High School Physical Education Teachers' Beliefs about Teaching Students with Mild to Severe Disabilities

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Abstract

The purpose of this study was to analyze high school physical education teachers' beliefs about teaching students with disabilities in inclusive physical education. The participants (3 men, 2 women) were certified physical education teachers at four suburban high schools. The research method was descriptive-qualitative using a case study approach (Stake, 2000) situated in the theory of planned behavior (Ajzen, 1985, 1991). Data sources were demographic questionnaires and focused interviews (Yin, 2003). Interview data were analyzed using constant comparative method (Merriam, 1998) and uncovered four major recurrent themes, which were: (a) teaching practice troubled, (b) dependent self-efficacy, (c) contradictions, and (d) intrinsic motivates. The teachers desired more professional training geared specifically on teaching students with severe disabilities, emotional-behavioral disorders, hyperactivity, and attention deficits. Implications are that school districts should do more to engage teachers in professional development training that focuses on effective strategies for teaching students with disabilities in physical education.

In the United States and elsewhere, there is increasing research focused on understanding how physical education teachers view, construct, and cope with inclusive programming (Grenier, 2006). In Ohio, for example, LaMaster, Gall, Kinchin, and Siedentop (1998) studied elementary physical education teachers' beliefs on inclusion and student outcomes. They found that the teachers (a) exhibited multiple teaching styles, (b) had concerns about student outcomes, (c) expressed frustrations, and (d) varied in their inclusion practices. They also reported that the teachers had received insufficient support and some believed they were inadequately prepared to teach students with various disabilities in inclusive physical education classes.

Along similar lines, Hodge, Ammah, Casebolt, LaMaster, and O'Sullivan (2004) analyzed physical education teachers' behaviors and beliefs in teaching students with disabilities at suburban high schools in California, Ohio, and Pennsylvania. The teachers regularly verbally interacted with and expressed unfavorable or ambivalent to mostly positive beliefs toward teaching students with disabilities. The teachers: (a) were positively disposed to inclusion as an educational philosophy, (b) had differential efficacy in achieving successful inclusion, and (c) encountered challenges to establishing inclusive practice. In spite of their mostly positive beliefs about inclusion, several teachers felt inadequately prepared or lacked support and resources to effectively teach students with severe disabilities. Similar findings have been reported in this area of inquiry (Ammah & Hodge, 2005; Sato, Hodge, Murata, & Maeda, 2007).

Recently, Grenier (2006) explored, from a social constructionist perspective, relationships that existed between a teacher in a small New England town (US) and her students in an inclusive elementary physical education class containing a child with severe cerebral palsy and a visual impairment. This experienced teacher believed in the development of social skills for all students and used curricular adaptations and other strategies to accommodate students with disabilities. Moreover, student learning was shaped by personal

experiences between students without disabilities and their peer with severe disabilities. This study provides evidence that inclusive classes can be success-oriented places for both students with and without disabilities.

It is likely that with continuing advocacy for inclusion there will be increased opportunities for teachers to teach students with disabilities. Moreover, the beliefs of physical education teachers are important because what they believe influence their practices (Hodge et al., 2004). These issues are important to all who are committed to ensuring equitable and successful physical education experiences for all students. Our position is that determining, analyzing, and theorizing on the beliefs of physical education teachers is important to the preparation and professional development of teachers.

The purpose of this study was to analyze high school physical education teachers' beliefs about teaching students with disabilities in inclusive physical education. The study is part of a larger research project designed to analyze the beliefs of physical education teachers on teaching a diverse population of students with disabilities in inclusive classes. The study was guided by the following research questions.

1. What do physical education teachers believe about inclusion?
2. What do physical education teachers believe about their efficacy in teaching students with mild to severe disabilities?
3. What do physical education teachers believe are the positive and negative aspects of inclusive programming?
4. What do physical education teachers believe motivate them to teach students with disabilities?
5. What are the implications of teaching students with mild to severe disabilities in inclusive physical education classes?

Theoretical Framework

The theory of planned behavior (TpB) posits that attitudes toward behavior, subjective norms, and perceived behavioral control are the underlying aggregates of behavioral intention (Ajzen, 1985, 1991). Further TpB posits three conceptually independent determinants of intention: (a) *attitude toward the behavior* denoting the degree to which a person has a positive or negative evaluation or appraisal of the behavior in question; (b) *subjective norm* denoting the perceived social pressure to perform or not to perform the behavior; and (c) *perceived behavioral control* denoting the perceived ease or difficulty of performing the behavior. These determinants of intent are presumed to be a product of three accessible belief systems, which are: (a) *behavioral beliefs* which influence attitudes toward the behavior, (b) *normative beliefs* which constitute the underlying determinants of subjective norms, and (c) *control beliefs* which provide the basis for perceptions of behavioral control (Ajzen, 1991).

From these accessible belief systems, behavioral intention is the immediate antecedent of a particular behavior. Given adequate control over the behavior, individuals are likely to carry out their intentions if afforded opportunities to do so (e.g., teacher modifies game play to include a student with a disability). Thus, it is posited that intentions "capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991, p. 181). Ajzen (1991) explained that the intent to exhibit a specific behavior assumes that the behavior in question is under volitional control (e.g., teacher has the will, power of choice, competencies, and resources to effectively include a student with disability in class activities). What's more, perceived behavioral control denotes a person's *perception* of the ease or difficulty of performing the behavior of interest, which is partially dependent upon resources and opportunities available to the person to carry out the act (Ajzen, 1991). We used TpB to situate the conduct of this study, as well as facilitate interpretations and make analytic generalizations of the findings.

