Targeted Professional Development Strategies to Increase Teachers' Efficacy for Educating Students with Special Needs

Özel Gereksinimli Öğrenciler ile Çalışan Öğretmenlerin Yeterliliğini Artırmaya Yönelik Mesleki Gelişim Stratejileri

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Abstract

There is a significant increase in the number of students with disabilities. However, many general education teachers report that they feel ill-equipped to educate a classroom of students with diverse special education and learning needs. In this qualitative study, the structured focus group interviews were conducted to determine the PD opportunities and characteristics that general education teachers perceive to influence their sense of self-efficacy for educating students with special needs. The results of the focus group discussions revealed that there are several targeted professional development strategies to increase teachers' efficacy for educating students with special needs. This study makes recommendations for the research supported professional development activities, focused on educating students with special needs, provided to general education teachers.

Keywords: *Professional Development, Students with Special Needs, Self-Efficacy.*

Öz

Günümüzde özel eğitime ihtiyaç duyan öğrenci sayısında önemli bir artış var. Bununla birlikte, birçok öğretmen, çeşitli özel eğitim ve öğrenme ihtiyaçları olan öğrencilerini yetiştirmek için kendilerini yetersiz hissettiklerini bildirmektedir. Bu nitel çalışmada, yapılandırılmış grup görüşmeleri, öğretmenlerinin özel gereksinimli öğrencilerin yetiştirilmesinde aldıkları mesleki eğitimlerinin onların öz yeterlik algılarını nasıl etkilediği incelenmiştir. Odak grup tartışmalarından elde edilen detaylı veriler, özel ihtiyaçları olan öğrencileri eğitmek için öğretmenlerin etkinliğini artırmaya yönelik etkili mesleki gelişim stratejilerinin olduğunu ortaya koydu. Bu çalışma, genel eğitim öğretmenlerine sağlanan, özel gereksinimli öğrencilerin yetiştirilmesine yönelik araştırma destekli mesleki gelişim faaliyetleri hakkında öneriler sunmaktadır.

Anahtar Sözcükler: *Mesleki Gelişim, Özel Gereksinimli Öğrenciler, Öz-Yeterlik.*

Introduction

Many studies support the finding that general education teachers do not feel prepared to meet the academic and emotional needs of such diverse student needs (Blanton, Pugach, & Florian, 2011). Particularly, the MetLife Survey of American Teachers (2011) found that many teachers felt that they have not been adequately prepared to educate a classroom of students with such diverse learning needs. According to Kern (2006), general education teachers report that although they are typically in favor of inclusion classes, they do not feel adequately trained to meet the diverse needs of both the general and the special education students. Brownell, Ross, Colon, and McCallun (2005) also showed how general education teachers "play a primary role in the education of students with disabilities… [but] often they report feeling unprepared to undertake this role" (p. 171). Furthermore, Hammond and Ingalls (2003) supported the previous findings that many teachers feel unprepared and lack sufficient training to fully support successful inclusion programs. Overall, general education teachers feel they need ongoing professional development (PD) opportunities to be able to develop the skills needed to meet the diverse needs of the students in their classes.

As general education teachers complete educator pre-service programs and enter the work force, their training in special education training at the undergraduate level varies. Cameron and Cook (2007) and Washburn-Moses (2005) indicated that while more and more general educators are expected to accommodate students with varying special needs, university and staff development training programs are often doing little to prepare these teachers when compared to those in special education courses. These general education teachers, unsure of how to meet special needs students' needs, often teach the way they have always taught because they have no other models to fall back on. Moreover, in-depth training is required to assist students with special needs, and while teacher training may now include some coursework on special education, it lacks depth (Gaetano, 2006).

Alongside this teacher preparation program training, school districts often do not offer proper Professional Development (PD) programs or in-service training for teachers about meeting the needs of special education students; yet, teachers are expected to do so. According to Ernst and Rogers (2009), teachers' PD on inclusion and access to instructional supports and resources are tools needed to support teachers. If teachers do not receive adequate training in college to teach special needs students but are expected to do so, school districts would naturally be the next resort. A study conducted by Allison (2012) found that both general and special education teachers agree that additional PD is the most significant need that general education teachers have to be successful in the inclusive setting.

Many researchers have begun to explore methods of increasing levels of efficacy in pre-service teachers (Bayraktar, 2011; Gunning & Mensah, 2011; Hechter, 2011), but few studies have explored the concept of raising in-service teachers' efficacy levels through PD. To gain self-efficacy and successfully address the diverse needs of students, teachers need to feel supported and empowered through more effective in-service training (Berry, Daughtrey, Wieder, 2010). Without proper support and training, these successful experiences may not be as common as they should be. Therefore, the purpose of this study is to explore the relationship between a teacher's level of efficacy for educating students with special needs and their general education peers and their perceptions of the PD characteristics that will impact their efficacy levels to teach diverse students. Particular, this study focuses on answering the main research question: What are the characteristics of professional development that teachers perceive contribute to teachers' sense of efficacy for educating students with special needs?

Significance of the Study

According to Blanton et al. (2011), "In 2008, half of the middle and high school teachers reported that the learning abilities of their students were so varied that they could not teach them effectively" (p. 17). One may argue that specialty certifications and support from special education should compensate for these issues. However, a lack of effective collaboration as well as the ever-increasing inclusive

classroom impacts all types of educators including mathematics, science, language art and social studies as well as fine arts. "As classrooms become increasingly inclusive, some special educators may not be prepared to teach content, and some general educators may not be prepared to address diverse learning needs" (Fullerton, Ruben, McBride, & Bert, 2011, p. 47).

This study investigated which characteristics of PD facilitated a positive perception of teacher self-efficacy. Specifically, this study aimed to provide direction to educational leaders to provide PD that increases the likelihood of elevating teacher self-efficacy for educating students with special needs, thereby ultimately increasing student achievement. In order to better inform the results, the literature review focused on the teacher efficacy and professional development.

Professional Development

Aligned with the complex needs of diverse student population, professional development, also known as in-service training or education, has changed drastically. As the purpose and importance of education in the United States transformed, so has the public's perception of the role and profession of teaching. As America's education needs and K-12 schools' priorities changed, so did the types, purposes, and delivery of PD. The purpose of PD is to meet the learning needs and improve effectiveness of teachers, administrators, and paraprofessional (Hirsh, 2009).

Gap and Current State of Professional Development

Money is often associated with the word investment (Knoeppel and Della Sala, 2015). Yet, money is the not the only resource needed to enhance the knowledge and skills of our educators. Unfortunately, although an increase in expectations for student achievement is rapidly growing, methods for delivering quality PD and training to enhance teacher competencies that are necessary for meeting these new expectations has gone underdeveloped.

