

PEDAGOGY

An Examination of Physical Education Teachers’ Perceptions of Utilizing Contemporary Music in the Classroom Environment: A Qualitative Approach

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Abstract

Objectives: To provide further information regarding physical education (PE) teachers’ perceptions of incorporating music in PE lessons and to evaluate the influence of music on the classroom environment using a qualitative approach. **Method:** Electronic survey interviews were conducted with 26 veteran PE instructors (10 male, 16 female), from 7 states and 24 schools (7 elementary schools, 15 middle schools, 4 high schools). Participant teaching experience ranged from 1 to 25 years. **Results:** Analyses of interview transcripts revealed four major themes concerning the use of music in the PE environment: (1) classroom management, (2) student learning, (3) class climate, and (4) music as a motivational tool. Two repeating themes within the major theme of classroom management were the assistance of music in starting and stopping class activities. Other classroom environmental factors within the major themes of student learning, class climate, and music as a motivational tool were specific to student focus, the predilection of contemporary music by students in the classroom, and

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*perceived increased motivation in classroom activities by students, respectively. **Conclusions:** Study findings point to the fact PE teachers find music as a helpful tool to assist in class activities. Incorporated during class activities, music may help to create a positive class climate, serving as a tool to help PE teachers manage students and keep them on task.*

One of life's basic enjoyments is listening or hearing music within the context of a person's environment. Regardless of setting, music may be viewed as a constant, either in part or in whole, to the activity performed. Music as it relates to a person's environment also applies in the context of physical activity.

Priest, Karageorghis, and Sharp (2004) created a conceptual framework supporting the effects of music during physical activity. Concepts addressed within the framework were (a) rhythm response, (b) musicality, (c) cultural impact, and (d) association. Rhythm response refers to musical rhythm, most notably tempo. Tempo denotes the speed of music as measured in beats per minute (BPM). Musicality is specific to the response to pitch-related elements such as harmony and melody. Cultural impact refers to how prevalent a specific genre of music is infused within a particular society or social environment. Finally, association references extra-musical association, such as emotions, a piece of music may evoke in an individual or group (Karageorghis, Jones, & Low, 2006). This conceptual framework has been established to predict effects of asynchronous (i.e., absent of conscious synchronization between physical movement and accompanying musical rhythm such as background music) motivational music in the environmental context of exercise and sport.

As noted, research has investigated the effects of music in the physical activity setting. Karageorghis et al. (2006) investigated the association among exercise intensity, music tempo, and music tempo preference in college students. Participants were instructed to select their top three artists for listening while treadmill walking at varying levels of intensity. The results suggested participants preferred fast-tempo music, with fast-tempo music associated with increased workload intensity. The investigation of the effects of music on physical activity has been expanded to include the physical education (PE) setting.

Barney and Prusak (2015) investigated the effects of music on physical activity in elementary children during classroom PE lessons. Third, fourth, and fifth grade students participated in two Frisbee and two walking activity lessons. One lesson for both activities (i.e., Frisbee and walking) included music, whereas the other lessons for both did not incorporate music. Findings suggest students were more active, as indicated by step count data, in both lessons with music playing. Additionally, students generally preferred fast-tempo music, and when the fast-tempo music was playing, workload intensity also increased. The relation of music to physical activity in the PE setting was also explored with 106 college students enrolled in four 30-min basketball classes (Barney, Prusak, & Brewer, in press). Two classes played two sessions of 30-min basketball while music played, whereas the other two classes playing two sessions of 30-min basketball with no music playing during gameplay. Pedometers measured individual step counts and time in activity. On average, students playing basketball with music incorporated 370 more steps and were in activity approximately 3 min more than students playing basketball with no music. Investigations point to the potential benefits of music on workload during physical activity. However, reviews suggest limited findings specific to physical educators' perceptions of incorporating music in PE lessons and its subsequent effects to their classes and students.