Method

Research Method

This study was situated in descriptive-qualitative methodology using a collective case study approach (Stake, 2000). Stake (2000) asserted that, "a researcher may jointly study a number of cases in order to investigate a phenomenon, population, or general condition" (p. 437). In this study, we analyzed teachers' beliefs on the complex phenomena of teaching students with disabilities in physical education classes at suburban high schools. To paraphrase Stake (2000), each case in a collection of case studies may or may not be known in advance to manifest some general characteristic. They may be similar or unrelated, redundant and multifaceted all essential (p. 437). A collective case study approach was judged appropriate for this study with the belief that understanding separate cases would lead to better understanding, perhaps better theorizing, about an even larger collection of cases (Stake, 2000). This study was approved by the institutional review board at the researchers' university. Before initiating the data collection process, each participant signed informed consent forms.

Participants

The participants were five White American (3 men and 2 women; mean age = 37) physical education teachers, Mr. Hayes, Ms. Polk, Mr. Taft, Ms. Deeds, and Mr. Harding (pseudonyms), at four high schools within three suburban school districts in Monroe and Lackawanna Counties (Pennsylvania). Monroe County was mostly comprised of suburban communities with 158,925 residents. Since 2000, the county has increased in population size by more than 14% as one of the fastest growing regions in Pennsylvania. Demographic data show that the populace was mostly comprised of adults, with 12% of the residents over 65 years old, 6% under the age of 5, and 27% under 18 years old. Girls and women comprised 51% of the residents. The county consists of mostly White (88%) residents and less so were 7% Hispanic, 6% Black or African American, 1.1% Asian/Pacific American, and 0.2% indigenous Native American/Alaskan Native residents. Most (84%) residents 25 years of age or older were high school graduates and 21% had at least a bachelor's degree. In 1999, the median household annual income in this county was $46,257 compared to the state's median of $40,106. The county's home-ownership rate was 78% compared to the state's average of 71% (U.S. Census Bureau, 2004b).

Lackawanna County was also predominantly comprised of suburban communities with a population of 209,932. The population declined slightly by nearly 2% from 2000 through 2004. It was populated mostly by adults with some 20% over the age 65. Children under 5 comprised 5% and youth under 18 years old comprised nearly 22% of the population. Girls and women made up 53% of the residents. Mirroring national demography (Borman et al., 2004), these suburban communities were comprised mostly (97%) of White residents, 1.4% were Hispanic, 1.3% Black or African American, 0.8% Asian/Pacific Americans, and 0.1% Native American and Alaska Native residents. Most (82%) residents 25 years or older were high school graduates and 20% held a Bachelor's or higher college degree. In 1999, the median household income was $34,438 for the county and the home-ownership rate was 68% (U.S. Census Bureau, 2004a).

In accord with Yin's (2003) guidelines a participant nomination process was used in screening and selecting the participants. This involved contacting school districts (i.e., district physical education coordinators) for nominations of teachers matching the selection criteria (Yin, 2003). The criteria were that the teachers: (a) had received training in physical education teacher education (PETE) programs; (b) held physical education teaching certification; and (c) taught students with disabilities in physical education classes at the high school level (Hodge et al., 2004; LaMaster et al., 1998).

Demographic data on these participants, their classes, and students with disabilities are presented in Table 1. The teachers had from 6 to 28 years of experience teaching and 1 to 16 years experience

teaching students with disabilities. They all held bachelor's degrees and were certified to teach physical education. Mr. Hayes and Ms. Polk also held a master's degree. None of the teachers had the services of a full or part-time teacher aide available to support their classes. However, Ms. Deeds was able to consult with an adapted physical education (APE) specialist on a weekly basis.

Table 1. *The Participants' Demographic Data and Information Related to Teaching*

Teacher	*Gender*	*Age*	*Yrs^{Exp}*	*Yrs^{SD}*	*APE^{UG}*	*APE^{G}*	*APE^{PD}*	*Class^{avg}*	*Range^{SWD}*	*Student Disability Types*
Hayes	Male	37	16	16	1	0	1	25	0-2	ADD; LD; hearing, intellectual, orthopedic, and visual impairments
Polk	Female	38	10	7	2	0	0	31	0-2	ADD; ED; LD; intellectual and orthopedic impairments
Taft	Male	53	28	1	1	0	2	32	0-2	ADD, autism
Deeds	Female	26	6	6	3	0	8	28	0-3	ADD, multiple bone fractures, spina bifida
Harding	Male	31	8	8	2	1	2	28	0-2	ADD, LD, intellectual impairment
	Mean →	**37**	**13.6**	**7.6**	**1.8**	**0.2**	**2.6**	**28.8**	**0-3**	

Note. APE^{UG} = number of undergraduate APE courses taken; *APE^{G}* = number of graduate level APE courses taken; *APE^{PD}* = number of professional development opportunities (e.g., workshops, conferences) geared toward teaching students with disabilities; *Class^{avg}* = average class size teacher taught; *Range^{SWD}* = range in the number of students with disabilities included per physical education class; Yrs^{Exp} = Years of experience teaching physical education; Yrs^{SD} = Years of experience teaching students with disabilities in integrated physical education classes.
Note. ADD = Attention deficit disorder; *ED* = emotional disturbance; *LD* = learning disabilities.

