Physical Education Teachers’ Metaphors of Teaching and Learning

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This study was informed by the literature on teaching metaphors and the theory of occupational socialization. Its purpose was to examine in-service Physical Education teachers’ initial (before entering the profession), current, and ideal metaphors of teaching, related factors, and potential differences in participants’ metaphors based on their teaching experience. A mixed-methods approach was employed for this study, including a modified version of an existing survey (N = 66; Alger, 2009) and interviews (N = 13). Descriptive statistics indicated that while participants predominantly embraced teacher-centered metaphors initially, about half of them reported their current and ideal metaphors as student-centered. Constant comparison and analytic induction techniques revealed three themes and several subthemes: (a) fluidity (own definitions, combination of metaphors), (b) formation of initial views of teaching (acculturation, professional socialization), and (c) evolutionary forces and constraints (experience, pressure of test scores, time allocation, resources). These results have implications both for preservice and in-service teacher education programs.

Keywords: teacher beliefs, teaching metaphors, conceptualization of teaching and learning

Preservice teachers leave teacher education programs holding a firm set of beliefs about the teaching-learning process. Regardless of whether this set of beliefs has been impacted by professional socialization (formal training in teacher education programs), preservice teachers’ transition from formal training into their actual workplace is challenging (e.g., Stroot & Ko, 2006) and, more often than not, characterized by an unrealistic idealism about instruction (Vennman, 1984). This unrealistic idealism can lead to a reality shock (Vennman, 1984), which, in turn, can cause novice teachers to reevaluate their beliefs about teaching. Organizational socialization, “the process by which one is taught and learns the ropes of a particular organizational role” (Van Maanen & Schein, 1979, p. 211), creates what Zeichner and Tabachnick (1983) referred to as “institutional press”, which may have the

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effect of “wash out” in neophyte teachers’ beliefs and practices (e.g., Blankenship & Coleman, 2009). Therefore, the dialectical socialization process, which occurs during professional socialization and often results in a “contest of social thesis against individual antithesis” (Schempp & Graber, 1992, p. 331), seems to take a new form in the ecology of schools. Presumably, this process takes various forms throughout teachers’ careers based on the continuously changing contextual factors of their workplace and the education system in general, which may cause their beliefs about teaching to change multiple times.

One way to conceptualize individuals’ thinking and beliefs is through the use of metaphors (Lakoff & Johnson, 1980). Metaphors constitute linguistic analogic devices that compare a new/unknown concept to a known concept to illuminate a quality of the former. In reality, however, they function as more than purely linguistic devices; they constitute an essential unconscious mechanism of the mind, which frames, defines, facilitates, and/or limits individuals’ experiences and thinking, and drives their actions (Hardcastle, Yamamoto, Parkay, & Chan, 1985; Lakoff & Johnson, 1980; Martinez, Sauleda, & Huber, 2001). Alternatively, metaphors can be described as the larger constructs under which people organize their thinking and from which they plan their actions on the multiple environments in which they participate, including how teachers work with students and select teaching practices (Hardcastle et al., 1985; Lakoff & Johnson, 1980).

As such, the use of metaphors can help reveal and raise awareness about tacit, unconscious beliefs held by in-service teachers. Such information can be used to promote reflective thinking/practices by helping in-service teachers to: (a) examine their beliefs and relate them to classroom action (Fenstermacher, 1994), (b) understand the influence of their beliefs as they teach (Richardson, 1996) and as they are exposed to new material and teaching methods through professional development experiences, and (c) understand how their beliefs change throughout their careers (Richardson, 1996). In addition, such information can inform teacher educators regarding the effectiveness of their programs as well as professional development programs to better address the needs of in-service teachers.

Considering the heavy focus on the promotion of student-centered instruction/learning during the last decade or so (e.g., Dyson, Griffin, & Hastie, 2004; Edginton, Chin, Geadelman, & Ahrabi-Fard, 2011), it seems interesting to investigate whether teachers hold student-centered or teacher-centered metaphors for the teaching/learning process. On the one hand, student-centered metaphors, which derive from constructivist views of learning, focus on students’ needs, abilities, interests, and learning styles, with the teacher adopting more of a facilitating role, arranging the conditions so that students can actively participate in the learning process responsibly and independently of him/her (e.g., teaching as providing tools). On the other hand, teacher-centered metaphors assume an active role for the teacher, who is put in the center of the teaching/learning process, but a passive, receptive role for students (e.g., teaching as transmitting knowledge). Generally, teacher-centered instructional approaches predominantly focus on the mastery of content (in Physical Education [PE], on the mastery of motor skills) whereas student-centered instructional approaches focus on all learning domains (in PE, psychomotor, cognitive, and affective domains).

In the PE context, there is a variety of teaching styles, which fall in the continuum of teacher-centered to student-centered. Mosston and Ashworth’s (2002)
spectrum of teaching styles is divided into two categories, the reproduction and the production clusters, which correspond to more teacher-centered and student-centered approaches, respectively. Styles in the reproduction cluster (e.g., direct style) are effective for management/discipline purposes, supervising large classes, ensuring safety, and maximizing efficient use of class time; however, these styles largely ignore interindividual differences, do not promote the development of higher-order cognitive skills (e.g., problem-solving skills and critical thinking), and are not primarily concerned with students’ affective development (Macfadyen & Bailey, 2002). Productive styles, on the other hand, can facilitate differentiation and can positively impact students’ motivation and the development of positive attitudes toward PE (Macfadyen & Bailey, 2002). At the same time though, these styles are time-consuming and require careful planning and guidance (Macfadyen & Bailey, 2002).

Several student-centered instructional models have emerged during the last few decades, including Sport Education and tactical approaches to teaching games (e.g., Teaching Games for Understanding). These approaches were developed as a reaction to the traditional teacher-centered and technique/skill-based approach to teaching games/sport, according to which skills were presented in inauthentic and decontextualized ways (i.e., isolated skills were practiced in drill-oriented conditions) and which often produced unfavorable student outcomes, such as lack of skill transferability from drills to games and negative attitudes (Bunker & Thorpe, 1982; Hastie, 2003). According to Dyson et al. (2004), the structures of these models emphasize active learning that involves decision-making, social interaction, and cognitive understanding, and can provide students with a holistic education that promotes social, physical, and cognitive learning outcomes. Research studies that focused on these new models seem to corroborate the above statement. For instance, two reviews of studies focusing on Sport Education revealed beneficial student outcomes, including skill improvement, tactical knowledge and performance, engagement/participation within student-centered tasks, personal and social development (e.g., responsibility and cooperation skills), positive student attitudes (enthusiasm, enjoyment), and motivation (Hastie, de Ojeda, & Luquin, 2011; Wallhead & O’Sullivan, 2005). In addition, findings from studies focusing on game-centered approaches (i.e., Teaching Games for Understanding), which employ a problem-based approach to game teaching, demonstrated, among other outcomes, improved skill execution within game play, improved decision-making skills, and improved game involvement (Osln & Mitchell, 2006).

