (Grove & Prapavessis, 1992). The original POMS self-report survey was created by McNair et al. (1971), who incorporated descriptive words that define feelings people have at a certain point in time. Subjects self-reported on each descriptive word adjective on a 5-point Likert scale (0 = *not at all*, 1 = *a little*, 2 = *moderately*, 3 = *quite a lot*, and 4 = *extremely*). The survey instrument consisted of 40 mood adjectives. University Institutional Board and school district approval was obtained prior to study implementation.

Participants were subsequently assured that their voluntary decision to participate or not participate in the study would not affect their grade in class or class standing.

Music Criteria

Music selection for this study consisted of a variety of appropriate popular music from contemporary music artists that students were familiar with (Barney et al., 2016). Tempo of the music was 120 to 160 beats per minute (Karageorghis et al., 2006; Priest et al., 2004). Before data collection, we and the PE teachers compiled a list of 50 popular songs. After discussion, we and the PE teachers chose and played 15 songs during the PE lesson.

Setting

Before study implementation, we contacted the junior high school physical educators, explaining both the purpose of the study and the survey instrument. Before data collection, we instructed each junior high school physical educator on proper survey administration. The school's classes ran on block schedule, A-day/B-day, with each class lasting approximately 80 min from bell to bell. Explanation, administration, and survey completion took approximately 15 min. A 99% survey response rate was recorded.

Research Design

Convenience sampling was employed for data collection in this study. The study was quasi-experimental, comparing the effect of two conditions, with and without the incorporation of music, during one class activity (basketball) in the PE environment on student mood. The POMS-Short Form is a psychological rating scale that measures six distinct mood states over time. Advantages of incorporating the POMS-Short Form include ease of instrument administration and quick assessment of the 5-point scale. The short form of the assessment was developed principally for administration to children and young adults, thus factoring into its inclusion in this study. POMS-Short Form self-report data were collected from each of the 948 participants. Data analyses were conducted using SAS software, Version 9.4 of the SAS System for Windows (SAS Institute Inc., Cary, NC, USA).

Results

Profile of Mood States

A significant difference was observed in the mean scores of POMS between preintervention (without music) and postintervention (with music; Table 2). The postintervention group showed significantly lowered mean scores for total mood disturbance, tension, anger, fatigue, depression, and confusion (all p values < 0.0001), and significantly higher mean scores for esteem-related affect and vigor (p values < 0.0001).

Table 2
Scores of Profile of Mood States (POMS) Short Form Comparing Pre (Without) and Post (With) Music During Junior High School Basketball Play

Variables	Without music [a]	With music [a]	*p* value [b]
Total mood disturbance	7.8 ± 1.00	-12.6 ± 0.69	< .0001
Tension	5.2 ± 0.22	2.3 ± 0.16	< .0001
Anger	5.1 ± 0.23	1.9 ± 0.15	< .0001
Fatigue	4.7 ± 0.17	2.8 ± 0.14	< .0001
Depression	5.9 ± 0.29	1.7 ± 0.16	< .0001
Esteem-related affect	11.5 ± 0.16	14.2 ± 0.18	< .0001
Vigor	5.6 ± 0.19	8.4 ± 0.21	< .0001
Confusion	4.0 ± 0.19	1.4 ± 0.13	< .0001

[A] $M \pm SE$. [b] paired sample t test.

Profile of Mood States by Demographic Characteristics

The mean score for total mood disturbance improved for all demographic characteristic groups postintervention. There was no statistically significant difference among the groups: gender ($p = 0.1135$), ethnicity ($p = 0.6569$), and grade ($p = 0.0611$; Table 3). Preintervention, seventh-grade students had the lowest mean score for total mood disturbance and ninth-grade students had the highest.

Table 3
Scores of Profile of Mood States (POMS) Short Form Comparing Pre (Without) and Post (With) Music During Junior High School Basketball Play by Demographic Characteristics

Characteristics	Without music [a]	With music [a]	*p* value [b]
Gender			
Male	7.5 ± 1.24	-11 ± 0.99	0.1135
Female	8.1 ± 1.63	-14 ± 0.97	
Ethnicity			
African American/Asian/Native American/Pacific Islander	7.2 ± 3.45	-9.6 ± 2.65	
Caucasian	8.3 ± 1.17	-13 ± 0.83	0.6569
Latino/Hispanic	6.0 ± 2.28	-13 ± 1.51	
Grade			
7th	4.3 ± 1.74	-13 ± 1.25	
8th	9.1 ± 1.63	-14 ± 1.05	0.0611
9th	10.4 ± 1.79	-11 ± 1.37	

[a] M ± SE. [b] ANOVA test.

Discussion

The purpose of this study was to investigate the effect of two conditions, with and without the incorporation of music, in the PE environment on student moods during basketball play. The findings suggest that music incorporated in the PE environment may positively impact student moods. Paired-sample *t* test data revealed seven moods (tension, anger, fatigue, depression, esteem-related affect, vigor, and confusion) were positively affected when music was incorporated in this sample of junior high school PE students during basketball play. POMS-Short Form data indicated that in the intervention of music, compared to no music, students were more likely to have positive self-reported responses to vigor adjectives. Barney et al. (2016) studied the effects of music on fourth-grade students' enjoyment in two activities (toss/catch with music and Hula

Hoop activities with no music). From qualitative interview data, students stated, music "gives me more energy. I know I was working harder," and when music was playing, one student reported that it got him "pumped up." Barney and Pleban (2018) studied PE teachers' perceptions of incorporating music in PE lessons, qualitatively evaluating the influence of music on the classroom environment. Teachers voiced that music positively affected the class climate. Some of the responses expressed were "I believe music has a strong influence over our emotions, so if I'm playing happy upbeat music, my students are happy and active" and "If a student comes in upset from another class, listening to a song they really like it can help change their mood from negative to positive, as they associate the song with happy uplifting feelings." Other words and/or phases included "happy," happier," "more excited," and "upbeat mood." The results from Barney and Pleban (2018) associate with the findings of this study that a positive class environment helps students work through tension, anger, fatigue, depression, and confusion.

To note, Hayakawa et al. (2000) compared synchronous music and Japanese traditional folk song to no music during exercise and evaluated the mood states of 16 subjects aged 32 to 60 years ($M = 49.9$, $SD = 7.5$). Their study reported significant scale adjectives specific to vigor and confusion. These findings, along with this study's findings related to items of vigor and confusion, may suggest more positive mood characteristics when music is played compared to when no music is played. In addition, Hallam and Price (1998) speculated music may have positive application outside the PE environment, in other academic classroom settings (e.g., math). However, it may be hypothesized that for mood to be positively impacted by the incorporation of music, attention should be given to the aforementioned four-factor framework contributing to the qualities of a given piece of music (i.e., rhythm response, musicality, cultural impact, and association).

Study Implications

This study identified seven mood scale items (tension, anger, fatigue, depression, esteem-related affect, vigor, and confusion) as being positively affected when music was playing in the PE classroom. This study investigated the effects of music on junior high school students' moods. We believe that these results can apply to

and benefit all K–12 students. With the results from this study, PE teachers should consider implementing music during games/activities for the purpose of improving student moods and subsequent activity levels. Another implication from this study is specific to PE teacher education (PETE) programs and PETE majors. Study concepts may be implemented when PETE majors are immersed in their methods of teaching PE courses. After didactic instruction, PETE majors participate, and subsequently incorporate, music during their practicums and student teaching experiences.

Suggestions for Implementing Music in Physical Education

The results of this study generally show that popular upbeat music positively impacts student moods, reducing tensions, anger, fatigue, depression, and confusion, along with enhancing esteem-related affect and vigor. This study took place in a junior high school gymnasium. Barney and Prusak (2015) studied the effects of music on elementary-aged students' physical activity rates when music was and was not played. In Barney and Prusak's study, music was played while students in were in the class activity (walking and Frisbee). Pangrazi and Beighle (2013) suggested music be played while students are participating in fitness activities. There is no set method when to play music and/or for how long. We feel that music is a tool PE teachers can use and that when it is used as much as possible, students will positively respond to it when it is being played during activity, thus positively affecting their moods.

Study Limitations

This study examined self-reported mood responses without incorporating biophysiological measures, Borg Scale ratings of perceived exertion, or pedometer step counts. In addition, this study has a number of limitations. The participants came from one intact junior high school. Because the participants came from one school, findings cannot be generalized or reflective of junior high school students in other junior high schools or junior high schools in other geographic regions.

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THE PROFESSORSHIP

The Transition Into Professorship: Beyond the Three-Phase Approach to Socialization

Colin G. Pennington

Abstract

This article outlines a brief review of literature of occupational socialization theory. Specific to physical educators, occupational socialization theory examines the ways individuals are recruited into, prepared for, and socialized in the profession. It represents a dialectical perspective on socialization, acknowledging that educators are shaped by the institutions that seek to socialize them, but that they can resist the influence of this socialization. This article also discusses the key issues affecting physical education teacher education (PETE) doctoral programs and the means by which PETE doctoral students are socialized into the role of university educators.

Occupational Socialization

Defined broadly, the study of socialization as related to the general teaching profession refers to "that field of scholarship which seeks to understand the process whereby the individual becomes a participating member of the society of teachers" (Zeichner & Gore, 1990, p. 329). Beginning with Lawson (1983a, 1983b) and Templin and Schempp (1989), investigators have studied the ways the physical education (PE) profession recruits, trains, and socializes its teachers. Specific to physical educators, occupational socialization theory (Richards et al., 2014; Templin & Schempp, 1989) examines

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the ways individuals are recruited into, prepared for, and socialized in the PE profession. It represents a dialectical perspective on socialization, acknowledging that physical educators are shaped by the institutions and actors that seek to socialize them, but that they can resist the influence of this socialization while exerting a counterforce that seeks to change the nature of the socializing agents (Schempp & Graber, 1992).

Traditional Three-Phase Approach

Scholars have traditionally adopted a three-phase approach to occupational socialization: acculturation, professional socialization, and organizational socialization (Lawson, 1983a, 1983b). These phases are often represented on a time-oriented continuum (Richards et al., 2014).

The first phase, *acculturation*, represents the period when recruits learn about the profession from teachers, coaches, and other significant individuals, before entering a teacher education program (Templin & Richards, 2014). The second phase, *professional socialization*, refers to the time when future teachers are enrolled in a teacher certification program at a college or a university (Templin & Richards, 2014). *Organizational socialization* is the third phase and is the time when individuals assume the role of teacher in K–12 schools (Richards et al., 2014). The sum of these three phases results in the process by which a person is taught and learns the ropes of a particular organizational role.

Scholars have argued for the addition of a fourth phase referred to as secondary professional socialization (Lee & Curtner-Smith, 2011), to describe the socialization experiences of doctoral PE students seeking careers as members of the professoriate (Casey & Fletcher, 2012; Templin & Richards, 2014).

Secondary Professional Socialization

The secondary professional socialization phase of occupational socialization theory focuses on graduate education in preparation for a career in academia (Richards & Templin, 2016). Due to the need to present and publish research and make professional contacts, professional organizations likely serve an important socializing function during graduate education (Richards & Templin, 2016). Because much of the literature on teacher socialization has focused

on "traditional" undergraduate students (age 18–22; O'Bryant et al., 2000), there has been a call for scholars to explore the secondary professional socialization of prospective members of the PE teacher education (PETE) professoriate (Casey & Fletcher, 2012; Templin & Richards, 2014). Of particular interest and practical use would be a focus on the types of practices and perspectives doctoral students acquire by graduation, the components that facilitate this acquisition, and the relative strengths of the various phases of socialization on these practices and perspectives (Lee & Curtner-Smith, 2011).

Anticipatory Socialization

The original studies along this line of interest initially sought to explore the anticipatory socialization (recruitment) of graduate students into the field of PE (O'Bryant et al., 2000). Templin et al. (1982) referred to recruitment as anticipatory socialization, suggesting sociocultural as well as psychological factors might influence or facilitate an individual's decision to enter a given field. From those findings, a base point of reference can be made about the future of the PETE professoriate using Lortie's (1975) concept of occupational choice.

Doctoral students in PETE programs have expressed that what mostly influences their decision to become PE teachers is the knowledge they want to teach, the enjoyment of working with children, having motivators (teachers, coaches, family members, friends) encouraging them (Casey & Fletcher, 2012), and past sporting participation experiences (O'Bryant et al., 2000). An important finding is that doctoral students enter their programs in very different stages of socialization. For example, not every doctoral student in PETE undergoes initial professionalization in PETE or holds experience as a PE teacher, thus not being organizationally socialized. This could be problematic and PETE faculty agree that K–12 teaching experience is essential for positive socialization experience during doctoral work (Parker et al., 2011). Also, not every student pursues graduate work specific to PETE content (i.e., sport management, foundations of education, and public administration) and so their secondary professional socialization is restricted to their doctoral work (Lee & Curtner-Smith, 2011). Findings have also suggested doctoral students within PETE have very different perceptions on what being a PE teacher means and have different goals of what they want to do

with their doctorate degree. Students decide to pursue a doctoral degree for a number of reasons; some want to be researchers, whereas others want to train teachers (Lee & Curtner-Smith, 2011).