On average, the teachers had taught for 13.6 years in physical education settings and across cases they averaged 7.6 (range of 1 to 16) years experience teaching students with disabilities (Table 1). During the conduct of this study, the teachers taught students with various disabilities. Mr. Hayes taught students with attention deficit disorder (ADD); learning disabilities (LD); and intellectual, visual, hearing, and orthopedic impairments. Ms. Polk had students with ADD; LD; emotional disorder; and intellectual and orthopedic impairments. Mr. Taft had students with ADD and autism. Ms. Dees taught students with ADD, multiple bone fractures, and spina bifida. Lastly, Mr. Harding taught students with ADD, LD, and intellectual disabilities.

Mr. Hayes taught in a school where most of the 1846 students (76%) were White. Beyond an APE course he had taken while matriculating in his PETE program, Mr. Hayes had engaged in only one professional development workshop focused on teaching students with disabilities. The average class size he taught was 25 students with a range of zero to two students with disabilities included. No teacher aides or APE specialists were made available to support these classes.

Ms. Polk taught in a suburban school where most (99%) of the 533 students were White. Ms. Polk had taken two undergraduate courses in APE during her PETE preparation. But she had engaged in no professional development focused on inclusion or teaching students with disabilities. Her

average class size was 31 students with a range of zero to two students with disabilities included. No teacher aides or APE specialists were available to support her classes.

Mr. Taft taught at the same high school as Ms. Polk. He had taken one undergraduate APE course and said he kept current with inclusive practices by attending conferences and workshops. Mr. Taft taught an average class size of 32 students with a range of zero to two students with disabilities included. No teacher aides or APE specialists were available to support his classes.

Ms. Deeds taught in a school where most of the 1846 students (76%) were White. She had taken three undergraduate APE courses and had engaged in multiple workshops focused on teaching students with disabilities. On average, her classes had 28 students with zero to three students with disabilities. An APE specialist was available to consult with on a weekly basis.

Mr. Harding taught in a small school where 281 students (79% White) attended. He had taken two undergraduate and one graduate course in APE during his professional development. He also kept current with APE practices by attending conferences and workshops. Mr. Harding's average class had 28 students with a range of zero to two students with various disabilities. No teacher aides or APE specialists were available to support these classes.

Data Collection Techniques

The data sources were demographic questionnaires and open-ended, audio-taped focused interviews. Interviewing is a well-accepted approach to data collection in descriptive studies using case study method (Yin, 2003).

Demographic questionnaire. To gather demographic data on the teachers, a questionnaire (developed by LaMaster et al., 1998) was used. Data secured included information about the makeup of the teachers' classes (e.g., class size, disability types), gender, age, educational history, working conditions, teaching experience, access to services and supports, and teacher responsibilities in working with students who had disabilities (attending IEP meetings).

Focused interviews. The interviewing method was a two-phase, open-ended (conversational style), focused approach (Yin, 2003). We used open-ended questions to facilitate a two-phase (i.e., reflecting and responding) interviewing process. In the reflection phase, twelve interview questions were given to the teachers several days prior to the interview to allow them time to reflect on their experiences and beliefs associated with teaching students with disabilities. The questions were situated in TpB. In the responding phase, each teacher responded to questions asked in a conversational manner. Although the open-ended questionnaire ensured consistency of questions reflected on before the interview (reflection phase) and later asked during the interviews (responding phase), the data collector probed beyond the pre-established questions to get at the individual teacher's cultural and contextual realities. The teachers were interviewed, uninterrupted, at their respective schools.

Typically, the focused interview sessions lasted 60-minutes (Yin, 2003). The teachers had work-related time constraints that the researchers were mindful and respectful of in conducting the interviews. All interviews were audio taped with the teachers' permission and transcribed by the lead author. First for clarification, and later for conformation of interpretations, the teachers were contacted via telephone or e-mail with follow-up questions.

Data analysis

A team of researchers worked in collaboration in designing and conducting this study and as analysts in interpreting the different teachers' interview data across cases. The lead author, a researcher trained in case study and interviewing methods, served as the data collector for each of the current cases. The data collector was a White, non-Hispanic male APE teacher educator and scholar, who lived and worked in the local area. For each teacher at her or his school, data were collected over a three-month

period from across the school districts in the two countries.

The teachers' interview data were first prepared for analysis by transcribing the audio taped interviews. Second, the data collector listened to the audio taped interviews while reading along with the written transcripts to check for accuracy, minor edits were made as needed. Third, the transcriptions were independently examined by members of the larger research team. They used a process of reducing, categorizing, thematizing, and theorizing the data. In reducing the text, the researchers each read and marked with brackets passages judged of interest and importance. This process of gleaning text led to categorizing (category construction) and thematizing the data by connecting threads and patterns within categories and between categories resulted in the emergence of recurring themes (Merriam, 1998; Seidman, 1998). Later, all of the researchers converged to present their independent findings, and reach agreement through open dialogue and critical review of the data while ensuring verifiability of the findings (Huberman & Miles, 1998).