**In-Service Teachers’ Metaphors**

Researchers who have focused on in-service teachers’ use of metaphors have used a variety of foci for their studies. While the results of all these studies cannot be presented here, a few points are worth highlighting. First, the findings of many of these studies reveal a variety of metaphors for teaching, both teacher- and student-centered (e.g., Alger, 2009; Ben-Peretz, Mendelson, & Kron, 2003; Berci, 2007; de Guerrero & Villamil, 2002; Martinez et al., 2001; Stofflett, 1996).

Second, in-service teachers seem to largely hold teacher-centered metaphors for teaching. Zapata and Lacorte’s findings (2007) indicated the prevalence of the conduit metaphor (cultural transmission) in most participants’ conceptualizations
of teaching. Similarly, Martinez et al. (2001) found that 57% of their in-service teacher participants’ metaphors reflected behaviorist/empiricist ideas, according to which learning is an individual process, students are passive recipients, and the teacher is a transmitter of skills and knowledge. Patchen and Crawford’s (2011) findings corroborate the results of the two aforementioned studies, although at a deeper level. The authors found that, even though on one level teacher metaphors reflected the current emphasis on constructivist views of teaching and learning, ultimately, 24 out of the 32 metaphors described learning in relation to an acquisition model, regardless of how teacher roles were initially positioned (as teacher-oriented or student-oriented).

Third, there seems to be a change in the metaphors used throughout teachers’ professional development or career. On the one hand, Thomas and Beauchamp (2011) reported a transition from student-centered to more teacher-centered metaphors from the time teachers completed their education programs to part way through their first year of teaching. On the other hand, Alger (2009), who examined teachers’ initial (i.e., before entering the profession), current, and ideal conceptions of teaching, found a reduction in teacher-centered metaphors and an increase in student-centered metaphors for teachers’ current and ideal conceptions of teaching. Equally, Hand and Treagust (1997) found that, following the completion of an 18-month in-service program as well as four months later, science teachers exhibited a shift from predominantly managerial to more facilitative/constructivist conceptions of their role in the teaching-learning process.

Fourth, study findings regarding differences in teachers’ metaphors based on teaching experience are mixed. Zapata and Lacorte (2007) found that most of their participants (Spanish and English pre- and in-service language teaching assistants and instructors), except for a group of teachers who taught English as a foreign language, embraced the conduit (cultural transmission) metaphor despite differing experience and academic and cultural backgrounds. Alger’s (2009) findings, however, indicated that more experienced teachers tended to embrace more teacher-centered current and ideal metaphors in comparison with peers with fewer years of teaching experience. In a similar fashion, the findings of Martinez et al. (2001) revealed that prospective teachers (in the fourth year of their studies and without any practical teaching experiences) formulated more constructivist metaphors (56%) than experienced teachers (38%), whereas experienced teachers came up with many more behaviorist metaphors (57%) than prospective teachers (22%). Collectively, the findings of Alger (2009) and Martinez et al. (2001) seem to suggest that new teachers are more likely to embrace student-centered metaphors.

Last, two studies examined the forces associated with in-service teachers’ metaphors (Alger, 2009; Patchen & Crawford, 2011). Alger’s (2009) study was the only one that identified a force that stimulated change in teachers’ metaphors (specifically, from their metaphor before entering the profession to their current metaphor); that is, classroom experience, particularly as it relates to new understandings about students. Both studies investigated the challenges that prevented teachers from realizing their metaphors (in Alger’s study, these were the obstacles to achieving teachers’ ideal/aspired metaphors). Common challenges the teachers in the two studies faced included standardized, mandated curriculum and accountability pressures, as well as student-related issues (diversity and special needs—Patchen & Crawford, 2011; motivation, lack of preparedness, emotional issues, and lack
of respect—Alger, 2009). Other challenges included lack of ongoing training and professional development (Patchen & Crawford, 2011), the multiple teacher duties/roles (Patchen & Crawford, 2011), discipline/management (Patchen & Crawford, 2011), home and community (e.g., lack of parental engagement in children’s education; Alger, 2009), large classes and lack of resources (Alger, 2009), and lack of support from administration (Alger, 2009).

Although existing studies examined in-service teachers’ metaphors of teaching in a variety of content areas, only one (non-refereed) study could be identified that focused on PE teachers’ metaphors (Bibik, 1997). The results of this study, which did not focus on student-centered and teacher-centered metaphors, revealed that elementary and middle school teachers with one to 25 years of experience viewed their role predominantly as parents/protectors whereas high school and college teachers with more than 25 years of experience viewed their role primarily as group leaders. Student-centered instruction/learning is important in PE because it can help students develop positive attitudes toward PE and physical activity, thus contributing to the realization of the key goal of PE; that is, lifelong, self-directed participation in physical activity. Therefore, addressing this gap in the literature, the current study sought to extend Alger’s (2009) study to in-service PE teachers and had a threefold purpose. First, to examine in-service PE teachers’ initial, current, and ideal metaphors of teaching. Second, to investigate the factors associated with the formation of and/or the changes in in-service PE teachers’ teaching metaphors. Investigation of these factors might provide useful information that can be used by both PE teacher education programs and in-service professional development efforts aiming to help teachers embrace more student-centered teaching philosophies and practices. Last, based on the mixed findings of the studies reviewed earlier, the third purpose of this study was to examine potential differences in in-service PE teachers’ metaphors based on their teaching experience.

**Methods**

**Participant and School Demographics**

The participants for this study were a convenience sample of PE teachers ($N = 66$) from the Southwest and Midwest USA, who were mainly recruited through professional development workshops. See Table 1 for a detailed description of participant and school demographics.

**Data Collection**

A mixed methods design was adopted for this study. The two data collection tools used were: (a) a survey with close-ended and short-answer questions, and (b) teacher interviews.