There is a major divide between the PD that is offered to educators and actual skills and competencies needed to improve classroom instruction, ultimately increasing student achievement. Blankstein (2010) emphasized this point by stating, "Only 10% to 20% of U.S. teachers experience meaningful professional development; yet, more than 90% of them have participated in PD consisting primarily of short-term conferences or workshops" (p. 21). Meaningful PD is focused on research-based best practices that utilizes data to directly improve teaching and learning. Yet, there continues to be a lack of focus on ensuring meaningful PD related to the data from the classroom, causing a disconnect between the training that teachers receive and the classroom.

Elmore (2004) supports the notion of a disconnect between PD and actual classroom needs. Elmore explains that current PD practices cover a wide span of activities, often with little cohesion to the specific work of teaching and learning in the classroom. No longer can PD be seen as a collection of various activities, individual workshops chosen by various educators and administrators, with no clear connection to improvement goals. Planned and implemented, effective, PD should take on the role as an overarching improvement strategy for building teacher capacity. PD is best served when it is focused and situated. Darling-Hammond, Wei, Andree, Richardson, & Orphanos (2009) and their colleagues in the School Design network remind us, "The content of professional development is most useful when it is focused on concrete tasks of teaching, assessment, observation, and reflection" (p. 3).

The educational environment is ever-changing, and teachers are encouraged to learn to vary their instructional strategies to meet the needs of their students. These demands are compiled by an increase in accountability of educators to ensure high achievement for all students. The administrators responsible for supporting the teachers in meeting these new expectations must be willing to provide meaningful PD to help them achieve this goal. Elmore (2004) referred to this as a two-way system of accountability, known as Reciprocity of Accountability of Capacity.

Elmore's (2004) "Reciprocity of Accountability" refers to the responsibility that falls upon the shoulders of leadership and administration to provide the necessary tools and training for educators to meet the newly set standards and outcomes placed upon them. The imperative here is for professionals, policymakers, and the public at large to recognize that performance-based accountability, if it is to do what it was intended to do…. requires a strategy for investing in the knowledge and skills of educators. (p. 93). Investment in our students' education can only happen through investment in our educators.

The question then begs, if PD is the necessary strategy for engaging in this "reciprocity of accountability" described by Elmore (2004), then what constitutes effective PD? To successfully build teacher capacity that will lead to increased student achievement, PD must include the following characteristics:

- is based on specific data relative to areas of concern faced by the school district;
- is clearly focused on building the specific knowledge/skills required of teachers to increase student achievement;
- is imbedded to ensure an active learning environment;
- is ongoing, monitored, and adjusted as needs arise;
- incorporates a collaborative culture of meaningful professional learning communities.

The characteristics described above are supported by the following research. Wagner (2006) placed value in building teaching competencies through PD that is focused, ongoing, and collaborative. Elmore (2004) echoed Wagner by stating that the PD must be centered as close to the problem of practice as possible. He further explained that PD requires commitment to consistency and focus over a long period of time and is more likely to be successful when it occurs in the actual classroom.

Garet, Porter, Desimone, Berman, & Yoon (2001) highlighted three key characteristics of effective PD: It must focus on content, provide actively learning opportunities for analyzing teaching and learning, and is linked to teachers' and schools' goals. Ongoing collaboration is a common thread of effective PD found by researchers. According to Hochburg and Desimone (2010): Collective participation, fosters instructional alignment of teachers in one school or district with one another and with standards and provides an opportunity for discourse to develop around common challenges in addressing student needs, given characteristics of the local context, and curriculum. (p. 99)

It is also noted that collaborative teams are a form of PD and become part of the daily structure of schools. Blankstein (2010) emphasized that collaborative school structures are dedicated to improving student learning through education professionals actively engaging in the learning process themselves. These collaborative learning communities use data related to specific students, teachers, and areas of problems to drive improvement through changing teaching practices (Blankstein, 2010). Another type of teacher development is what DuFour (2004) referred to as professional learning communities (PLC). PLCs involve the whole staff in a process of intensive reflection upon instructional practices and desired student goals in addition to monitoring student progress and results. PLCs allow teachers to learn from one another through a shared vision and collaborative planning as well as partaking in conversations around what does and does not work to increase student achievement. These PLCs are an example of ongoing PD embedded in the school structure. DuFour emphasized three major points of successful professional learning communities: a focus on ensuring learning for students, a collaborative learning culture of professionals committed to analyzing and improving classroom instruction, and the use of data to develop goals focused on student learning leading to identifiable results.

Teacher Efficacy and Professional Development

The benefits of having high levels of efficacy have been thoroughly researched and explored in previous sections of this literature review. Many researchers have begun to explore methods of increasing levels of efficacy in pre-service teachers (Palmer, 2006), but few studies have explored the concept of raising in-service teachers' efficacy levels specifically as it pertains to educating students

with special needs. This gap in the research exists because self-efficacy has been thought to impact teachers early in the context of new learning, hence an abundance of research focusing on pre-service teachers. Since a teacher's sense of efficacy and student achievement is reciprocally related, it makes sense to contemplate how efficacy might be strengthened. Bandura (1997) warned that affecting positive changes in pre-established efficacy beliefs requires "compelling feedback that forcefully disputes the preexisting disbelief in one's capabilities" (p. 82). Once efficacy is established, it is very difficult to change, which is why change has been more successful to pre-service teachers' efficacy than to in-service teachers.

Current PD offerings to in-service teachers include workshops, collaboration, cognitive coaching, peer coaching, and mastery experiences. Interestingly, when teachers were asked about the format of PD activities attended by public school teachers, 95% of teachers reported that they attended a workshop, conference, or other trainings; whereas, only 42% took part in mentoring, peer-observation, or coaching (Aud et al., 2010). The following paragraphs provide a background on various PD activities or formats that have been offered with the intent of changing in-service teachers' sense of efficacy. Particularly, five general PD approaches which include (1) Workshops, (2) Collaboration, (3) Cognitive coaching, (4) Peer coaching, (5) Mastery experiences are briefly described below.