Transition Into the Professoriate

Although few studies have described the socialization experiences of doctoral PE students transitioning into careers as members of the professoriate, several generalizations can be made from the few studies that do exist. These studies have suggested, foremost, that this pattern of socialization is similar to that of previously studied preservice teachers and practicing teachers (see Curtner-Smith, 2009). Specifically, the influences of acculturation and organizational socialization are much more powerful than those of professional socialization (Lee & Curtner-Smith, 2011). However, doctoral students' secondary professional socialization can be relatively potent and powerful to the extent that it could overcome moderate coaching orientations that had survived to that point in a teacher/teacher educator's career. The potency is likely the result of influential faculty, a practitioner focus in master's degree programs, and engagement in undergraduate PETE (Lee & Curtner-Smith, 2011; Richards & Templin, 2016). The content within coursework highlighted as influencing practices and perspectives on socialization includes research on PETE, research on the curriculum course, and reading research articles for the formation of pedagogical content knowledge (Lee & Curtner-Smith, 2011). Both PETE doctoral students and PETE faculty strongly agree that programs must "prepare people with the content knowledge of the field of PETE" (Parker et al., 2011). In this sense, the students and the faculty are on the same page.

Doctoral Programs

Research results have raised significant concerns about the preparation of aspiring faculty members (Austin, 2002a). Even when they are gaining experience and knowledge in important areas of faculty work, such as research and teaching, the approach to their preparation is often not systematic nor designed to provide developmentally more challenging experiences. Institutional leaders who hire new doctoral graduates for faculty positions, analysts of higher education, and potential faculty members, including graduate students,

have raised questions about the appropriateness of graduate program preparation (Austin, 2002b; Richards & Sinelnikov, 2019).

Today, this challenge of coupling attention with quality teacher education and attention with a productive research agenda remains equally difficult for tenure-earning faculty in the United States (Yendol-Hoppey et al., 2013). Teacher training is becoming a larger issue, with universities increasing the number of teaching assistants for a variety of reasons (June, 2011). It has been suggested that the socialization process in graduate school must adapt for new faculty members to work effectively in the ever-changing world of higher education (Austin, 2002b). Although teaching and research responsibilities surely can provide training opportunities for future faculty, these assistantship roles are sometimes structured more to serve institutional or faculty needs than to ensure a high-quality learning experience for graduate students (Austin, 2002a). However, research is scant on how much formal training professors receive to teach at the collegiate level or how much experience they gain before taking their first teaching post after leaving the doctoral institution (Roach et al., 2015). Murray and Male (2005) found that two of the main challenges new teacher educators in England face are developing a pedagogy for teaching teachers and becoming productive in research and scholarship.

Given the expanding roles associated with being a teacher educator, Zeichner (2005) argued that the next generation of teacher educators should receive greater attention. He advocated that "the research universities that supply colleges and universities with the faculty who staff the vast number of teacher education programs throughout the United States need to take the preparation of teacher educators more seriously" (p. 335). Other research has concluded that becoming a teacher educator involves several complex and challenging tasks: examining beliefs and values grounded in personal biography, including those associated with being a former schoolteacher; navigating the complex social and institutional contexts in which they work; and developing a personal pedagogy of teacher education that enables construction of a new professional identity as a teacher educator (Williams et al., 2012). This research provides beginning teacher educators with a reference point for understanding

their personal and professional transition to university-based teacher education.

A study in survey journalism and mass communication explored full professors' views on doctoral education. They believed mentoring involves passing on the behaviors that professors learned as graduate students themselves. Additionally, they looked at graduate students as "colleagues in training" rather than graduate assistants (Pardun et al., 2015). With mentorship established as a key facilitator of professional socialization for athletic trainers, Mazerolle et al. (2015) presented three elements necessary during a doctoral training program. First, the relationship between the student and the faculty mentor needs to be supportive yet be viewed as yielding autonomy and collaboration. Second, the relationship between the student and the faculty mentor needs to include opportunities for professional development specifically related to skill acquisition and development related to a future academic role. Third, the relationship between the student and the faculty mentor must demonstrate a mutual investment in the educational experience. Like previous research in socialization, Mazzarolle et al.'s research shows that doctoral students not only want autonomy in their roles but also value their mentor's feedback and support. Therefore, doctoral faculty mentors should demonstrate strong communication skills and provide doctoral students opportunities for diverse learning experiences.

The University of Maryland School of Public Health developed a Preparing Future Faculty and Professionals program to enrich the graduate education and professional development of its doctoral students. Key elements of such a program include foundational seminars to enhance students' knowledge and skills related to teacher; research and service activities designed to foster career exploration and increased competitiveness in the job market; and independent, faculty mentored teaching and research experiences. An important goal of doctoral education is to prepare graduates to face the challenges of academic and professional careers. Yet reproach from multiple disciplines including public heath has indicated that many doctoral graduates feel ill-equipped for the demands of academic and other postgraduate positions (Koblinsky et al., 2015).

Issue of Research/Teaching in Physical Education Teacher Education

The history of doctoral PETE (D-PETE) programs is relatively short, only about 40 years; this program is likely in its infancy compared with other academic doctoral programs (Rikard et al., 2011). Little is known about the preparation of PETE doctoral students, their experience, and the extent to which D-PETE programs serve the needs of higher and public education. In 2009, van der Mars raised a concern regarding what is really known about D-PETE and, in doing so, suggested that "becoming more reflective about our actual practices in doctoral PETE education is warranted" (p. 71). This article attempts to address this concern. With a decrease in doctoral PETE programs, an increase in nontenured part-time faculty, and a decrease in funding doctoral PETE programs (Boyce et al., 2015), addressing this concern should be a priority. Studies exploring the reactions of PETE faculty on PETE doctoral education in the United States have suggested there is pressure to increase student enrollment to save programs from elimination (Parker et al., 2011; van der Mars, 2011). It seems the goal of some programs is to provide their doctoral students with the knowledge, skills, and experiences to work at a research university. Yet the majority of doctoral students are not hired by research universities; this phenomenon of nongoal congruence between the doctoral student and the university likely negatively influences the socialization of the student into the professoriate.

As mentioned, doctoral students are well trained in research but not in teaching. Notable is an absence of the study of teacher education in most programs. If the majority of PETE graduates are hired as teacher educators but few study teacher education theory and practices, what will inform their own practices (Ward, Parker, et al., 2011)? These teacher educator expectations are further complicated by pressure within many universities to engage in research.

Recruitment and training efforts targeting individuals for the PETE profession should strive to provide educational, teaching, and scholarship experiences that develop the skills and dispositions desired by the profession (Woods et al., 2011). Doctoral PETE

programs follow the accepted operating model for doctoral education in the United States, which has been heavy on coursework, some engagement in research, and the use of apprenticeship and modeling. It is to be expected that this framework would vary. Yet data collected by Ward, Sutherland et al. (2011) show that future PETE faculty "do not study the same content, to the same extent, or for the same purposes; nor are they prepared to do research to the same degree. Moreover, students in doctoral programs do not have the same experiences or have similar faculty expectations of their performance" (p. 153). These findings raise significant questions for the field of PETE (Lee & Curtner-Smith, 2011).

Transition to PETE Educators

Although preparation programs vary, recent studies have shown that doctoral students struggle with the transition from teacher to teacher education. Analysis has shown that they struggle with the transition from teacher to teacher educator, primarily in navigating the different pedagogies required in teacher education. Future D-PETE students may benefit from learning where they can discover and explore teacher education theory and practice. They could also benefit from having opportunities to observe experienced colleagues and to engage in discussion about PETE programming and practice with mentors. Therefore, it has been proposed that doctoral students could benefit from more opportunities to play the role of PETE educator (Casey & Fletcher, 2012).

Doctoral Training Impact

Mitchell and Lawson's (1986) finding that doctoral education has little effect on the teacher educator's role as a professor is cause for concern. However, cited in 2011, by Lee and Curtner-Smith, doctoral student orientations to teaching and research are strongly influenced by those of their faculty mentors. Doctoral students are more likely to focus on research if they are overtly encouraged to do so, if their mentors are active researchers, and if performance in coursework is de-emphasized (Weidman et al., 2003). Key socializing processes and agents for doctoral students include formal and informal meetings with and mentoring/modeling by supportive faculty with whom they connect, mentoring/modeling by other doctoral students, classes, a generally positive departmental environment, and

opportunities to practice the role of faculty member while receiving feedback (Antony, 2002; Antony & Taylor, 2001; Bess, 1978; Parker et al., 2011; Weidman et al., 2001).

It is no longer enough to be able to teach a traditional elementary or secondary methods course, a professional activity course, a sport skill analysis course; coordinate and deliver a pre-student-teaching practicum experience; and supervise student teachers. PETE faculty must be able to prepare future physical educators for roles and responsibilities that are fundamentally different from those of their predecessors (McKenzie & Kahan, 2004).

Through the lens of occupational socialization theory, 40 years of research has documented the experiences and perspectives of teachers and prospective teachers. However, little is known about the perspectives and practices of doctoral students and faculty in higher education. This line of inquiry also suggests a need for further investigation of occupational socialization in relation to actions at the higher education level (Parker et al., 2011).

Mentorship

Mentoring is a relationship that allows a novice to gain insight and training through the experience of an expert in any particular field. The idea of mentoring can be traced back to Greek mythology (Kram & Isabella, 1985) and has commonly been linked to the business world (Jacobi, 1991). However, these relationships easily transfer to higher education contexts. According to Long (1997), components of a mentoring relationship should include emotional and psychological support, assistance with professional development, and role modeling. There are three commonly used theoretical frameworks concerning mentorship: *attachment theory*, *theory of planned behavior*, and *occupational socialization theory*. First, attachment theory (Bowlby, 1988) investigates relationships based on the bond individuals develop with their childhood caregivers (Harmon et al., 2019). Second, the theory of planned behavior (Ajzen, 2012) examines manifestation of behavior based on attitudes, intentions, and involuntary behavior. Finally, occupational socialization theory (Templin & Schempp, 1989) observes the process by which novices are socialized into the role of teacher.

Mentoring relationships form in two ways: informally and formally. Initially, mentoring relationships came about organically

(Kram & Isabella, 1985), but it was not until organizations recognized the benefits of mentoring and the problem of homosocial reproduction that formal relationships were developed (Ehrich et al., 2004). Informal connections form naturally and tend to be a selective process because individuals are attracted to those with similarities (Ehrich et al., 2004). On the other hand, formal programs assign mentors and mentees via a third party (Jacobi, 1991). More importantly, research has suggested these programs must be carefully designed and implemented for the potential benefits to come about. In some cases, poor mentoring has been shown to be worse than no mentoring (Ehrich et al., 2004).

The pairing of mentors and mentees is key to a productive experience (Campbell & Campbell, 2007). Bernier et al. (2005) suggested that the most positive relationships come from mentors and mentees having dissimilar attachment orientations. Additionally, social class, race, orientation, gender, and ability should also be considered in pairing (Fassinger & Hensler-McGinnis, 2005). Although evidence suggests that these programs must be thoughtfully implemented (Ehrich et al., 2004), Richards and Templin (2011) found that a beginning PE teacher gained more from an informal relationship. Nevertheless, there are various methods of pairing and relationship styles within mentoring. Shapiro and Blom-Hoffman (2004) mentioned different types of mentoring systems. The most relevant to the current discussion are peer-to-peer networks (Sánchez et al., 2008) and faculty-to-student networks (Strayhorn & Terrell, 2007).

Peer-to-Peer Networks

A relationship in which a more experienced student mentors a less experienced student is referred to as peer mentoring (Sánchez et al., 2008; e.g., a doctoral PETE student mentoring an undergraduate PETE pupil). In a peer mentor relationship, inexperienced students gain career advice and social support, as they would in a faculty-to-student network, but a peer mentor relationship often provides a less intimidating atmosphere (Hall & Jaugietis, 2011). This is likely due to the absence of status between the mentor and mentee. Additionally, peer mentors can often offer assistance from recent experiences. Casey and Fletcher (2012) emphasized the importance of graduate students in teacher education having the opportunity to mentor preservice undergraduates, to form their own

pedagogical practices. In addition to seeking candidates who have socialized future teacher educators into their new role, many employers seek out candidates with experience working with preservice teachers (Woods et al., 2011).

Faculty-to-Student Networks

Graduate student mentees and faculty mentors have emphasized the benefits of the faculty-to-student network and pointed out the importance of similar career paths (Richards & Sinelnikov, 2019). Additionally, Gardner and Barnes (2007) suggested that the mentorship between graduate students and faculty gives a feeling of belonging to the students and an opportunity to be socialized into the faculty role. There is the possibility for multidirectional reciprocal benefits of levels of mentorship in D-PETE programs: the D-PETE student is mentored by a PETE faculty member, while the D-PETE student mentors undergraduate PETE pupils (Woods et al., 2011). During this process, the undergraduate PETE pupil learns the role of being a physical educator during their professional socialization under support, while the doctoral PETE student learns the role of educating college/university pupils from an experienced faculty member. This form of mentoring relates to the occupational socialization of teachers in the way many beginning teachers are paired with an experienced mentor during their induction into the school context, which eases their transition (Ingersoll & Kralik, 2004; Richards & Templin, 2011; Smith & Ingersoll, 2004).