**Survey.** The survey used for this study was a modified version of the survey developed and used by Alger (2009) in an attempt to investigate secondary teachers’ metaphors throughout their careers and related factors. The initial survey by Alger (2009) was adjusted to address PE teachers’ metaphors of teaching. The organizing principle used for the survey was the following: teaching is Guiding, Nurturing, Molding, Transmitting, Providing Tools, and Engaging in Community.
Table 1  Participant and School Demographics

<table>
<thead>
<tr>
<th>Participant Demographics</th>
<th>Pilot Study (N = 46)</th>
<th>Survey (N = 66)</th>
<th>Interviews (N = 13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>F = 25</td>
<td>F = 41</td>
<td>F = 4</td>
</tr>
<tr>
<td></td>
<td>M = 21</td>
<td>M = 24</td>
<td>M = 9</td>
</tr>
<tr>
<td></td>
<td>Unknown = 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Caucasian = 34</td>
<td>Caucasian = 61</td>
<td>Caucasian = 9</td>
</tr>
<tr>
<td></td>
<td>Hispanic = 4</td>
<td>Hispanic = 1</td>
<td>Hispanic = 1</td>
</tr>
<tr>
<td></td>
<td>Multiethnic = 2</td>
<td>Asian = 1</td>
<td>Asian = 1</td>
</tr>
<tr>
<td></td>
<td>Other = 2</td>
<td>Multiethnic = 1</td>
<td>Multiethnic = 1</td>
</tr>
<tr>
<td></td>
<td>Unknown = 4</td>
<td>Unknown = 1</td>
<td></td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>1–40 years</td>
<td>1–33 years</td>
<td>2–18 years</td>
</tr>
<tr>
<td></td>
<td>$M = 13.63$</td>
<td>$M = 15.88$</td>
<td>$M = 7.15$</td>
</tr>
<tr>
<td></td>
<td>$SD = 10.55$</td>
<td>$SD = 8.47$</td>
<td>$SD = 4.90$</td>
</tr>
<tr>
<td>Level Taught</td>
<td>Elementary = 41</td>
<td>Elementary = 41</td>
<td>Elementary = 8</td>
</tr>
<tr>
<td></td>
<td>Secondary = 5</td>
<td>Secondary = 25</td>
<td>Secondary = 5</td>
</tr>
<tr>
<td>Subject Taught</td>
<td>PE = 35</td>
<td>PE = 37</td>
<td>PE = 13</td>
</tr>
<tr>
<td></td>
<td>PE + Health = 9</td>
<td>PE + Health = 22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PE + Other = 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability Level of Students Taught</td>
<td>Low = 3</td>
<td>Average = 58</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gifted = 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Special Needs = 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unknown = 2</td>
<td></td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>School Demographics</th>
<th>Pilot Study ($N = 46$)</th>
<th>Survey ($N = 66$)</th>
<th>Interviews ($N = 13$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Urban = 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suburban = 26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural = 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unknown = 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size (# of students)</td>
<td>$&lt; 750 = 45$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$750–1000 = 7$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$1001–2000 = 12$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$&gt; 2500 = 1$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unknown = 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statewide Test Performance</td>
<td>High = 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average = 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low = 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unknown = 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Body Diversity</td>
<td>$&lt; 30 = 50$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(% minorities)</td>
<td>$31–50 = 5$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$51–75 = 4$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$&gt; 75 = 6$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unknown = 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Of these metaphors, Guiding, Nurturing, Molding, and Transmitting are considered more teacher-centered metaphors, “with the teacher as the knowledge expert who acts on the learner” (Alger, 2009, p.744). Providing Tools and Engaging in Community are considered more student-centered metaphors, “with the teacher either providing the tools for the student to construct his or her own knowledge, or engaging in community such that teachers and students are constructing knowledge together” (Alger, 2009, p.744).

As Alger (2009) notes, component parts of metaphors can be interpreted in multiple ways and, therefore, a description of each metaphor was provided in the survey to minimize potential variability in participants’ interpretations (see Table 2 for metaphor descriptions). Each description included the role of the teacher and the students in the particular metaphor.

In the first section of the survey, participants were asked to respond to demographic questions regarding themselves and their schools. In the last section (section five), they were asked to indicate whether they would be willing to participate in a follow-up interview to discuss their views about teaching. In the case they replied positively, they were also asked to provide their contact information.

Sections two to four constituted the main body of the survey. In section two, participants were asked to review the descriptions of the six metaphors. Subsequently, in section three, they were prompted to choose the metaphor that best reflected their initial (before they entered the profession), current, and ideal image

<table>
<thead>
<tr>
<th>Metaphor</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guiding</td>
<td>I see myself leading my students on a treasure hunt. I have a map that shows us the way. Sometimes the path is hard and sometimes it is easy, but it is always worth it when we get to the end.</td>
</tr>
<tr>
<td>Nurturing</td>
<td>It is a sunny day. I see myself holding a watering can and carefully attending to my seedlings. I make sure that the soil, water, and climate are rich and right for each seedling so that each will develop and blossom.</td>
</tr>
<tr>
<td>Molding</td>
<td>I am seated at a potter’s wheel with a lump of clay. I carefully mold the clay into a well shaped and beautiful vase. Sometimes it takes pushing and prodding to get the vase to develop.</td>
</tr>
<tr>
<td>Transmitting</td>
<td>I have a large sum of money, which I deposit into a series of accounts. The goal is to deposit as much money as I can into to each account so that each account has a high balance.</td>
</tr>
<tr>
<td>Providing Tools</td>
<td>I wear a large tool belt. As each worker constructs his house, I provide the builder with the tools he will need to be successful in completing his project.</td>
</tr>
<tr>
<td>Engaging in Community</td>
<td>I am part of a community that is building a house. We collectively decided that we need a house and then we design and build it together.</td>
</tr>
</tbody>
</table>

Note. From Alger (2009).
of teaching, considering what each description suggested about the role of the teacher, the student, and teaching and learning. Space was provided for participants to generate their own metaphor if none of the ones provided reflected their conception of teaching and learning. Section four included a few short-answer questions in an attempt to gain insights into the factors related to the formation and/or the change of the participants’ metaphors. Two sample short-answer questions were: (a) “Explain how you would account for the difference between the metaphors ‘before’ (entering the profession) and ‘now’”, and (b) “What would need to happen in order for you to teach the way that you would like to teach (i.e., what it could be)?”.

