The Physical Educator Vol. 71 • pp. 660–681 • 2014

PEDAGOGY

Exploring Learning and Teaching Profiles of Elementary Physical Educators in Different Contexts

Bomna Ko

Abstract

Teachers learn many of the teaching practices they use to survive and sustain their teaching careers within their school context. This study explored teaching practices and teachers' learning of their teaching practices among teachers in different contexts. A concurrent mixed-model research design was used to identify the teaching profiles of elementary physical educators at urban (n = 2) and suburban (n = 2) schools. Two instructional units of fourth grade physical education classes for each teacher ($n_{lessons}$ = 32) were observed and videotaped to collect qualitative (e.g., field notes, interview transcripts) and quantitative (ALT-PE and CLASS instruments) data. Comparative and descriptive analysis were used to analyze the data. One urban and two suburban school teachers showed similar teaching profiles: They scored 6–7 (high range) in two CLASS domains, used less management time (M = < 10%) in the ALT-PE, and considered learning an ongoing activity. In contrast to other participants, one urban teacher's profile was characterized by low scores in three CLASS domains, relatively high management time in the ALT-PE (M = 18% to 20%), and limited learning experiences during her teaching career. Urban teachers perceived their context as containing factors negative to teaching practices. However, findings

Bomna Ko is an assistant professor, Department of Kinesiology, East Carolina University. Please send author correspondence to Bomna Ko, Department of Kinesiology, East Carolina University, #153 Minges Coliseum, Greenville, NC 27858. E-mail: kob@ecu.edu

of this study highlighted teachers' efforts to improve their teaching and learning.

With the recognition of the importance of high quality education (National Commission on Teaching and America's Future, 1996, 2003), educational policy and practices in the United States have been modified with the goal of improving teacher quality and student achievement (e.g., No Child Left Behind [NCLB] Act, 2001). According to Feiman-Nemser (2001), teacher quality depends on what teachers learn to teach and how they implement their learning into their classes across their teaching career. Currently, teachers' learning opportunities are being criticized for quality and quantity, including professional development (PD) for in-service teachers; the need for more learning opportunities for teachers is essential to improve teacher quality (Carroll, Fulton, & Doerr, 2010). For example, the NCLB Act of 2001 requires an increase in the percentage of teachers who receive high-quality PD annually in each state. In addition, the National Board for Professional Teaching Standards (1990, 2010) was established to encourage teachers to participate more fully in PD, thus improving their teaching practices.

With the emphasis on the need for PD for in-service teachers, funding sources are needed to support PD at district, state, or federal levels (Miles, 2003). Moreover, PD is offered in varying formats and durations. However, many PD programs have had a limited effect on teachers' practices, attitudes, and beliefs and on student outcomes (Armour & Yelling, 2004; Desimone, Porter, Garet, Yoon, & Birman, 2002; Guskey, 2002; Porter, Garet, Desimone, Yoon, & Birman, 2000). In addition, due to a lack of evaluation of the effect of PD, when and how the influence of PD occurs in terms of teachers' learning and teaching practices is unclear (Henry & Opfer, 2004; Opfer & Pedder, 2011).

This issue is of particular concern in the noncore content areas of art, music, and physical education (Armour & Yelling, 2004; Napper-Owen & Phillips, 1995). Exclusion of physical education content as a core subject within the NCLB Act of 2001 has restricted learning opportunities in related PD programs. According to Amour and Yelling (2004), PD for physical education teachers provided by the majority of university and school districts is comparatively restricted. Moreover, physical education teachers have characterized their PD experiences as having a lack of coherence, progression, and relevance to their instruction (Armour & Yelling, 2004; Ward & Doutis, 1999). Ward and O'Sullivan (2006) presented several

positive impacts of physical education PD efforts. They reported on several studies conducted during Carol M. White Physical Education for Progress (PEP) grant funding, which provided physical educators with PD experiences as a means to improve teacher quality and student learning. Studies in this monograph showed positive impacts of PD experiences on teacher changes in terms of thinking, beliefs, and teaching practices in urban schools.

With the exception of Ward and O'Sullivan (2006), other researchers efforts to increase teachers' learning opportunities have had limited impact. The ineffectiveness of such opportunities in achieving changes in teachers and teaching practices has been indicated in related research (Feiman-Nemser, 2001). These studies support the assumption that teachers learn to teach in the context of their actual working environments to survive and sustain their teaching careers (Feiman-Nemser, 2001). According Ward and O'Sullivan (1998), the differences in teaching experiences between a teacher's first and sixth years of teaching are shaped by on-the-job experiences. Teaching practice modified by experience is the product of "acts of reflection, mentorship by others, professional development, and contextual factors such as the length of time in a setting and the stability of that setting" (p. 196). However, limited research is available that clarifies the conceptualization of teachers' learning processes within and outside their school and/or class settings. Therefore, this study was used to explore teaching practices and teachers' learning of those practices within different school contexts. The research questions were as follows:

- What profiles of teaching practices in the Academic Learning Time-Physical Education (ALT-PE) and Classroom Assessment Scoring System (CLASS) instruments may be distinguished for teachers?
- How do teachers develop competencies within their profiles of professional practice?
- Are there variations in the profiles of teaching practice between teachers who teach in contextually different environments (e.g., sociocultural, socioeconomic)?