Conclusion

The university may serve as the ideal catalyst for promoting advancement in PE. PETE faculty can use socialization theory to institute societal improvement and foster the university's responsibility to the community of optimally preparing future PE practitioners. Through understanding the process of socialization, PETE faculty learn how to intervene when necessary and institute change. To that end, further exploring how prospective members of the professoriate are inducted and socialized into the role of PETE faculty is the first step in analyzing what PETE programs are doing to initiate a positive socialization experience of future PE practitioners.

Mentoring can also play a critical role during professional socialization if preservice teachers are intentionally paired with faculty or

peer mentors to guide them through program experiences. An extension of the peer mentoring relationship is for undergraduate pupils to be paired with graduate student mentors (Richard & Sinelnikov, 2019). In such an arrangement, undergraduate pupils receive targeted feedback and support, while graduate students learn how to work in a teacher education program and relate to preservice teachers. It should not be assumed that the mentoring provided to preservice or in-service teachers through mentoring will have positive effects. The outcomes of participating in these programs depend, in part, on the organization of the programs and the dispositions of the mentor and mentee. If, for example, the mentor approaches PE from a traditional perspective, the mentoring relationships may serve to enhance the institutional press (Zeichner &Tabachnick, 1983) and expedite the washing out (Blankenship & Coleman, 2009) of practices and values learned in teacher education. The same caution goes for peer and graduate–undergraduate mentoring relationships constructed during professional socialization.

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SERVICE-LEARNING PROGRAMS

A Mastery Motivational Climate-Based Service-Learning Program: Physical and Psychosocial Benefits Among Underserved Children

Lindsay E. Kipp, Karen S. Meaney, L. Kent Griffin

Abstract

We explored children's physical activity level and psychosocial outcomes in a service-learning program. The program, taught by preservice physical educators, engages children in fun activities within a mastery motivational climate (MMC). Forty-two children in grades K–4 wore accelerometers during two 90-min sessions, resulting in 84 data points. Forty-three children age 8 and up completed a postprogram survey assessing motivational climate, perceived competence, and personal and social responsibility. Of those, 27 completed a presurvey as well. On average, children were engaged in light activity for 38.6% and moderate-to-vigorous activity for 26.0% of the program time.

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Social responsibility improved from pre- to postassessment. Children perceived a high MMC, and regression analyses showed that MMC was positively related to perceived competence, personal responsibility, and social responsibility at the end of the program. Results suggest this program was effective in using an MMC to promote social responsibility while engaging students in light, moderate, and vigorous physical activity.

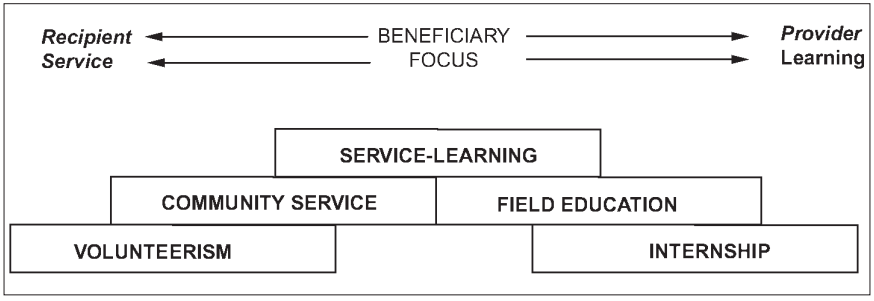
The ultimate goal of physical education teacher education (PETE) programs in the United States is to prepare highly qualified teachers with knowledge, skills, and experiences to promote youth participation in lifelong physical activity. Incorporating service-learning programs within PETE curricula is a salient methodology to enhance preservice teachers' experiences with diverse K–12 students (Domangue & Carson, 2008; Kahan, 1998; Meaney et al., 2008). Service-learning is a dynamic interaction between service providers (e.g., preservice educators) and the community, and this important teaching technique enables university students to apply academic content in authentic settings (Cress, 2005). Much of the service-learning research with children has focused on the benefit to service providers, and little research has investigated benefits for children. Our general purpose was to examine physical activity and psychosocial outcomes among children in a service-learning program led by preservice physical educators.

One pillar of service-learning is reciprocity, whereby service-learning programs are designed not only to enhance university students' knowledge and skills, but also to simultaneously meet significant needs in the community (Cress, 2005). The idea of reciprocity between academia and communities originally developed from Dewey's (1938) work examining the role of citizenship development within higher education. Later, Kolb (1984) modified Dewey's six-step inquiry process to a four-component experiential learning cycle, in which the concept of service-learning began to receive considerable attention. Although Dewey's and Kolb's theoretical frameworks include the critical role of experiential learning in students' development, Furco (1996) expanded this concept to highlight the uniqueness of service-learning programs in blending student and community benefits simultaneously. Reciprocity is a critical component of service-learning that differentiates service-

learning from fieldwork, practicum, and student teaching (see Figure 1). College students are the primary beneficiaries from participation in practicums, fieldwork, and internship experiences, and community members are generally the primary beneficiaries of community service and volunteerism. In service-learning, stakeholders (e.g., faculty, students, community agencies, schools) collaborate on program design to ensure the program benefits the community as well as the college students.

Figure 1

Reciprocal Nature of Service-Learning and Distinctions Among Service Programs



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Service-learning scholars have used several different theoretical approaches to explore this dynamic pedagogy (Meaney et al., 2016). Social-cognitive theory (Bandura, 1986) provides an optimal theoretical lens to explore the service-learning paradigm via the principal tenet of triadic reciprocity. Triadic reciprocity suggests human learning occurs within a dynamic framework and initiates interaction between one's personal factors, environment, and behaviors. In relation to our purpose, we were interested in how youth in the service-learning program interpret the environment the preservice teachers create and their resultant personal and behavioral factors (e.g., perceived competence, physical activity level). The service-learning environment in this study was purposefully designed to nurture a mastery motivational climate (MMC) while

providing opportunities for physical activity. Nurturing an MMC encourages participants to embrace a mastery goal orientation by attributing success to effort. Moreover, an MMC emphasizes the learning process as opposed to focusing solely on the performance outcome (Ames, 1992). MMCs within physical activity settings can promote enjoyment in physical activity, perceived competence, and physical activity behavior for children and adolescents, whereas a performance motivational climate (emphasis on social comparison and normative standards) is associated with maladaptive outcomes in physical activity settings (e.g., Johnson et al., 2018; Ntoumanis & Biddle, 1999; Parish & Treasure, 2003).

Scholarly investigations of PETE service-learning have consistently shown program benefits for preservice teachers (Cervantes & Meaney, 2013). Findings validate students' enhanced pedagogical content knowledge (Meaney et al., 2009), nurturing of moral reasoning (Cutforth, 2000), and evolution and expansion of their cultural competence for teaching (Domangue & Carson, 2008; Meaney et al., 2008). Investigations examining the impact of participation in service-learning on PETE students have also revealed positive impact on their attitudes and competencies toward children with disabilities (Hodge et al., 2002) and toward neglected and underserved youth (Kahan, 1998).

To date, however, few studies have been purposefully designed to examine the impact of PETE service-learning on community participants (Galvan et al., 2018; Galvan & Parker, 2011). Results from these studies revealed that youth participating in the service-learning programs enhanced their physical skills, fitness, and social interactions. Specifically, Galvan and Parker (2011) reported gains in youth motor skills, teamwork, and cooperation. Youth participants also enhanced their cardiorespiratory endurance, and qualitative findings supported advances in youths' knowledge of nutrition, increased confidence in running skills, and invigorated effort (Galvan et al., 2018). Outside of service-learning programs, studies show that physical education and out-of-school youth development settings can improve youths' psychosocial outcomes, such as self-awareness and social skills (e.g., Anderson-Butcher et al., 2014; Gordon et al., 2016; Hellison & Walsh, 2002). For example, Anderson-Butcher et al. (2014) found that a community sport program, based on the

Teaching Personal and Social Responsibility model, improved social responsibility among vulnerable youth.

Due to the paucity of PETE research examining benefits of service-learning programs for community participants, our purpose was to explore children's perceptions of the motivational climate, their physical activity level, perceived physical competence, and personal and social responsibility in an MMC-based service-learning program. The outcomes we chose reflect the goals of the program. First, the program uses an MMC approach, so we assessed children's perceptions of the motivational climate. Second, the program is designed to teach fun physical activities, so we assessed physical activity level as well as pre- and postprogram perceived physical competence. Third, personal responsibility (e.g, trying hard) and social responsibility (e.g., respecting others) were assessed pre- and postprogram because of the focus on "CPR"—cooperation, participation, and respect. We addressed the following research questions in regard to children participating in this program: (a) Do children perceive a mastery climate? (b) Are children engaging in moderate and vigorous physical activity during the program? (c) Do children's perceived competence and personal and social responsibility improve from pre- to postprogram? and (d) Is a mastery climate positively associated with these psychosocial outcomes? We hypothesized that (a) children would perceive a high level of mastery climate, (b) children would be engaged in moderate-to-vigorous physical activity during the program, (c) perceived competence, personal responsibility, and social responsibility would improve from pre- to postprogram, and (d) perceptions of a mastery climate would be positively associated with perceived competence, personal responsibility, and social responsibility, whereas perceptions of a performance climate would be negatively associated with these outcomes.

Method

Description of Service-Learning Program

The service-learning program is designed to provide opportunities for fun and developmentally appropriate physical activities for children in grades K–4 from low-income households in the local community in a medium-sized city in the Southern United States.

Children attend the program either after school in the fall or spring or during the summer. Each session includes 5 days of activities lasting 90 min each day. The program takes place at a Texas State University gymnasium and is taught in conjunction with a physical education teaching methods course for upper-level preservice teachers. The preservice teachers are referred to as "coaches" in the program. On a typical day in the program, children arrive via school bus, are organized in groups by grade, and engage in two physical activity lessons (e.g., a locomotor skill and an object manipulation skill) taught by small groups of coaches. A short break for a healthy snack, a brief closing discussion, and water and restroom breaks are included in the 90 min. CPR (cooperation, participation, respect) is a guiding principle throughout the lessons. On the first day of each program, coaches ask the children what it means to cooperate, participate, and demonstrate respect. After demonstrating their understanding of these principles, students are told they will get to write their name on the CPR board whenever the coaches see them demonstrating CPR. The CPR board served as a reminder and an incentive to be helpful and respectful throughout the program.

The coaches are trained in strategies to create an MMC during the first quarter of the semester, before the program starts. For example, during skill acquisition, children are instructed to use self-referenced goals. In other words, instead of asking the children to outperform their peers, coaches invite them to enhance their own performance (e.g., "Try to throw the beanbag in the Hula-Hoop three more times than you did previously"). To ensure the lessons are instructed via an MMC, the program includes opportunities for children to practice and improve skill acquisition in an enjoyable and noncompetitive fashion that focuses on the learning process as opposed to the product or outcome. Beginning with the warm-up period, the coaches may ask the children to "stretch their arms wide like branches of a tree." As the coaches move through the gymnasium, they comment on the children's effort to create a wide tree and purposefully not comment on which child made the widest tree. The coaches also provide positive reinforcement individually. In a lesson focusing on dribbling, one student may be given a thumbs-up by the coach for dribbling the ball inside the Hula-Hoop, and a child performing at a different skill level may be praised for dribbling the ball

around several Hula-Hoops. As lessons continue, the coaches extend task challenges individually to meet specific needs of students.

Following the instructional and activity period, the coaches review critical elements of the task. In regard to a dribbling lesson, the coaches may ask the children to "touch the part of their hand they should use to dribble the ball." Finally, coaches prompt the children to review their individual adherence to and demonstration of CPR throughout the lesson. The coaches might ask the children to "think about a time during our lesson when you helped your teammate today." The coaches would then reinforce CPR by reiterating whether examples demonstrated cooperation, participation, or respect.

Participants

Participants in our study included subsamples of those in the service-learning program from a summer (June), fall (October), or spring (February) session. Seventy-one children attended the program in the summer, 47 in the fall, and 50 the following spring. Although many of the fall and spring children were returners to the program, only new children were included in our data samples for each session.

Accelerometer Sample

Boys and girls in the service-learning program were given the opportunity to wear an accelerometer during two days of their session, during program activities. Nine to 12 children at a time wore an accelerometer, and each child who wore a device did so on two days of the program. A total of 84 data points (42 children * 2 days) were obtained from summer (n = 19) and fall programs (n = 23). Children in this subsample were 5 to 10 years old (M = 7.33). Each data point refers to a 90-min period of wear time during one day of the program.