Trustworthiness

To reduce subjectivity, and establish trustworthiness, the researchers: (a) collaborated in designing the cases, (b) worked independently at first and later converged in analyzing and interpreting the different teachers interview data across cases (i.e., triangulation of the data and investigator triangulation in searching for agreement and consistency of evidence from different data sources) to ensure dependability of the findings; and (c) used member checking to ensure credibility and confirmability (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005). More specifically, the teachers' interview transcripts were returned to them by the lead author for member checks to ensure correctness of content, and they were asked to comment, clarify, elaborate, or suggest changes that would accurately represent their beliefs and experiences (Brantlinger et al., 2005). If corrections were indicated, they were made. The teachers confirmed the accuracy of the data specific to their particular contexts, experiences, and beliefs. Important also, transferability or fittingness of the findings beyond these case studies to other contexts, situations, or cultures depends on identifiable similarities of inclusive physical education programs, teachers, and students with and without various disabilities (Leininger, 1994).

Results

Using within and cross-case analyses, several recurring themes were uncovered and these themes are discussed in narrative with direct quotes from the teachers. The themes were: (a) teaching practice troubled, (b) dependent self-efficacy, (c) contradictions, and (d) motives.

Teaching practice troubled

In essence, the teachers' pedagogy was troubled with difficulties and complexes, and concerns beyond those of a typical non-inclusive physical education program. The teachers believed that teaching students with disabilities, especially students with severe disabilities, emotional-behavioral disorders, hyperactivity, and those with attention deficits in inclusive physical education classes is a more difficult and complex practice than teaching students with mild disabilities or students without disabilities in non-inclusive settings. They struggled to plan, adapt and modify class activities. Adding to this was a host of teacher concerns that exacerbated the instructional, managerial, social-relational, and contextual complexes linked to teaching students with disabilities. For instance, accommodating the needs of students with disabilities limited the time and energy the teachers were able to devote to the composite whole of their classes (i.e., all students). The larger the class size the less time they had to deliver instruction to students as a whole or individually, they were less able to give critical feedback to individual students, and they perceived inherent safety risks in these classes. The teachers voiced many concerns and questioned their efficacy at maintaining order and structure in their classes given the time demands

associated with addressing the needs of students with disabilities.

Although troubled, the teachers put forth devoted effort to provide appropriate learning experiences for all students, but questioned how well they could do so with the inclusion of students with various disabilities. Ms. Polk made the general point that, "It is much more difficult. Sometimes it is impossible to give them what they need in a large class setting." More often than not, the teachers voiced difficulties in teaching students with severe disabilities, hyperactive and inattentive students, and students they had experienced behavioral difficulties with in their physical education classes. For example, Ms. Deeds spoke of varying degrees of difficulty as largely dependent on student disability type and severity. "The degree of difficulty ranges from a comfort level of average to below average depending upon the disability of the class. The more severe the student's disability the more difficult the teaching situation is" (Ms. Deeds, Interview).

The teachers asserted that teaching students with mild disabilities was easier because such students, they believed, did not require as much time to make modifications to regular lesson planning, while students with severe disabilities, those who were hyperactive or inattentive, and students who had exhibited behavioral difficulties required a lot more time. For example, Mr. Harding said, "I find I have to put more time and energy into each plan." He continued, "I need to have a lot more energy and effort in order to feel like I succeed in teaching students with disabilities". Mr. Harding went on to say, "I think with severe disabilities it makes it more difficult." He said simply, "as a teacher… it wears on you" (Mr. Harding, Interview). But Mr. Hayes, a 16-year veteran teacher, believed a student's demeanor coupled with her or his disability type and severity were critical factors to be mindful of as to the level of ease or difficulty in teaching that student. He stated that, "a mild disability is easier than a severe disability, but you make adjustments and modifications to make it work". Mr. Hayes went on to sum up his beliefs on how a student's demeanor toward learning, regardless of disability type or severity, influences the teaching-learning process.

> You could have a student with a mild disability who is harder to teach than a student with a severe disability depending upon the disability. For example, a student who is hyper [active] and cannot stay on task and is a disruption to the class can be so much more difficult to deal with than a student who is blind. …The student's willingness to learn is the key factor. (Mr. Hayes, Interview)

Mr. Taft, the least experienced in teaching students with disabilities and who taught a student with autism, stated that, "It gets more difficult because of the time commitment as the disability gets more severe." Ms. Polk also mentioned time demands in dealing with large classes and a lack of time given to the class as a whole because of time and attention given to accommodating students with severe disabilities. "It is much more difficult," she said, "Sometimes it is impossible to give them what they need in a large class setting". Ms. Polk also believed that there was an adverse side effect on the students without disabilities. "More difficult, sometimes the other students get upset because they don't understand" (Ms. Polk, Interview).

Although each teacher felt safety was a priority, they emphasized how much more difficult it was to keep the environment safe for students with severe disabilities. Mr. Harding noted, "The biggest thing that I plan for is safety… It's very challenging at other times depending upon the activity to get them to participate because of safety matters" (Mr. Harding, Interview). To address safety issues, Ms. Deeds separated a student with disability from her classmates. She explained, "I do not feel like I really have to adapt the activities for her [student with spina bifida]. I am teaching her separately [away from her classmates] because the activity performed in a group is not good for her safety." Ms. Deeds asserted that, "the environment tends to be very fast and ballistic in nature with balls or

objects rapidly being fired around [sic] that a group environment is inappropriate for her".