Methods

Participants

The current study was focused on four physical educators in urban and suburban schools located in the Mideastern region of the

United States to provide "particularistic, descriptive, and heuristic" (Merriam, 1998, p. 29) information on their teaching practices and insights. A purposeful sampling method, which allows the selection of "information rich cases whose study will illuminate the questions under study" (Patton, 1990, p. 169), was used to find teachers who met the participant criteria: teaching grade (elementary) and teaching content (dance and invasion units). The dance unit was chosen to gain in-depth understanding of how teachers establish their teaching practices within a content area where physical educators have reported a lack of learning opportunities in their teacher preparation programs (Mehrhof & Ermler, 1992). Many elementary physical educators prefer to teach dance units. In addition, invasion game units were selected for observation as a common content area among several standards-based elementary content approaches (Graham, Holt/Hale, & Parker, 2012; Pangrazi & Beighle, 2012). Two male teachers from different suburban school districts (Kevin and Bob) and two female teachers from the same urban district (Amie and Susan) participated voluntarily, and they were identified with pseudonyms in the study. However, participants' gender was not a focus of this study. The teaching experiences of these teachers ranged from 6 to 24 years. Their informed consent was attained, along with permission from students' parents, school principals, school districts, and the university institutional review board before data collection.

Data Collection

Concurrent mixed-model design, which involves the simultaneous use of qualitative and quantitative research, was employed to explore teaching practices and teachers' learning (Tashakkori & Teddlie, 2003). Qualitative data consisted of interview transcripts and field notes taken during participant observation. Data were collected within two units per teacher, including an invasion game unit and a dance unit from a fourth grade class. Thirty-two lessons across four teachers were observed and videotaped. Collection of qualitative and quantitative data occurred simultaneously in each unit, and the procedures used for one unit were repeated in the other units.

Interviews were conducted before, during, and after each unit. A prelesson interview in a semistructured format was conducted to identify teachers' competence and background for the teaching unit before the unit started. Field notes were taken during lessons, and lessons were videotaped to allow coding to transform teaching profiles into quantitative data using the observational instruments ALT-

PE and CLASS. Based on the observation of lessons, informal and/or formal postlesson interviews were conducted between lessons to collect information about how participants learned the observed teaching practices. Postlesson interviews were conducted to discuss the teachers' teaching practices and their learning of those practices. After two units were completed, each teacher discussed similarities and/or differences in their teaching and learning within their two units during a final interview. Each interview was conducted face to face and lasted less than 30 min. Interviews were recorded and transcribed verbatim.

Observational Instruments: ALT-PE and CLASS

A descriptive quantitative approach was used to identify the teaching profiles of teachers by using observational instruments, which allowed an examination of teaching practices from quality and quantity viewpoints. The ALT-PE instrument was developed and validated as a positive predictor of student achievement in physical education (Siedentop, 2002; Siedentop, Tousignant, & Parker, 1982; Silverman, 1985; Silverman, Devillier, & Ramirez, 1991). ALT-PE was coded by making decisions regarding context level and learner involvement level. Six-second interval recording was used. Two mid-skilled students, one girl and one boy, were randomly selected from the list of students for each unit to collect learner involvement data.

The CLASS observational instrument was designed and developed to "assess classroom quality" (Pianta, La Paro, & Hamre, 2005, p. 1). The domains that constitute the instrument are emotional support, classroom management, instructional support, and student outcomes. Several studies were conducted to examine and confirm validity and reliability of domains within the CLASS and convergent validity between the CLASS instrument and other measures (Harms, Clifford, & Cryer, 1998; La Paro, Pianta, & Stuhlman, 2004; Ritchie, Howes, Kraft-Sayre, & Weiser, 2002). Each domain consists of five scales by which classroom quality is measured in the CLASS observation instrument. The judgment for rating between 1 and 7 was dependent upon "the range of, frequency, intention, and emotional tone of interpersonal and individual behavior during the observation time" (Pianta et al., 2005, p. 6) associated with constructs under five scales of each domain. Classroom quality was categorized by 1 or 2 indicating *low quality*; 3, 4, or 5 indicating *mid-range quality*; and 6 or 7 indicating *high quality*. In each obser-

vation cycle, the observer was given 20 min to watch and take notes on classroom interaction and 10 min to record the appropriate code.