The first PD offering is workshops. Workshops are viewed as the quintessential model of teacher in-service training. Historically, workshops generally fall under the efficacy source category of verbal persuasion or vicarious experiences. When employed in accordance with best practices, [Standardized approaches can effectively] expose teachers to new ideas, new ways of doing things and new colleagues, disseminate knowledge and instructional methods to teachers throughout a country or region, and visibly demonstrate the commitment of a nation or vendor or project to a particular course of action. (Angadi, 2013, p. 8) Some workshops may include a demonstration or modeling of the strategy that acts as a vicarious experience for the participants. The teachers are receiving verbal input from colleagues, administrators, or outside presenters to strengthen their individual belief that they can achieve the desired task (Tschannen-Moran and McMaster, 2009)

A second PD offering is collaboration. Collaboration among colleagues stems from various sources of efficacy. When teachers discuss instructional plans, strategies, and reflections with each other, they are experiencing verbal persuasion. These teachers are improving their physiological states because they are planning or experiencing new techniques with their peers. This often reduces stress and fear of the unknown or new. Chester and Beaudin (1996) and Rosenholtz (1989) reported that collaboration among colleagues has been linked to higher efficacy. Enabling teachers to work collectively to address school-level issues that address the environment or culture of teaching provides opportunities for increased efficacy beliefs. Studies have found that engaging teachers in shared decision-making and improving the school's climate (Hoy & Woolfolk, 1993) are all linked to increases in teacher efficacy. These types of experiences increase teachers' exposure to verbal persuasion, decrease the feeling of isolation, and provide performance feedback.

A third PD offering is cognitive coaching. Cognitive coaching has a potential to develop teachers professionally "by enhancing one's ability to examine familiar patterns of practice and recognize underlying assumptions that guide and direct action" (Costa & Garmston, 2002, p. 5). When successful, this form of PD may influence teachers' thought process, thus contributing to self-directed learning capacity. It promotes independence and metacognition that, in turn, helps teachers reach their personal and professional goals, including self-management, self-monitoring, and self-modifying one's behaviors. Another goal is to strive for holonomy, one's ability to be part of a whole at the same time as being unique (Costa, Garmston, Ellison, & Hayes, 2013). Holonomous individuals can, therefore, recognize their capacity, know and act in accordance to the norms and beliefs of a system, and feel empowered to contribute to the development of that system through continuous growth and development. Cognitive coaching functions as a source of verbal persuasion through the conversations with colleagues, as vicarious experience when watching others teach lessons, and as mastery experiences when the teacher actually engages in the task while others watch.

Teachers who had used cognitive coaching for a longer period of time tended to have higher teaching efficacy than those who had used it for a shorter period of time. Robinson (2011) emphasized that teachers who engaged in cognitive coaching "more often analyzed why they teach, what they teach, and what the benefits on student learning might have been" (p. 36). Furthermore, Lin (2012) studied instructional conversations of 28 mathematics teachers and found significant relationships between the number of coaching cycles and an increase in teachers' instructional conversations.

A fourth PD offering is peer coaching. The teaching profession is by default isolating. Teachers often teach behind closed doors and engage in little collaboration. Peer coaching is one method of creating supportive learning communities. Peer coaching occurs when two teachers are paired together and engage in a reciprocal relationship of observation, goal setting, developing strategies, and providing feedback. Bruce and Ross (2008) found that when peer coaching is utilized as a PD program, it had a positive impact on teacher efficacy and on teacher implementation of standards-based teaching. Kohler, Ezell, and Paluselli (1999) supported the finding that peer coaching contributes to increases in teacher efficacy. Teacher efficacy is influenced through three of the sources of efficacy established by Bandura (1977): verbal persuasion of peers to make them feel capable of performing an activity, vicarious experiences through observing a peer of similar abilities model a task, and physiological and emotional cues from peers that can increase positive feelings or reduce negative feelings towards a given task.

A fifth PD offering is mastery experiences. While all the above strategies are important to improving teacher efficacy, mastery experiences are considered the most effective way to create a lasting change in efficacy that ultimately changes student achievement. As evidenced in the above research, the efficacy beliefs are strengthened when success is achieved through the teacher's actions and effort. Mastery experience (experience by doing) is most effective, yet most teacher development provided through school districts rests in the form of verbal persuasion (Stein & Wang, 1988).

Professional Development for Teacher Efficacy on Inclusion

With the knowledge shared in this literature review that teachers with increased self-efficacy more effectively instruct, persevere, and work with students with special needs. The focus of PD or training in schools today should be on raising teachers' efficacy for educating students with special needs. General education teachers need training, modeling, coaching, experiences, feedback, and resources to effectively teach students with special needs, which would affect their efficacy. Reith and Polsgrove (1998) claimed, "It is not enough to merely place students with disabilities in general education classrooms without providing the appropriate training, materials, and support to their teachers" (p. 257). Given the fact that in the 2004–2005 school year, approximately half of all students with disabilities spent 80% or more of their day in a general education classroom, it is essential to the academic achievement of these students for schools to build the capacity of their teachers to teach students with special needs (United States Department of Education, 2015).

It is also important that classroom teachers feel comfortable and be competent at adapting and modifying curricula and instruction, for students with special education needs (Stanovich & Jordan, 2002). However, many teachers are hesitant and unwilling to make the necessary accommodations that are required for students with special education needs, and as a result, they are reluctant to partake in the practice of inclusion since they lack efficacy in this area (Geskie & Salasek, 1988). Therefore, providing opportunities for teachers to build their knowledge and experience base is vastly important.

Teachers who have little training in teaching students with special needs have significantly less positive beliefs concerning inclusion than those with extensive PD. Pre-service teacher education courses are often viewed as ineffective or of little value in instruction; furthermore, in-service teachers spend few hours in PD workshops on inclusion (DeSimone & Parmar, 2006). In regard to regular education teachers, they take some courses on teaching students with special needs. The focus of these courses is predominantly on the legal ramifications of inclusive teaching, not on instructional strategies. If teachers do not receive training on teaching students with special needs in teacher

preparation programs or teacher in-service training, then they are unlikely to be receiving training elsewhere. The resulting effect is teachers who do not believe they are prepared to instruct students with special needs (DeSimone & Parmar, 2006). Furthermore, teachers' belief about themselves as teachers has been shown to be a strong predictor of their actions in the classroom. Since teachers do not feel confident in their abilities (teacher self-efficacy), the instruction in the classroom will not enhance student achievement for students with special needs.

PD workshops positively impact teachers' perceived ability to teach students with learning disabilities (DeSimone & Parmar, 2006); however, these workshops are offered and taken infrequently and often are voluntary. DeSimone and Parmar (2006) found that 43% of middle school mathematics teachers had taken fewer than three workshops on working with students who have learning disabilities. The workshops that were attended did not focus on instructional strategies that could be used with the classroom. Miller et al. (2000) found that workshops that focused on specific strategies for teaching students with learning disabilities significantly increased general education teachers' self-efficacy to teach students with special needs. In another study, Kosko and Wilkins (2009) found that the more hours of PD teachers have, the more able they believe they are to adapt instruction for students with special needs.