The difficulties experienced by the teachers were exacerbated by many different concerns associated with teaching students with disabilities. Commonly the teachers were concerned about students experiencing success, meeting the needs of the students with disabilities, their lack of knowledge about these students, and the students gaining peer acceptance. In addition, the teachers worried about creating new and different lesson plans and choosing activities that could be taught safely and within the confines of their teaching space. Ms. Polk stated, "I feel they [students with disabilities] don't always get what helps them most when they are included in a regular class…My frustration is finding something appropriate [activity-wise] yet satisfying". Mr. Hayes was concerned about the link between the students' success and his success as a teacher:

> My concern is am I being successful? Is the student experiencing success? Do they feel like they are accomplishing the lesson focus, or do they feel like their disability is holding them back? We do not want that to happen. That's my major concern. (Mr. Hayes, Interview)

Mr. Taft expressed similar concerns about his ability to meet the needs of all students in his classes in relation to time. He explained, "I'm concerned that I cannot be responsible for a class of 30 [students] and devote enough time to these students [with disabilities]." Mr. Harding's concerns centered on the lack of information he had access to about students with disabilities. In detail, he explained:

> The big concern I have [is] finding out what the student is capable of doing or not capable of doing. Information access in terms of medical conditions and such is difficult to come by yet necessary in allowing me to prepare adequately. …It does make it easier once you get to know your student and talk to him and find out more about his abilities and what he enjoys doing in order to reward him. (Mr. Harding, Interview)

Mr. Harding also discussed a lack of information about a student with disability as a concern. "My big concern is sometimes not dealing with the disability on a regular basis and not having the knowledge of the student [with the disability] makes it more difficult to teach". He stated:

> The IEPs brought to me by the school district have very little unique information for the individual with the disability. It reads like information cut and pasted out of a textbook and does not have any guidance or structure for accommodating the students' unique needs. I need more information that is unique to that child. (Mr. Harding, Interview)

Mr. Harding focused on the challenge of devising a breadth of activities that would foster the most successful outcomes for students with disabilities in his classes. "At times it is challenging because I am always looking for new ways and challenges for these students [with disabilities]". He went on to say, "My concerns are that I always find myself wondering if the activity is challenging enough or not challenging enough to give that positive outcome." Moreover, "With budget cuts, we do not have the accessibility to equipment that can make these students more successful in their experiences" (Mr. Harding, Interview).

These teachers believed that more time and effort in devising lesson plans for inclusive activities coupled with a lack of resources and potential for safety hazards posed a concern. Ms. Deeds also talked about the challenge of coming up with "ideas and ways to use the space in the gyms without putting the students with disabilities in a dangerous situation". Mr. Harding also commented on concerns related to space and resources. "What I find most challenging is lack of space and resources. Lack of space is challenging. Lack of equipment is very challenging". Mr. Hayes noted that his teaching became more challenging with inclusive programming in terms of developing

effective lesson plans, specifically being able to develop his lessons to meet the unique needs of students with various disabilities. He explained:

> It's more challenging because as time has passed you really develop your lesson plans with only so-called "normal" students in mind but when it comes to students with disabilities you have to change and redo your lesson plan so that each student with and without disability can achieve success. …Not every lesson has been successful, but you will learn from every lesson, be it modifying the equipment, having students serve as peer helpers to the student [with disabilities], or providing more individualized attention to that student. (Mr. Hayes, Interview)

Ms. Deeds had similar thoughts on lesson planning. "It makes lesson planning more difficult". "It makes you constantly change ideas" said Ms. Deeds.

Lastly, Mr. Hayes mentioned potential lack of social acceptance from peers as a concern. "I'll tell you what is the most challenging: it is to tell them [students with disabilities] that they belong and to convince their peers that they belong and that we all need to work together as a team". "That's challenging, that's the most challenging" (Mr. Hayes, Interview).

Dependent self-efficacy

The teachers' self-efficacy in teaching students with disabilities was contingent largely on their experiences, knowledge, formal training, student disability type and severity, availability of resources and space, and ultimately their classroom successes and failures. The teachers with more years of experience teaching students with disabilities voiced higher levels of self-efficacy in teaching students with a wide range of disabilities. Likewise, those teachers with varied experiences coupled with higher levels of knowledge from formal training plus informal learning or self help (e.g., readings on disability-related pedagogy, consulting the Internet and colleagues) expressed higher levels of confidence and effectiveness in teaching students with varying disabilities. Typifying these contingencies toward high levels of confidence and perceived teaching effectiveness, Mr. Harding, a teacher with eight years of experience teaching students with disabilities who engaged in self-help preparation on inclusive pedagogy, was very confident in his abilities to teach students with disabilities. He explained:

> I am very confident in teaching students with mild to severe disabilities. …Through reading, the Internet, books, [and] experience, I became more comfortable teaching them and it became more enjoyable teaching them. At first, it was like holding a newborn baby. I felt very stiff and rigid and uncomfortable. As I gained experience, I loosened up and started to enjoy them more. (Mr. Harding, Interview)

Ms. Polk's comments reflect this theme as well. She exclaimed that teaching students with mild disabilities "is no problem" but teaching students with severe disabilities "scares me!" Whereas, Mr. Taft said, "I don't mind teaching students with disabilities but I need help. I am confident with mild but would need some preparation to deal with severe disabilities". Likewise, Ms. Deeds stated, "I am more confident with students with more mild disabilities because I have a better handle on what they are capable of doing". Mr. Hayes believed that because of his many experiences "it has made me a better teacher because I have had to come up with different ways to present the activity and still be successful".