Data Analysis

Qualitative data (interview transcripts and field notes) were analyzed by content and constant comparative analysis. The data analysis occurred during and after data collection by the investigator and a peer who had conducted and published qualitative studies for decades. Analyzing field notes started with coding words, phrases, expressions, or statements that were mentioned most often in each lesson and that reflected the interest of the research questions (Stemler, 2001). This coding was categorized by broad categories associated with instructional and managerial teaching practices to identify particular teaching practices to investigate during interview sessions. To complete constant comparative analysis for interview data, the process of taking one piece of data (one interview, one statement, one theme) and comparing it with all others that may be similar or different was adopted to conceptualize the possible relationships among and between data (Thorne, 2000). Specific interview data analysis procedures began with reading and open coding the transcript, reflecting on the research questions for each teacher; the investigator and peer performed this independently. After an initial coding, the investigator and peer met to compare their coded data, which was consistent across all participants' data. Themes emerging from each teacher were constantly examined and compared across teachers, through which consolidated themes coalesced. The qualitative data and findings were shared with and corroborated by the participants as a member check. Peer review and debrief and negative case analysis were used to maintain trustworthiness and credibility of the findings. In addition, triangulation across data sources and among the investigator, peer, and participants was completed to finalize and ensure trustworthiness and credibility.

Descriptive analysis was used for the quantitative data. ALT-PE data were analyzed by identifying mean percentage of times spent in each category and subdivision at the context and learner involvement decisions levels. This allowed categorizing and discussing how class time was spent and in what activities students were engaged. Measures of reliability for the qualitative data were conducted through double coding sessions in which a trained observer and trained author viewed and coded the same videotaped lesson. Percentages of agreement and disagreement were calculated to de-

termine interobserver agreement [IOA = agreements/(agreements + disagreements)]. Forty-six percent of lessons (n = 15) were randomly selected to check reliability, and IOA level was maintained by at least a .96 level.

To analyze CLASS data, mean score and variance between the highest and lowest scores were calculated and presented to describe the score gained in each dimension and domain within the CLASS instrument across lessons in the unit. The score in the negative climate dimension, in which a lower score represented less negativity in the class climate, was computed to reverse the low scores in accordance with scores in other dimensions that earn a higher score for high quality of teaching behaviors. Given the high-inference nature of CLASS, only certified observers, including the author of this study, coded the CLASS data to ensure its reliability. Also, reliability of CLASS coding is ensured when 80% of codes are within 1 scale point of the gold standard (La Paro et al., 2009). This study maintained 90% agreement in the data collectors' CLASS data codes across 46% of lessons (n = 15).

In addition, seven stages of mixed-methods research data analysis were used in the study (Onwuegbuzie & Teddlie, 2003) to integrate data: reduction, display, transformation, correlation, consolidation, comparison, and integration. Data reduction and data display occurred during the initial inference periods to identify and determine inclusive data. As an example of data transformation, qualitative data were converted into numerical data by counting how frequently a particular theme was coded in each teacher's transcript and across teachers to identify inclusive themes. The next three stages involved correlating (Stage 4), combining (Stage 5), and comparing (stage 6) data from data sources to create new or consolidated variables or data sets. The final stage, data integration (Stage 7), led to the initial interpretation through integrating data into a coherent whole or two sets of coherent wholes.

Findings

Findings related to the first (teachers' teaching practices) and second (teachers' learning) research questions are presented in this section. Based on these findings, the remaining research question, which focused on teachers' teaching profiles associated with their context, will be discussed in the next section.

Profiles of Teaching Practices in the ALT-PE and CLASS Instruments

The primary finding related to the first research question, which was focused on teachers' teaching practices in the ALT-PE and CLASS, is presented in Table 1. The percentage of time the class and students spent in each level of categories—context and learner involvement—in the ALT-PE are displayed in this table. The two suburban teachers spent the majority of their class time in the subject matter motor (SMM) subdivision at the context level across units. The majority of class time of Kevin's dance unit was distributed to the SMM subdivision (56%) in the context level. The remaining class time was spent in the subject matter knowledge (SMK, 29.7%) and general content (GC, 14.3%) subcategories, with less than 8% in management time (MGMT, 7.9%). In Bob's floor hockey unit, almost half of the class time was devoted to the SMM subdivision (43.8%). The next highest subdivision was GC (33.4%), followed by SMK (22.9%). He spent less than 3% of class time in MGMT (2.6%) in his floor hockey unit. In contrast, the two urban teachers spent the highest percentage of time in the GC or SMK subdivisions at the context level. One of the urban teachers, Amie, spent a similar percentage of time in SMK (39.8%) and GC (38.7%) and less time in SMM (21.5%) during her dance unit. In the dance unit of Susan, the other urban teacher, the highest percentage of time was spent in the GC subdivision (40.4%) followed by SMK (31%). The least percentage of class time was devoted to the SMM (28.6%) among the three subdivisions. Susan spent a relatively high percentage of class time managing student behaviors during her dance (18.0%) and soccer (20.8%) units compared to the other teachers.

At the learner involvement level, only students in Kevin's dance unit were engaged for over 50% of class time in the motor appropriate (Ma) category, with limited time waiting (W, 2.6%). Students in Bob's floor hockey and Amie's team handball units were engaged for over 30% of class time in motor-engaged activities, 39.7% and 30.2%, respectively. Students in Amie's dance unit and Susan's soccer unit spent over 15% of class time in W, with time spent in the Ma being 13.3% and 13.0%, respectively.