Multiple studies have investigated the link between specific training and teacher efficacy. Minke, Bear, Deemer, and Griffin (1996) researched the differences in teacher efficacy between regular education teachers, regular education teachers who teach in the inclusion setting, and special education teachers. They found that special education teachers and regular education teachers in the inclusion classroom showed higher levels of self-efficacy for educating students with special needs than regular education teachers. There is a link between feeling more able to perform the actions necessary to plan, instruct, and monitor student progress and prior experience in the inclusion setting. Teaching in this setting allows teachers to learn and extend their capabilities for educating students with special needs, which then increases their self-efficacy for educating this student subgroup.

Another study looked at the confidence teachers feel when working with children having Attention Deficit Hyperactivity Disorder (ADHD). Reid, Vasa, Maag, and Wright (1994) examined 3rd grade teachers who had prior experience or training with ADHD and those who did not. Teachers with prior experience felt more confident in their ability to teach a way that students diagnosed with ADHD would benefit from, to determine if a student requires a behavioral intervention, and to determine when progress is made in regard to behavior. Teachers who had experience showed higher efficacy than those who did not have prior experience in regard to creating behavior contracts, adjusting strategies and lesson, and in determining when interventions are needed.

These studies show that there is a relationship between training and prior experiences and enhanced teacher self-efficacy. It is argued that providing teachers with specific training, resources, and experiences regarding educating students with special needs in the regular education setting will increase teachers' abilities to provide effective instruction, increase their efficacy, and ultimately increase student achievement. These findings support Bandura's (1997) claimed that providing teachers with mastery experiences focused on a specific task or skill will increase their efficacy.

In a study conducted by Pindiprolu, Peterson, and Berglof, (2007), general education teachers stated that their PD needs focused on teaching strategies and collaboration strategies. In the same study, administrators and special education teachers stated that behavioral assessments and inclusion strategies were part of their top three areas needed for PD. The administrators and special education teachers stated that behavior intervention was identified as being the top need for PD. The study found that administrators and special educators do not appear to perceive teaching strategies as a high priority for PD related to instructing students with special needs.

This perception might be the cause of why instructional strategies and differentiation is rarely offered as part of PD for general education teachers (DeSimone & Parmar, 2006). Furthermore, DeSimone and Parmar and Maccini and Gagnon (2006) found that general educators want to learn more effective

strategies for teaching students with special needs due to their lack of special education courses in their teacher preparation program. Even though general education teachers are open to learning about instructional strategies for teachings students with special needs, they are not offered PD opportunities in this area (DeSimone & Parmar, 2006). Similarly, general education teachers stated that they wished their PD trainings would focus on program modification, assessing academic progress, adapting curriculum, managing students' behavior, developing IEPs, and using assistive technology.

Interestingly, all of the above-mentioned areas of need are common topics or courses in which pre-service special education teachers are trained. If the teacher preparation programs are not providing courses for general education teachers on the above topics, then the school districts that hire them must remediate this by providing PD opportunities that enable general education teachers the chance to receive the same training that special education teachers receive.

Method

In this qualitative study, the structured focus group interviews were conducted to determine the PD opportunities and characteristics that general education teachers perceive to influence their sense of self-efficacy for educating students with special needs. The qualitative findings were presented and implications for policy and practices were discussed. Moreover, the research method section includes the following parts (a) population and sampling selection, (b) research procedure, (c) Data Analysis

Population and Sampling Selection
The target population for this study consisted of general education teachers who were teaching special needs children in the general education classroom. Special education teachers were excluded from this study because they teach only special education students. Furthermore, these teachers were employed in high achieving school districts with a high socioeconomic status as measured by the District Reference Group (DRG). DRG is a classification system by which districts that have public school students with similar socioeconomic status (SES) and need are grouped together. The state of Connecticut recognizes nine district reference groups (A–I). This study utilized a district from DRG B. The rationale for conducting this study in a more affluent district (DRG B) was to reduce the external factors that are often used as a reason for why lower socioeconomic communities (DRG G and H) have lower student achievement in comparison with districts in DRG A or B. DRG A and B districts are the most affluent school districts with high socio economic parent profile. Research has shown that income and class status have become increasingly determined by educational success (Tournaki & Podell, 2005).

The schools that participated in the study are considered a purposive sample. Maxwell (1997) defines purposive sampling as a type of sampling in which, "particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices" (p. 87). The sample for the first phase of the study was purposive because the participants are general education teachers who teach in the same district that was classified as District Reference Group B.

In the original research, a mixed methods approach with a sequential explanatory design was utilized to explore of teacher self-efficacy towards students with special needs. In this study, only qualitative part of the research findings will be presented. As a part of the focused group, 9 teachers volunteered to participate. All 9 teacher volunteers came from school A. Of the teachers invited to participate in a focus group, the participation rate was 18%. The focus group sampling was conducted using a clustering procedure. Creswell (2009) stated, "In a multistage or clustering procedure, the researcher first identifies clusters (groups or organizations), obtains names of individuals within those clusters, and then samples within them" (p. 148).

Procedure and Data Analysis

Prior to the start of the data collection, the researchers emailed the superintendents of four DRG B Districts requesting permission to conduct a research study in their district. The email briefly described the study, how it would be conducted, and what would be needed from the district. These four districts were selected due to their geographical proximity to the researchers. Of the four districts, only one superintendent responded with permission for the study to be conducted in her district. The researchers then emailed the principals of the five elementary schools within that district requesting permission to conduct the study in their schools. Of the five elementary schools, two of them allowed the researchers to conduct the study in their schools.

This study was comprised of analyzing the data from the focus group interviews containing 9 participants. The researcher offered two focus group time slots for the participants to select from, but all 9 participants preferred the same time slot. The focus group took place after school in a classroom at School A. At the beginning of the focus group session, participants were asked to sign a consent form and were reminded of the confidentiality measure for anonymity that would be taken as well as the right to discontinue their participation in the study at any time. The researcher explained that their conversation would be recorded. The focus group began by reviewing the purpose of the study as well as defining the term *students with special needs* to create clarity regarding the concept and to create consistency among the focus group participants. The researcher handed out a copy of the protocol to each participant as a visual reference. The researcher then read each question and allowed the discussion to ensue. The focus group session lasted no longer than 30 minutes.