**Survey Development and Validation Efforts.** The survey was initially developed by Alger (2009) based on an extensive review of the teaching metaphors literature that included 23 studies and over 1,000 teacher-generated metaphors. Alger studied the various organizing principles researchers had used in the past to make sense of teacher-generated metaphors and created the organizing principle described earlier with teacher-centered and student-centered metaphors.

In the current study, the survey was also pilot-tested by the research team in an attempt to test its clarity and appropriateness for use with PE teachers. For the pilot study, the survey was administered to 46 teachers from two Southwestern states. See Table 1 for a detailed description of the demographics of this group. The results of the pilot-study indicated that, for the most part, the survey questions were clear and easy to understand; only minor clarification changes were made.

**Rationale.** The authors acknowledge that metaphors are developed in a very personal fashion and can be influenced by various factors (e.g., age, gender, ethnicity, culture, context, etc.). The choice to present participants with a predetermined set of metaphors rather than allowing them to develop their own metaphors was based on the fact that, as mentioned above, the metaphors and the organizing principle employed originated from an extensive review of the teaching metaphors literature that included over 1,000 teacher-generated metaphors. Further, the characteristics of the participants in the studies included in the review varied in terms of gender, teaching experience, geographic location, context, and content taught. Finally, the survey did offer the opportunity to participants to provide their own metaphors if they felt that the metaphors provided did not reflect their views of teaching.

**Interviews.** Thirteen participants (male: \( n = 9 \); female: \( n = 4 \)) indicated in the last section of the survey that they were willing to participate in a follow-up in person interview to discuss their views about teaching and learning. The majority of them reported their ethnic background as Caucasian (\( n = 9 \)); eight of them taught at the elementary level and five at the secondary level. Their years of teaching experience ranged from two to 18, with a mean of 7.15 years (\( SD = 4.90 \)).

All of these PE teachers were contacted and participated in 20-minute interviews, which took place at the teachers’ workplace at their convenience. The interviews were conducted by trained members of the research team. A semistructured interview guide, which was pilot-tested and revised, was used for conducting the interviews. Relatively broad questions were prepared on the general interview guide, thus allowing for flexibility to probe for details or discuss issues that emerged during the interviews. Interviews were recorded and transcribed verbatim.

Building on the teachers’ survey results, each interview was initiated by asking interviewees to put their initial metaphor in their own words and perhaps give
examples from their own teaching that illustrated that metaphor. Subsequently, interviewees were asked what they thought created their initial views of teaching. Analogous questions were used for the interviewees’ current and ideal metaphors. If their initial and current metaphors differed, interviewees were asked what factors they thought influenced that evolution. Interviewees were also asked what would need to happen for them to be able to teach the way they ideally conceptualized teaching. Finally, they were asked to comment on several factors, which were identified by Alger (2009) to influence in-service teachers’ metaphors (i.e., students, curriculum, home and community, resources, and administration), in terms of their influence on how they conceptualize teaching PE.

Data Analysis

Frequencies were determined for the survey closed-ended questions (i.e., section three: selection of initial, current, and ideal metaphors) and were used to calculate percentages for each metaphor (see Figure 1). Chi-square tests were also conducted to investigate potential differences in the participants’ metaphors (teacher-centered vs. student-centered; initial, current, and ideal) based on their teaching experience (3 categories: 1–10, 11–20, and 21–33 years). In a similar fashion, additional exploratory chi-square tests were conducted to investigate potential differences in the participants’ metaphors (teacher-centered vs. student-centered; initial, current, and ideal) based on other teacher and school characteristics included in Table 1.

Constant comparison and analytic induction techniques (LeCompte & Preissle, 1993) were used to identify and extract common themes throughout the survey open-ended question responses and the interview data. The data analysis process began with two graduate students working independently to develop a list of initial themes with supporting data. Each then shared those initial themes coding with two faculty members. Next, those initial themes were discussed, reviewed, and compared with the data. Themes specific to individual or small groups of teachers

![Figure 1 — Participants’ initial (before entering the profession), current, and ideal metaphors of teaching.](image-url)
were eliminated and the discussions and data review focused on themes that cut across a majority of the participant teachers.

**Trustworthiness**

Multiple techniques were used to ensure the trustworthiness of the data. First, data and researcher triangulation was used (Denzin, 1978); data from survey short-answer questions and interviews were compared and reviewed by multiple reviewers. Second, member checks were conducted. Specifically, all interviewees were sent a draft of the themes that emerged from the interviews and were asked to reflect on it and submit comments indicating whether they thought those themes reflected their views on the topics discussed. As a result of this process, a few minor comments were received that provided support to the themes. Last, multiple searches for negative cases were conducted; that is, two reviewers independently reviewed the qualitative data searching for cases that disconfirmed the themes that emerged.

**Results**

**Quantitative Results**

The quantitative results of the study are divided into two categories: (a) trends and (b) differences based on teacher and school demographics.

**Trends.** The data from section three of the survey, where participants were prompted to choose the metaphor that best reflected their initial, current, and ideal images of teaching, were used to establish overall trends. The percentages of teachers who chose each metaphor for each category (initial, current, ideal metaphors) are available in Figure 1.

**Initial Metaphor.** As can be observed in Figure 1, before entering the profession, many of the participants envisioned teaching as Guiding \( (n = 20, 30.3\%) \). Notably, only one participant envisioned teaching as Engaging in Community \( (1.5\%) \). Overall, 50 out of the 66 PE teachers who completed the survey \( (75.8\%) \) held teacher-centered metaphors of teaching \( (i.e., \text{Guiding, Nurturing, Molding, Transmitting}) \) before entering the profession.

**Current Metaphor.** The most popular current metaphor held by the participants was Providing Tools \( (n = 28; 42.4\%) \). Three teachers chose Other \( (4.5\%) \), in which one described teaching as “demonstrating good behavior” and two provided two different combinations of metaphors: (a) Transmitting and Providing Tools, a combination of a teacher-centered and a student-centered metaphor, and (b) Providing Tools and Engaging in Community, a blend of two student-centered metaphors.