Harms and Ryan (2012) observed and reported on how music enhances the PE classroom environment. Qualitative observations and interviews of two elementary PE teachers incorporating music within their classrooms were obtained. Physical educators in this study commented on increased student excitement and activity engagement observed in the classes with music playing. The investigators also noted that when music was not being played, there were more off-task behaviors by students in class, findings similarly described by Krystosek (2003). The majority of studies investigating this topic have followed a quantitative approach. Thus, in the PE setting, other factors related to the perceived use of music in the PE classroom may not have been captured quantitatively.

The objectives of this study were twofold: (1) to investigate PE teachers' perceptions of incorporating music in PE lessons and (2) to evaluate the influence of music on the classroom environment.

Method

Participants

Twenty-six veteran PE instructors (10 male, 16 female), from seven states (Arizona, California, Minnesota, New Mexico, Oklahoma, Utah, and Washington) and 24 schools (seven elementary schools, 15 middle schools, 4 high schools) participated in the study. Participant teaching experience ranged from 1 to 25 years. The university institutional review board (IRB) approved the study before implementation. As well, participants provided their informed consent to voluntarily participate, before study implementation.

Instrument

A review of the literature failed to identify an instrument related to physical educators' perceptions of the effects of music on students during PE classes. As such, the investigators constructed a survey from the literature regarding music in PE and discussions with K-12 physical educators. From the literature review, a 13-item survey was constructed. The survey instrument consisted of (1) two statements specific to types of music played during PE lessons, (2) six open-ended statements addressing music played in PE class, (3) one 4-point Likert scale statement (1 = *never*, 2 = *rarely*, 3 = *sometimes*, and 4 = *almost always or always*) asking physical educators how often they played music in certain pedagogical instances, and (4) four demographic statements (Table 1).

Table 1

PE Teachers' Perceptions of Music in PE Class Survey

1. What type of music do you enjoy playing in your PE classes?

(Check all that apply)

- | | | |
|--|---|-------------------------------------|
| <input type="checkbox"/> Pop | <input type="checkbox"/> Country | <input type="checkbox"/> Jazz |
| <input type="checkbox"/> Blues | <input type="checkbox"/> Latin American | <input type="checkbox"/> R&B |
| <input type="checkbox"/> Rock | <input type="checkbox"/> Classical | <input type="checkbox"/> Electronic |
| <input type="checkbox"/> Dance | <input type="checkbox"/> Melodic | <input type="checkbox"/> Reggae |
| <input type="checkbox"/> Punk | <input type="checkbox"/> Hip-Hop/Rap | <input type="checkbox"/> Gospel |
| <input type="checkbox"/> Other _____ | | |
| <input type="checkbox"/> I do not play music in my PE class. | | |

Table 1 (cont.)

2. What type of music do you like to play in your PE class **to get your students more active?** (Check all that apply)

- | | | |
|--|---|-------------------------------------|
| <input type="checkbox"/> Pop | <input type="checkbox"/> Country | <input type="checkbox"/> Jazz |
| <input type="checkbox"/> Blues | <input type="checkbox"/> Latin American | <input type="checkbox"/> R&B |
| <input type="checkbox"/> Rock | <input type="checkbox"/> Classical | <input type="checkbox"/> Electronic |
| <input type="checkbox"/> Dance | <input type="checkbox"/> Melodic | <input type="checkbox"/> Reggae |
| <input type="checkbox"/> Punk | <input type="checkbox"/> Hip-Hop/Rap | <input type="checkbox"/> Gospel |
| <input type="checkbox"/> Other _____ | | |
| <input type="checkbox"/> I do not play music in my PE class. | | |

3. Music played in PE class assists with classroom management?

Please explain your answer:

4. Music played during PE lessons assists student learning.

Please explain your answer:

5. Music improves the classroom climate in your PE class.

Please explain your answer:

6. Music in PE classes is an effective learning tool.

Please explain your answer:

7. What benefits, if any, do you feel come from playing music during your PE classes?

Please explain your answer:

8. In your opinion, do you feel the music affects the student's mood in a positive manner in your PE classes?

Please explain your answer:

Table 1 (cont.)