Survey Sample

Boys and girls age 8 and up were asked to complete a pre- and postprogram survey. Children under 8 years old were not included because the survey measures were not valid or appropriate for those ages. In total, 43 completed a postsurvey (46.5% girls), and this sample was used to examine relationships among the variables at the end of the program. Of the 43 children, 25 were in the summer session,

12 in the fall, and 6 in the spring. Sample sizes are smaller than the total number of children in each session because (a) about half of the children were under age 8, (b) some children were absent on the day of the survey, and (c) the fall and spring samples only included new children to the program. Of the 43 children, 27 completed both pre- and postsurveys (48.1% girls; 17 in summer, 8 in fall, 2 in spring; the remaining 16 children were absent or not available for the presurvey), and this sample was used to assess pre- to postprogram change. On average, these children were 9.2 years old (SD = 1.3), and they identified as African American (29.4%), Hispanic (26.5%), White (23.5%), Multiethnic (17.6%), and Other (2.9%). In the past year, 100% of the children had physical education in school and 77.8% played an organized sport; this was important because the presurvey asked children to report on personal and social responsibility in sport or physical education, whereas the postsurvey asked them to report on these behaviors during the service-learning program.

Measures

Accelerometers

ActiGraph wGT3X accelerometers in this investigation helped us to determine the amount and intensity of physical activity during the program. These devices record movement over three orthogonal axes to evaluate activity level and have been shown to be valid and reliable with children (Pulsford et al., 2011). Participants wore accelerometers on an elastic belt on the hip at approximately the right axillary line. Data were collected at 100 Hz in 10-s epochs. Height and weight (Taylor Precision Products digital scale) were measured for accurate analysis of accelerometer data.

Surveys

Children completed a survey assessing perceived competence and personal and social responsibility before the session started. The postsurvey included those constructs along with perceived motivational climate.

Perceived competence was assessed with the physical competence subscale of Harter's (2012) Self-Perception Profile for Children, which has shown good psychometrics with children in Grades 3 to 8. The five items are presented in a structured alternative format.

An example item is "Some kids do very well at all kinds of physical activities BUT Other kids don't feel that they are very good when it comes to physical activities." Children chose which statement was more like them and decided whether the statement was *sort of true* or *really true* for them. Scores ranged from 1 to 4, with higher scores corresponding to higher perceived competence.

Personal and social responsibility was assessed with the Personal and Social Responsibility Questionnaire, which was validated with physical education students age 9 to 15 years old and showed good psychometrics (Li et al., 2008). Seven items assess personal responsibility (e.g., I give a good effort; I participate in all of the activities) and seven items assess social responsibility (e.g., I help others; I respect others). Responses are on a 1 to 6 scale (*strongly disagree* to *strongly agree*); however, we modified it to a 5-point scale to be easier for children to interpret (Horn, 2004). At the presurvey, children responded to the prompt "We are interested in how you normally behave during physical activities (sports, physical education class)." At the postsurvey, children responded to a program-specific prompt: "We are interested in how you behaved during [name of the service-learning program]." Thus, change in these constructs would not be a direct measure of pre- to postprogram change, but rather a change in behavior depending on the setting (sport/physical education compared to the service-learning program).

Motivational climate was assessed with the Motivational Climate Scale for Youth Sports (MCSYS; Smith et al., 2008) and we modified the word "athletes" to "students." The scale includes six items for mastery and six items for performance climate. A sample mastery item is "The coach tells us that trying our best is the most important thing"; a sample performance item is "The coach spends less time with the students who aren't as good." Youth responded on a 5-point scale ranging from *not at all true* to *very true*. The MCSYS was validated with 9- to 14-year-old sport participants and showed good reliability (Smith et al., 2008).

Data Collection

Approval from the university's Institutional Review Board was obtained prior to data collection. Program participants were recruited from local housing authorities and after-school programs (e.g., Boys and Girls Club). We coordinated with contacts at each location

to advertise the program, distribute and collect parental consent forms, and arrange transportation. Our sample included youth from summer, fall, and the following spring programs. Child assent was obtained on the first day of the program or a week before the program at a location convenient for them (e.g., housing authority activity center, Boys and Girls Club). At the time of child assent, we also obtained height and weight (all children) and administered the presurvey (children age 8 years and older). Children were weighed by a graduate student or undergraduate student of their same gender and were assured that their information would not be shared with anyone else and that they do not have to share their weight with anyone. Children taking the survey were assured that it was not a test and that responses were confidential ("No one else will see your answers"), and they were encouraged to be honest with their responses. Postsurveys were administered at the end of the last day of the program or within a week of the program's end. Surveys took 10 to 20 min to complete and were administered by researchers or graduate students, not coaches in the program, to help ensure honest answers. On four days of each of the summer and fall sessions (excluding the first day), nine to 12 children wore an accelerometer during program activities. As the children arrived, trained graduate students helped the children fasten the device around their waist and recorded the device's unique number and participant number to ensure accurate data analysis. The accelerometers were initialized to start collecting data at the start time of program activities. After each session concluded, a trained graduate student collected the devices and downloaded the data using ActiLife v6.11.9 (ActiGraph, Pensacola, FL).

Data Analysis

Accelerometer data, along with participants' gender, height, weight, and birthdate, and the location of the accelerometer (waist) were entered into ActiLife v6.11.9. Data were categorized by the ActiLife software as sedentary, light, moderate, and vigorous physical activity. The combination of moderate and vigorous physical activity (MVPA) was also calculated. These categories are designated according to the metabolic equivalent of task (METs) expended during a given effort. Intensity cut points and values were calculated via the Pulsford children values: sedentary = 0 to 99 counts/min

(CPM), light = 100 to 2240 CPM, moderate = 2241 to 3840 CPM, vigorous = ≥ 3841 CPM (Pulsford et al., 2011). Average minutes and percentage of total time in physical activity were calculated for each category. Survey responses were analyzed using SPSS 24 (Armonk, NY). Preliminary analyses included item analyses and descriptive statistics. Paired *t* tests were conducted and determined change in outcomes from pre- to postprogram (n = 27). Multiple regression analyses were conducted and determined whether perceptions of the climate predicted each postprogram outcome (n = 43).

Results

Physical Activity

On average, 35.4% of the 90 wear-time minutes was spent in the sedentary category, meaning that little-to-no movement was occurring. Children were engaged in light physical activity for 38.6% of program time per day, 13.4% of the time was spent in moderate physical activity, and 12.6% of the time was categorized as vigorous activity. On average, students in the service-learning program were engaged in MVPA for 26% of the time, or a total of 23.4 min per 90 min of wear time. Children were engaged in light, moderate, or vigorous physical activity for 64.6% of the 90 min (58.1 min). These total count times equate to a MET rate of 3.4 per 90 min of wear time.

Psychosocial Outcomes

Preliminary Analyses

Item analyses revealed acceptable internal consistency reliability for mastery climate, performance climate, personal responsibility, and social responsibility ($\alpha > .70$). However, one reverse-scored item on the personal responsibility subscale ("I do not make any goals") had low interitem correlations and was deleted from further analysis. It is possible that the negatively worded item was confusing to children (Horn, 2004). Perceived physical competence showed lower internal consistency (.62 at pre; .63 at post), but this may be influenced by the relatively small sample size, and we retained the scale to carry out our purpose. For overall means, children perceived relatively high levels of mastery climate and personal and social

responsibility. Perceived competence was around the midpoint of the scale, and performance climate was relatively low. Table 1 shows the means for the variables.

Table 1
Means, Standard Deviations, and Effect Size for Change on Survey Variables

Variable	Pre *M* (*SD*)	Post *M* (*SD*)	Cohen's *d*
Perceived competence	2.73 (.62)	2.81 (.75)	.13
Personal responsibility	4.10 (.80)	4.31 (.65)	.27
Social responsibility	4.08 (.86)	*4.51 (.52)	.66
Mastery climate	—	4.33 (.72)	
Performance climate	—	2.13 (1.03)	

Note. Perceived competence is on a 1 to 4 scale; all other variables are on a 1 to 5 scale. Cohen's *d* of .2 is a small effect, .5 is a medium effect, and .8 is a large effect.

* $p < .05$.

Main Analyses

In terms of pre- to postseason change, paired *t* tests revealed a significant increase in social responsibility from pre- to postassessment ($p < .05$), with a medium effect size (Cohen's $d = .66$; Cohen, 1988). This means that children reported more often helping and respecting others in the service-learning program compared to a recent physical education or sport program. Perceived competence and personal responsibility remained statistically stable with an increasing trend (see Table 1). Three multiple regression analyses were conducted and determined whether motivational climate predicted each postprogram outcome (mastery and performance climate were independent variables). The models were significant for perceived competence, $F(2, 39) = 3.89$, $p < .05$; personal responsibility, $F(2, 40) = 8.94$, $p < .05$; and social responsibility, $F(2, 40) = 2.78$, $p < .05$ (see Table 2). Mastery climate was significantly and positively related to all outcomes; performance climate did not significantly predict any of the outcomes. This means that when children perceived

their coaches to encourage learning new skills, trying their best, and helping each other learn (i.e., mastery climate), they reported higher physical ability and were more likely to try hard and respect others. The models explained a large amount of variance in each outcome: 41% of the variance in perceived competence, 56% in personal responsibility, and 35% in social responsibility.

Table 2
Standardized Beta Coefficients and t *Values for Each Dependent Variable in the Regression Analyses*

	Perceived competence		Personal responsibility		Social responsibility	
Independent variable	**β**	***t***	**β**	***t***	**β**	***t***
Mastery climate	.36	*2.37	.51	*3.67	.34	*2.20
Performance climate	-.10	-0.68	-.12	-0.87	-.02	-0.12

*$p < .05$.

Discussion

We assessed children's experiences in a service-learning program designed to promote physical activity in an MMC while teaching cooperation, participation, and respect (CPR). Our sample included underserved children, who tend to have fewer opportunities for physical activity (e.g., Lumeng et al., 2006). Results supported our hypotheses that (a) children perceived coaches to create a mastery climate, (b) children were engaged in moderate-to-vigorous physical activity during the program, and (c) greater perceptions of a mastery climate were associated with higher perceived physical competence, personal responsibility, and social responsibility. Results partially supported our hypothesis about improvements in perceived competence, personal responsibility, and social responsibility. Social responsibility increased, indicating children were more likely to help and respect others in the service-learning program compared to recent sport or physical education experiences, but the other two variables remained stable. Taken collectivity, these results show preliminary support that this service-learning program is benefiting youth participants.

Children in the service-learning program agreed that their coaches created a mastery motivational climate by emphasizing the

importance of effort, skill improvement, and cooperative learning. They reported relatively low levels of a performance climate, meaning they did not perceive coaches to punish for mistakes, give more attention to the best students, or emphasize outperforming their peers. Thus, the preservice teachers who had been trained to use a mastery approach did in fact create an MMC during the program, as perceived by the children. The discussion of our findings can be interpreted in the context of this environment.

In terms of physical activity, the Office of Disease Prevention and Health Promotion (2008) recommends 60 min or more of daily physical activity for children, and most of that activity should be moderate or vigorous intensity. While the number of minutes for our participants did not directly meet recommendations, students were engaged in some type of movement for an average of 64.6% of the session time (58.1 min), and 23 of those minutes were moderate-to-vigorous intensity. The service-learning program provided supplemental opportunities for participants outside of their school-based physical education program and other school opportunities (e.g., recess) for play and recreation. This finding is particularly salient given the limited opportunities and barriers (e.g., proximity, safety, affordability) for participation in out-of-school physical activity for many underserved youth (Lumeng at al., 2006; Woodfield et al., 2002). It is important to note the coaches were *preservice* physical educators. The service-learning program occurs prior to the preservice educators' student teaching and entry into their professional career. As such, the coaches were likely attending to other factors (e.g., organization, time on task, behavioral management), so maximizing MVPA is an area for improvement. Lonsdale et al. (2013) conducted a review on physical education interventions designed to increase students' MVPA during a physical education lesson. They noted the small number of rigorous studies but did find evidence that interventions can increase time spent in MVPA during physical education lessons. Effective interventions included professional development focused on classroom management and the addition of high-intensity activities to regular physical education lessons. However, few investigations have explored preservice teachers' influence on children's participation in light, moderate, and vigorous physical activity. One study showed that preservice teachers conducting an MMC program

engaged overweight youth in more moderate bouts of activity compared to the youths' physical education class (Griffin et al., 2013). Utilizing our findings as a teaching tool for preservice educators will be important for identifying strategies to engage children in MVPA.