Overall, 34 out of the 66 PE teachers who took the survey \( (51.5\%) \) reported holding student-centered current metaphors of teaching \( (i.e., \text{Providing Tools, Engaging in Community, combination of the two}) \), which constitutes an increase of about 30% relative to the participants’ initial student-centered metaphors results reported above. At the same time, 30 teachers reported holding teacher-centered current metaphors of teaching \( (45.5\%) \), which constitutes a decrease of about 30% relative to the participants’ initial teacher-centered metaphors results reported above.
Ideal Metaphor. Nurturing, Providing Tools, and Engaging in Community represented the most popular ideal metaphors, chosen by 18 (27.3%), 17 (25.8%), and 14 (21.2%) teachers, respectively. It is worth noting that, relative to the current metaphor results, about three times more teachers chose Engaging in Community as their ideal metaphor of teaching. Also interesting is the fact that no teachers indicated Transmitting as their ideal metaphor of teaching.

Similar to the current metaphor results, five teachers chose Other, with four embracing the following combinations of metaphors: (a) Guiding and Nurturing, a combination of two teacher-centered metaphors (n = 1; 1.5%), (b) Providing Tools and Engaging in Community, a blend of two student-centered metaphors (n = 1; 1.5%), and (c) a combination of all metaphors (n = 2; 3%). One teacher (1.5%) provided a description of her/his ideal metaphor of teaching emphasizing cooperation.

Overall, 33 out of the 66 PE teachers who completed the survey (50%) reported student-centered ideal metaphors of teaching (i.e., Providing Tools, Engaging in Community, combination of the two) while 29 teachers (43.4%) reported teacher-centered ideal metaphors of teaching. These results are very similar to the results reported for the participants’ current metaphors of teaching.

Differences Based on Teacher and School Demographics. Chi-square tests indicated no statistically significant differences in participants’ metaphors based on any teacher or school characteristics, including years of teaching experience.

Qualitative Data

Three themes and several subthemes emerged from the survey short-answer questions and the interview data: (a) fluidity (own definitions, combination of metaphors), (b) formation of initial views of teaching (acculturation, professional socialization), and (c) evolutionary forces and constrains (experience, pressure of test scores, time allocation, resources).

Fluidity. Fluidity was manifested through two different ways: (a) teachers’ provision of their own definitions for the metaphors provided, and (b) teachers’ selection of combinations of metaphors for their initial, current, or ideal views of teaching.

Own Definitions. Despite the fact that a description of each metaphor was provided during the interviews to minimize potential variability in participants’ interpretations, about half of the interviewees provided their own definitions of the metaphors, which deviated from the ones provided. For example, Lindsay perceived Molding and Guiding as being almost identical, “I personally feel that molding and guiding are the same. The only difference I see is I spend more time outside of class trying to be an example [in Molding].” Josh interpreted Guiding as giving instructions. George interpreted Nurturing as giving the students “the skills that they need without telling them how to be.”

David interpreted Molding in a way that resembles the definition of Nurturing. Specifically, when describing Molding, he said, “…every student is different so you need to teach every student, you need to teach in a variety of ways actually to teach every student so they all turn out to be different clay pots.” Similarly, Julie interpreted Guiding in a way that is closer to the definition of Nurturing:
I think that it is a little bit more individualized so... I think you have to focus more on getting each individual student where they need to be according to their own fitness level, attitude, history, interests, etc., and just trying to help them going on their own path.

Last, even though Sharon chose Engaging in Community for both her initial and current metaphors of teaching, she provided different interpretations for the two of them. Specifically, for her initial teaching metaphor, she provided a broader interpretation of Engaging in Community, which was not limited to the role of the teacher and the students but also included close collaboration with students’ parents. On the other hand, when discussing her current metaphor of teaching, she focused on active engagement in the school and student accountability through formal and informal assessment.

Combinations of Metaphors. Although this section presents the themes that emerged from the qualitative data, it should be noted that evidence for the trend of combining metaphors emerged early during the analysis of the survey close-ended question data. Throughout the survey close-ended questions, although participants were asked to choose the metaphor that best described their views of teaching and learning, seven of the teachers chose “Other” and provided combinations of metaphors (see Quantitative data section for more detail). Presumably, had the directions not limited participants’ reply to one choice, this number may have been much larger.

The survey short-answer questions seem to corroborate the above postulation. The participants provided responses like, “I actually believe that teaching involves all the metaphors to some point”, “I kinda feel one metaphor is too narrow”, “I think all of the metaphors have value in teaching at one point or another”, “I would like to be able to blend all of the metaphors into a single teaching style to reach all of my students”, “I look at the metaphors and think how they overlap. I see myself using all these metaphors. Depending on the activity I may lean more toward one metaphor over another”.

Six of the interviewees provided combinations of metaphors during their interviews. Two teachers provided combinations of metaphors for both their current and ideal metaphors. Interestingly, three of the six provided the same combination of metaphors for their current views of teaching; that is Molding and Providing Tools. When asked to elaborate on his current view of teaching, Matthew explained, “… they also need to be molded so that they understand where and what, how fitness is included in their lives, and, again, by giving them the tools for what they need for that.” Similarly, Chris stated:

I realized that I can still mold, but my job was more about providing the tools needed to my students for them to succeed. The standards... uhm... I wanted them to know and the sportsmanship I wanted them to have was providing the tools for them to be molded into what I thought they should. So I kinda still feel they are being molded but using the proper tools to do that is how I feel more like now.

Formation of Initial Views of Teaching. The second theme is related to the forces that contributed to the formation of the participants’ metaphors. This theme is
divided in two subthemes, which represent the first two occupational socialization phases as outlined by Lawson (1983): (a) Acculturation, and (b) Professional Socialization.

Acculturation. Seven out of the 13 interviewees indicated that their own experiences as K-12 students had greatly impacted their initial views of teaching. Michael, for example, felt his teachers “did that [Providing Tools]” for him when he was growing up. David, reflecting back to his schooling experiences at a deeper level, explained what influenced the formation of his initial view of teaching as follows, “Ahm… from the way I was taught growing up. Or like how I thought teaching was then when I was growing up.” Jonathan provided more detail in his attempt to explicate where his initial view of teaching originated from, pointing out demonstrations and feedback as the means his PE teachers employed to guide him and his classmates.

Of little surprise, since the participants of this study were PE teachers, was the fact that three of them pointed out the heavy influence their coaches had in the formation of their initial views of teaching. Marcus, for instance, in an attempt to explain what influenced his initial view of teaching as Guiding his students through a treasure hunt with the end point being an active lifestyle, explained, “I honestly think it came from my coaches in high school. I was fat and not very athletic and they showed me some strengths I had. I ended up wrestling and loving the sport to this day.”