The teachers repeatedly voiced a need for more professional development training (e.g., APE workshops) on teaching students with disabilities in physical education. "I need to learn more specific activities that could be used and adapted to the regular PE program," stated Mr. Taft. Ms. Deeds expressed a similar need:

> I need to learn more ideas and strategies to implement in my classes for educating students with disabilities. I need to learn more about each disability… what they

> can and cannot do [to] plan more appropriate activities for that student. (Ms. Deeds, Interview)

The teachers viewed themselves as "a work in progress" as they were exposed to more students with disabilities and as they read and attended more workshops to formally educate themselves on the proper managing and instructing of students with disabilities. They felt their confidence was gradually improving. One teacher compared his confidence in this learning cycle as analogous to holding a newborn baby. At first he was stiff and rigid, but after he gained some experience, he loosened up and started enjoying them more. This is reflective of the teachers' confidence varying in relation to their experience and other variables (e.g., professional preparation). They yearned for more training in the form of a greater depth of knowledge on teaching students with different disabilities and, as such, a wide variety of teaching strategies that they could use in their classes.

Lastly, the teachers mentioned various people who had enhanced their confidence and effectiveness in teaching students with disabilities. Most often the teachers believed the greatest influence was that of their students. Ms. Deeds's explanation captures this belief.

> The students with disabilities have had the greatest influence on my teaching students with disabilities. …In particular, the girl [with spina bifida] I have now in the wheelchair. She does not want any pity. She wants to participate in PE class just like her peers. She made the experience, which was initially viewed upon with trepidation, a positive and favorable experience. (Ms. Deeds, Interview)

In general, the teachers stated that their confidence and effectiveness depends upon their ability to be successful in implementing activities suitable and safe for students with disabilities.

Contradictions

This theme captures the paradoxical nature of inclusive contexts. In essence, the teachers believed that inclusion brings both positive and negative aspects to the physical education environment for them and their students. They valued the positive social interactions between students with and without disabilities. Contrary to this the teachers commented on separating students with disabilities from their classmates, holding lower expectations of the students with disabilities, and pointing out various students (e.g., students with ADD, students with emotional disorder) as disruptive to their ability to effectively manage and instruct individual students as well as their classes as a whole.

On the one hand, the teachers described their inclusive classes as environments that were meaningful (accepting of diversity, encouraging, rewarding) for them and their students and socially dynamic with a heightened desire to support others (e.g., peers helping behaviors) and enhanced teacher creativity (e.g., modifying activities). As exemplified by Mr. Hayes's comment, "It gives you a whole new appreciation of life and all the little things we take for granted are now more meaningful and have more value". For Mr. Harding, "It has made the environment much more positive". He explained:

> It makes them feel more successful and they will challenge themselves more, especially if the regular education students are encouraging the students with disabilities and are being accepting of them. Students [without disabilities] are accepting of them [students with disabilities] more. It's very challenging at other times depending upon the activity to get them to participate because of safety matters. (Mr. Harding, Interview)

The most positive aspect that teachers articulated on inclusion was the meaningful interactions between students with and without disabilities and, related to this, the successes the teachers felt they had experienced. Mr. Taft was pleased with the socialization that took place. He said, "It is most meaningful for me to watch them [students with disabilities] interact with other students and a sense of belonging". Ms. Deeds concurred, "The students

[without disabilities] are responsible and care about the student with disability". "This makes it easier for me" said Ms. Deeds. She added, "I like seeing the happiness of the students as they interact and participate in each activity". Mr. Harding also believed that the environment was suitable for a successful experience for all students involved. "It has made the environment much more positive" he believed. Mr. Harding explained, "I find that the regular education students want the students with the disability to succeed and it makes it positive for everyone". He added, "It goes back to seeing a student succeed…" (Mr. Harding, Interview).

On the other hand, the teachers believed that inclusion also brings negative aspects to the teaching-learning process. Moreover, some teachers held lower expectations of students with disabilities compared to their classmates, at times teachers separated students with disabilities from their classmates, and some teachers felt that the inclusion of students with disabilities negatively affected the learning experience of their classmates. Ms. Polk and Ms. Deeds believed that time necessarily devoted to instructing and accommodating students with disabilities came at the sacrifice of time devoted to students without disabilities. Ms. Polk explained:

> In my inclusive classes, students with ADD need directions repeated, the rules repeated. This does not affect my lesson planning. The time in class, however, is impacted. It takes longer for the student with the disability to catch on and follow directions. The time necessary to spend repeating the directions takes away from my ability to spend time teaching the rest of the group, specifically, the higher end of the ability level of the students in my class. (Ms. Polk, Interview)

Ms. Deeds voiced similar sentiments in her comments that:

> …[having] students with ADD in my inclusive classes actually hurts the learning environment because it wastes the time of other students in the class since my time is primarily being used to encourage the students with the disabilities the appropriate directional cues or appropriate rules to follow during a given class activity. This added time makes it…a more frustrating teaching experience for all the students involved. (Ms. Deeds, Interview)

The teachers varied in their beliefs on whether or not inclusive programming had changed their teaching behaviors (e.g., lesson planning to modify class activities) or class dynamics. For Mr. Hayes, "You make changes to the environment, whether it is modifying equipment, taking safety into consideration, etc. …you just make the changes or modifications that help you be successful educating students with disabilities" (Mr. Hayes, Interview).