In terms of change from pre- to postassessment, children reported significantly higher social responsibility, including being kind, helpful, and respectful to peers and coaches, in the service-learning program compared to their usual physical education class or sport practice. After program activities, coaches debriefed the youth so they could share examples of CPR, for instance, "Was there a time today when you saw a student help someone?" These purposeful strategies help explain why social responsibility was higher in this program compared to physical education or sport. Personal responsibility (e.g., trying hard, setting goals) was high and stable across physical education/sport and the service-learning program, indicating the importance of effort and goal-setting in both domains. Children maintained an average level of perceived physical competence (right above the midpoint of the scale). Coaches taught different activities each day of the program; the variety promotes enjoyment, but children may not have had the opportunity for improvement over time. A longer program may be needed to see substantive improvement in perceived ability. For example, Galvan et al. (2018) found that youth in a 10-week PETE service-learning program were perceived by the preservice teachers to have improved in effort and confidence in physical activities. Overall, our participants' increases in social responsibility across settings and their high stable scores for personal responsibility demonstrate the preservice teachers were successful in promoting a climate that nurtures personal and social responsibility, which aligns with the National Physical Education Standards (SHAPE America, 2014).

Regression analyses showed that youth who perceived a higher mastery climate reported higher physical ability (perceived competence), greater effort and goal-setting (personal responsibility), and more helping and respecting others (social responsibility). Perceived competence and personal responsibility are clearly linked with a mastery climate because of the emphasis on skill improvement and effort. Another aspect of mastery climate involves cooperative learning or an emphasis on children helping each other succeed. This

aspect, which is reinforced with the CPR theme (cooperation, participation, respect), helps explain the link between mastery climate and social responsibility. Findings are consistent with research showing a positive relationship between perceptions of a mastery climate in physical education and students' psychosocial and behavioral outcomes, including perceived competence, enjoyment, sportsmanship, persistence, and physical activity (e.g., Ferrer-Caja & Weiss, 2000; Gutierrez & Ruiz, 2009; Johnson et al., 2017; Parish & Treasure, 2003). For example, Johnson et al. (2017) found that middle school physical education students' perceptions of mastery climate dimensions (i.e., effort and improvement, important role) were predictive of greater enjoyment in physical education. In our study, perceptions of a performance climate were not significantly associated with any of the outcomes; it is possible the low mean with small variability contributed to the nonsignificant relationship. Other studies have shown a negative relationship between performance climate and effort, persistence, and physical activity (Ferrer-Caja & Weiss, 2000; Johnson et al., 2017).

Results support social cognitive theory (Bandura, 1986). Children in the service-learning program were engaged in 23.4 min of MVPA per session, on average. Thus, the *environment*, which emphasized an MMC, set the stage for children's physical activity *behavior*. The mastery environment was also significantly associated with children's perceived competence (personal factor) and personal and social responsibility (behavioral factors). Understanding the impact of the environment on learners' personal factors and behaviors is relevant for both preservice teachers and physical education practitioners. The pedagogical strategies teachers infuse during instruction affect students' learning and experiences. Consistent with social cognitive theory, findings from this investigation support the contention that an MMC can help foster children's perceived competence, personal and social responsibility, and participation in physical activity.

Limitations of this study are noted. First, our sample size was small as this was a preliminary investigation of the service-learning program. Our findings provide a step toward moving to a larger scale program. Second, we did not include a control group, so causal inferences are limited. For example, increases in social responsibility could be due to factors not related to the program. A control group

in future research would allow us to draw more rigorous conclusions about program effects. Third, at the presurvey, youth reported personal and social responsibility in a general sense (i.e., "behavior during physical activities"). We did not assess whether their prior sport coaches or physical education instructors used an MMC, which could be helpful when interpreting the pre- to postprogram difference in scores. It may be beneficial for future studies to collect more detailed information on these contexts for comparison. Finally, children under age 8 did not complete a survey, so we were not able to assess psychosocial outcomes for the younger children. Future research could include a pictorial survey or brief interviews to determine their experiences.

In conclusion, our results suggest benefits resulting from the MMC-based service-learning program, including greater socially responsible behavior and participation in light, moderate, and vigorous physical activity. Results also show that when children perceived a higher mastery climate, they reported greater physical ability and higher personal and social responsibility. Results reinforce the psychosocial and behavioral benefits associated with a mastery-oriented environment. Teachers in the program should continue reinforcing skill learning, placing value on giving their best effort, and encouraging cooperation and respect. The partnership between preservice teachers and underserved children in the community, in the form of service-learning, provides a unique opportunity for children to engage in fun physical activities while learning about and demonstrating social responsibility.

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POINT OF VIEW

What I Wish I Could Tell My Coach: High School Athletes' Thoughts on the Performance of Their Coaches

Jerry Flaws

Abstract

Extracurricular high school sports are a major part of the educational experience of students at Strathmore High School (SHS), and coaches play a vital role in meeting the philosophy of education-based athletics by designing an athletics program that adheres to the mission statement of SHS ("Empowering a community of accomplished and caring citizens") and the philosophy statement of the Alberta Teachers Association (for school athletics programs to provide experiences that will help students grow physically, mentally, emotionally, socially, and morally). The purpose of this project was to survey all of the student athletes at SHS for the 2019–2020 school year to determine if they felt that their coaches were meeting these benchmarks, as well as to ask them to share openly and honestly with their coaches about how they felt they were doing in their coaching role. Student athletes answered nine survey questions. Although they felt that their coaches could improve in the areas of setting clear and realistic expectations, negativity, and favoritism, they felt that their coaches were doing well in creating community and connection, in role modeling, and in creating a fun experience. This information shows the need for greater conversation and consistency between all of the coaches and members of the athletics staff to ensure the mission and philosophy are being met. I hope that the coaches at SHS, as well as at other schools, will use the findings of this paper to reflect on their own coaching practice to determine in

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what areas they need some improvement and in what areas they are doing well.

Extracurricular high school sports are a major part of the educational experience of students in Canada, as they are in many other countries. Whether in a small town in the far reaches of the Northwest Territories or in a city of millions near the Canada–United States border, sports are in some way incorporated into schools for any student who wishes to participate. This is certainly the case at Strathmore High School (SHS), in Strathmore, Alberta, the school where I teach and have held the roles of coach and athletic administrator for 10 years. Although club or community sports often focus primarily on skill development and elite athletics, the nature of high school athletics at SHS differs in that it is seen, or should be seen, as an extension of the classroom, providing an educational experience for students through the venue of sport. Education-based athletics is a philosophical approach in which the growth and development of the student athlete is not limited simply to the field or court but instead focuses on the development of life skills, values, and qualities that student athletes can use in their lives long after their high school athletic careers (National Association of State High School Associations, n.d.). Considering that over 95% of graduating students will never again play sports at the level they played in high school, it becomes even more important that what they are taught in high school athletics focuses on more than physical skill development (Doshan, 2015).

The mandate of School Sport Canada (2013), according to its code of ethics, is to "promote and advocate for positive sportsmanship, citizenship and the total development of student-athletes through interscholastic sport." These sporting experiences are offered to students aged 14 to 18 and can vary depending on the size of the school and community, the geographic location of the school, and each school's resources, meaning some schools can only offer one or two sports with no tryout needed, whereas other schools can offer up to 24 sports and competition to make teams can be fierce. Regardless, the common denominator is that teacher volunteers coach the majority of sports.

In Canada, in comparison to the United States for example, coaches generally are not paid. In some locations, coaches may be

given personal days in lieu of their coaching time or may be paid a small stipend to cover travel costs, but, overall, the Canadian high school sport system is supported by more than 52,000 volunteers assuming coaching positions in more than 3,200 schools across the country (School Sport Canada, 2013). Whenever possible, these coaching positions are filled by teachers who love the sport they are coaching, love the athletes they coach, and understand that school sports involve more than winning a banner or championship. School sports grow athletes and teach them life lessons, skills, and character development through the vehicle of sport.

The role of the teacher-coach is vital in the development of the whole student athlete because of the relationship that is created between the athlete and the coach. As the literature on this topic makes clear, coaches act as caring adult mentors and the lessons they teach to their athletes can lead to the development of quality assets and characteristics such as sportsmanship, resiliency, respect, teamwork, friendship, cooperation, service, self-confidence, sacrifice, as well as countless others (Becker, 2009; Camiré & Trudel, 2010, 2013; Holt et al., 2008; Petitpas et al., 2005).

To guide teacher-coaches in developing more than just an athlete, sporting organizations that support school sports, such as School Sport Canada, the Alberta School Athletic Association, and the Alberta Teachers Association (ATA), have created mission statements or philosophy statements to guide coaches in building and running their athletic programs to align with the philosophy of educational athletics. In the same way, schools often develop mission statements to ensure that all school activities (whether in class or out of class) are being organized and run in a way that keeps the mission statement first and foremost.

On a national level in Canada, the Canadian School Sport Federation (School Sport Canada, 2013) states in its code of ethics that the duty of those who educate through school sports to "encourage, promote and to be an advocate for good sportsmanship, citizenship, and the total development of student athletes through interscholastic sport" (p. 27). On a more local level, the ATA stated that

> the philosophy that should guide school athletics programs is that they must provide experiences that will help students

> grow physically, mentally, emotionally, socially and morally. The fundamental objectives of school athletics are educational, and all other objectives must be considered secondary. (Semkuley, n.d., p. 1)

This document should serve as a guide to all schools, coaches, and athletic directors as they develop and administer their athletics programs.

It is clear that coaches play a pivotal role in creating programs that uphold the mission and philosophy statements of their organizations. Unfortunately, it is well documented that in an environment that is supposed to be promoting positive values, skills, and attitudes, many high school coaches (and coaches in general) set a poor example for their athletes by belittling and humiliating (Camiré, 2015; Gearity, 2012; Mazer et al., 2013; Stirling & Kerr, 2013; Wilson, 2017). Coaches have been observed yelling, name-calling, cheating, showing poor sportsmanship, showing poor character, and teaching lessons to their athletes that are contrary to the mission or philosophy of the school athletics program. However, I have a theory that many coaches do not understand that their actions are not only contrary to the mission and philosophy of their school and their professional association but also negatively affecting their athletes.

In my 10 years at SHS (in the town of Strathmore, Alberta, population 12,500), as both athletic director and coach, I have noticed that the way some coaches instruct their athletes has a negative effect on the athletes and is trickling down to the athletics program. Athletes often have been heard in the hallways talking about favoritism, bullying, yelling, and humiliation that they have experienced on their team, and coaches have been observed showing poor sportsmanship and behavior before, during, and after games. I do not believe the coaches have any malicious intent and believe they want the best for their athletes. However, I wonder if they realize or understand that their actions and coaching methods are contrary to the mission statement of SHS and the philosophy of the ATA. More importantly, I wonder if they realize the effect they are having on their athletes.

The positive benefits of high school sports are too numerous to count, and to be clear, I have observed some incredible coaches and coaching moments that have had a very positive impact on athletes. I believe that the coaches at SHS truly have their athletes' best

interests at heart. Therefore, the goal and purpose of my project is to understand, through the experiences of SHS athletes in the 2019–2020 school year, if and how they feel their coaches are meeting the mission of SHS— "Empowering a community of accomplished and caring citizens"—and how they feel their coaches are meeting the ATA philosophy that school athletic programs "must provide experiences that will help students grow physically, mentally, emotionally, socially and morally" (Semkuley, n.d., p.1). My ultimate goal is to provide the coaches at SHS with the thoughts and feelings of their athletes so that they can reflect on their own coaching to determine whether they are meeting the mission of SHS and the philosophy of the ATA. No one starts teaching or coaching to hurt or harm students, but I believe that sometimes they do it without even knowing. Gathering feedback is essential in bettering ourselves at what we do, and I feel the best way to do that is to gather unbiased feedback from those for whom we do what we do: our students.

The Importance of Educational Athletics in Positive Youth Development

Numerous studies have looked at youth development through educational athletics, and the benefits identified include many different categories. The physical benefits of educational athletics have demonstrated that in general, those who participate in high school sports have been shown to have healthier behaviors leading to better physical and mental health, such as better dietary habits and weight control (Greenleaf et al., 2009; Merkel, 2013). Student athletes have also been found to have significantly higher rates of exercise and a healthier self-image as well as significantly lower odds of emotional distress, suicidal behavior, family substance abuse, and physical and sexual victimization than students not involved in sports (Harrison & Narayan, 2003). Greenleaf et al. (2009) also found that students involved in sports are at a much lower risk of becoming involved with smoking and marijuana use and that by developing positive health behaviors in high school, adolescents have a higher likelihood of staying physically active during adulthood, leading to a lifetime of health benefits.