Data Analysis

Following the data collection for this explanatory qualitative study, the data analysis was organized around the main research question **"What are the characteristics of professional development that teachers perceive contribute to teachers' sense of efficacy for educating students with special needs?"** This research question was answered qualitatively through the participant responses within the focus groups. An inductive coding process was performed to look for emergent themes to the participant responses from the focus group session. Thomas (2006) stated, "The primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies" (p. 238). The researcher followed the coding process for inductive analysis as described by Creswell (2002). Participant responses were recorded and then transcribed to ensure that all the teachers' responses were analyzed during the coding process. The researcher began by reviewing all data through multiple readings of the transcripts. Then, the researcher identified specific segments of the transcript and began labeling those segments to organize them into categories. The researcher reviewed the categories for redundancy and to reduce the risk of overlap. Lastly, the researcher reviewed the categories and identified overarching themes. The themes and corresponding data were reviewed a second time, by a third party, using the same approach to establish confirmatory reliability. The findings were then recorded, and conclusions were drawn based on the data. As a summary, a structured focus group interview provided qualitative data to determine teachers' perceptions of PD that had an impact upon their self-efficacy.

Results

The findings of this qualitative study are organized to determine the PD characteristics teachers perceived to impact their efficacy for educating students with special needs. Particularly, structured teacher focus group interviews were conducted to examine the teachers' perceptions of PD opportunities that impacted their sense of self-efficacy for educating students with special needs. The results are organized based on the main research question: *What are the characteristics of professional development that teachers perceive contribute to teachers' sense of efficacy for educating students with special needs?*

To answer research question, the perceptions of 9 teachers were examined. As described in the methodology chapter, the researcher used an inductive coding process to look for emergent themes to

the participant responses from the focus group session. The researcher initially read through the transcribed focus group conversation to refresh her memory and to gain an overview of the content and direction of the conversation. The researcher read the transcription a second time with a focus on the characteristics of PD that teachers perceived to increase their efficacy for educating students with special needs. From this second reading, the researcher noticed that participant responses centered around 3 areas: the format of the PD, the content of the material delivered within the PD, and strategies that the PD presenter should use. The format of the PD referred to the instructional arrangement (i.e., workshop, coaching, professional learning community). The content of the material delivered within the PD referred to the topics (i.e., differentiation, how to support students with behavioral concerns, how to incorporate IEP goals into a whole group lesson). The strategies a presenter used referred to techniques used during the PD (i.e., small group work, videos of the presenter modeling the content, variations to fit teacher need). The researcher then read the transcribed conversation three more times—each time the researcher focused solely on one of the three areas mentioned above. The researcher coded statements into these categories.

Once the researcher finished coding statements into the three PD areas, she then read the statements in each of the three areas and grouped similar statements to determine common themes. The researcher identified three themes that arose from the focus group discussion: (a) coaching from a consultant, (b) guided planning, and (c) differentiation for adults.

Format of Professional Development
During the focus group session, participants frequently referred to the format of PD. Participants made a combination of negative and positive statements about the PD formats. When participants spoke negatively about PD, it was in reference to a workshop format. A workshop format traditionally consists of a presenter delivering a lecture to a group of participants. Participant F stated, "Last year we had a workshop on differentiation. We played some games. It was a stand and deliver workshop that I didn't get much out of." Participant F is negatively coining a workshop as stand and deliver in which the presenter lectures for much of the time. She is implying that the workshop was not engaging or interactive. Participant B stated, "I had to go to a workshop on writing Individualized Education Plan goals because we were audited. It was just Power Point slide after Power Point slide." Participant B expressed frustration over the lack of engagement in the format of the PD. Lastly, Participant A stated that she attended PD that "focused on the types of behavioural issues we would see in class. It was more of a lecture. There wasn't time for our team to specifically talk about the students we had in our classes." Again, a workshop format was spoken about negatively because it was not personalized or engaging. Overall, the participants spoke negatively about a workshop format because it was not tailored to their specific needs and that it was not beneficial or worth their time.

When participants spoke positively about PD that would increase their efficacy for educating students with special needs, it was about how it connected to their classroom, their students, or their direct needs as a teacher that year. Participant E stated, "We had a workshop this year that focused on the actual diagnosis for students who are in the behavioural program at school. While I am not a fan of workshops, this one was helpful because it was about the students in my class." Interestingly, this participant felt a workshop model was helpful, but that was because the content of the PD was closely tied to her classroom environment and student needs. The dominant PD format that teachers felt would increase their efficacy was coaching from a consultant. Participants felt that personal attention from a professional centered around their specific needs would be most beneficial. Although these teachers felt it would increase their efficacy, it is important to note that none of the participants had prior experience with coaching to know that it would benefit them. These participants would like to experience it because they think it would be helpful. There is a significant difference between thinking it would help and having the experience to know it would help.

Five teachers' comments were categorized together because the statements referenced working with a consultant or a professional. After reading through the comments, the researcher refined this category into a common theme of "coaching from a consultant" due to the way the participants described their interaction with the consultant. The responses referred to a coaching format in which techniques were

modeled by a coach, participants tried out the new techniques, and the consultant gave feedback. Coaching from a consultant was a key factor that focus group participants perceived would contribute to their sense of efficacy for educating students with special needs.

Teachers felt that due to the pressure of educating a classroom of diverse student needs they needed the specialized skill set of a consultant to help them meet the needs of all the students in their class. Teacher B shared her thoughts about her desire to be coached by a consultant:

> *We all have a bag of tricks that we rely on, but with certain students we need more than that. There are some people, consultants, have a specialized bag of tricks. I would love access to that to help me be more effective with those tough to reach students.*

Teacher B believed that because some students have more severe needs, behaviourally, intellectually, or emotionally, this is beyond the skill set of the training for a general classroom teacher. Teacher D shared Teacher B's desire to work with a consultant to increase her skill set.

> She shared: *I have a student who is autistic this year. He isn't that far behind academically but getting past his behavioural issues is a big hurdle. I would love to work with a behavioural analyst who would come and give me tips or ideas on how to work with him. I would be open to this person coming in and teaching and modelling for me too, so I know what I should be doing.*

Both Teacher B and D felt that there are holes in their skill set for educating students with special needs and would be open to coaching from a consultant to fill that gap. Teacher D expressed a desire for the consultant to visually model how to handle students with behaviorally challenges in her actual classroom.

Some of the teachers who felt that their efficacy would improve if they received coaching from a consultant wanted to work with a consultant in a small group or in a one- to-one setting in which they would receive specific feedback on their students in their class. Teacher F expressed an interest in having a consultant work with her grade level team:

> *It would be so impactful if I could sit down with my grade level team and a professional would guide us in planning how to differentiate in our math classes. We have pockets of students who are significantly behind and when you are in an upper grade it's really hard to differentiate because they can't do the 5th grade curriculum.*

The teachers were not interested in a large group seminar run by a consultant; the preference was that the training would be tailored to their specific needs as teachers.