Table 1
Variance in Categories of ALT-PE

			Suburban teachers				Urban teachers			
			Kevin		Bob		Amie		Susan	
Level	Sub-division	Category	Dance	Floor hockey	Dance	Floor hockey	Dance	Team handball	Dance	Soccer
Context	General content	Transition	6.4	29.2	13.7	23.1	15.8	12.8	20.1	16.9
		Management	7.9	2.0	5.5	2.6	7.2	13.7	18.0	20.8
		Break	0	0	4.9	5.4	0	0.2	2.3	0.6
		Warm-up	0	4.5	5.9	2.3	15.7	13.7	0	0
		Total	**14.3**	**35.7**	**30.0**	**33.4**	**38.7**	**40.4**	**40.4**	**38.3**
	Subject matter knowledge	Technique	12.3	0.4	1.8	4.3	6.5	0.1	11.8	6.6
		Strategy	14.8	15.9	10.8	16.2	17.5	11.4	12.3	30.6
		Rules	0.7	2.6	0	0	0.9	3.8	0.5	0
		Social behavior	0	0.1	0	0	0	0.3	0.1	0.2
		Background	1.9	0.7	0.9	2.3	4.6	0.9	6.3	1.4
		Assessment	0	0	0	0	10.3	8.6	0	0
		Total	**29.7**	**19.7**	**13.5**	**22.8**	**39.8**	**25.1**	**31.0**	**38.8**
	Subject matter motor	Skill practice	31.6	8.2	56.2	29.3	15.1	13.2	7.5	21.2
		Scrimmage	24.4	36.4	0	14.5	5.6	12.0	17.7	1.7
		Game	0	0	0	0	0	9.3	3.4	0
		Fitness	0	0	1.3	0	0.8	0	0	0
		Total	**56.0**	**44.6**	**57.5**	**43.8**	**21.5**	**34.5**	**28.6**	**22.9**
Level	**Sub-division**	**Category**	**Students (%)**	**Students (%)**	**Students (%)**	**Students (%)**	**Students (%)**	**Students (%)**	**Students (%)**	**Students (%)**
Student learner	Non-motor engaged	Interim	0	0	6.0	0.2	0	0.2	0	2.1
		Waiting	2.6	28.5	14.7	10.9	15.82	9.1	14.9	18.4
		Off-task	0.2	0	2.3	0	3.2	1.5	0	1.9
		On-task	12.3	23.0	26.0	26.4	26.9	32.8	25.5	24.7
		Cognitive	29.7	25.4	23.4	22.8	38.8	26.1	31.0	38.2
		Total	**44.8**	**76.8**	**72.5**	**60.3**	**84.7**	**69.8**	**71.4**	**85.3**
	Motor engaged	Motor appropriate	55.2	23.2	27.3	39.7	13.3	29.9	28.5	13.0
		Motor inappropriate	0	0	0.2	0	2.0	0.3	0.1	1.7
		Supporting	0	0	0	0	0	0	0	0
		Total	**55.2**	**23.2**	**27.5**	**39.7**	**15.3**	**30.2**	**28.6**	**14.7**

The score range of each teacher in each domain across units in the CLASS are shown in Table 2. Each teacher reached the same score range between invasion and dance units across most of the domains, with the exception of Kevin's instruction support domain (mid-range in hockey unit and low in dance) and Bob's emotional support domain (mid-range in hockey and high in the dance unit). Both suburban teachers scored high in the management and student outcome domains. Amie, an urban teacher, scored at mid-range in most dimensions except the instructional support domain (low range) in both units. The other urban teacher, Susan, scored at low range in three domains (emotional, management, and instructional support) and mid-range in the student outcome domain.

Table 2
Score Range in Each Domain Across Teachers and Lessons

District	Teacher	Unit	Domains			
			Emotional	Management	Instructional	Student outcome
Suburban	Kevin	Dance	MR	H	L	H
		Hockey	MR	H	MR	H
	Bob	Dance	H	H	MR	H
		Hockey	MR	H	MR	H
Urban	Amie	Dance	MR	MR	L	MR (4.7)
		Team handball	MR	MR	L	MR (5.1)
	Susan	Dance	L	L	L	MR (4.2)
		Soccer	L	L	L	MR (3.3)

Note. H = high. MR = mid-range; L = low. CLASS scores were H = 6–7; MR = 3–5; L = 1–2.

Development of Competencies for Teaching Practices

These teachers described learning experiences that developed their competencies in teaching. These learning experiences were broadly classified as independent or community learning. Independent learning is self-learning that occurs through personal experience and/or from existing resources and does not require engaging

in personal interaction with other people (e.g., a teacher's childhood experiences, teaching experiences, and their own ideas and books and/or Internet resources). In contrast, community learning occurs through interaction with someone else, in which other people are considered to be the main resources for learning (e.g., learning from PD workshops, conferences [e.g., state, national], and other colleagues). The teachers in this study identified distinct learning experiences.