The benefits of high school athletics extend far beyond the physical. The developmental benefits of high school sport include behavioral, cognitive, social, and emotional (Camiré, 2015; Camiré &

Trudel, 2010; Holt et al., 2008; Phillips, 2017). For example, involvement in high school sports has been associated with higher grade point averages and lower dropout rates (Grimit, 2014; Lumpkin & Favor, 2012); with students having more positive friendships (Schaefer et al., 2011); with students developing respect, honesty, and goal-setting skills (Camiré & Trudel, 2010; Camiré et al., 2011); and with students developing leadership skills, the ability to deal with disappointment and loss, determination, commitment, and perseverance (Camiré, 2015; Holt et al., 2008; Kennedy, 2008)

Role of the Teacher-Coach in Educational Athletics

As Camiré (2015) makes clear, "positive development does not automatically occur simply by taking part in sport" (p. 125). The role of the coach is vital in fostering the positive outcomes (Camiré, 2015; Gearity, 2009). However, it is even more vital for coaches who are also teachers coaching in an educational setting. A large research base has looked at the role of the coach in a collegiate educational setting (Becker, 2009; Gearity, 2009, 2012; Mazer et al., 2013), but significantly less research has looked at the importance of the coach at the high school level. According to Camiré (2015), teaching and coaching have many shared characteristics that play a central role in the student's experience of school sport. The greatest part of the teacher-coach's role is developing a quality relationship and communicating shared values and goals (Camiré, 2015). A number of studies (Camire et al., 2011; Camire et al., 2012) have looked at the role of the coach in educational athletics, and a number of other studies have examined the development of character, communication, and life skill development from the perspective of the high school athlete (Camiré et al., 2009; Camiré & Trudel, 2010); however, few have focused specifically on high school students' perspectives on what their coaches are doing well or areas that need improvement in accordance with a set mission or philosophy statement.

Positive and Negative Effects of Coaches on Athletes

The potential benefits of athletics in general, specifically the benefits of educational athletics, can be better understood through research findings of what coaches are (the positive effects) and are not (negative effects) doing well. It can easily be assumed that a coach, especially a volunteer teacher-coach, would not put the time

and effort into coaching a team if they did not have a love for the sport and for the athletes they were coaching. Many research studies have shown that coaching can have a dramatic effect on the life of an athlete, and many of these studies used a qualitative method, allowing athletes to share their stories and lived experiences of their time as an athlete (Becker, 2009; Holt et al., 2008; Gearity, 2009, 2012). This type of study is effective in allowing students to put words to their feelings and thoughts, rather than just numbers. It also allows for greater understanding and background for why they have these feelings about the effectiveness of their coaches. Positive coaching methods and effects have been explained in various studies and include open communication; respect; trustworthiness; caring; encouraging teamwork; focus; skill development; and, most importantly, creating a fun and positive learning environment (Becker, 2009; Camiré, Trudel, & Forneris, 2009; Gearity, 2009, 2012; Mazer et al., 2013; Stirlin, 2013). According to Petitpas, Cornelius, Van Raalte, and Jones, "it is essential that the context of high school be overseen by caring and compassionate coaches, because the quality of the relationship coaches build with youth significantly influences developmental outcomes" (as cited in Camiré, 2014, p. 506). The actions and words of a coach truly can follow an athlete for a lifetime.

These same studies have also shed light on negative coaching methods such as name-calling, belittlement, degrading comments, acts of humiliation, emotional and physical violence, not teaching, not caring, being distracting, and intimidation. Stirling (2013) hypothesized that perhaps coaches use these types of actions because this was the way they were coached and this is what they know, because they lack the knowledge of other developmental strategies, and because athletes accept these types of coaching techniques without question. Gearity (2009) suggested that coaches perceive their actions to be effective but that athletes perceive these actions differently. Some research has explored the athlete's perception of the effectiveness of a coach's behavior and methods in a collegiate and semi-pro settings (Gearity, 2009, 2012; Stirling, 2013), and other research has focused more on the experiences of high school students (Camiré, 2015; Camiré & Trudel, 2010, 2014; Camiré, Trudel, & Forneris, 2009; Holt et al., 2008), but the literature lacks research on high school students' perceptions of whether their coach was

fulfilling the mission of the school, of how their coach was or was not achieving it, and of how (or if) their coach could better serve their needs as student athletes. This study looks at these questions and at how and if, according to student athletes, their coach was meeting the ATA philosophy that guides school athletics programs.

This research adds to the body of knowledge, not only by asking high school student athlete if their coach is meeting these missions or philosophies but also by adding a *how* and a *why* to the question. It is hoped that coaches at SHS, as well as other schools, will use the information in this study to reflect on their own coaching practices and determine whether they need to change their coaching behavior to better care for the entirety of the athlete and help them to grow physically, mentally, emotionally, socially, and morally (Semkuley, n.d.).

Method

Because the purpose of this study was to gather honest feedback from the student athletes at SHS, I determined that a qualitative study using an anonymous survey would be the best way to discover the lived experiences of these athletes. Although I would have preferred to sit down with these athletes face-to-face, I felt that because I teach and coach at SHS I would not receive honest opinions from these students because they may fear favoritism or retribution if I knew from whom the responses came.

Ethical Clearance

Before any students saw or completed the survey, both the administration at SHS and the university ethics board gave ethical clearance. All participants and parents of participants were emailed a letter detailing the research process and were required to read and agree to understanding of a consent form prior to participation. All responses from participants were anonymous with no way for responses to be paired with the individual giving the response.

Participant Selection

Participants were selected from the student athlete body at SHS for the 2019–2020 school year. Those invited to participate were male and female students, aged 16 to 18, who had participated in one of the nine sports offered by SHS. The sport seasons being

played at the time were volleyball (male and female), football (male), cross-country running (male and female), soccer (male and female), curling (male and female), and basketball (male and female. Because certain seasons had yet to occur at the time of the survey, SHS students who had participated in badminton (male and female), track and field (male and female), and rugby (male and female) in the 2018–2019 school year were included as well.

Survey Creation

Nine survey questions were created with the hopes of eliciting the honest, unfiltered opinions of student athletes at SHS. The questions were intended to bring students back to the mission of SHS and the ATA philosophy statement (which were listed at the beginning of the survey), were open-ended, and were written with the intention to not elicit a specific response but to give students the freedom to answer in any way they chose. The survey presented to students was created using Google Surveys, a survey method that is often used in SHS, so students would be familiar with the survey tool.

Data Collection

Once ethical clearance was received from the university ethics board at Grace College and Seminary, the survey was sent via Google Surveys to 108 athletes, and of those sent, 34 responses were received, for a response rate of 31%. Responses were collected without any identifying features so that the gender, age, and sport played by the athlete were unidentifiable.

Data Analysis

Once the surveys were completed, the data from all responses for each question were put into lists and recurrent themes or patterns of responses were identified. I initially made a list of themes, then had two other teachers who were not involved in athletics read the lists of responses, to reinforce themes that I had identified and to identify other themes I may have overlooked.

Results

At the beginning of the survey, the respondents first read both the SHS mission statement ("Empowering a community of accomplished and caring citizens") and the ATA philosophy on high school

sports ("Athletic programs must provide experiences that will help students grow physically, mentally, emotionally, socially and morally").

Question 1: What Positive Athletic Experiences Have You Had at SHS? Why Are These Important to You?

Student athletes gave 11 responses to this question were received and spoke of a variety of positive experiences. The main experiences identified were fun, enjoyment, and excitement. Students spoke of feeling excitement the first time their team won the Zone Championships. They also said that sports gave them "something to look forward to at the end of the school day and on the weekend" and that athletics gave them the chance to "relax and release energy at the end of the school day." Student athletes said that they enjoyed bus rides with teammates and that these experiences created some of their fondest memories of their high school career. Student athletes said they were able to create friendships, developed confidence, and learned about teamwork and leadership. They also said that athletics allowed them to take care of themselves physically and mentally. One student athlete said,

> While pursuing athletics, whether in a competitive manner or recreational, the environment and people who surround us create such positivity and encouragement towards us as athletes. This is important to me because the attitude makes it feel more like community rather than just competition.

This comment reflects a theme of community that was echoed in many of the responses.

Question 2: How Do You Feel Your Coaches Met the Above-Stated Mission of SHS as Well as the Philosophy of the ATA? Please Explain as Thoroughly as Possible.

Student athletes gave 31 responses to this question and all the respondents felt not only that the coaches at SHS met these standards but also that many of the coaches exceeded them. Words mentioned multiple times included "empowerment," "sportsmanship," "connection," "community," "inclusion," "growth," "perseverance," "resilience," "accomplishment," "accountability," "relationship," and "citizenship." Students felt that their coaches helped them develop

social skills, self-esteem, and physical and mental strength. The student athletes felt that coaches "made sure that [they] always value sportsmanship and being kind to everyone. It is always a priority to be kind and practice sportsmanship towards other players, the refs, and volunteers." They also felt that coaches "always made [them] feel connected and welcome and encouraged [them] to take a well-needed break on [their] days off during the busy weeks." One student athlete felt that their coaches taught them to

> never back down from a challenge, learn from mistakes, work with others, have respect for others, accept being an underdog and how to use that knowledge to [their] advantage, improve [their] leadership and role modeling skill as well as how to make friends and bring different talents to the table.

Question 3: What Could Your Coach Do Better in Order to Meet the Mission Statement of SHS as Well as the Philosophy of the ATA? Please Explain in Detail.

Student athletes gave 31 responses to this question. Twenty-two students provided constructive criticism for their coaches, and these suggestions covered many areas of potential improvement. Several students mentioned they would like their coach to put more effort in ensuring their team was recognized more by the school and by the other students. Student athletes suggested their coaches have realistic expectations of the team they are coaching, improve in helping athletes learn how to mentally prepare for games, provide more opportunities outside of their sport to volunteer and become a better citizen, and be more understanding that "not every student athlete has the time to balance homework, school, friends, significant others, work, and sports all at once." Although some responses suggested "more intense and serious practices," "more playing time," and "more sports-specific training," most responses focused on creating team chemistry, creating community, and connecting with the student athletes to learn how to better coach them as individuals.

Question 4: Do You Feel Your Coaches Have Not Met the Above-Stated Expectations? Please Explain.

Student athletes gave 28 responses to this question. Of the student athletes who responded to this question, only four felt that

perhaps their coaches had not met the SHS mission statement and ATA philosophy statement. Unfortunately, those who answered as such did not provide a great deal of detail into why they felt this way. They all mentioned feeling that some coaches met the expectations better than others. The only details provided were "[the coaches] don't make it as intense and as fast-paced as I think it should be" and "sometimes coaches just focus on skills which can make the team work harder, but there can be division between really good players and players that may have more baseline skills." More information would certainly be beneficial to understanding the experiences identified by these student athletes.

Question 5: What Coach-Initiated Action or Activity Has Enhanced Your Experience in SHS Athletics? Explain.

Student athletes gave 28 responses to this question, identifying a variety of actions and activities. Some of the words used repeatedly included "fun," "community," "welcoming," "challenge," "encouragement," "understanding," and "guidance." One student athlete appreciated the coach giving ownership of the team to the players. They said, "My coach told the captains that the team was ours because they could only do so much. We had conversations as captains and as the team and it improved our game as captains and as athletes." Three students talked about the importance of team building and about occasions when their coach got the competing teams together after the competition for a postgame activity, which had a huge impact on these student athletes. One student athlete noted,

> It was a refreshing and interesting activity, because I had never done anything like that with a team before, and I felt like it really made us realize it's less about who wins the game and more about what we take away from it.

Another student athlete noted, "This reminded our team that games aren't about winning but making connections with other teens who share a similar interest as you." Student athletes also noted they appreciated coaches who were flexible with allowing them time to play competitive sports outside of school and who showed an interest in their activities outside of school sports. They also appreciated coaches who were approachable.

Question 6: What Coach-Initiated Actions or Activities Have Diminished Your Experience at SHS? Explain.

Sixteen athletes responded to this question. Nine of them mentioned actions and activities that were diminishing to the athletes' experience. It is interesting that the majority of the responses were very similar. These athletes mentioned coaches were not being competitive enough or not being prepared for practice and were name-calling and belittling players in practice and games. One student athlete mentioned,

> Our team can sometimes separate into groups and these groups can sometimes not be very nice to each other. My coaches often do not notice this or if they do, they do little to rectify the situation. They do not help make our team become more team-like and sometimes favor certain people over others.

Other student athletes mentioned the theme of favoritism. They mentioned huge discrepancies in playing time, with one student athlete stating,

> I don't like being not played game after game. We show up, want to play, and then stand around while our family watches us sit on the sidelines all game. It hurts and is embarrassing in front of our families.

Student athletes also mentioned the discrepancy in attention that coaches give certain athletes in practice and favoritism that coaches show in choosing certain athletes to be on the team.

Question 7: If You Could Share Openly and Honestly With Your Coach About How You Feel They Are Preparing You to Be a Member of Society Outside of Our School Athletics Program, What Would You Tell Them? Please Include the Positives and the Negatives.

Student athletes gave 31 varied responses, identifying many positives and areas for improvement. The main positive actions student athletes wanted to tell coaches they appreciated included making athletes a more rounded person, teaching life lessons, goal setting, perseverance, collaboration, time management, how to deal with

difficult people, overcoming obstacles, hard work, humility, positive attitude, sportsmanship, kindness, and the importance of teamwork. Of the things student athletes felt coaches could improve on, the themes of favoritism and connection again were raised. Certain student athletes felt that coaches needed to work on connecting with all student athletes, not just a few, by reaching out and showing caring attitudes.

Question 8: If You Become a Coach at SHS, What Is One Thing That You Would Avoid While Coaching? Explain.