Professional Socialization. Participants’ formal teacher education training was indicated as another factor that greatly influenced their initial views of teaching. Seven of the interviewees shared this view. Steve pointed out both the coursework and his student teaching experiences as factors that contributed to shaping his initial view of teaching. Julie indicated that she initially viewed teaching PE as Providing Tools because she felt that she was given tools herself in college. Referring to her instructors, she said, “They never gave us anything, we had to search it out on our own.” John, who reported viewing teaching as Transmitting before entering the profession, provided more detail in his attempt to explain how his initial view was shaped:

Well, I think when you’re going through school and you’re doing your teacher preparation, all they focus on or most of what they focus on [the teacher educators] is the content, the knowledge. You learn how to play basketball, you learn how to play Frisbee, and so that’s what you think teaching is. You have all that information and your job is to just give that to the kids.

Evolutionary Forces and Constrains. The third theme includes forces that contributed to the changes between teachers’ metaphors of teaching over time (i.e., experience) as well as the factors that teachers identified as limiting their capability to teach according to their ideal teaching metaphors (i.e., pressure of test scores, time allocation, resources).

Experience. Experience was the most prevalent answer provided by participants when asked how they would account for the difference between their initial and current metaphors. Specifically, it was included in 15 survey short-answer question responses and in eight of the interviewees’ responses. In the short-answer
question responses, participants indicated that experience changes a teacher’s “perception of things”, “thought process”, or “views” as well as that it teaches “a lot about teaching and the how students can be so different”.

The interviewees elaborated on this issue in their responses. Steve, for example, indicated that his experience teaching helped him realize the unlimited potential of what a PE teacher can do with his/her students. Karen pointed out that it was the mistakes she made and the reflection she engaged in throughout all the years she had been teaching that accounted for the difference between her initial and current metaphors of teaching. She also considered the continuing education processes she engaged in (e.g., conferences, university courses, etc.) as an inseparable part of becoming more experienced and a factor that influenced the evolution of her metaphor.

Other interviewees provided specific examples of how their experience influenced their teaching metaphors. Two teachers, who had very similar views of teaching, shared the following:

From teaching classes and experience, I saw that by just providing tools to students not all kids would work hard and develop their skills to be successful at activities, so there were a lot of kids I needed to mold and help them along through different ways. (David)

As I taught more, I realized there’s a lot more to it than just giving [tools]. I still provide tools for students I feel anyways, and as I’ve gotten more experienced, not only I am able to give them tools, I feel like there is a lot more molding that takes place in the process of giving them tools and opportunities. I feel like they are able to be influenced by the things I do and say in even a much greater way than I thought they would be. (Michael)

**Pressure of Test Scores.** Many of the PE teachers who participated in the study seemed to have experienced increased pressure due to the focus of schools on standardized test scores. Numerous comments from both the survey open-ended questions and the interviews indicated that this pressure influenced the evolution of their metaphors. In the survey, for example, teachers indicated “mandated state testing”, “pressure from the department of education to improve test scores”, and “job security based on high stakes tests” as forces that contributed to the change in the way they envisioned teaching. Sharon, one of the interviewees, noted:

Test scores, school ratings, budget cuts have influenced this evolution [of her teaching metaphor]. Everything is high stakes for teachers and students… we are all judged on our scores and not necessarily on growth or effort. We are forced to taking a business approach to teaching. We’re providing tools and the kids are putting it to use.

Similarly, the pressure of test scores was pointed out to be one of the most important things that would need to change in order for teachers to teach according to their ideal metaphor. Pertaining to this issue, in the survey, teachers provided comments such as, “High stakes testing needs to disappear or change so I/we can be passionate again about our subject areas…”, “Until the state/government does away with OR changes the mentality of high stakes testing it’s going to be pushing and prodding instead of nurturing and being an individualized process”,

and “We would need to be fear-free of test scores”. John, one of the interviewees, commented: “Well, I think you would have to fundamentally change the way education is approached. There would need to be less emphasis on test scores or achievements, and more focus on overall child development and reaching of their individual potential”.

**Time Allotment.** Time was also indicated by the participants as a key aspect that would need to change for them to be able to teach the way they ideally envisioned teaching. This factor was prominent in both the survey short-answer question responses and the interviews. The following quotes are reflective of the participants’ comments: “In order to more fully teach in the way that I like, more class time would be necessary” (survey), “Be able to teach PE classes at least 30 minutes, 3 times a week rather then once” (survey), “I would have my PE really in more often and more time daily” (survey), “The biggest thing you would need is time” (interview; John), and “Longer class periods and a full year of PE” (interview; Matthew). Jonathan and Chris, two of the interviewees who ideally envisioned teaching as Nurturing, shared the view that time constraints was the main reason that teachers cannot attend to the individual needs of each of their students.

The limited time allotment for PE and the other technical subjects are of course related to the increased focus of the schools on standardized test scores and, in the survey, some of the participants’ comments tackled this issue. A teacher characteristically wrote, “Time constraints won’t allow us to ‘stop and smell those roses!’ – as a system we spend way too much time teaching to the test and worrying about test results”. Another teacher’s comment in the survey portrayed the gradual decrease in the time allotment for PE, “The last few years, I have lost min with my students every year so that they do better in tests. I have so little time with them”. Other teachers went a step further, providing the following possible solutions to the issue of time constraint: “more integration needed with reading and math”, “implementing more in the classroom”, “working or having the time to work with teachers on different units”, and “more cooperative teaching”.

**Resources.** Resources were another factor indicated by the participants to greatly impact their ability to transition from their current to their ideal metaphors. Specifically, it appeared in about half of the survey short-answer question responses and half of the interviews. Participants discussed that the limited allocation of resources was predominantly manifested through a lack of equipment. Josh, for example, said that the only piece of equipment available at his school was balls. Similarly, Julie shared that, at her current school, they only had “three soccer balls for the entire population of almost 2000 students”. It is not, therefore, surprising that participants stated that they would need “more and better equipment”, “more funds for equipment”, and “fairer allotment of resources” to be able to teach according to their ideal metaphor.