Two suburban teachers (Kevin and Bob) and one of the urban teachers (Amie) used independent and community learning to develop their teaching competencies. Kevin developed his competency in teaching dance through his own learning and past teaching experiences, along with collaboration with the music teacher. He described how he learned to teach the dance unit:

> You have to be able to get out there and practice in an open space, which is not something you can really pick up from the word. With the music teacher, we actually could physically get out there and decide what we wanted to do. It is better today than it was last year, and it is better because it's based on trial and error.

The content area knowledge and instructional strategies that Kevin adopted in his floor hockey unit were learned through his self-learning and teaching experiences. He believed his "delivery [of lesson] comes from experience and from understanding and studying of what we have deemed most effective for teachers to do in a group setting." Related to his self-learning, he noted, "I self taught it. In other words, I had to learn it myself because I knew it was in the graded course of study here. I found the book and it made sense to me."

Bob used books, the Internet, workshops, and conventions to "keep new ideas coming." For example, Bob described how he used his learning from a book to implement ideas into his class and combined the book information with his own ideas to teach his dance unit:

> I got some of the ideas from the book and on my own. I thought, "Okay, what are some basic ways in that?" So the first one where they jumped there on the left side, middle right side, middle; it gives them the idea of traveling right to left.

Bob indicated he also obtained ideas for teaching his floor hockey unit from special magazines, workshops or conventions, periodic visits to university and other bookstores to get textbooks, and the Internet. In addition, his peer teachers were valuable resources who shared ideas with Bob. He described the process of coming up with ideas from other resources:

> Special magazines, you can pick up like hockey, some articles, different professional workshops you go to. I travel the bookstores and select textbooks that are used and use those as resources. P.E. Central, a few other Phys Ed sites, pull those up and try to get ideas. Also talking with your peers. There is a lot of trial and error.

Amie used several resources to teach the dance and team handball unit, including past teaching and self-learning experiences, PD workshops, PEP experiences, her master's program, books, the Internet, and other colleagues. Since she came back to teaching 6 years ago, she has considered the PEP grant experience to be "a life saver" for learning new concepts:

> I did not have a clue as to all this new stuff that's out there so the PEP grant really did give me all these great ideas. The PEP grant really was a life saver as far as having a quality Phys Ed program.

Amie's choice of line dances and creative dance for her dance unit was based on her past teaching experience. Amie noted, "I've tried the square dancing. I get frustrated. They [students] get frustrated. And I think they like the line dancing better." Her self-learning experience in dance inspired her to teach several dance types. She confessed, "Most of my dance is just my own experience." She used online information and a book to teach specific dances in the dance unit. She reported, "I got that stuff [partner dance steps] through Physical Best Activities." Amie also described learning new ideas such as creative dance at a PD workshop: "I actually learned that [creative dance] at a PD workshop and they put us through it and it was fun and people got creative and so I have used it for the last couple of years."

Amie learned the teaching practices for team handball from her college and PD experiences, including PEP workshops. This was the first time Amie had taught team handball, but she used and modified her learning from the PD and PEP experiences:

> Way back when in college, we did have a small unit of team handball and then I have been to a couple of professional development where other Phys Ed teachers have gone through the progression of a team handball. The Sport Education through the PEP grant I was part of that program, PEP I. We went through the whole tactical, and then the Sport Ed. I have modified it and tweaked it to where it works for me.

The other urban teacher, Susan, mainly referred to a text by Dauer to develop her teaching practices in dance and soccer. Susan believed that this book "has what skill should be taught to the kindergarten first and then combining skills." She commented,

> The Dauer book is a good book for Phys Ed teachers. It has different sections on basic movement, rhythm and dance and then it will say, on first grade level, teach this, this, and this dance. So, in 20 years ago, when our supervisor was here at that time, she said, "Okay, these are grade appropriate dances we would like to see done," so I pretty much follow along with the curriculum that I was given 20 years ago.

Along with Dauer's book, Susan's learning experiences in dance during childhood and during and after college empowered her to teach the dance unit with a high level of competency. She commented,

> I learned my dance techniques from the college classes plus I have also danced quite a bit after college and I knew some other dance and things like that because I was more into the dance, I could relay that subject a little bit better.

Susan considered Dauer's book a valuable resource for teaching soccer activities and dance. Also, she used activities she learned in college with limited exposure to new teaching techniques. She commented, "I haven't learned any newer task techniques on how to go with the throw-in and that. A lot of the activities I do are from when I went to college."

Variations in the Profiles of Teachers in Contextually Different Environments

The last research question of this study was focused on variations in teaching practices associated with teachers' environments, such as the teaching variation between urban and suburban teach-

ers (Research Question 3). A summary of each teacher's contextual factors and teaching practices from the ALT-PE and CLASS instruments are shown in Table 3. Findings indicated that even the teachers in the same type of district were situated in different contextual environments in terms of student background, school facilities, and support from the principal and district. Three distinct teaching practices were revealed between urban and suburban school teachers: (a) allocation of time on motor-engaged activity, (b) time spent on MGMT in the ALT-PE category, and (c) scores on the classroom management and student outcome domains in the CLASS.