Intrinsic motives

The teachers were mostly intrinsically motivated to support students with disabilities who were included in their classes, which stemmed from a desire to help all students succeed. "Seeing them succeed!" exclaimed Ms. Polk. The teachers all agreed that what [intrinsically] motivates them to teach students with or without disabilities is to achieve the best education possible for everyone. Mr. Taft stated, "I am extremely motivated to see that our students are provided with the best education possible". Encouraged also, Mr. Harding commented that:

> It becomes very meaningful when you see that smile on the students' faces when they are having fun. It is great when you have a parent call you and thank you for what you have done with their child. It is meaningful because they are able to do more after they have taken my class than before they began my class. (Mr. Harding, Interview)

Mr. Harding was motivated both intrinsically and by others. He explained, "I find it to be highly motivating teaching students with disabilities. By giving students with disabilities success, it makes parents, colleagues, and administrators much more supportive of what we do in PE".

However, extrinsic factors such as educational policies and the support of colleagues, parents, and administrators were judged with mix results from the teachers. In some cases, professional colleagues [e.g., other teachers], parents, and/or administrators provided the physical education teachers with much motivation, but for some they received little or no motivation to comply with inclusive programming from others. For example, Ms. Deeds said, "Colleagues or school administrators really have not had an impact or influence to either motivate me to comply or teach any differently than I have been". Speaking also of colleagues and school administrators, Ms. Polk firmly stated, "Sometimes I think they expect too much—an AIDE would be nice".

Further, the teachers mentioned that intrinsic sources motivated them to be successful in their teaching. Extrinsically, they were not very encouraged by the amount of support they had received, but were hopeful that teaching successes made and reported to constituents external to their teaching such as administrators, colleagues, and parents would garner a greater appreciation for their work and perhaps these constituents would lend greater support in the future. Mr. Hayes and Ms. Deeds's comments depict such intrinsic and extrinsic motives.

> I want what is best for the student. I want to take their disability into consideration and find what it takes to be successful. …colleagues are the best source, say… teachers because they are around the students and they have a lot of information that will help, guide, and direct ways to get that student involved. Administrators …they don't really get involved. They tell us to fill out IEPs. (Mr. Hayes, Interview)

Similarly, Ms. Deeds was motivated:

> I would say my motivation is to teach all students. Typically, when a parent of a student with a disability calls about her child and asks me to try out performing a specific activity or having that student work on particular skills, I will try as best I can to comply with it within the curricular structure of what the class is presently doing. I am there to teach the student but I am also there to make sure all of the bases are covered, that is, everyone is happy with the education I am providing to their children. (Ms. Deeds, Interview)

Discussion

We analyzed the beliefs of five high school physical education teachers on teaching students with disabilities in inclusive physical education classes. The teachers believed that teaching students with disabilities, especially students with severe disabilities, emotional-behavioral disorders, hyperactivity, and those with attention deficits in inclusive physical education classes, is a more difficult and complex practice than teaching students with mild disabilities or students without disabilities in non-inclusive settings. They struggled to plan, adapt and modify class activities. Furthermore, the teachers had concerns that exacerbated the instructional, managerial, social-relational, and contextual difficulties and complexes associated with inclusive practice. They were primarily concerned about students with disabilities experiencing success, meeting the needs of these students, their lack of knowledge about such students, and the students gaining peer acceptance. These findings are consistent with previous results that show physical education teachers vary in their beliefs associated with the degree of easiness and difficulty in teaching students with disabilities, due to variables that either facilitate (e.g., knowledge, preparedness, experiences) or impede (e.g., limited knowledge, inadequate preparedness, lack of supports) their sense of behavioral control associated with teaching efficacy (Hodge et al., 2004). In TpB, intent to exhibit a behavior assumes that the behavior in question is under volitional control. The teachers in this study viewed teaching students with disabilities as difficult and complex with many concerns beyond their control, which troubled their practices. They in-turn questioned their self-efficacy (i.e., perceived behavioral control) to teach students with disabilities effectively.

We found that these physical education teachers' self-efficacy in teaching students with disabilities was largely dependent on their experiences teaching students with disabilities, their knowledge, the student's disability type and severity, and resources and space for devising appropriate activities. The teachers with more experience had more confidence and a better understanding of teaching students with disabilities compared to their less experienced colleagues. The teachers with less experience were more confident preparing for and teaching students with mild disabilities than preparing for and teaching students with severe disabilities as to making adaptations and modifications. These findings are consistent with prior findings indicating that physical education teachers often feel inadequately prepared to teach in inclusive classes (Ammah & Hodge, 2005; Hodge et al., 2004; LaMaster et al., 1998; Lieberman, Houston-Wilson, & Kozub, 2002). Consistently, physical education teachers' perceived behavioral control in teaching tends to be more favorable toward students with mild disabilities compared to students with severe disabilities (Hodge et al., 2004). This has also been the case for aquatics instructors (Conatser, Block, & Gansneder, 2002). Conatser et al. (2002) reported that aquatic instructors' perceived behavioral control in teaching inclusive swim classes was much more favorable toward persons with mild disabilities compared to those with severe disabilities. This emphasizes the need for more knowledge and training specific to inclusive pedagogy for physical education teachers to better serve students with varying disabilities (Hodge et al., 2004; LaMaster et al., 1998; Lieberman et al., 2002).