Teacher I preferred a more intimate relationship with the consultant through working one-on-one: "Having a consultant act as a co-teacher in my classroom would be a dream: planning, delivering the lesson, and figuring out where to go next. I think I would grow a lot from this." Teacher I viewed a consultant as a partner in the classroom who would provide validation that she was taking the right steps to meet the needs of her students. Teacher H expressed a want for this validation or feedback as well. She shared, "I have one student who has behavioral outbursts, and once they start, it derails the whole class. I want someone to show me how to handle this in the moment and then give me feedback when I do it." Teachers H and I wanted support based on the actual problems that they struggle with in their own classrooms.

Overall, teachers expressed a desire to be coached by a consultant or professional. This coach is described as an expert in whatever field they desire help in (differentiation, managing behavior, etc.). Teachers also expressed an interest in watching the consultant model strategies, give feedback, and guide them while planning or while delivering a lesson. All five teachers felt that this format of PD would increase their efficacy for educating students with special needs.

Content of Professional Development

The participants in the focus group session had all experienced PD focused on students with special needs. More specifically, they all experienced PD at some point or another on differentiation of instructional strategies. Participant responses did not yield a strong positive or negative reaction to this PD. Participant D stated, "The training on differentiation was okay. I don't remember walking away feeling like I could meet all of my students' needs." Participant D responded in a neutral manner towards the PD. Conversely, Participant I shared, "The session on differentiation wasn't as good as the training I received in my undergraduate classes." Participant I did not walk away feeling like she was able to take away any new learning from the training.

Some focus group participants did express a desire for support centered around managing disruptive student behavior. Participant A shared, "In the moment, I need help figuring out how to diffuse a behavior issue before it becomes too large." Participant G built upon this and stated, "I can be perfectly planned for my lesson, but if a disruption occurs, it is completely off target then – training on how to maintain momentum when behavior issues arise would make me a better teacher." Both Participants A and G feel weak in the area of managing the unexpected student behavioral concerns. They worry about the behavior derailing the entire class, and then the focus on the content or target is gone. Aside from managing student behavior, the dominant PD content that teachers perceived would help them feel more efficacious for educating students with special needs was in the area of planning.

Participants felt that PD in the form of guided planning would make a positive impact on their ability to educate students with special needs. While only four teachers expressed statements, when the focus group discussion was occurring, all teachers shook their head in agreement. A reoccurring issue with planning for the focus group participants was that they frequently have a hard time planning lessons that fit the needs of students with special needs in their classrooms. The teachers struggled with how to break down concepts for students not on grade level, where to find off-level resources, and what instructional strategies would make the biggest impact. All these factors put together led the teachers to feel frustrated with the amount of time it takes to plan lessons for students with special needs. In turn, this frustration has led them to doubt their effectiveness as an educator.

> *"Teacher A shared her thoughts on how co-planning would benefit her by saying:*
> *One student I have this year is very behind, functioning at a kindergarten level. The further I get into the year the harder it is to have her do what we are doing. It is challenging. It is tricky. I feel as if my lessons are effective and engaging for my class, but I don't know how to plan to incorporate her into the lesson. I don't feel I need help with the delivery of instruction, I need help with the planning part."*

The teachers who wanted guided planning help were seasoned teachers, having taught more than 15 years, and were not intimidated by the actual delivery of the lesson. They were confident in their abilities to teach, but felt inadequate at planning a lesson that allowed all students to access it. Teacher H shared the same sentiments as Teacher A.

> *"We don't have the background in how to find the materials and the best strategies to teach students with special needs. I never got a degree in that area. I want someone to show me how to go about finding the materials and resources to use in lessons. I feel like it takes three times as long for me to do what they do, and I may not even be doing that right".*

Teacher H's thoughts are similar to Teacher A's. They both reflected that planning for students with special needs takes a long time. Overall, they do not feel like they are using their time efficiently and could be accomplishing more if they had someone to guide them in planning for these students. Teacher G echoed this sentiment by stating, "Having someone walk you through a planning session would be very helpful. Sometimes I am just trolling on the Internet trying to find resource. I need direction." Teacher C shared, "I just don't know where to go. I end up on the Teachers Pay Teachers website and purchase a pre-made unit. I know that it's not ideal, but at least it is something." Teachers

H, G, and C all expressed frustration around planning which lowers their confidence in their ability to be effective.

Professional Development Strategies

The overwhelming area of agreement among the focus group participants was in the area of strategies that PD trainings should incorporate. Focus group participants felt that most PD experiences were not tailored to their specific needs and were essentially a one-size-fits-all category. Participants agreed that whatever format the PD took, it needed to be differentiated for adult need. Teachers expressed a significant amount of frustration regarding prior PD sessions that they attended in which they felt they did not get anything out of because it was not on their level. This theme was illustrated in all nine participants' responses.

Teacher B offered her thoughts on prior PD sessions she attended: "Professional development needs to be differentiated for teachers, for everyone participating, because when you are sitting in a session that has no bearing on what you are doing it is incredibly frustrating and doesn't help." Teacher F further elaborated and shared, "I am a kindergarten teacher, but I don't need to sit through a PD that discuss science standards up to 6th grade. No offense to 6th grade teachers, but what their students need to know is not helping me." Teacher A elaborated and stated, "When we had a PD on engagement strategies, it was a waste of my time. Engagement is not my area of weakness. I need help with students in my class expressing extreme refusal to complete work." These three teachers have a negative opinion of the prior PD trainings that they have attended because they felt they did not gain anything from attending the training.

Other teachers expressed that the PD sessions need to be differentiated for the teacher or adult learner just as classroom instruction is differentiated by student need.

> Teacher A stated: "*I have been teaching for over 20 years, I don't need to attend professional development sessions that focus on the basic details of curriculum. I am not a new teacher who needs to start at square one. Professional development should be conducted like small group instruction. Group teachers by their needs and instruct from that point forward.*"

Teacher F expressed her frustration by sharing: "I just don't get it. We are expected to differentiate instruction in our classroom to meet our students at their instructional level. Why isn't the PD offered to us the same?" Teacher B expanded upon Teacher F's thoughts by sharing, "We were never consulted regarding what we felt we needed training on." The focus group participants indicated that not every teacher is at the same trajectory in their journey to be an effective teacher for all students—general education and students with special needs.

When all things are taken into the consideration, the qualitative analysis revealed that guided planning, differentiation for adults, and working with a consultant were PD opportunities that teachers perceived would positively impact their teacher self-efficacy for educating students with special needs in the general education classroom.