Student athletes gave 32 responses, raising a number of consistent themes. They used words such as "bullying," "hostility," "bragging," "blame," "negativity," "public humiliation," "unequal opportunity and favoritism," "unrealistic expectations," "anger," and "exclusion." The four main themes that came up multiple times included perceived favoritism (more attention given to certain athletes over others and an imbalance in playing time), setting of unclear and unrealistic expectations, negativity, and allowing bullying (coaches allowed bullying behaviors on the team to go unchecked, which had a harmful effect on team cohesion and on the mental health of a number of players).

Question 9: If You Become a Coach at SHS, What Would Be the Most Important Aspect of Your Coaching Philosophy? Explain.

Student athletes gave 32 responses, consistently mentioning fun, growth, community, sportsmanship, humility, relationship, perseverance, growth, respect, and connection. Notably, only two of these responses involved performance or growth in a sport. The rest of the student athletes felt that their coaching philosophy would involve teaching life skills such as teamwork and creating community and connection in a fun atmosphere.

Discussion

Hearing and understanding the thoughts, feelings, and experiences of athletes at SHS has certainly highlighted that educational athletics is an essential part of the high school experience for students. But to understand this, we need to acknowledge that this experience is so much more than the outcome of the sport itself. As

these student athletes highlighted, it is not winning and losing at all! Nowhere in any of the responses to the survey did the student athletes talk about winning and losing—instead, they talked about the experience; the relationships; and their growth and development as athletes, friends, and people. We as teacher-coaches need to hear what these athletes are saying. As the survey shows, the student athletes at SHS are happy with the performance of their coaches in meeting the mission of SHS and the ATA philosophy. However, there is certainly room for improvement. This section discusses not only what we are doing well and how we can keep doing these things, but also where we need to improve.

What We Are Doing Well

Community and Connection

Over and over, the student athletes in this survey mentioned the word "connection," something that all people yearn for and is essential in the high school years. Students want to feel connected to each other and to something bigger than themselves—and high school sports can be a perfect place to develop that connection. Camiré (2015) described the importance of relationships and connection between coaches and their athletes and how these can lead to positive outcomes, especially off the court or field:

> As certified professionals, teacher-coaches must maintain a high level of integrity and cannot entertain friendships with student-athletes that extend beyond the standards of appropriate professional practice. Nevertheless, without being their "friend", teacher-coaches must get to know their student-athletes on a personal level and strive to develop relationships built on trust and respect that allow them to act as powerful and positive adult influences. (p. 134)

These relationships can become some of the most influential connections in the life of these young people, at a time when connection is essential.

It is important for coaches to maintain appropriate boundaries, but it is possible for them to develop connection and create community with student athletes. As student athletes mentioned in the survey, events such as team building, postgame dinners with

opponents, tournament weekend events, and even the bus rides to and from games can be pivotal times for coaches to create relationships, community, and connection with individual athletes and with the team. As noted in the literature, both individual athletes and teams that have this connection and community often perform better in their athletics (Becker, 2009; Camiré, 2015; Gearity, 2009; Holt et al., 2008). But even more importantly, these connections and relationships within a team and between athlete and coach can be essential in the social and emotional development of an athlete. As Camiré (2015) mentioned, "coaches must be aware of the powerful role they can play in the lives of their athletes, especially during the adolescent years, and that they must use this influence meticulously through the development of quality relationships" (p. 134). When coaches demonstrate through their words and actions that they genuinely care about their athletes, they can create sporting environments that promote closeness, connection, and community, things that benefit student athletes not only on the field or court, but in the everyday ups and downs of life.

Role Modeling

Coaches must understand the power they have as role models to their student athletes. One student athlete in the survey clearly stated this, saying,

> You are a role model in a time when most of us need a role model. Some of us don't have dads [or moms] around. The ones that are around remind us how they wish we weren't around. You may be the best role model we see, so take it seriously. We won't remember in five years if we won or lost, but we will remember if you gave us a chance and maybe even a little bit of confidence.

These powerful words are a strong reminder to us as coaches that our athletes watch what we do, listen to what we say, and internalize those actions and words. Camiré (2015) echoed this sentiment in his study where he found that because teacher-coaches have the ability to consistently interact with student athletes in many situations, they can develop very close bonds with their student athletes who do not necessarily have a strong parental figure at home. One respondent in his study stated, "It's sad to say, but I am aware of at least six kids

that I know the father is not present. I can't tell you how many times that it slipped and some kids called me dad by accident" (p. 129). In essence, a coach can end up being a surrogate parent, whether or not it is their intended purpose.

That we are not only seen as role models but also as parental figures to some student athletes cannot be diminished (Gearity, 2009). For some athletes, coaches may be the only stable adults in an athlete's life who can teach them the life lessons that will help them to grow physically, mentally, emotionally, socially, and morally, as is the ATA philosophy on high school athletics. In the survey, student athletes consistently responded that their coaches were doing well in encouraging them to try new things; teaching sportsmanship, perseverance, and respect; holding athletes accountable for their actions; and creating safe spaces for growth. One student athlete stated, "The coaches are encouraging and really do care for us."

Fun

Research supports that creating a fun and positive learning environment is essential in learning experiences (Becker, 2009; Gearity, 2009; Goldberg; 2012). It is unfortunate that athletes would experience not wanting to go to practices or games because they were not having fun, but such is the case in research and in responses from the survey of SHS student athletes. In the end, sports are games and games are meant to be fun! Athletes should enjoy themselves when they are playing sports. In survey responses, several students talked about the importance of fun. One student athlete stated, "I believe that while playing sports, you should be able to have fun and be yourself while growing as a person. I would always make sure that the people on my team felt included and they were having fun." Another said,

> The most important aspect of my coaching philosophy would be to have all students feel safe in athletics, make sure effort is put in so students see the positive rewards, and finally create a space where fun and enjoyment is consistent.

Positive experiences are essential in creating positive attitudes and effort. If we want our athletes to learn, improve, and perform, we need to ensure we are creating a fun and enjoyable atmosphere for them. We as coaches need to not forget that among the practices, the

games, the winning and losing, and the hard work, essentially sports are games and games should always be fun. If they are not, then we have missed the point.

Where We Can Improve

Unclear and Unrealistic Expectations

Becker (2009) noted that student athletes described great coaches as providing stability to their athletes by ensuring no uncertainty as to the coach's expectations so that the athletes know exactly what to do and what to expect from their coach. Camiré, Trudel, and Forneris (2009) and Camiré and Trudel (2013) also mentioned the importance of clear, realistic expectations and the importance of this in ensuring athletes feel in control of their own athletic experience. This, however, has been mentioned by SHS athletes as an area where SHS coaches can improve. One student athlete noted that if they became a coach, they would ensure they communicated "[their] expectations from the beginning." The student athlete continued, "I think it is important to set a standard for your team the day you meet them. Starting at tryouts if you expect your team to come ready to work and to listen I want to show them that." Another student athlete voiced frustration with coaches "not answering questions." This student athlete continued, "I would want every player to understand fully the purpose and goal for each activity or strategy." Becker (2009) spoke of this same issue, noting that in her research athletes felt that a great coach communicated from the beginning of the season the player roles, individual goals, information, and expectations for the team. Athletes stated that with a great coach, "[they] knew exactly what coach wanted [them] to do in terms of getting better, improving, and helping the team" (p. 108). Additionally, if the great coaches wanted things done in a particular way, they would explain the reasoning and explanations for what they were asking the individual to do. Part of what made the coach great, as found by Becker (2009), was that they took the time to explain *why.* It is important for athletes to have clear, consistent, and honest information given to them about what the coach expects from each athlete and what they expect for the season so that there are no mixed messages (Becker, 2009; Camiré, 2015; Camiré & Trudel, 2013; Gearity, 2009).

Negativity

Negativity on a team can be created in many ways, sometimes by the actions of the athletes, but more often from the actions of the coach. It is clear from the literature that great coaches create a positive attitude on their teams by using encouragement, inclusion, and good listening; by preventing bullying and hostility between teammates; by not yelling, belittling, or humiliating players; and by treating all players with respect (Gearity, 2009, 2012; Goldberg, 2012; Mazer et al., 2013; Stirling, 2013). Negativity can affect an athlete's perception of their coach's credibility and negatively affect the athlete's motivation (Mazer et al., 2013), and as Stirling (2013) found, "these poor coaching practices have been described by athletes as being distracting, engendering self-doubt, demotivating, dividing the team, and can potentially lead to dropout from sport" (p. 625). The last thing any coach wants is for their coaching practices to result in an athlete to dropping out of a sport they once loved.

Many responses from SHS student athletes mirror the findings in the literature. One student athlete stated that if they were a coach, they would make sure to avoid

> getting too aggressive with a single player. It is fine to be a certain way with the whole team but [the coach] shouldn't ever single people out to the whole team. It is fine in private but not to the point of embarrassing a player.

Another student athlete felt that their coach would blame them for problems when they went to their coach for help: "Since it is hard to ask for help, making the experience worse can have a lasting effect on the player's confidence and motivation." Student athletes mentioned that their coach could be mean and make negative comments toward the team and individual players and that they used negative reinforcement. One student athlete said that if they were a coach, "[they] would avoid being too harsh to the players on [their] team. [They] would not yell at [their] players and [they] would try to avoid telling them only negatives." They continued, "I think it is important to know positives and negatives about you. If you only hear negatives, you will begin to have a bad mindset towards yourself." These words are true not only in sport but also in all areas of life. If the

negatives are not at least balanced with positives, the athlete and the team will ultimately suffer.

Although actions such as yelling, name-calling, belittlement, humiliation, and allowing bullying on a team may have become normalized in athletics, it is clear that SHS athletes do not like or respond to these types of behaviors. It is essential that coaches at SHS look at their own actions to see if they are using these negative types of behaviors or creating a negative atmosphere on their team, because SHS athletes have made it clear that they do not like or respond to these types of coaching methods.

Favoritism

The issue of favoritism comes up frequently in the literature as well as in the responses from the survey of SHS athletes. As Becker (2009), Camiré (2015), Gearity (2009, 2012), and others have found, athletes want to perceive that the treatment of all athletes is fair. Whether this applies to how the team is made, playing time, and treatment at practice or when disciplinary action needs to be taken, athletes want to know that their teammates are not receiving preferential treatment.

Unfortunately, the issue of favoritism comes up multiple times in the responses from SHS student athletes in the survey. Student athletes mentioned feeling that their coaches have certain players sit all game or that certain players are left out of the team; that coaches favor the athletes they know better and leave others out; that coaches only play the better players, giving the less experienced players less of a chance to improve at their sport; and that certain students would not make a team because the coach did not like them.

An interesting statement from one student athlete is that if they were a coach, "[they] would avoid coaching [their] child's team as [they] feel it makes the team unbalanced and can create problems on the court." Strathmore is a small community, and as teachers who have taught here for many years, we know many families and often teach multiple students from the same family. Also, we often know the students from the time they were babies; they grew up with our children and we end up coaching our own children and their friends. It can be a challenge to ensure that we are consciously avoiding favoritism if we end up coaching our own children and their friends. As a coach of my own child, I found it a challenge to make sure I did

not give the impression of favoritism when I put her on the team and when I assigned playing time. It can be difficult, but being aware of the issue of favoritism and being conscious of it while making decisions are vital when coaching students the coach knows well. As coaches, we want to give all student athletes the best and fairest treatment possible.

Limitations

This research undoubtedly has limitations, primarily that the sample size is relatively small. That the sample comes from one site makes it difficult to generalize the results to other schools and settings. However, I feel that the method in which the study was performed will allow for it to be reproduced in other schools and settings so that a larger body of knowledge can be created on this topic.

Another major limitation on this research developed after this project had already begun. The COVID-19 global pandemic hit just weeks before this survey was set to go out to the student participants. Therefore, when initially athletes would have just finished the basketball season and would be well into badminton, track and field, and rugby seasons, we found ourselves with school and all sports canceled. Because students were not actively involved in school sports at the time of this survey, the results could be skewed. To better generalize these results to future students and coaches at SHS, I think it would be important to gather survey results a second time, this time while the participants are actively involved in school sports in a normal atmosphere. The results from this survey and the second survey could be compared to ensure that the themes were consistent before I would feel comfortable generalizing the results.

Moving Forward: How We Can Use This Information at SHS

After hearing what the SHS student athletes had to say, it is clear that we are doing many things well in the athletics department at SHS. However, there is always room for improvement and our athletes have highlighted our deficiencies through this survey. We are also given a clear mandate from the SHS mission statement and the ATA philosophy statement to guide us as an athletics department. However, I wonder if all of us as a department (coaches, athletic director, and school administration) are on the same page. As Camiré and Trudel (2010) and Camiré, Werthner, and Trudel (2009) noted,

a mission statement is only useful if the members of an organization have knowledge of it. They stated, "The two main purposes of mission statements should be to provide a focused guide for decision making and to motivate and inspire employees toward common objectives" (p. 76). As a department, we need to have a shared belief system based on the mission statement of SHS and the ATA philosophy on school sports.

