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## EDITORS' NOTE

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# Special Issue: Comprehensive School Physical Activity Programs

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*Annotation:* The Editors' Notes address two different topics using two parts: (a) a discussion of this Special Issue on Comprehensive School Physical Activity Programs and (b) a brief suggesting that authors/reviewers might consider using a broader range of models and methods in research papers submitted to *JTPE* along with one example of this potentially broadened scope via mixed methods.

## Part I: Comprehensive School Physical Activity Programs

The October 2014 issue of the *Journal of Teaching in Physical Education (JTPE)* features early research studies that attempt to quantify and qualify the application of the Comprehensive School Physical Activity Program (CSPAP) framework. Centered on quality physical education, this framework also suggests that physical activity opportunities be provided before/after school, across the school day, through staff involvement and family and community engagement (Erwin et al., 2013; Carson et al., 2014). From the perspectives of preservice and inservice teachers, students, physical activity leaders and change agents, this Special Issue is a compilation of empirical research studies. The findings from these studies support the feasibility of developing CSPAP programs in various contexts. For both teachers and preservice teachers, professional development experiences as well as teacher buy in, are critical factors in their willingness to develop and sustain CSPAP programs. Studies also identify facilitators and barriers to adopting CSPAP. The research studies show that CSPAP can institutionalize physical activity programming across the school day. Two noteworthy highlights identified among the 10 chapters are the common elements of effective CSPAP practice and the expanded justification for the inclusion of CSPAP in educational settings. Lessons learned from this work will inform the development and implementation of CSPAP as well as provide implications for teacher and preservice teacher professional development. Despite the advancement of our understanding of the CSPAP framework from the evidence presented within the collection of feature research studies, as guest editors of this Special Issue, we suggest that perhaps more questions are raised than are answered. Future work in this area is needed using different models and methods.

## Part II: Brief on Models and Methods with a Mixed Methods Discussion

The purpose of this brief is to first suggest that *JTPE* authors and reviewers consider broadening the scope of high quality work that is submitted to and accepted

for publication in the Journal. We would welcome various epistemological and methodological approaches and multiple approaches. Perhaps we should consider a broader range of methods (including mixed methods). To assist in this process, the second purpose of this brief is to provide some specific information that may help authors/reviewers in the process of supporting the inclusion of mixed methods research studies in *JTPE*. This mixed methods discussion also ties to some of the manuscripts published in this Special Issue. Rigorous mixed methods research can be a means for increasing our appreciation of the complexities of the interaction among school contexts, teacher preparation, and inservice teacher professional development, as well as a means for providing school-aged children with increased opportunities to be physically active in and around schools.

***Understanding School Climate, Culture and Context through Mixed Methods Research.*** Currently, it is estimated that more children in the United States will be enrolled in schools than ever before, with many of these individuals being impoverished, racially diverse, and at risk for preventable diseases. Schools are viable structures for addressing public health issues such as obesity, diabetes, and metabolic syndrome. Yet federal mandates like Race to the Top (U.S. Department of Education, 2009) and No Child Left Behind (NCLB, 2002) have forced local administrators to make difficult decisions about educational policy and practice. Physical education programming and opportunities for children to be physically active across the school day are often the first to be sacrificed to increase academic time, despite the known benefits of physical activity engagement. As outlined in Chapter 1, *Setting the Stage: Coordinated Approaches to School Health and Physical Education* (Kelder, Goc Karp, Scruggs, & Brown, 2014), schools are an ideal place to provide physical activity opportunities through a whole-of-school approach (IOM, 2013). Since students are nested within schools, which are effected by a multiple of systems simultaneously interacting, the time has come to increase our receptivity to the application of mixed methods approaches. Mixed methods research is the complementary and purposeful use of both quantitative (QUANT) and qualitative (QUAL) research methods as a means of presenting authentic application of empirical findings (Greene, 2007; Johnson, & Onwuegbuzie, 2004; Onwuegbuzie, Johnson, & Collins, 2011). Our acceptance of this methodology may contribute to the advancement of our understanding of the educational context, specifically when considering physical activity in and around schools.