At the same time, five of the interviewees, when discussing this issue, expressed the opinion that PE teachers need to be resourceful to provide their students the best possible experiences in PE. The following two comments are characteristic of the teachers’ thoughts on resources:

Obviously, you are limited by the resources that your school has… uhm…

Hopefully, teachers are resourceful enough to write grants and do fundraisers
and such to get the resources that you need to provide a wide variety of activities for your students. (Karen)

Resources are a challenge... uhm... when resources are limited, as a teacher, it’s our job to think up something new, a different way to do things with the resources that we have because if you just complain about them you’re going to get frustrated with you job and you’re going to get to that burned out stage really well, instead of just saying, “Hey, I need these resources, lets figure out how we can get them”. You know, can we do a lifthathon, we can do a runathon, we can do things to bring some money in. . . uhm. . . because complaining doesn’t get anything done. (George)

**Discussion**

This purpose of this study was threefold. First, to examine in-service PE teachers’ initial, current, and ideal metaphors of teaching. Second, to investigate the factors associated with the formation of and/or the changes in in-service PE teachers’ teaching metaphors. Third, to examine whether years of teaching experience influenced participants’ choice of metaphors (teacher-centered vs. student-centered).

The quantitative findings revealed that the PE teachers who participated in this study envisioned teaching in similar ways to Alger’s (2009) participants, who taught a variety of subject areas and reported their metaphors of teaching as follows: (a) initially as Guiding (38.2%), (b) currently as Providing Tools (38.2%) and Guiding (33.6%), and (c) ideally as Providing Tools (35.5%) and Guiding (30%).

The vast majority of the participants in the current study (75.8%) held teacher-centered metaphors of teaching before entering the profession. About a third, however, experienced a shift in the way they envisioned teaching throughout their careers, thus reporting current metaphors as student-centered and bringing the percentage of teachers who reported student-centered current teaching metaphors to 51.5%. The percentage of teachers who embraced student-centered ideal metaphors slightly decreased (50%). Similarly, 80% of the teachers in Alger’s (2009) study reported having teacher-centered initial metaphors whereas 45% of them reported their current metaphors as student-centered, which constituted a significant change over time (i.e., 25%) toward more student-centered metaphors. The percentage of teachers who reported student-centered ideal metaphors in Alger’s (2009) study further increased to 53.7%.

Another pattern that emerged from the findings of both the current study and Alger’s (2009) study is the relatively high degree of agreement between current and ideal metaphors of teaching. There is, however, a difference between the two studies regarding this pattern. In the current study, this pattern emerged across participants regardless of teaching experience; specifically, 34.8% of the participants provided the same current and ideal metaphors, thus reporting a fit between their current and ideal practice. Alger (2009), on the other hand, found that more experienced teachers were more likely to have a fit between their currently used and desired metaphors; specifically, 64.1% of teachers with 14–22 years of teaching experience reported teaching according to their ideal metaphor. Although Alger’s finding seems to be more reasonable, the results of this study might be pointing out the uniqueness of PE as a subject matter. Regardless of teaching experience, PE teachers face unique challenges, such as marginalization and limited allocation of time and resources.
(e.g., Hardman, 2007), which are constant and consistent across settings. Thus, a possible reason that a relatively high percentage of the participants in this study reported a fit between their current and ideal practices may be that they do not anticipate any changes in terms of their workplace conditions or that they perceive such changes to be out of their control.

The current study’s findings also indicated that teachers’ years of teaching experience did not influence whether they held teacher-centered or student-centered metaphors. While this corroborates Zapata and Lacorte’s (2007) finding of minimal differences in language teachers’ metaphors based on their teaching experience, it contradicts the findings of Alger (2009) and Martinez et al. (2001) that more experienced teachers are more likely to embrace teacher-centered metaphors. Since younger teachers are more likely to have been exposed to student-centered practices as students and since the focus on student-centered teaching/learning is relatively new in teacher education programs, it seems reasonable that new teachers will embrace such philosophies and practices to a greater extent. The fact that this was not the case for the in-service PE teachers of this study might indicate that: (a) their acculturation experiences in PE as students were predominantly teacher-centered, and (b) PE teacher education programs either placed no emphasis on student-centered teaching/learning at all or they unsuccessfully attempted to promote student-centered images of teaching/learning.

An interesting aspect of this study’s results is the trend of combining metaphors, although participants were asked to choose the metaphor that best reflected their initial, current, and ideal image of teaching. This, however, should not be surprising since teaching is a complex process and it is sometimes difficult for a single metaphor to best capture all the complexities of teaching. As Weade and Ernst (1990) support, a wide range of metaphors exist because they are selective; that is, they represent a part of the phenomenon they describe, but not the whole of it.

The qualitative data gathered for this study revealed that participants’ initial views of teaching were greatly influenced by their own previous schooling experiences (acculturation) and professional socialization, which corroborates the suppositions of occupational socialization theory (Lawson, 1983). Although this study did not collect information regarding participants’ views of teaching before and after their formal training, the fact that 75.8% of them held teacher-centered metaphors before entering the profession seems to provide support to the hypotheses formulated above regarding teacher-centered acculturation and professional socialization experiences. It would not be surprising if the participants’ teacher education programs attempted but failed to challenge their teacher-centered conceptions of teaching established during acculturation. Although not in the area of PE, several studies found no changes in preservice teachers’ metaphors of teaching throughout various teacher education experiences (e.g., Boujaoude, 2000; Reeder, Utley, & Cassel, 2009). Similarly, research in PE has demonstrated that preservice teachers tend to selectively choose to use newly acquired knowledge that confirms their recruitment beliefs and disregard information that conflicts those beliefs (e.g., Curtner-Smith, 1999; Doolittle, Dodds, & Placek, 1993). A possible reason for this might be that teacher education programs do not explicitly recognize, study, and act upon the existing beliefs of preservice teachers (Kagan, 1992).