9. In your PE classes, how often did you use music in . . .

	Never	Rarely	Sometimes	Almost always or always
a. Competitive Group Activities	1	2	3	4
b. Cooperative Group Activities	1	2	3	4
c. Skills Drills	1	2	3	4
d. Physical Activity Stations	1	2	3	4
e. Peer Teaching	1	2	3	4
f. Using Heart Rate Monitors or Pedometers	1	2	3	4
g. Gameplay	1	2	3	4

10. How long have you been teaching PE? (**Select one response**)

- Less than 1 year 7–8 years
 1–2 years 9–10 years
 3–4 years 10+ years
 5–6 years

11. Race/Ethnic Group:

- White Asian
 Black or
African American Native Hawaiian or
other Pacific Islander
 American Indian or
Alaskan Native From multiple races

Table 1 (cont.)

12. What is your gender?

___ Male

___ Female

13. Which category below includes your age?

___ 21–29

___ 50–59

___ 30–39

___ 60 or older

___ 40–49

Content validity on constructed statements was established with three experienced K–12 physical educators. The purpose of having experienced K–12 physical educators review item construction was to assist investigators in readability of items to address attitudes and perceptions of music being played during PE lessons. The instrument was further pilot-tested with four experienced K–12 physical educators who did not participate in the study. The single Likert scale statement was assessed with test–retest procedures (Everhart et al., 2005). The survey was sent electronically to the participants via Qualtrics survey company.

Procedures

Upon IRB approval, a nonprobability sample of convenience was employed for data collection. An introductory e-mail explaining the intent of the study with a link to the electronic questionnaire was sent to all volunteer participants. After review and selecting the “I agree” section of the e-mail, participants provided their informed consent to participate in the study. Surveys were electronically sent on two occasions, with the second e-mail communication reminding those who had not completed the survey. The survey concluded with participants selecting the “submit” button, thus electronically submitting the instrument to the investigators through Qualtrics.

Data Analysis

For open-ended questions, participant responses were correlated for each statement and reviewed to generate preliminary coding categories, with framework analysis methodology for participant responses, as outlined by Check and Schutt (2011). Framework

analysis incorporated the stages of (1) familiarization, (2) thematic, (3) identification, and (4) charting and interpretation (Rabiee, 2004).

PE and Music Content Themes

Investigators read and reread interview transcripts, identifying key themes and phrases. From all survey responses, the most frequent PE and music content themes were (1) classroom management, (2) student learning, (3) class climate, and (4) music as a motivational tool (Table 2).

Table 2

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

Major interview theme	Subcontent factors
Classroom Management	<ul style="list-style-type: none"> • Starting Activities • Stopping Activities • Student Listening Queue
Student Learning	<ul style="list-style-type: none"> • Student Focus on Learning • Student Comfort With Learning Activity
Class Climate	<ul style="list-style-type: none"> • Student Preference for Contemporary Music • Creation of a Positive Classroom Atmosphere • Establishment of Positive Student Mood
Music as a Motivational Tool	<ul style="list-style-type: none"> • Behavioral Reward • Student Engagement • Positive Messaging

Results

Classroom Management

PE teachers commented that music was a positive tool used to assist with classroom management. Repeating themes within the major theme of classroom management were the assistance of music in starting and stopping class activities. Julie stated, “Music is a fun and fairly easy way to get kids to start, stop, and know that when music is playing, it is time for them to move and when it is off, it is

for them to listen to me.” Susan stated, “Instead of screaming and being loud to get the class to focus, I stop the music to get attention. The sudden silence of no music gets their attention quickly.” Don responded, “Playing music helps to cue the students to start and when the music stops, to stop.” Joann said, “When music starts, students start activity. When music stops, students stop and look at me, or students put away equipment and rotate etc. Music make signals instant and students immediately recognize it.” Both subthemes highlighted the significance of music as a tool in assisting PE teachers with classroom management, when implemented correctly. Finally, Tyson summarized the theme:

If implemented correctly, music can be used to manage the classroom by giving the students cues on what to do when they hear the music stop or when they hear the music start. If not implemented correctly, many classrooms can turn into a zone of poor management.