Particular patterns of teaching profiles relative to the Ma category and subdivisions or categories did not emerge in the ALT-PE data, such as relationships between high Ma and less than 10% of MGMT and W categories and/or relationships between substantial differences of teacher allocation time, student engagement time, and poor management. Instead, an association between a subdivision and the MGMT category was identified among variables in the ALT-PE. Table 3 shows the summary of percentage of time spent on the categories (Ma and MGMT) and subdivisions. The teachers across the lessons who allocated the highest percentage of time in the SMM subdivision spent less than 10% of class time on the MGMT category. Teachers who allocated a greater amount of class time in the other subdivisions, GC and SMK, spent a relatively higher percentage of time in MGMT than other teachers: 20.8% in Susan's soccer unit, 18% in Susan's dance unit, and 13.7% in Amie's team handball unit. However, Amie in her dance unit spent only 7.2% of class time in MGMT and allocated the highest percentage of class time to SMK. Among these teachers, Susan spent the highest percentage of time in MGMT (20.8%) and allocated her class time in subcategories of subdivisions other than SMM.

Those ALT-PE-based profiles were consistently associated with scores in several of the CLASS instrument domains. The first profile of teaching practices was characterized by (a) highest allocation in the SMM subdivision and effective levels of MGMT time in the ALT-PE (less than 10%; Siedentop & Tannehill, 1999) and (b) high scores on the classroom management and student outcome domains in the CLASS. These features were observed in four units taught by suburban teachers in this study. In contrast, Susan (an urban teacher) displayed none of these features, but allocated the highest percentage among the teachers of time to MGMT (18% in the dance unit and 20.8% in the soccer unit) and scored the lowest in the emotional

Table 3
Contextual Variation Between Teachers

District	Teacher	Ethnic %	Lunch program	Facility/ Support			Unit	ALT-PE			CLASS			
				In-class	Principal	District		Ma %	*M %*	Sub-divisions	E	CM	I	S
Suburban	Kevin	C: 75	31%	Gym (+) Equip (+)	Poor	Poor	Dance	55.2	**7.9**	SMM > SMK > GC	MR	H	L	H
							Floor hockey	23.2	**2**	SMM > GC/SMK	MR	H	MR	H
	Bob	C: 75 AA: 12	13%	Gym (+) Equip (+)	Poor	Good	Dance	27.3	**5.5**	SMM > GC > SMK	H	H	MR	H
							Floor hockey	39.7	**2.6**	SMM > GC > SMK	MR	H	MR	H
Urban	Amie	AA: 76 C: 19	74%	Gym (-) equip (+)	Good	Poor	Dance	13.3	**7.2**	SMK ≥ GC > SMM	MR	MR	L	MR (4.7)
							Team Hand-ball	29.9	**13.7**	GC > SMM > SMK	MR	MR	L	MR (5.1)
	Susan	AA: 60 C: 33	38%	Gym (-) Equip (-)	Good	Poor	Dance	28.5	**18**	GC > SMK > SMM	**L**	**L**	**L**	**MR (4.2)**
							Soccer	13.0	**20.8**	SMK ≥ GC > SMM	**L**	**L**	**L**	**MR (3.3)**

Note. Ma = motor appropriate; E = emotional support; CM = classroom managment; I = instructional support; S = student outcomes; C = Caucasian; SMM = subject matter motor; SMK = subject matter knowledge; GC = general content; MR = mid-range; H = high; L = low; AA = African American.

support, classroom management, and instructional support domains in CLASS. The remaining units taught by Amie, another urban teacher, showed neither of these profiles. Amie spent less than 10% of class time in MGMT, the same as suburban teachers' units, but also scored low in the instructional support domain of the CLASS in her dance unit. Though the same trends in teaching practices were identified across all suburban teachers in this study, urban teachers showed a divergent level of teaching practices with each other on the ALT-PE and CLASS.

Discussion

The teachers in this study worked in contextually different school environments. Variations in teaching practices were identified between urban and suburban teachers in terms of three aspects. Units taught by suburban teachers were characterized by (a) highest allocation time on the motor-engaged subdivision, (b) effective MGMT time, and (c) high scores on the classroom management and student outcome domains in the CLASS. These patterns of teaching practices were not anticipated to be as likely identified in the units urban teachers taught, but Amie, an urban teacher, demonstrated how to develop teaching competences to respond to a given context (e.g., a lack of social skills of students, limited facilities and equipment). These findings require a discussion of the variation identified among the urban teachers.

A close examination of the teaching profiles of urban teachers revealed differences in the urban settings. Amie's school context appeared closer to the commonly perceived urban school context that may have a negative effect on teaching practices. When compared to the other urban school, Amie's school served a larger number of racially diverse students (76% African American) with a significant number of students who reported low socioeconomic levels (74% of students received free or reduced cost lunches). However, she had the lowest percentage of MGMT time (7.2%) on the ALT-PE during her dance unit compared to units other teachers taught. Furthermore, the MGMT time she spent during her team handball unit (13.7%) was lower than the MGMT time Susan spent in units. Though student behavior problems are considered common in urban schools, along with poor student environment (Griffin, 1985; "Nature of urban schools," n.d.), Amie's MGMT in the ALT-PE seemed relatively nonproblematic in this study. However, Amie reported struggling with behavior issues in the beginning of her teaching experiences at this school. She explained, "We [inner city schools] are having

kids with low economic situation and environments, and they don't have those social skills a lot of time, sometimes I really have to hit on social skills more than the actual physical skills." Observations of Amie teaching indicated that she was aware of the importance of behavior management, and she was seen using several management strategies during her units: Hellison's social development model and point systems. Thus, her awareness of her students' social skills needs and effective use of her learning resulted in less time on MGMT in the ALT-PE.