To counter diminished self-efficacy amongst teachers, professional development activities (e.g., APE workshops) should be offered and designed to equip them with advanced knowledge and skills necessary to teach students with disabilities. At the preservice level, PETE programs should ensure that teacher candidates engage in mini-teaching episodes with small groups of students with disabilities (e.g., during practicum experiences) such that they develop a sense of personal mastery before they are assigned to teach in large integrated classes during their student internships (Hodge et al., 2003). Such strategies would enhance their self-efficacy. In personal mastery, self-efficacy is enhanced through opportunities for successful experiences (Bandura, 1997). Conceptually, personal mastery means that successful performance of a particular behavior increases perceived behavioral control (self-efficacy), which in turn increases the likelihood of successful performance in the future (Bandura, 1997).

A third theme, *contradictions,* captures the paradoxical nature of inclusive physical education. On the one hand, the teachers were excited about the increased awareness, understanding, and amicability that most students demonstrated toward their classmates with disabilities. The teachers felt highly gratified when they saw positive interactions occur between students with and without disabilities. They felt a deep sense of satisfaction when class activities were successful for everyone involved. They remarked on how such intensely positive experiences volumes toward affirming their belief in the teaching profession. On the other hand, the teachers had lower performance expectations of students with various disabilities. They believed that time necessarily devoted to instructing and accommodating students with various disabilities came at the expense of the class as a whole. The teachers felt a time expense in the form of repeatedly explaining directions in different ways to some students with disabilities and the need to develop assorted activities on a continual basis.

The paradoxical nature of the context made establishing a consistently positive learning environment difficult. In fact, some teachers treated students with and without disabilities unequally. They were physically in the same classes, but not socially integrated into class activities. This has been conceptualized as *segregated inclusion* (Place & Hodge, 2001). Such circumstances permit physical and social separation of students with and without disabilities from each other, reduce the

likelihood of meaningful social interaction, and can lead to the marginalization of students with disabilities. These issues have been discussed in past studies where paradoxically students with disabilities experienced both moments of inclusiveness and acceptance versus times of exclusion and marginalization in physical education (Goodwin & Watkinson, 2000; Grenier, 2006; Hutzler, Fliess, Chacham, & Auweele, 2002; Place & Hodge, 2001; Suomi, Collier, & Brown, 2003). To counter segregated inclusion, teachers must have the competencies and will to plan and implement cooperative activities that engage students in high levels of interaction and relationship building (Place & Hodge, 2001).

We also unpacked the teachers' compelling intrinsic and less so compelling extrinsic motives in teaching students with disabilities. Consistently across cases, the teachers believed that they were intrinsically motivated to educate students with and without disabilities to the best of their abilities. But they varied in their expressed beliefs that others such as classroom teachers, school administrators, or parents motivated them. Most important, they strove to see their students succeed and were internally driven to gain knowledge and think of creative ideas and activities to reach that end. They had an intrinsic drive toward ensuring all students, regardless of ability or disability, in their classes succeed and achieve. They considered their colleagues and school administrators as persons to appease, but more so they wanted to gain support, equipment, and resources to strengthen their physical education programs, than as a motivating factor in educating students. They highly valued the teaching profession and wanted every student to succeed, but were troubled in their attempts to make this a reality (Hodge et al., 2004; LaMaster et al., 1998). In TpB, a person's intent to perform a behavior is situated by his or her level of motivation (Ajzen, 1991). How motivated a teacher is, for example, to modify a lesson to include a student with disability in game play. Although troubled, the teachers believed that teaching students with disabilities was an important professional responsibility. Plausibly, the teachers' views of teaching difficulties suppressed their otherwise favorable attitudes toward teaching students with disabilities. Nonetheless, they were intrinsically motivated to do their best.

Consistently, research has shown that physical education teachers have intentions to teach students with disabilities in inclusive classes, plausibly due to underlying favorable beliefs mediated by a sense of accomplishment, and humanistic or social justice views on inclusion (attitude toward behaviors), and that they tend to believe that doing so is a professional responsibility as part of their role identity (Theodorakis, Bagiatis, & Goudas, 1995). This is not only socially acceptable but expected (subjective norm). Role identity consists of the character and orientation teachers believe necessary to teach students with disabilities (Theodorakis et al., 1995). Teachers' beliefs often are more favorable in teaching students with mild disabilities compared to teaching students with severe disabilities (Hodge et al., 2004). In the logic of TpB, this occurs because teachers believe that it is more difficult to teach students with severe disabilities, owing to an adverse affect on their perceived behavioral control. In that accord, we surmise that physical education teachers' beliefs are constantly shifting as they encounter successes and failures in teaching students with disabilities.

Positioned in TpB, our findings suggest that the more successful experiences teachers encounter will lead to more confidence of future success teaching students with various disabilities. To that end, school districts should do more to regularly engage physical education teachers in professional development training focused on teaching students with disabilities in physical education (Akuffo & Hodge, 2008; Lieberman et al., 2002). Holding physical education teachers accountable for continued professional development will promote a deeper appreciation for teaching students with disabilities as their overall motivation and teaching effectiveness is enhanced (Akuffo & Hodge, 2008).

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