In reflecting on our athletics department and how we share information, it has become clear to me that we do not sit down and talk as a full athletics team. We may share ideas and experiences within the coaching staff of a particular sport, but we do not talk enough as a full department. Because of this, I wonder how many in our department are aware of the ATA philosophy or even think of the SHS mission statement in terms of athletics.

In reading the responses from SHS student athletes, I think it is clear that they are more concerned with the experience of their time in sports compared to the outcome. They overwhelmingly talk of encouragement, confidence, goal setting, teamwork, sportsmanship, hard work, humility, attitude, dedication, collaboration, community, and connection. They rarely mentioned winning and losing or competition. So I feel that as an athletics department, we need to look at our mission statement and the ATA philosophy and more consistently administer our programs in terms of community versus competition, as the athletes have shown that they value community over competition.

How do we do this, then? Meeting as a full athletics staff (all coaches, the athletics director, and school administration) at the beginning of the school year would be a start. At this time, all involved should discuss who we are as the Spartan athletics program, determine our values and goals, and discuss how we can run our programs consistent with these values and goals. There could also be a mid-year check-in and an end-of-the-year discussion and debriefing to see how the year went and discuss successes and areas for improvement.

I feel that all of the sport programs need more consistency in the expectations for the coaches in terms of the SHS mission statement and the ATA philosophy on school sports. As a department, we can ensure the coaches have read the athletics handbook and have read

and signed the code of conduct for coaches. There are certainly different levels of competition and skill depending on the sport. Some sports are going to be more competitive than others. But there needs to be consistency in the behavior expectations of coaches and in what goals we will communicate to our athletes. By meeting as a staff and having these discussions and then having all involved sign the handbook and code of conduct, we can ensure that everyone has knowledge and understanding of the mission and philosophy and then could be held accountable if they are not acting accordingly.

As a coach, a teacher, a parent, and a spouse, I recognize that these meets require an extra time commitment. We do not get paid as coaches, so this takes time away from other areas of our life. However, as teacher-coaches in an education-based athletics program, we are committing to creating an experience for athletes that is a positive place for personal growth. We are expected to help athletes develop lifelong qualities and values that will serve them far beyond their years on the court or field. This extra time is vital to ensuring that we are doing right by our athletes and upholding the values the school and the athletes have identified as important, as this survey shows.

Implications for Future Research

Because of the limitations of this study, I think it would be important to administer this survey again at the same time next year when hopefully the situation with COVID-19 has settled and students get back into a normal school schedule. It would be important to see if the next group of student athletes communicate the same thoughts and feelings, which could help guide the actions of our athletics department.

The information gleaned from this survey, although specifically from SHS student athletes, could be used at any school and this survey could be given to any group of students. I hope that other schools would look at this study and adapt it for their own athletics program.

Conclusion

Coaching can be a thankless job sometimes. As teacher-coaches, we spend countless unpaid hours away from our families, creating practice plans, attending practice, and traveling to games and tournaments. Why do we do this? Stirling (2013) stated it best:

> I enjoy having the opportunity to affect a young person's life and mentor them in a way that I, myself, have been mentored. It's pretty special . . . It's a powerful responsibility and I take it seriously. I think that's the part of coaching that I enjoy the most—knowing that I'm in a position where I can make an impact on someone's life. (p. 632)

We teach and we coach because we love what we do. We want to make a difference in the lives of our athletes. As adults, we can assume that we know what is important to our athletes, but it is essential that we willingly listen to what our athletes have to say. I think we may be surprised to know that what they value in their athletics experience goes further than the banners, the trophies, and their team's win–loss record.

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YOU AND THE LAW

Student-Athlete Dies From Extreme Exhaustion

John J. Miller, Rachel Bronson, Millie Barr, Collin Kilcrease

Jordan McNair, a 19-year-old freshman offensive lineman at the University of Maryland, collapsed during outdoor spring practice. Testimony from witnesses at the practice revealed that McNair exhibited signs of extreme exhaustion (Dinich, 2018). Additionally, witnesses indicated that he showed difficulty standing in an upright position while running 110-yard sprints under the supervision of the University of Maryland football strength and conditioning coach, Rick Court (Perez, 2018). Eventually, McNair was transported to a local hospital, where it was determined that he had a body temperature of 106 degrees. He died two weeks later due to heatstroke (Dinich, 2018).

Shortly after his death, McNair's parents filed an intent to sue the state of Maryland for more than $30 million in damages (Ermann, 2018). The filing claimed damages in excess of $10 million for each parent and $10 million for the pain and suffering Jordan McNair incurred before his death. Notably named in the lawsuit were DJ Durkin, head Maryland football coach; Wes Robinson, head athletic trainer for the Maryland football team; and Rick Court, head strength and conditioning coach (Ermann, 2018). At the time of the filing, both Durkin and Robinson had been suspended, while Court had left his position at the university (Ermann, 2018).

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Background

On a hot day in May, the Maryland University football team had a conditioning practice in full pads (Perez, 2018). Although McNair had successfully participated in previous practices under such conditions, he began having difficulty breathing and standing upright (Dinich, 2018). However, Court, the head strength and conditioning coach, perceived that McNair was not exerting himself enough and forced him to complete the sprints (Dinich, 2018). As teammates helped him cross the finish line, McNair fell to the ground and began to have a seizure.

After collapsing, McNair was removed from the field by athletic training interns (Perez, 2018). Once he was off the field, members of the coaching and medical staff did not attempt to properly cool down McNair (Dougherty, 2018). As a result, McNair suffered a seizure. While emergency medical services (EMS) were called, little to no directions were given regarding how to get to the off-site location where the team was practicing (Perez, 2018). Further contributing to the confusion was construction on campus during the time, which led to EMS being delayed to the site of the incident. As a result, it took nearly 40 minutes after a 911 call was placed for McNair to arrive at Washington Adventist Hospital (Dougherty, 2018).

Case Analysis

This case is eerily similar to other situations involving football players dying from complications attributed to heatstroke. Korey Stringer, an all-pro offensive tackle for the Minnesota Vikings of the National Football League, died of complications from heatstroke after finishing a preseason practice (*Stringer v. Minn. Vikings Football Club*, 2004). Braeden Bradforth, a defensive lineman for the Garden City Community College football team, died due to heatstroke-related issues following a 2019 practice (Carroll, 2019). In August 2008, 15-year-old Max Gilpin collapsed during practice and died 3 days later due to heatstroke (*Commonwealth of Kentucky v. David Jason Stinson*, 2009).

Negligence

At its core, negligence is the "failure to use reasonable care—doing something which a reasonably prudent person would not do,

or the failure to do something which a reasonably prudent person would do under the same or similar circumstances" (Dobbs, 2001, p. 1). Most lawsuits against coaches for sports-related injuries are usually based upon the theory of negligence (Karns, 1986). As a general rule, "Coaches must be aware of preventable risks to their athletes, and they must take measures to supervise properly and care for their players" (Hurst & Knight, 2003, p. 37).

Ordinary negligence is an unintentional tort comprised of four elements: duty, breach of that duty, proximate cause, and damage. All four elements must exist for negligence to be present. However, it is essential to note that the McNair family went as far as to claim gross negligence (Perez, 2018). This claim was supported by the findings of an investigation into McNair's death led by Dr. Rod Walters, a well-known expert on athletic training (Maese, 2018). Walters' report placed significant blame on Maryland trainers and medical staff (Maese, 2018). Specifically, Walters asserted that the staff, including Durkin, Court, and Robinson, were grossly negligent about Jordan McNair's well-being when he obviously needed urgent medical attention (Maese, 2018).

Gross negligence has been defined as conduct that shows a reckless disregard for the safety of other persons to whom a duty is owed (Dobbs, 2001). An individual who is found guilty of gross negligence knows or should have known, as a reasonable profession, about the potential harm that may occur to another person due to their conduct (Dobbs, 2001). Some perceive that authority figures in football push players too hard, which often leads to heat exhaustion and other noncontact injuries (Charnley, 2005). Athletic coaches often attain results by applying methods that could legally be thought of as "wanton" or "grossly negligent" in any other context (Hurst & Knight, 2003). The courts have adopted a "reckless or intentional" standard, requiring a plaintiff to prove that the defendant's conduct was either reckless or intentionally harmful (*Knight v. Jewett,* 1992).

Duty

A duty is a special relationship between two or more parties that may be created by statute, contract, or common law (Dobbs, 2001). According to *Knight v. Jewett* (1992), college coaches possess a heightened duty of ordinary care because of their previous experiences. Five years later, the court in *Searles v. Trustees of St. Joseph's*

College (1997) expanded that duty for reasonable care for the health and safety of student-athletes to include athletic trainers as well as coaches.

The court in *Kahn v. East Side Union High School District* (2003) asserted that the duty owed by coaches "while far from being the insurer of students' safety, is also very differently situated in knowledge, training, experience, and responsibilities from the casual football player whose duty we considered in Knight" (p. 66). Since coaches are often hired because of their experience and knowledge of the sport, and because they have increased duty to decrease the risk of injury to all participants, it is not a stretch that they should possess an advanced level of damage foreseeability and provide the appropriate reasonable standard of care (Miller & Wendt, 2012). Thus, although coaches cannot eliminate all the risks that occur in sports, there is an overall understanding that coaches owe a duty not to foreseeably increase the risks inherent in the sport (*Kahn v. East Side Union High School District*, 2003).

Breach of Duty

Hekmat (2002) described the reasonable person standard as the minimum level of care that compels an individual to avert producing risks that expose others to harm. The court in *Knight v. Jewett* (1992) stated that a coach

> may be found to have breached a duty of care to a student or athlete only if the instructor intentionally injures the student or engages in conduct that is reckless in the sense that it is "totally outside the range of the ordinary activity" involved in teaching or coaching the sport. (p. 318)

As a result, a coach would breach their duty to athletes on their teams by failing to act as a reasonable person would in a similar position (*Kleinknecht v. Gettysburg College*, 1993).

Foreseeability and Proximate Cause

When a duty is revealed between parties, foreseeability of harm also exists (*Griggs v. BIC Corporation*, 1992). Csillan (2019) stressed that football players wearing full pads and uniforms, combined with

the hot, humid weather in many regions in the late spring and early autumn, are particularly susceptible to heat-related pathologies. In *Mintz v. State* (1975), the theory of foreseeability was applied to establish the proximate cause of the injuries rather than outlining the degree of the duty owed. Owens (2007) stated that "proximate cause assumes the existence of actual causation and inquires into whether the relationship between the wrong and harm was sufficiently close" (p. 1674). Mainly, if an unsafe condition (i.e., heat) was foreseeable and harm occurred, the proximate cause (i.e., forcing the athlete to complete the task or lack of emergency response) may be the reason for the damage (*Stowers v. Clinton Central School Corporation*, 2006). Additionally, McNair also had a vitamin D deficiency and was taking medication for ADHD (Dinich, 2018), which automatically increases the onset of heatstroke or heat exhaustion. Since the athletic trainers involved should have known this information, it may be considered an additional proximate cause of McNair's deteriorating condition.

Damage

Damage may be the most recognizable element of negligence (Hekmat, 2002). Damage means that the harm an individual experienced is the proximate result of another individual, with whom they have a duty, breaching that duty (Fischer, 1999). The damage must be shown to negatively impact the victim's health and wellness; a relatively insignificant injury that affects the normal duties of an individual is not sufficient to prove damages (*Griggs v. BIC Corporation*, 1992).

Conclusion

While the McNair family was hoping to use the legal system to hold the university and coaches involved fully accountable, this case eventually was settled out of court. In the view of the Walters' report, heat-related deaths such as McNair and others are catastrophic situations that can be avoided. Paradoxically, the unnecessary aspect of heat-related deaths among intercollegiate football players offers organizations the chance to manage the risks of such occurrences and decrease their frequency.

Risk Management Strategies

While the National Federation of State High School Associations (NFHS) and the National Collegiate Athletic Association (NCAA) have adopted heat-related illness guidelines, this section offers some risk management suggestions for high school and college sports teams and staff:

1. Offer training symposium on heat-related illnesses on a regular basis and require all coaching and medical personnel to attend.
2. Post signs or posters that illustrate the early signs of heat-related illness such as muscle cramping, dizziness, nausea, thirst, and incoherence, among others.
3. Discuss misperceptions regarding heat-related illnesses such as thirst being a poor indicator that the athlete needs hydration or that exercising in the heat makes the athlete tougher.
4. Develop a schedule to acclimatize the athlete to the heat. Individuals who are not acclimatized to the heat or inadequately conditioned are at increased risk of heat-related illness.
5. Since heat-related illnesses may be self-reported, include the athletes in the discussions and encourage them or teammates to report any heat-related illness symptoms as soon as possible.
6. Create an emergency action plan to include informing the EMT on the location of the incident, the best route, and who will meet them at the building.

By comprehending these risks, football coaches and athletic trainers may continue, or initiate, programs designed to protect the athletes by educating them about the signs, symptoms, and effects of heat-related illnesses.

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