Discussion

The main research question was, "What are the characteristics of professional development that teachers perceive contribute to teachers' sense of efficacy for educating students with special needs?" This study yielded significant findings from the qualitative data collection. As stated in the findings, it is important to note that the teacher perceptions collected from the focus group data were not necessarily PD that teachers had experienced and saw success with in the past. Some of their perceptions of what would support their sense of efficacy were elements that they think would help them. The distinction between these two is important.

The first significant finding was that focus group participants felt that working with a consultant in a coaching setting would increase their efficacy for educating students with special needs. This theme was present in five of the participants' responses. These five teachers felt that due to the pressure of educating a very diverse classroom of student needs, they needed the specialized skill set of a consultant to help them meet the needs of all the students in their class. Teachers feel that some students have more severe needs (behaviorally, intellectually, or emotionally) and that this is beyond the skill set of the training for a general classroom teacher. More specifically, working with a consultant in a small group or individual format would improve a teacher's efficacy for educating students with special needs. Working in this setting would allow teachers to receive specific feedback and support on their students in their class. Receiving PD in a large group seminar run by a consultant would not make the same impact on a teacher's efficacy because it would not be tailored to their specific needs. The teachers in the focus group did not hold a negative belief about working with students with special needs; they felt inadequate in their abilities to be an effective teacher. To remedy this feeling of inadequacy, working with a professional consultant in a small group setting, focused on the specific needs of the students in their classroom would make the largest impact.

This finding can be explained by the fact that much of the PD that teachers receive is grounded in a workshop model that delivers general information to a large population of individuals. Blankstein (2010) emphasized this point by stating, "Only 10% to 20% of U.S teachers experience meaningful professional development; yet, more than 90% of them have participated in PD consisting primarily of short-term conferences or workshops." (p. 180) While workshop models allow administrators to reach a large number of participants in one sitting, they are not tailored to the individual student or teacher need. Participants take on a passive role in the workshop setting. This model of PD does not provide the participants to actively engage in the work. In this respect, short-term and large-scale PD activities, such as seminars and workshops, have received negative criticism due to their offering limited interaction opportunities (Orland-Barak, 2010). Other studies indicate the importance of constant and systematic PD approaches based on one-on-one cooperation that would be mirrored in a coaching format (Lowenhaupt, McKinney, & Reeves, 2014.

Working with a consultant in a coaching setting is in line with other research findings that support the notion that PD needs to be specific to the classroom needs. Elmore (2004) stated that PD should be cohesive and specific to the work of teaching and learning in the classroom. Hochburg and Desimone (2010) found that effective PD should be shaped around "common challenges in addressing student needs, given characteristics of the local context, and curriculum" (p. 99). Blankstein (2010) shared that the specific data related to specific students, teachers, and areas of problem should be what PD is grounded on. Lastly, relevant studies in the literature report that coaching is effective since it allows not only the exchange of teaching skills and experiences but also the opportunity to make plans cooperatively and to share perspectives on teaching (Lowenhaupt, McKinney, & Reeves, 2014).

The participants' perception that receiving coaching from a consultant is in line with Bandura's Sources of efficacy. Bandura (1997) proclaimed that teachers judge themselves according to four sources of efficacy that contribute to self- efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal. These sources are independent of one another and can be combined to gain a greater sense of efficacy. Receiving coaching from a consultant is a professional development format that allows all four sources of efficacy to be combined. First, a coaching model utilizes mastery experiences. Ross (1994) stated that the use, not just the exposure, of new instructional strategies helps strengthen teachers' perceived self-efficacy. Secondly, coaching affords teachers the opportunity to observe through vicarious experiences. Tschannen-Moran and McMaster (2009) gave the example that a teacher observation of the successful or unsuccessful modeling of a teaching strategy is a vicarious experience. These experiences can be helpful since modeling allows for the comparison of performances in situations that have no standard measurement of quality (Bandura, 1997). Third, the conversations that occur within a coaching format breeds verbal persuasion. Verbal persuasion aids in feelings of self-efficacy when coworkers or administrators, especially significant colleagues, express positive, verbal support through reflective discourse on the observed ability of a teacher to effectively execute a new teaching strategy (Bandura, 1997).

Additionally, another form of verbal persuasion is demonstrated through professional development; presenters make statements about the effectiveness of the newly learned skill. Lastly, a coaching model elicits feelings of physiological arousal. New knowledge might initially elicit feelings of excitement and intrigue, then turn into nervousness about the successful implementation within the classroom. This uneasiness can be alleviated by practicing the new knowledge in a nonthreatening environment before the implementation within the classroom (Tschannen-Moran & McMaster, 2009).

Teaching coaches provide teachers with vicarious experiences to directly support theory to practice. Shidler (2009) conducted research in central Florida over a three-year period to explore the linkage between the time spent coaching teachers for efficacy in the classroom in content instruction and student outcomes. The participants in the study were 12 classroom teachers in a Head Start program. Each class was assigned an on-site coach who provided pre-kindergarten instructional best practices to the teacher. Results indicated that it is imperative to facilitate, develop, and strengthen teachers' efficacy beliefs. Shidler found that the PD program of using coaching teachers to improve teacher efficacy beliefs was the most effective when the coaches focused on the specific content and instructional methods in the classrooms. Yeo, Ang, Chong, Huan, and Quek (2008) believed that providing teachers (novice and veterans) with continuous support from coaches (the researchers called them mentors) would help teachers develop and sustain a strong sense of teaching efficacy.

The second significant finding was that PD focused on guided planning would make a positive impact on a teacher's ability to educate students with special needs. This theme was present in four of the participants' responses. These four teacher participants wanted support in locating resources for differentiation, such as off-level texts, differentiated worksheets, or modified activities. Effective planning is the cornerstone to an impactful lesson that will reach the needs of all students. This key finding can be attributed to a lack of ongoing and embedded PD focused on differentiation of instructional resources. During the focus groups, the participants mentioned that they have a behaviorist on staff that offers support in how to differentiate classroom management plans and techniques to fit the needs of students with behavior difficulties. These teachers expressed a desire for support in how to differentiate instructional activities, resources, and lessons.

Research shows that teachers are increasingly confronted with diverse student populations. Learners do not only differ culturally and linguistically but also in their cognitive abilities and learning preferences (Jokinen, Heikkinen, & Morberg, 2012). Research supports the key finding that teachers need training on differentiation. Miller et al. (2000) found that PD that focuses on specific strategies for teaching students with learning disabilities significantly increased general educators' perceptions of their ability to teach students with learning disabilities. Research also suggests that general educators want to learn more effective strategies for teaching students with learning disabilities, as they did not study this in their college coursework (Maccini & Gagnon, 2006); yet, they are not offered PD opportunities in this area (Pindiprolu et al., 2007). Further, the lack of in-depth, in-service training limits the effectiveness of teaching strategies (Cook & Schirmer, 2003).