In contrast, Susan, another urban teacher, described similar student behavior problems in her class, but responded differently. Following her principal's suggestion, Susan chose to stop talking once she encountered behavior problems. This strategy to manage student behavior resulted in significantly more MGMT time in the classroom (20.8% in her soccer unit and 18% in the dance). Therefore, these findings indicate her managerial practice is inefficient and she is unable to contextualize her strategy appropriately for her classes.

These findings are aligned with patterns of teachers' participation in learning opportunities. The suburban teachers and Amie were engaged in several learning activities, such as independent learning (e.g., books, Internet, past experiences) and community learning (e.g., conventions, workshops, colleagues), and they implemented new and appropriate teaching practices into their classes. Their learning activities were ongoing across their teaching careers. In contrast, Susan tended to rely on a textbook that was introduced to her at her college 20 years ago to make decisions about what and how to teach in each grade. In addition, she reported limited reflection on her teaching process, resulting in teaching practices that seemed more decontextualized than contextualized. Susan's reports also revealed that her participation in student activities seemed to be nonexistent. These findings indicate a failure to create and adopt teaching skills that could have developed through participating with students in a situated community (Lave & Wenger, 1991).

Although contextual factors within urban schools have been identified as barriers to teaching (Griffin, 1985; Henninger, 2007), this study showed how differently these teachers perceived and responded to those contextual issues and how these influenced their teaching practices. In contrast to Amie's profile, Susan's profile indicated limited learning opportunities across her 20-year teaching career and limited reflection on her school context. These variations between the urban teachers support the findings of Henninger

(2007), who categorized veteran urban physical education teachers as lifers or troupers depending upon their perceptions and responses to their organizational context (e.g., general workplace, students, and administration) related to their teaching practices. In this study, Amie showed characteristics of teaching practices similar to the lifers in urban schools. She facilitated student learning through reflecting on their contextual environment. Susan's profile was aligned with those of troupers, who discussed their limited power as teachers within their contextual environment (Henninger, 2007).

These findings support the statement, "Experience is not a sufficient condition for effectiveness in teaching, but familiarity of instructional settings is necessary for effective teaching behaviors to be employed appropriately" (Griffey & Housner, 1991, p. 202). As emphasized by Feiman-Nemser (2001), how and what teachers teach appear directly related to teacher quality issues and furthermore are associated with the quality of schools. In addition, these results suggest that ongoing professional development is critical for developing quality instruction and essential to providing effective physical education instruction.

Conclusion

The findings from this study show the role of teachers' continuing efforts and interest in learning to teach throughout their teaching careers is signifcant. Teachers in this study strove to learn new practices and adopt teaching practices by responding to their situated contexts and by reflecting to meet students' needs. These findings highlighted teachers' efforts for improving their teaching and learning. Also, building a network with like-minded colleagues helps teachers share their teaching knowledge and encourage each other (Butler, Lauscher, Jarvis-Selinger, & Beckingham, 2004). Moreover, partnership and collaboration between teachers and university teacher educators may challenge teachers to build their knowledge of teaching. These recommendations may ultimately improve teacher quality throughout the stages of teaching careers.

Reference

Armour, M. K., & Yelling, R. M. (2004). Continuing professional development for experienced physical education teachers: Towards effective provision. *Sport, Education, and Society, 9*(1), 95–114.

Butler, L. D., Lauscher, H. N., Jarvis-Selinger, S., & Beckingham, B. (2004). Collaboration and self-regulation in teachers' professional developmet. *Teaching and Teacher Education, 20*, 435–455.

Carroll, T. G., Fulton, K., & Doerr, H. (Eds.). (2010). *Team up for 21st century teaching and learning: What research and practice reveal about professional learning* (Condensed excerpts). Washington, DC: National Commission on Teaching and America's Future.

Desimone, L., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis, 24*(2), 81–112.

Feiman-Nemser, S. (2001). Prom preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record, 103*(6), 1013–1055.

Graham, G., Holt/Hale, A. S., & Parker, M. (2012). *Children moving: A reflective approach to teaching physical education* (9th ed.). New York, NY: McGraw-Hill.

Griffey, C. D., & Housner, D. L. (1991). Differences between experienced and inexperienced teachers' planning decisions, interactions, student engagement, and instructional climate. *Research Quarterly for Exercise and Sport, 62*(2), 196–204.

Griffin, S. P. (1985). Teaching in an urban, multiracial physical education program: The power of context. *Quest, 37*, 154–165.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice, 8*, 381–391.