Similarly to the results of Alger (2009), in-service PE teachers reported experience as the primary evolutionary force behind the changes in the way they conceptualized teaching and learning. At the same time, teachers reported several
constraints that prevented them from realizing their ideal teaching metaphor, with the most prevalent being: (a) pressure of test scores, (b) time allotment, and (c) resources. These constraints have repeatedly been acknowledged as common for PE teachers in the socialization and other literature and are associated with the long identified marginalized status of PE (e.g., Blankenship & Coleman, 2009; Hardman, 2007; O’Sullivan, 1989). For example, facilities and equipment have been indicated as critical by beginning PE teachers for their teaching (e.g., Blankenship & Coleman, 2009; Smyth, 1995). Further, although PE as a subject has been suffering from similar conditions for decades, the No Child Left Behind Act and the heavy emphasis on improving standardized test scores have created unintended negative consequences for PE, including further diminishing time allocation and resources, thus contributing to increased marginalization of PE (Center on Education Policy, 2007; Keyes, 2004, as cited in Hardman, 2007). The above constraints were also pointed out by classroom teachers in the studies of Alger (2009) and Patchen and Crawford (2011), although classroom teachers experience these issues in different ways (e.g., while time allocated to PE is constantly limited due to concerns for standardized test scores, classroom teachers feel that mandated, standardized curricula and accountability/assessment pressures limit their ability to make connections to the real world and allow students to explore).

Finally, the constraints identified through this study could also be viewed with respect to Fuller’s theory of teacher concerns, a developmental theory with three stages through which teachers are thought to progress as they gain teaching experience (i.e., self-concerns, task-concerns, and impact-concerns; Fuller, 1969; Fuller, Parsons, & Watkins, 1974). Although a thorough discussion of this theory and the validity of its developmental character is beyond the scope of this study, it is noteworthy that the constraints identified above mainly relate to task-concerns, which are associated with daily teaching tasks, such as inadequate instructional materials and time pressures. Although task-concerns seem to be consistently rated lower than the other two types of concerns, they seem to concern teachers throughout their careers, both in general education and PE. For example, in general education, Reeves and Kazelskis (1985) found similar levels of task-concerns for preservice and in-service teachers. Further, Pigge and Marso (1997) found that task-concerns increased over a seven-year period (from teacher preparation through five years of teaching) and several studies identified an increasing concern specifically for instructional materials and curriculum among beginning and more experienced in-service teachers (Reeves & Kazelskis, 1985; Watzke, 2007). In PE, McBride, Boggess, and Griffey (1986) found that the item “routine and inflexibility of the teaching situation” loaded very highly on the task-concern factor, indicating the significance of PE teachers’ concerns about their daily teaching routines. Further, Fung (1993) found that both preservice and in-service PE teachers, irrespective of teaching experience, were more concerned about task-related issues. Finally, a number of studies focusing on preservice PE teachers found no considerable differences in task-concerns with increased teaching experience (e.g., Behets, 1990; Boggess, McBride, & Griffey, 1985; Rikard & Knight, 1997).

**Implications**

The results of this study have implications both for preservice teacher preparation and in-service professional development programs. First, the use of metaphors can
help assess the effectiveness of preservice teacher preparation programs in influencing students’ beliefs (i.e., instilling student-centered beliefs), provide information for program adjustments, and, at the same time, stimulate preservice teachers’ reflection. In a case study of a high impact teacher education program, Graber (1996) identified a professional development course that focused on examining student beliefs as a vital aspect of the program’s success. It needs to be noted, however, that, as was the case in the abovementioned program and as Metzler and Blankenship (2008) recommend, program assessment is only possible when students are in cohort groups who share similar courses and field experiences. Second, teacher preparation programs should prepare future teachers on what to expect when they transition to their actual workplaces and how to deal with constraining factors such as the ones identified in this study. Teaching preservice teachers strategies for being proactive in counteracting some negative workplace conditions and encouraging them to ask for help can prevent wash-out of student-centered beliefs developed in teacher preparation programs. In addition, preparing students for what to look for and what questions to ask in job interviews can help them identify and select workplaces that function in line with their beliefs. Last, the use of metaphors should not be restricted to teacher preparation programs; in-service teachers can greatly benefit from content- and context-specific professional development workshops that focus on examining their beliefs, their practices, and the challenges of their daily routines. Particularly for beginning teachers, induction programs incorporating such elements may be exceptionally valuable.

**Limitations, Conclusion, and Future Research**

This study has some limitations, including the sampling strategy (i.e., convenience sample), the limited sample size, and issues related to self-report (i.e., survey). Another limitation of this study is the use of a retroactive design to investigate changes in teachers’ metaphors (i.e., initial and current metaphors), since it can be difficult for teachers to accurately describe their past views of teaching through the use of metaphors. Furthermore, the study’s findings might have been affected by the following two factors: (a) participants had no ownership of the metaphors (i.e., they did not create them), and (b) participants were instructed to choose the one metaphor that best reflected their initial, current, and ideal images of teaching. In the survey, however, participants were provided the opportunity to create their own metaphors and, also, the adoption of a mixed design provided the opportunity to gain a deeper understanding of the participants’ conceptions of teaching and learning beyond their survey responses.

Overall, the findings of this study demonstrate that in-service PE teachers predominantly embrace teacher-centered metaphors when they enter the profession, which raises questions regarding the effectiveness of PETE programs. A significant percentage of teachers, however, seem to experience a shift toward more student-centered metaphors throughout their careers. Experience is a major factor explaining the evolution of teacher beliefs over time and factors such as pressure of test scores, time allocation, and resources, significantly influence teachers’ capability to teach according their ideal view of teaching. Although these factors have long been acknowledged in the socialization and other PE literature, the unique contribution of this study lies on the fact that it is, to the authors’ knowledge, the first study that
examines in-service PE teachers’ teacher-centered and student-centered conceptual metaphors of teaching over their career span.

According to the statement of consensus of the 2010 global forum for PE pedagogy (Edginton et al., 2011), one of the goals for PE pedagogy is “Redesigning the physical education curriculum to promote active student-centered learning and empowering individuals to develop life skills that lead to lifelong, self-directed engagement in physical activity” (p. 40). It is, however, impossible for PE teachers to contribute to this mission if they do not hold student-centered images of teaching. At the same time, student-centered conceptions of teaching do not automatically develop; on the contrary, some form of deliberate action is needed to “push” teachers toward that direction. Metaphors can be a valuable tool to use for assessing teacher beliefs and stimulating teacher reflection with respect to this issue. Hopefully, this study will stimulate thought, discussion, and action in regards to the student-centered teaching/learning and the use of metaphors in PE pedagogy.

Future studies can provide the opportunity to participants to choose more than one metaphor and/or create their own metaphors in describing how they conceptualize the teaching/learning process. In addition, future studies can employ a longitudinal design, following preservice teachers from their teacher education programs well into their teaching careers, to monitor the process of stability/change in their views of teaching and learning and identify critical factors that influence this process.

References