Student Learning

A second major theme emerging from the data was the effect music has on student learning. When responding to the survey statement, participants did not directly state music improved student learning or skill development; however, they emphasized student focus on student learning. Whitney stated, “Students are more focused and are more active; therefore, they get more chances to perform a skill.” Paralleling, Julie said, “Students feel more comfortable when music is playing and they are more willing to participate and try new things.” As well, other statements included, “Music helps them focus” and “students’ focus is better.” One concluding statement referencing music assistance in student learning was, “Music can make some activities that aren’t the most fun more fun, which helps students participate.”

Class Climate

Class climate emerged as a third major theme from the data. Within this theme of class climate, PE teachers observed that students liked and wanted music in class activity. Sally stated, “I believe music has a strong influence over our emotions, so if I’m playing

happy upbeat music, my students are happy and active.” As well, Julie said, “Positive music aids in creating a positive atmosphere.” Don stated, “Students are often seen dancing or singing to the music. Students are constantly asking me to play music and requesting their favorite songs.” Mary said, “The students cheer when a song they enjoy starts playing. They will come up to me and tell me that a particular song is their favorite.” When the investigators analyzed the PE teachers responses specific to class climate, words or phrases such as “happy,” “happier,” “more excited,” and “upbeat mood” were used to describe the effects of music on the students. In conclusion, Eric stated, “If a student comes in upset from another class, listening to a song they really like can help change their mood from negative to positive, as they associate the song with happy uplifting feelings.”

Motivational Tool

The final major theme surfacing addressed music as a motivational tool. Stephanie stated, “I can excite or motivate students because it is new and exciting.” Don said, “Music is a great way to keep kids motivated during activity time. I like to use music as a reward for student behavior.” One participant, Julie, incorporated music with her students throughout their year together. She stated, “I use it [music] as a motivating force to keep the students engaged in whatever physical activity we are learning or practicing. I like it and so do my students. I even let them listen on their phones as they run the mile—they move better when music is allowed. I even used a song as my theme this year that sends forth a positive influence for good and that was the message of the song (Carole King’s *Tapestry* CD track 5, “Beautiful”).

One survey statement asked PE teachers to identify in which classroom lesson they incorporated music and how often they played music in their classes. For this statement, the following classroom lessons listed were (1) Competitive Group Activities, (2) Cooperative Group Activities, (3) Skill Drills, (4) Physical Activity Stations, (5) Peer Teaching, (6) Using Heart Rate Monitors or Pedometers, and (7) Gameplay. PE teachers could choose from the following scaling responses: (1) *never*, (2) *rarely*, (3) *sometimes*, and (4) *almost always or always*. The top lessons for the seven class lessons were Cooperative Group Activities (41%, *almost always or always*), Skill Drills (34%, *almost always or always*), Using Heart Rate Monitors or

Pedometers (28%, *almost always or always*), Gameplay (63%, *almost always or always*), Physical Activity Stations (60%, *almost always or always*), Competitive Group Activities (34%, *sometimes*), and Peer Teaching (28%, *never, rarely, and sometimes*).

Discussion

The purpose of this study was to investigate PE teacher's perceptions of the effects of music on students during their PE classes. Qualitative results from this study found music to be a positive tool within the PE teacher's classes and lessons. Four major themes arose from PE teachers' responses to the survey statements: (1) classroom management, (2) student learning, (3) class climate, and (4) music as a motivational tool.