When participants desire to engage in guided planning they are looking for feedback on how to be more effective at an important aspect of teaching. Bruce and Ross (2008) found that professional development became exponentially more powerful when comparing the details surrounding participant sources of self-efficacy; specifically, feedback. Their study identified the powerful nature and function that feedback plays in self-efficacy beliefs, this feedback was experienced through self, parent, student, or colleague interactions. Additionally, Milner (2002) summarized, that feedback from colleagues was the integral component in maintaining self-efficacy and recommends a form of mentoring embedded within professional development programs. When consultants and professional development trainers provide feedback to teachers they are producing a physiological state that when coupled with other sources of efficacy can be effective at increasing a teacher's self-efficacy.

The third significant finding was that the PD offered to teachers needs to be differentiated to fit the need of the teacher participant. Teachers expressed disappointment regarding prior PD sessions that they attended in which they felt they did not get anything out of because it was not tailored to what

they needed support in. This theme was illustrated in six participants' responses. Teachers expressed that the PD sessions need to be differentiated for the teacher or adult learner, just as classroom instruction is differentiated by student need. The focus group participants indicated that not every teacher is at the same trajectory in their journey to be an effective teacher for all students—general education and students with special needs. The sentiment regarding prior PD that had been offered was negative, in that the participants did not perceive it to help them support student with special needs.

This key finding can be attributed to the fact that teachers, regardless of how many years of experience they have, all have the same responsibilities and job description. Teachers are held to the same standards or level of work whether it is their first year or they are a veteran teacher of 20 years. Due to this, teachers are all at different points in their own learning, with different needs. The participants express frustration over a "one-size-fits-all" model of PD that is not meeting them at their zone of proximal development (Vygotsky, 1978), is not tailored to their specific learning needs, style of learning, or needs of their classroom. The demands of high-stakes testing and curriculum mandates often result in top-down distribution of one-size-fits-all PD, a model that positions the staff developers as experts and dispensers of knowledge and leaves teachers with little interest or ownership in the areas being addressed. Consequently, this approach often results in teacher resistance (Sparks & Loucks-Horsley, 1990). One-size-fits-all PD focuses on the dissemination of the same information to teachers and does not consider application or individual learning styles.

Research supports the notion that PD needs to be tailored to the need of the participants. L. Anderson and Olsen (2006) posited that successful PD is reflective, collaborative, and acknowledges the specific needs and interests of teachers. Furthermore, exemplary teachers engage in ongoing, relevant, and structured PD that is responsive to their needs (Taylor, Pearson, Peterson, & Rodriguez, 2005). For meaningful change to occur, teachers must have a voice in the process of their own learning. Therefore, coaches must heed teachers' voices so that coaching is differentiated relevant to the needs and interests of their teachers. Research additionally supports the finding that teachers individually benefit from Bandura's (1977) sources of efficacy differently.

Gabriele and Joram (2007) found that different sets of events serve as sources of self-efficacy for veteran and novice teachers. Providing a variety of professional development opportunities that reflect mastery experiences, vicarious experiences, social persuasion, and physiological arousal, will allow for teachers who are at varying points in their career to learn differently. Ultimately, teachers are unique in their pedagogy, experience, and content knowledge. Therefore, learning should be differentiated to provide multiple options for taking in information, making sense of ideas, and sharing the information learned (Tomlinson & McTighe, 2006).

Table 1. Summary of the Findings and Recommendations.

General education teachers perceive coaching from a consultant to increase their efficacy.	School and district administrators should provide a coaching model of professional development in order to target all four sources of efficacy.
General education teachers perceive professional development focused on guided planning to increase their efficacy.	School and district administrators should orchestrate professional learning communities where teachers can receive guided planning support from a consultant.
General education teachers perceive that differentiated professional development would increase their efficacy.	School and district administrators should provide interest inventories to staff to help determine areas of strength, weakness, and interest when planning professional development.

Just as the study provides additional considerations for future research, it also supports consideration in educational practice. Teacher educators, school district administrators, and general and special educators themselves should use the results of this research in considering their respective approaches to providing PD to in-service teachers regarding educating students with special needs in the general

education classroom. They may consider how the PD that teachers receive may impact the efficacy of teachers towards educating students with special needs and the resulting student achievement. The data from this study revealed that there is a significant relationship between a teacher's efficacy for educating students with special needs in comparison to their general education peers. From the findings of this study and all previous studies done, the future recommendations are suggested in Table 9 below.

With the knowledge that a teacher feels less efficacious for educating students with special needs, future PD programs offered to teachers need to focus on the needs of the students in the classroom and be tailored to the teacher as a learner. The PD should be differentiated in content, the way the information is taught, as well as the teacher's own learning style (Tomlinson & McTighe's, 2006).

Conclusion and Further Research

Several recommendations for future research in this area can be suggested. These recommendations may be considered as an extension to this study with the potential to further advance discovery in this area. For instance, future researchers should consider replicating the study but consider administering the survey during a time of the academic year that has fewer competing time demands. Administering the survey during the summer would allow the researcher to determine if the discrepancy in teacher efficacy was due to the stressful demands placed upon teachers during the academic year. This data could support the generalizability of the results. Additional studies could include middle or high school teachers and their efficacy for educating students with special needs in the general education classroom setting. This information could contribute to the literature in understanding how teachers' efficacy levels can vary dependent upon the educational level they teach. These data would provide for greater generalizability of the results. Finally, since this study was done on public schools within DRG B, future research could be done to include schools from other DRGs as well as private schools. This information could add to the existing body of research by providing a comparison of efficacy score and perceptions of the PD practices that teachers perceive to impact their teacher efficacy. Private schools are not restricted by the same laws as public schools, and effectiveness of practice in the inclusion setting and districts in other DRGs have a different student population that brings its own challenges.

In conclusion, teacher efficacy affects the amount of effort and persistence a teacher will exert in various teaching situations or challenges in the classroom and can be used as a predictor for how well they will perform in an inclusion setting. Therefore, administrators and school districts are encouraged to provide PD opportunities to teachers to increase their knowledge and ability to differentiate instruction for students with special needs. Comprehensive and targeted PD for teachers in the general education classroom may aid in the improvement of efficacy for teachers with the goal of improved student outcomes for students with special needs.

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