Harms, T., Clifford, R. M., & Cryer, D. (1998). *Early childhood environment rating scale* (Rev. ed.). New York, NY: Teachers College Press.

Henninger, L. M. (2007). Lifers and troupers: Urban physical education teachers who stay. *Journal of Teaching in Physical Education, 26*, 125–144.

Henry, G. T., & Opfer, D. (2004). *The impact of high stakes accountability on teachers efforts to improve instruction*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

La Paro, K. M., Hamre, K. B., Locasale-Crouch, J., Pianta, C. R., Bryant, D., Early, D., . . . Burchinal, M. (2009). Quality in kindergarten classrooms: Observational evidence for the need to increase children's learning opportunities in early education classrooms. *Early Education & Development, 20*(4), 657–692.

La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). Classroom Assessment Scoring System (CLASS): Findings from the pre-K year. *The Elementary School Journal, 10*, 409–426.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.

Mehrhof, J. H., & Ermler, K. (1992). Dance education for undergraduate physical education majors. *The Physical Educator, 49*(10), 23–27.

Merriam, S. (1998). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.

Miles, K. H. (2003). Rethinking professional development spending to support school improvement: Lessons from comparative spending analysis. In K. L. Plecki & D. H. Monk (Ed.), *School finance and teacher quality: Exploring the connections* (pp. 87–108). Larchmont, NY: Eye on Education.

Napper-Owen, G. E., & Phillips, A. D. (1995). A qualitative analysis of the impact of induction assistance on first-year physical educators. *Journal of Teaching in Physical Education, 14*(3), 305–327.

National Board for Professional Teaching Standards. (1990). *Toward high and rigorous standards for the teaching profession*. Detroit, MI: Author.

National Board for Professional Teaching Standards. (2010). National Board certification process. Retrieved from http://www.nbpts.org/ for_candidates

National Commission on Teaching and America's Future. (1996). *What matters most:Teaching for America's Future*. New York, NY: Author.

National Commission on Teaching and America's Future. (2003). *No dream denied: A pledge to America's Children*. Washington, DC: Author.

Nature of urban schools: Characteristics of urban schools, students, and teachers. (n.d.). Retrieved from Urban Education website: http://cte.jhu.edu/urbaneducation/ses1_act2_pag1.shtml

No Child Left Behind Act of 2001, Pub. L. No. 107-110 (2001).

Onwuegbuzie, A. J., & Teddlie, C. (2003). A framework for analyzing data in mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 351–384). Thousand Oaks, CA: Sage.

Opfer, D. V., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research, 81*(3), 376–407.

Pangrazi, R. P., & Beighle, A. (2012). *Dynamic physical education: For elementary school children* (17th ed.). Needham Heights, MA: Benjamin Cummings.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Newbury Park, CA: Sage.

Pianta, R., La Paro, K., & Hamre, B. K. (2005). Classroom Assessment Scoring System (CLASS). Unpublished measure, University of Susan, Charlottesville, VA.

Porter, A. C., Garet, M. S., Desimone, L., Yoon, K. S., & Birman, B. F. (2000). *Does professional development change teaching practice? Results from a three-year study*. Washington, DC: U.S. Department of Education.

Ritchie, S., Howes, C., Kraft-Sayre, M., & Weiser, B. (2002). *Snapshot*. Los Angeles: University of California, Los Angeles.

Siedentop, D. (2002). Content knowledge for physical education. *Journal of Teaching in Physical Education, 21*, 368–377.

Siedentop, D., & Tannehill, D. (1999). *Developing teaching skills in physical education* (4th ed.). Mountain View, CA: Mayfield.

Siedentop, D., Tousignant, M., & Parker, M. (1982). *Academic learning time-physical education coding manual* (Rev. ed.). Columbus, OH: School of Health, Physical Education, and Recreation, Ohio State University.

Silverman, S. (1985). Relationship of engagement and practice trials to student achievement. *Journal of Teaching in Physical Education, 5*, 13–21.

Silverman, S., Devillier, R., & Ramirez, T. (1991). The validity of Academic Learning Time-Physical Education (ALT-PE) as a process measure of student achievement. *Research Quarterly for Exercise and Sport, 62*, 319–325.

Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research, & Evaluation, 7*(17). Retrieved from http://PAREonline.net/getvn.asp?v=7&n=17

Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral research*. Thousand Oaks, CA: Sage.

Thorne, S. (2000). Data analysis in qualitative research. *Evidence-Based Nursing, 3*, 68–79.

Ward, P., & Doutis, P. (1999). Toward a consolidation of the knowledge base for reform in physical education. *Journal of Teaching in Physical Education, 18*(4), 382–402.

Ward, P., & O'Sullivan, M. (2006). Professional development in urban schools [Monograph]. *Journal of Teaching in Physical Education, 25*(4), 347–468.

Ward, P., & O'Sullivan, M. (1998). Similarities and differences in pedagogy and content: 5 years later. *Journal of Teaching in Physical Education, 17*, 195–213.