When investigating the major themes in more detail, the investigators noted overlap in teacher comments. PE teachers' comments strongly indicate music was a strong motivational tool in PE classes and lessons in creating a climate in which students were comfortable to participate. To note, not all students will feel comfortable participating in an activity that may not be to their liking or ability level. Grolnick, Gurland, Jacob, and Decourcey (2002) stated, "Physical educators must understand the ways in which children's motivation can be fostered. Children need to be in an environment that stimulates that and allows them the opportunity to work at a level of optimal challenge" (p. 271). Based on PE teachers' comments, music created a climate in the class environment in which students felt more comfortable to participate. Don noted, "Students are often seen dancing or singing to the music" that is being played during the class. As well, Steven stated, "I think it helps them to feel comfortable and like they can let some of their reservations go about being a non-athlete or whatever it may be." Accordingly, music can enhance class climate, thus increasing positive outcomes for students. Digelidis, Karageorghis, Papapavlou, and Papaioannou (2014) studied the effects of music on lesson satisfaction and on four types of motivation of high school students. Results indicated that high school students had lower levels of satisfaction with the lessons when no music was played. Investigators concluded that when played during lessons, music created a more favorable atmosphere for students.

PE teachers indicated that when music was played, students were excited to be in the activity, which led to students staying on

task for the given activity. When played during PE lessons, music put students in a position to better learn the participating activity. Along this line, Whitney stated, “Students are more focused and are more active; therefore, they get more chances to perform the skills.” Keeping students on task as they participate in activity was a common response among PE teachers. Lund and Tannehill (2005) stated that time on task for students was associated with greater possibilities for learning motor skills. Phil stated, “I don’t think music affects learning. It mostly motivates them to participate.” Music may act as a persuasive medium to assist students to participate in an activity.

Finally, many teachers alluded that because students were on task with a given activity, there were fewer opportunities for them to misbehave. Thus, PE teachers had minimal classroom management issues. Joe stated, “It seemed the students were more active when music was playing; therefore, they seemed to be more on task and focused on the activity. There was less horseplay with the boys.” In Harms and Ryan’s (2012) paper, one PE teacher stated that there was more off-task behavior in the classes without music than in the classes with music. Krystosek (2003) also observed that students in classes without music veered off task more often than students in classes with music playing. Related to classroom management, PE teachers identified music as a start–stop signal. Joann said, “When music starts students start activity. When music stops, students stop and look at me, or students put away equipment and rotate etc. Music makes signals instant and students immediately recognize it.” Pangrazi and Beighle (2013) suggested that PE teachers use a loud audio signal to start and stop a class. Using music to start and stop students may save time, allowing for more time for activity participation.

Conclusions

The purpose of this study was twofold: (1) to investigate PE teachers’ perceptions of incorporating music in PE lessons and (2) to evaluate the influence of music on the classroom environment. The investigators feel that the qualitative findings from this study help strengthen the literature specific to the implementation of music in the PE setting.

The results appear to coincide with a couple of the tenets of Karageorghis et al.’s (2006) conceptual framework regarding music

and physical activity: cultural impact and association. Cultural impact refers to the pervasiveness of the music within society. Repeatedly, PE teachers stated how students asked teachers to play certain songs or to play the music during the class activities. Referencing the association of music, which emotions of a piece of music may evoke, PE teachers continually commented students were “happy” and “excited” when the music was playing.

The study findings point to the fact PE teachers find music as a helpful tool to assist in class activities. With music being incorporated during class activities, PE teachers find that music helps them to create a positive class climate and to manage and keep students on task. While referencing the positive effects that PE teachers commented on when playing music, remember that music is a tool to assist or aid the PE teacher during the lesson. PE teachers must still employ appropriate instructional practices and mentoring when teaching lessons and activities, and use music to help create a positive climate, assist in managing students, and aid in the student staying on task.

Study Limitations

This study represents PE teachers’ presiding in the seven states listed. Thus, the findings and conclusions are mostly germane to those environments. This investigation was not intended to apply to all PE class environments, and findings are closely aligned to specific students and to the specific school environment, thus lacking some degree of generalization. Cause and effect relationships cannot be concluded, and additional research on the improvement of the PE environment needs to be continued in purposeful content areas. Utilizing alternative research methods can help researchers to further understand the complex PE environment. Finally, the study findings have the potential to provide practical guidance to educators in PE teacher education programs.

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