Creswell (2014) argues that mixed methods research can be conducted through either an explanatory sequential, convergent parallel or transformative approach. The most commonly applied approach to mixed methods research is the explanatory sequential approach, which makes use of the QUANT and QUAL methods in a planned series or cycle (i.e., QUANT-QUANT-QUAL, QUAL-QUANT-QUAL, etc.) Two examples of the mixed methods approach in this special issue are presented in Chapters 3 and 9. In Chapter 9 *Elementary School Students' Daily Physical Activity Behaviors: A Contributing Role of Quality Physical Education Teaching in Comprehensive School-Based Physical Activity Programs* (Chen, Hypnar, Mason, Zalmout, & Hammond-Benett, 2014), a longitudinal and sequential study design was used to gather QUANT and QUAL data about student physical activity in and outside of schools in relation to quality physical education lessons. Further,

an explanatory sequence permits researchers to examine the feasibility of CSPAP through an ecological systems model (see Chapter 3; Jones et al., 2014) by comparing a variety of settings (i.e., urban/rural, public/private, elementary/secondary) through a series of planned data collections. Explanatory mixed methods research has merit because it provides both descriptive and inferential findings.

The convergent parallel approach to mixed methods research is when the researcher merges both QUAL and QUANT methodologies to address a single research problem. Data are collected and interpreted simultaneously using both strategies. In this case, the data analytic plan purposefully integrates all data sources into the process of interpretation. An advantage to using the convergent parallel approach is that inconsistencies are easily identified, as findings across data sources may not corroborate with one another (i.e., a parent report of a child's physical activity may not align with objectively measured accelerometry data during the time period). Although no single study within this monograph represents the convergent parallel approach to mixed methods research, a recently completed process evaluation on the CSPAP in Louisiana is an example of how QUANT and QUAL data can be simultaneously collected and interpreted (Carson et al., 2014).

Transformative mixed methods approaches prioritize social justice and human rights with regard to ethics, reality and knowledge (Mertens, 2010). Although not directly applied as a paradigm in this collection of studies, Chapter 8 (Centeio et al., 2014) focused on providing culturally diverse students who were enrolled in secondary urban schools, physical activity opportunities—which is an example of a study that may benefit from employment of the transformative paradigm in future research.

As evidenced in the diversified methodology outlined in these studies of this Special Issue, the development and adherence to the characteristics of its quality must be established within the *JTPE* readership. As reviewers of the content in this journal, we must first seek to understand the methodology within the theoretical frame that guided the research presented.

A logical starting point is for readers to seek to understand the unique terminology associated with mixed methods research (Eddie & Tashakkori, 2009); for example, terms such as data conversion, where a single source of data provided both QUANT and QUAL information (Bazeley, 2003; Boyatzis, 1998; Johnson & Turner, 2003). Since the complexity of interwoven learning outcomes and health goals must be better understood if we are to adequately prepare teachers for these evolving roles, we should consider mixed methods research as a sustainable and scientifically rigorous approach. This line of inquiry surrounding the CSPAP will never become commonplace if readers and reviewers alike hold the research to simply either a QUANT or QUAL research standards, respectively.

**Exemplars of Quality Mixed Methodology Research.** With the increasing popularity of mixed methods research, there are some emergent characteristics of exemplary research from which we can establish an initial level of acceptable scientific rigor. The following is a list of some emergent exemplars adapted from the elements of construct validation (Leech, Dellinger, Brannagan, & Tanaka, 2009):

- Design quality and fidelity - clear conceptualization of the research study specifically identifying the approach being used (e.g., convergent, parallel, or transformative)

- Design adequacy and consistency - appropriate sampling strategies that were aligned with the research questions and design
- Design suitability - adequately detailed methodologies that will provide data to support the proposed research questions
- Interpretive rigor, distinctness and efficacy - data analytic plan that integrates both QUANT and QUAL data sources in a convergent or sequential manner

This is only one set of criteria for judging the quality of mixed methods research. In a systematic review of the literature on mixed methods research, 13 critical appraisal frameworks were identified (Hetyvaert, Hannes, Maes, & Onghena, 2013), thus suggesting that presently there is no single set of screening criteria for mixed methods research. The systematic review confirmed that the number of mixed methods research studies being enacted is growing exponentially and that the adoption of specific appraisal criteria warrants discussion.

**Implications of Mixed Methods Research for Physical Education Teacher Education.** Studies using mixed methods can inform preservice and inservice training. For example, we may obtain evidence on the appropriate sequence of key events for preservice teachers in learning about before school physical activity opportunities for secondary students (e.g., building on McMullen, van der Mars, & Jahn's study in Chapter 2). This might include a curriculum document analysis of PETE programs, quantitative surveys, and focus group interview data to establish best practice for preparing undergraduate and graduate majors for their future roles as teacher educators. Adoption of another research method as an acceptable and rigorous scientific approach for the study of topics, such as CSPAP, is timely with strong potential to enhance our Journal.

We would like to thank all of the authors and the reviewers for their important contributions to this Special Issue on CSPAP. We believe this issue adds to the research base on CSPAP in a significant and meaningful way.

Best regards,  
Darla, Russ and Pamela

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